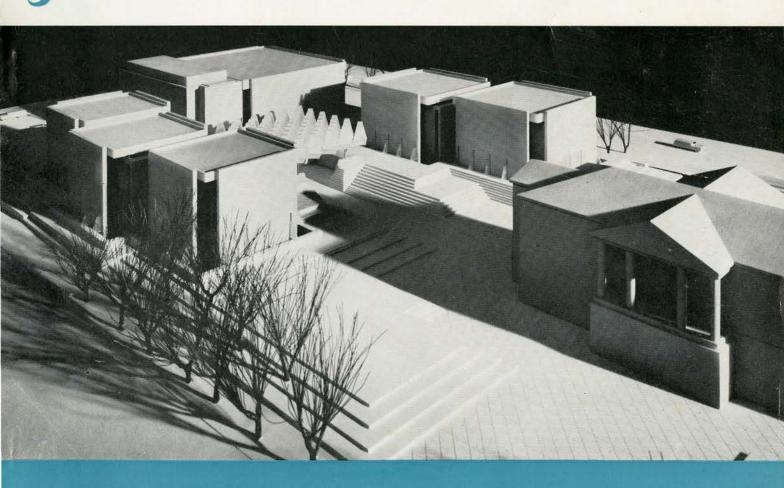
# ROYAL ARCHITE RA INSTITUTE OF CANADA IOURNAL



FEBRUARY 1962

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

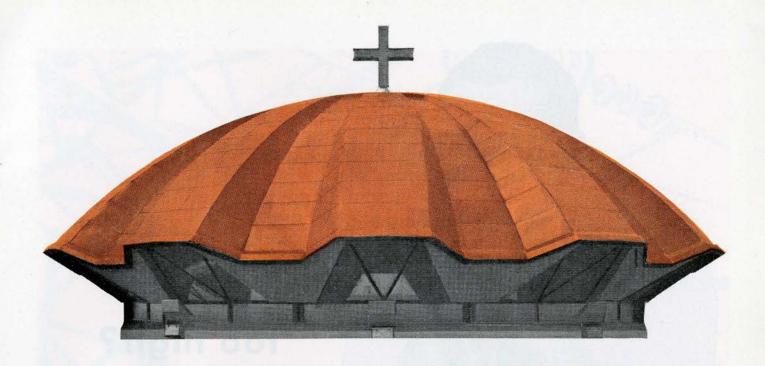


L'Hôtel-Dieu de Québec Québec, P.Q.

E.-Henri Talbot, Architecte

LES FENÊTRES CLERN LIMITÉE

MONTRÉAL · QUÉBEC · TORONTO · VANCOUVER



#### Anaconda Copper Crowns Greek Orthodox Cathedral

The versatility of Anaconda Copper in roof construction is dramatically demonstrated in the fluted dome of the new Greek Orthodox Cathedral, Montreal. Here, 24,000 pounds of 16-ounce copper sheet applied in 16" wide strips gives a striking effect.

In new construction or renovation, copper for roofing is a natural choice because it affords the architect and builder freedom of expression in design and

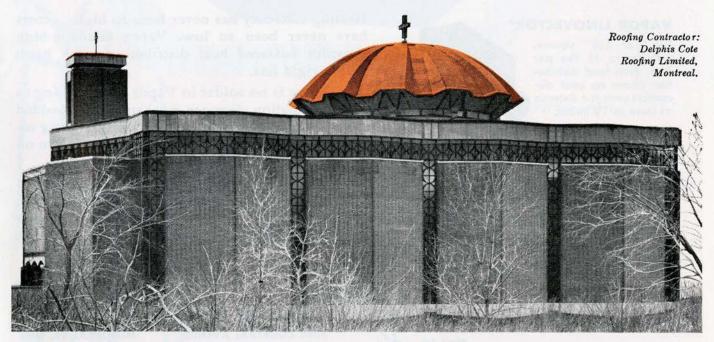
superior adaptability in structural application. Beauty, durability, resistance to corrosion and fire, and ease of fabrication are all characteristics of copper.

Write for Publication C-1, "Modern Sheet Copper Practices", Anaconda American Brass Limited, New Toronto (Toronto 14), Ontario. Sales Offices: Quebec City, Montreal, Calgary, Vancouver.

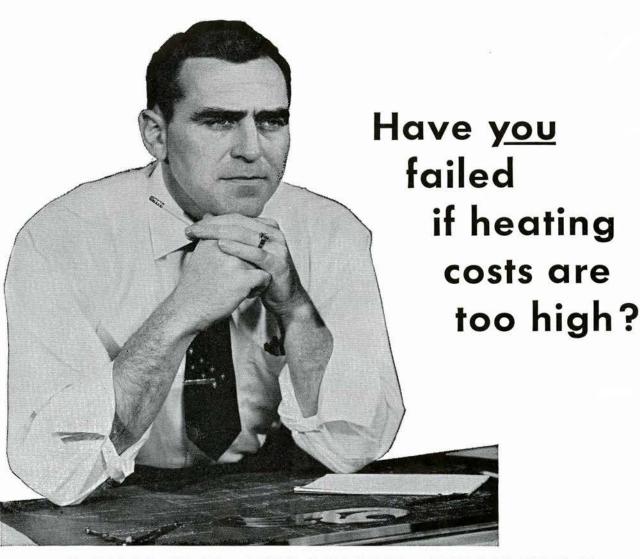
C-6139

#### ANACONDA

Anaconda Products are Made from Metals Mined and Refined in Canada



Journal RAIC, February, 1962
Authorized as second class mail by the Post Office Dept., Ottawa, and for payment of postage in cash.



#### **VAPOR FINNED TUBING:**

Cuts cost because there's <u>no wasted heat</u> - ever!

#### **VAPOR LINOVECTOR\***

31/4" or 41/4" square, with up to 48 fins per foot. Even heat distribution allows no heat discomfort even at a distance as close as 12 inches.



#### **VAPOR TRIMLINE\***

The light, durable tubing for baseboard radiation. Floor to ceiling temperature varies no more than 3°. Heavy gauge, hard copper or aluminum fins are available as alternatives to steel.

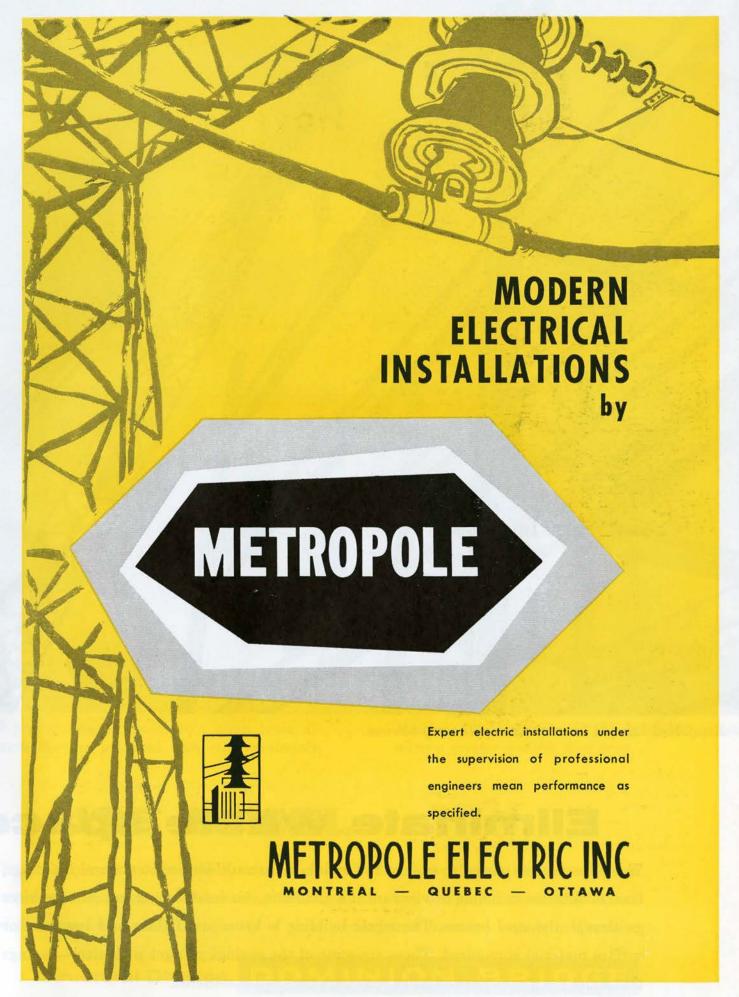


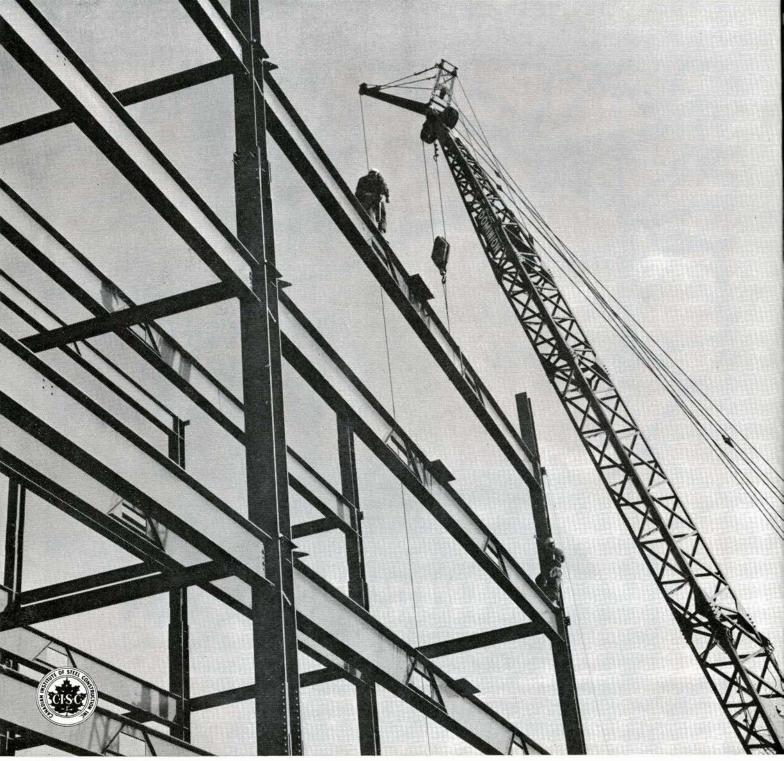
Heating efficiency has never been so high...costs have never been so low. Vapor finned tubing provides balanced heat distribution, with hard, tough, rigid fins.

There is no solder in Vapor finned tubing to reduce radiation. Fins are mechanically imbedded in the tube, and will never bend, twist or gang together. This means there's nothing to cut down on heat . . . no blockage to raise heating costs.

Specify VAPOR finned tubing on your next project. Steel or copper tubing to meet IBR ratings. The light weight of Vapor finned tubing permits a wide variety of installations.

VAPOR HEATING LIMITED
3955 COURTRAI AVENUE MONTREAL 26, QUE.

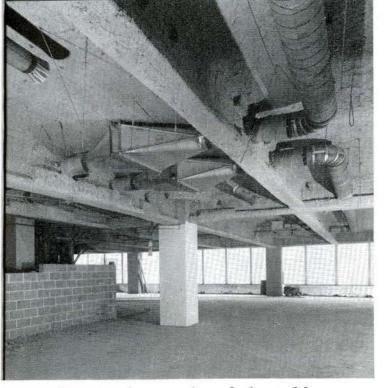




Reinforced holes in beam sections will carry services.

#### Eliminate waste space

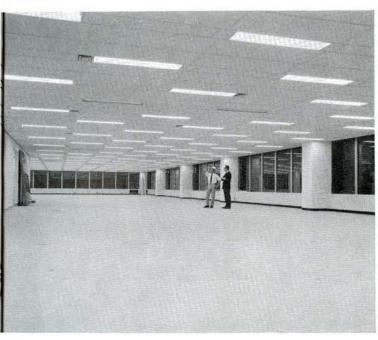
Waste space costs money to enclose and maintain. In multi-storied steel frame buildings, floor thicknesses including services are at a minimum. Air conditioning and other services go through the steel beams. The whole building is lower and lighter and less exterior surface material is required. These are some of the savings you get with steel—savings that must not be overlooked when framing prices are considered.



Air conditioning ducts go through the steel beams.



Steam and water pipes are carried through the steel.



Steel permits longer spans for a given beam dimension than is practical with other materials.



Haunched steel columns in this multi-storey hotel allow a greater rentable floor area.

#### USE STEEL

If you are planning construction, consider carefully the merits of steel. Dominion Bridge has design engineers and fabricating facilities in most of the major cities. The extent of their experience and the quality of their performance have few equals in Canada.

Structural Division DOMINION



## They're fire-safe and soundproof too! NEW J-M SPINTONE acoustical ceiling panels

You get a bundle of extra benefits in Spintone\* — the new low cost J-M ceiling panel that meets government fire-safety specifications. Made of inert mineral wool fibres, Spintone won't flare or support combustion, and because butt edged Spintone panels can be applied with adhesive, like standard ceiling tile, it costs a whole lot less than other fire-safe panels. Spintone panels are also available with kerfed



A-6058

and cut back edges for use with suspension systems or, with the exclusive tongue and groove joint for application upon wood or metal strapping by mechanical fixing. Like all J-M ceiling panels, new Spintone is acoustical, it absorbs up to 80% of the noise that strikes it. Virtually indestructible, Spintone resists mold, fungus, rot and disintegration. Its handsome white factory finish gives up to 80% reflectivity without glare or shiny spots. Available in four sizes (5%" thick by 12" x 12", 24" x 24" and 24" x 48" or 34" thick

by 12" x 12") and four patterns (Uniform, Random, Stellar, Unperforated) new Spintone panels can be quickly and easily installed. For full details and technical data talk to your Johns-Manville representative, or write Canadian Johns-Manville, Port Credit, Ontario.

\*A Firetard product

Johns-Manville Ceilings





#### FEATURES

- resists grease, oil, alkali
- dries fast; 2-3 hours
- supplied ready to use
- more economical than conventional moisture curing
- easy to apply
- retards premature cure
- prevents staining on floors during construction
- forms a strong bond to a variety of surfaces

One application of TREMCO TREMCRETE — after final troweling and when floors can be walked on—can cure, dustproof, harden, and seal newly laid concrete floors at an applied cost that is substantially lower than the lengthy conventional moisture curing method. Tremcrete dries to a tack-free stage in 2-3 hours... possesses superior abrasion resistance... protects against wear, most solvents and alkalis... repels oils, greases and resists various types of staining commonly found during construction. Cleaning of floors are facilitated prior to turning the building over to the owner. The application of paint, asphalt tile and other decorative coverings can be made directly over Tremcrete treated floors when construction is completed.

An Independent Testing Laboratory reports the following performance of Tremcrete: "After 3 days, more than 97% of the original water content of the slab was still present. After 7 days, more than 95% was still present."

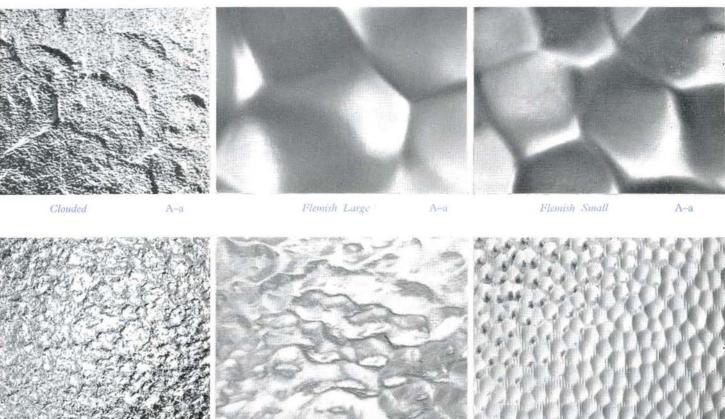
For additional information contact your Tremco Representative or write: The Tremco Manufacturing Company (Canada) Limited, 220 Wicksteed Avenue, Toronto 17, Ontario.

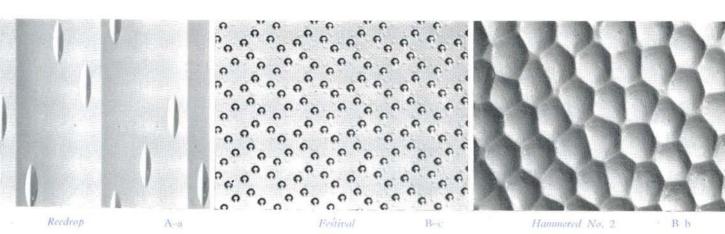
FOR INFORMATION
ON TREMCO PRODUCTS,
CHECK SWEET'S



"When you specify a Tremco Product
... you specify a Tremco Service!"

## Cathedral & Figured Rolled Patterns by Filkington





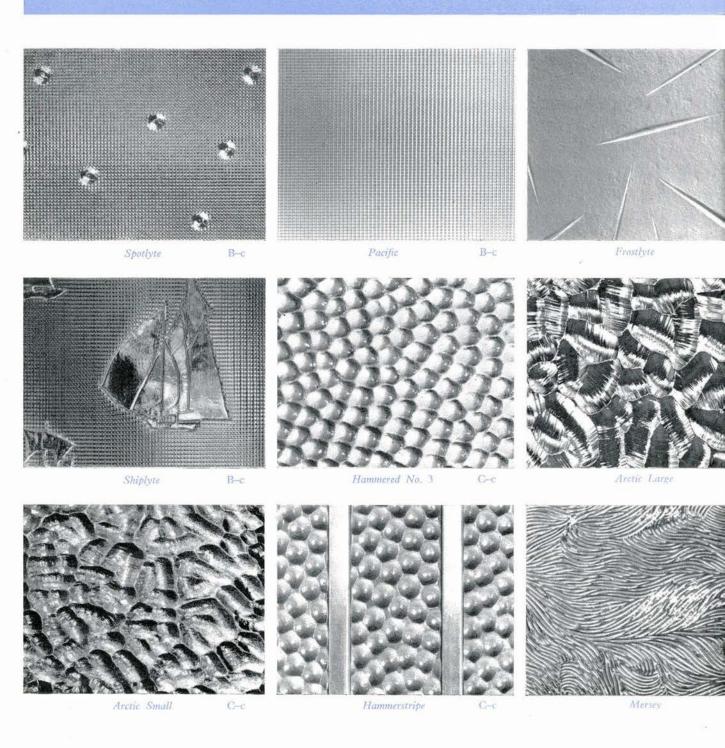
Glasgow Hammered

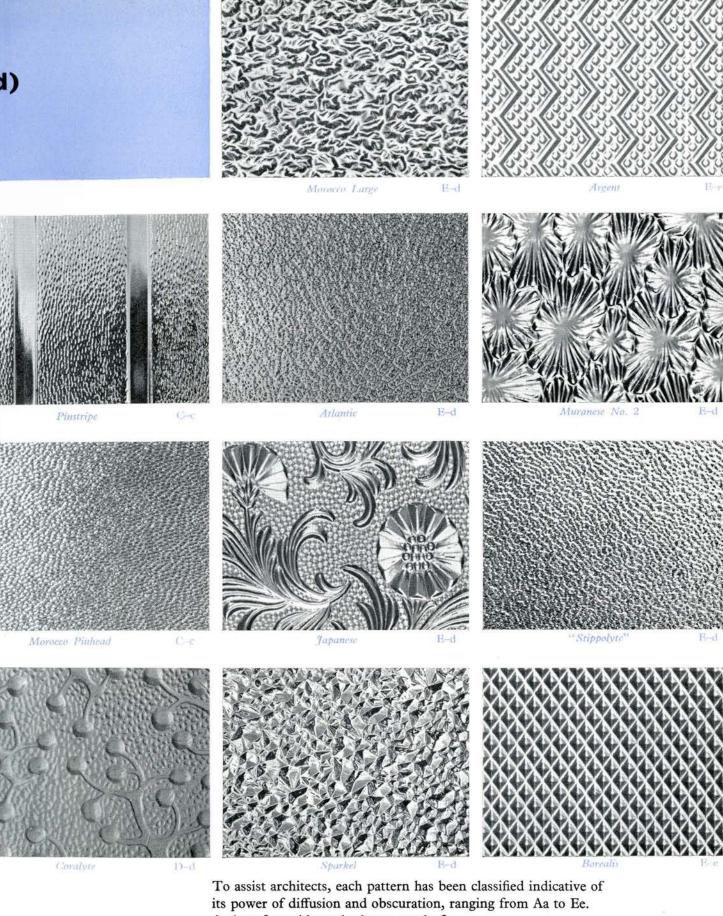
Rimpled

Plain Cathedral

#### Figured Rolled Patterns (con

To keep pace with changing styles and needs, Pilkington designers are constantly at work producing new patterns in Cathedral and Figured Glass. Shown here are recent developments together with those which have maintained an accepted popularity.

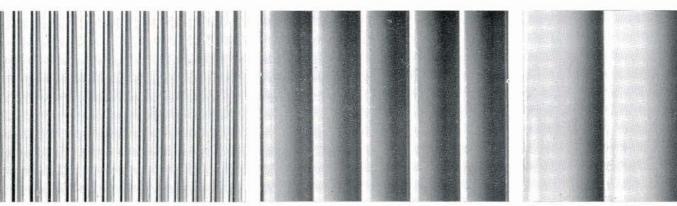


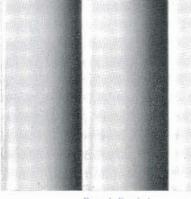


A chart for guidance is shown overleaf.

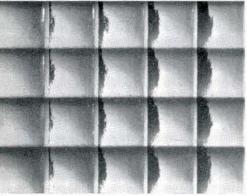
#### **Reeded Patterns**

### by Pilkington

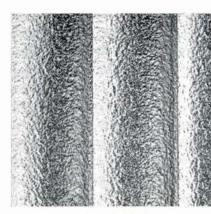




Broad Reeded







Cross Reeded

Narrow Reedlyte

Broad Reedlyte

Power	of	Diffusion	(T OW	Ricing	to	High)
IOWCI	OI	Dillusion	(LUV	Tribing	LU	III SII/

Power of Obscuration (Low Rising to High)

1	Α	В	C	D	E	
1	2	h	_	4		١

PATTERN SELECTION GUIDE

Each pattern is marked with the above code



Plain Cathedral A-a

Spotlyte

B-b

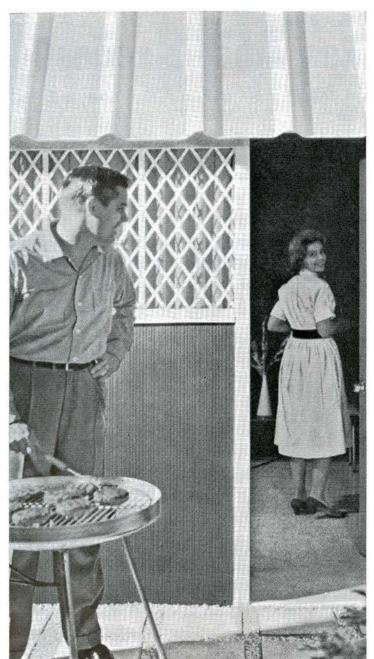
Large

Morocco Small

Sparkel

E-e

PILKINGTON GLASS LIMITED 55 EGLINTON AVE. E., TORONTO





#### ATLAS TUPN CIII® these Atlas "Turnall" Building Materials. These colors form BUILDING MATERIALS a smooth, hard matte finish that is resistant to peeling, blistering, yellowing and fad-NOW AVAILABLE ing. They are unaffected by climatic changes. For touch-up and trim work, matching air-drying paints are available.

IN COLORS "Turnall" Trafford Tile • "Turnall" Corrugated Board (4" Pitch) • "Turnall" "Superbestos" "Turnall" Tripanel • "Turnall" Bipanel • "Turnall" Flat Boards • "Turnall" Acoustic Panels

ror	turther	information	send	the	attached	coupon	in	toda	y.

ATLAS A	SBESTOS	COMPANY	LIMITED
5600 Hoche	laga Street,	Montreal 5, P.	.Q.

Please send Color Selector	Please send illustrated Folder
Name	
Title	

Address......Prov......



MONTREAL.OTTAWA.TORONTO.WINNIPEG.EDMONTON.VANCOUVER A member of the Turner & Newall Group

72-1

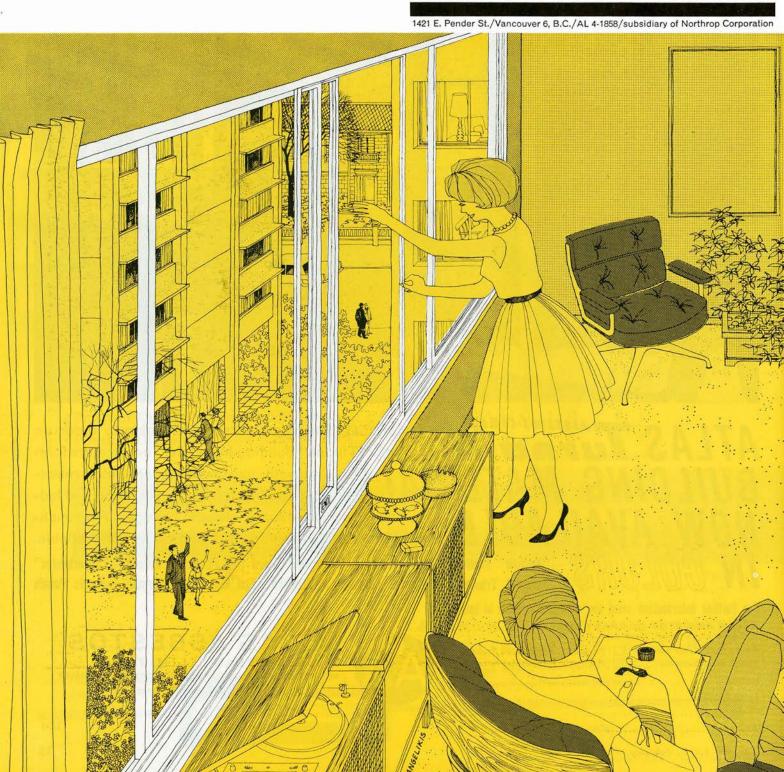
Announcing an important new architectural window

#### **New Arcadia series 700**

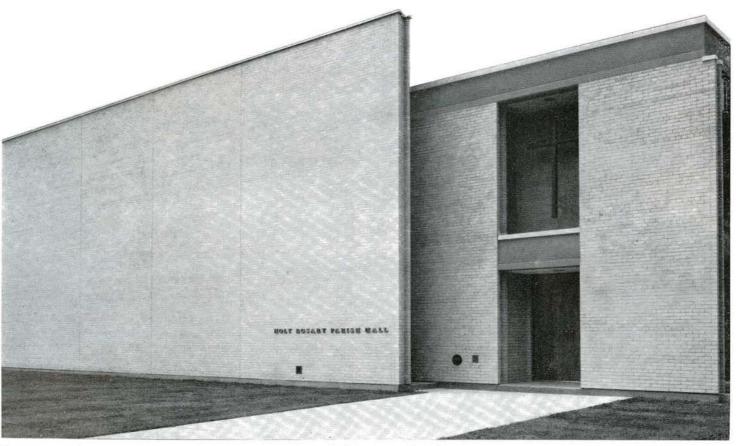
A refined design with unbroken sight lines...combining superior all-weather performance, moderate cost, and unusual design flexibility

All aluminum with chrome finish flush hardware, available in stock and custom sizes up to 6'8" high, 15'10" wide...with choice of frame depth, screen provision and glazing. As cataloged in Sweets/1962. Another quality product to build the face of a city..from

#### NORTHROP ARCHITECTURAL SYSTEMS



## THE KEY to a modern building trend



Contractors: Richard & B. A. Ryan 1958 Limited

Owner: Holy Rosary Parish Hall

Architect: John B. Parkin Associates

#### 0 1

#### **TSAND-LIME PRODUCTS**

Sand and Lime Brick was chosen for this Parish Hall — because it is a soft light grey color — it is low in cost — and will stand up to Canadian weather.

Sand and Lime Brick is auto-claved and meets the requirements of A.S.T.M. C-73-51

and C.S.A. standard for S-W grade face brick and is less susceptible to efflorescence.

Sand and Lime Brick now comes in beautiful pastel shades as well as natural light grey and is priced substantially lower than other equivalent types of masonry units.



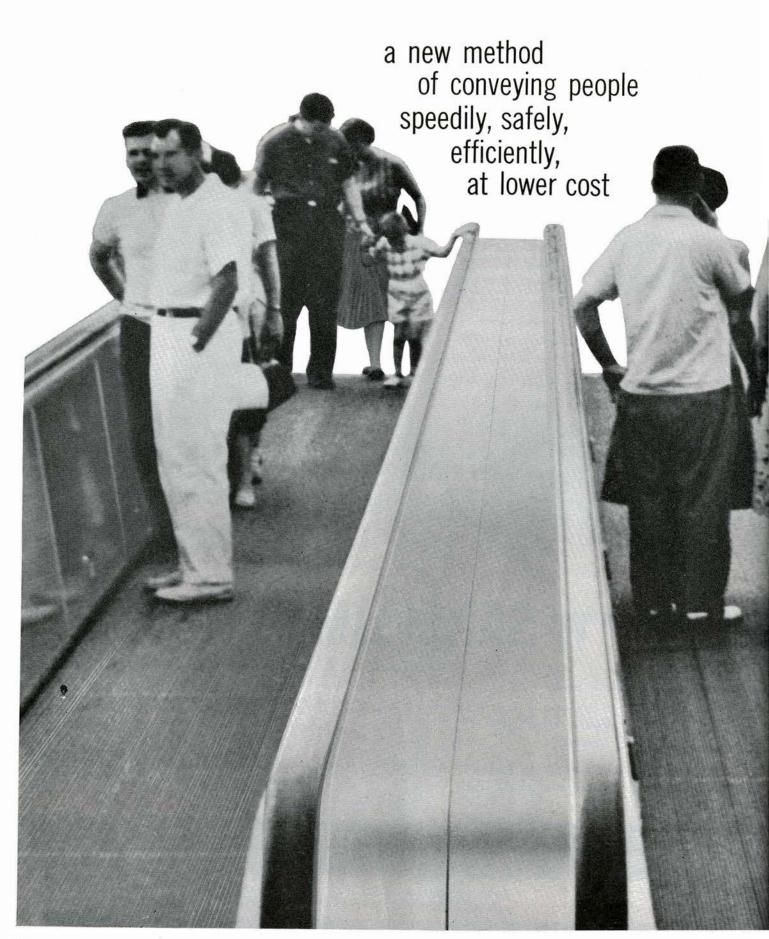
#### SAND LIME PRODUCTS INSTITUTE

ROOM 902, 80 RICHMOND STREET WEST, TORONTO

MEMBERS:

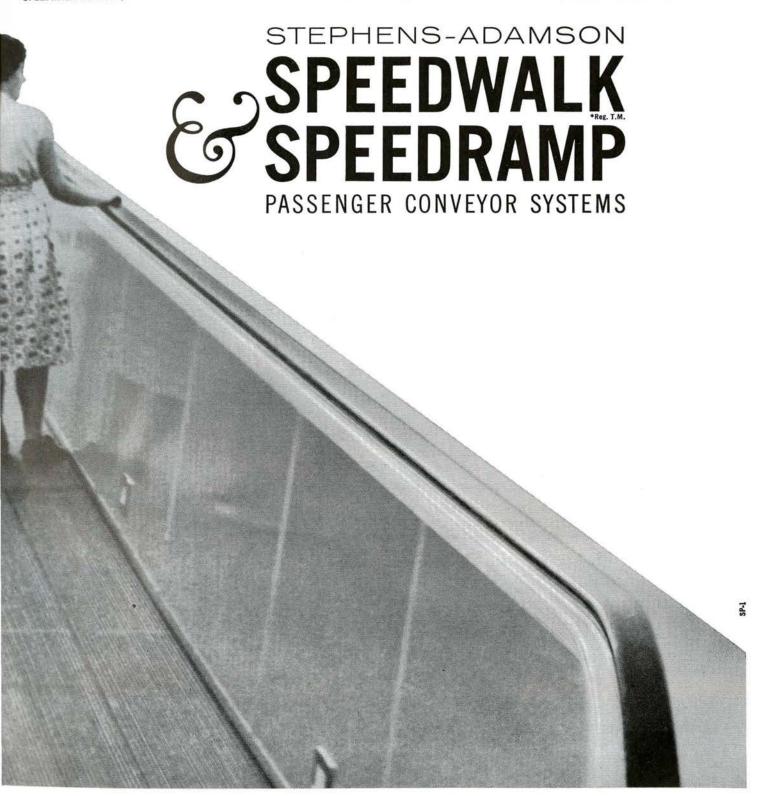
COOKSVILLE-LAPRAIRIE BRICK LTD.
ONTARIO BUILDING MATERIALS LTD.

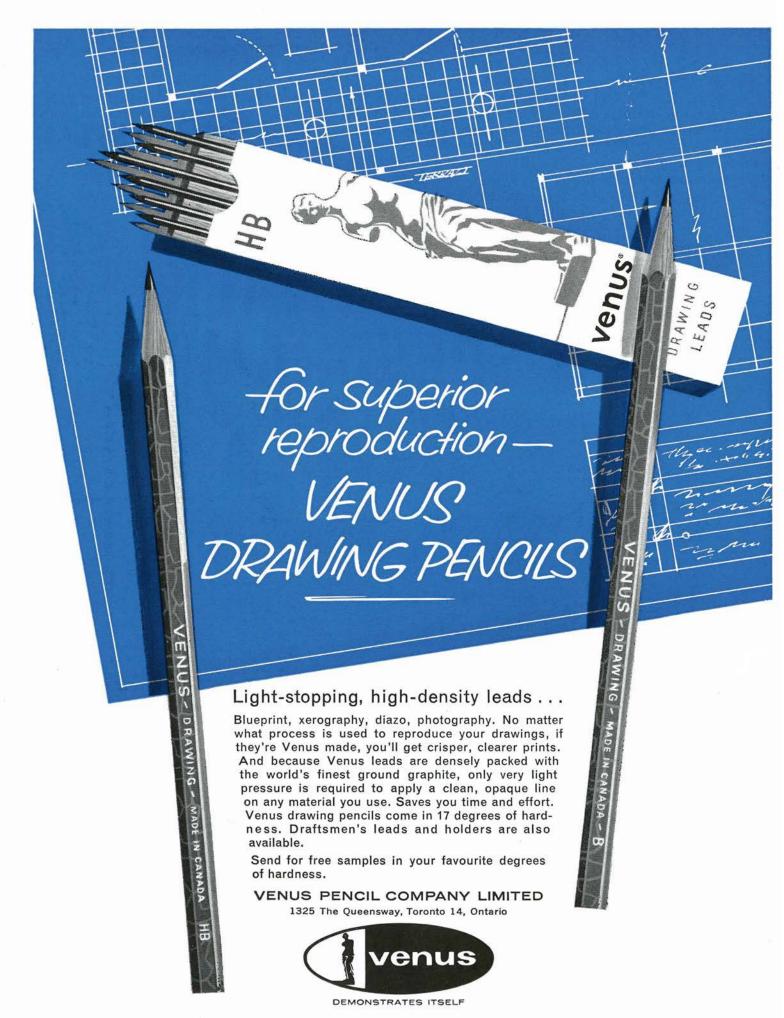
HARBOUR BRICK CO. LTD. TORONTO BRICK CO. LTD.



The ever-increasing problem of pedestrian transportation is quickly, economically and safely solved by S-A Speedwalk (horizontal) and Speedramp (inclined travel) Passenger Conveyor Systems. In your planning, consider these modern benefits: **Economy:** less initial cost than "moving stair" conveyances. **Versatility:** units operate horizontally or on incline with one or more lanes, forward and reverse or in a system of several units carrying traffic up and down simultaneously. **Safety:** passengers stand anywhere on belt surface . . . never a need to check footing. **Simplicity:** fewer moving parts . . . less "downtime" . . . no operating personnel. **Beauty:** stairways become beautyways with the showcase appearance of Speedwalk and Speedramp. **Quality:** S-A Engineering is internationally recognized. Write for full information on this tried and proven method of moving pedestrian traffic.

SPEEDWALK DIVISION, STEPHENS-ADAMSON MFG. CO. OF CANADA LTD., BELLEVILLE, ONTARIO. BRANCH OFFICES: MONTREAL, TORONTO, VANCOUVER







Science Building

Arts Building

Library Building

#### CARLETON UNIVERSITY, OTTAWA is fully equipped with

ALUMINUM WINDOWS and CURTAIN WALL

and Weather-Stripped Aluminum Ventilators

#### CRITTALL

Incorporating These Four Essential Features:

- 1. A Rigid and Permanent Fixing of the Horizontals to the Vertical Members.
- 2. Provision for Expansion and Contraction without affecting these connections.
- 3. Dispensing entirely with the use of Caulking as a Sealing Medium. (Except where contacting masonry)
- 4. Inside Glazing.

Architects:

The Architectural Associates for

Carleton University: Watson Balharrie, Hart Massey,

Eric Arthur, John Bland, Campbell Merrett

Contractors:

ARTS BLDG.

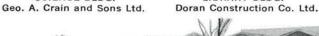
Queensview Construction and Development Ltd.

SCIENCE BLDG.

Science Building

Showing Aluminum Curtain Wall

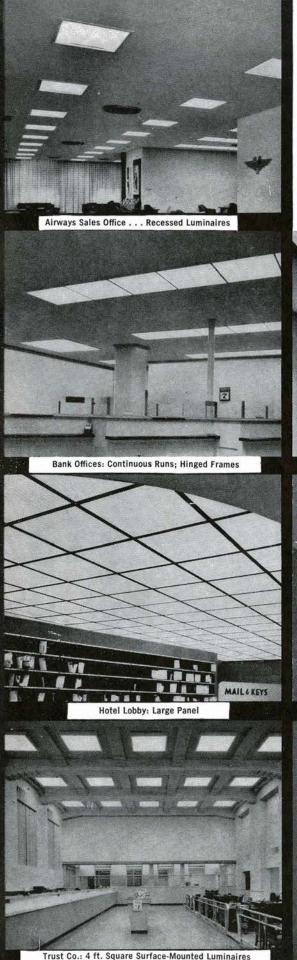
LIBRARY BLDG.







CANADIAN CRITTALL METAL WINDOW LIMITED 685 WARDEN AVENUE TORONTO 13, ONTARIO



Now...a Nationwide Trend to

#### **HOLOPHANE** 2 Ft. Square

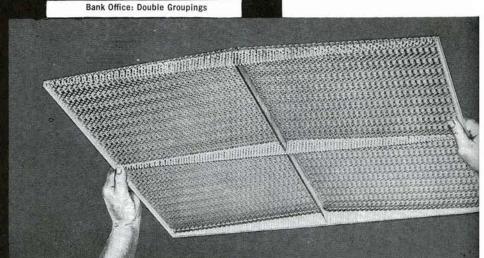
Prismalume\* Controlens\*

Director's Meeting Room: Large Panel

- Setting New High Levels of Fluorescent Lighting Efficien
- Maximum Light Control . . .
   High Output . . . Low Brighta
- Sparkling Appearance

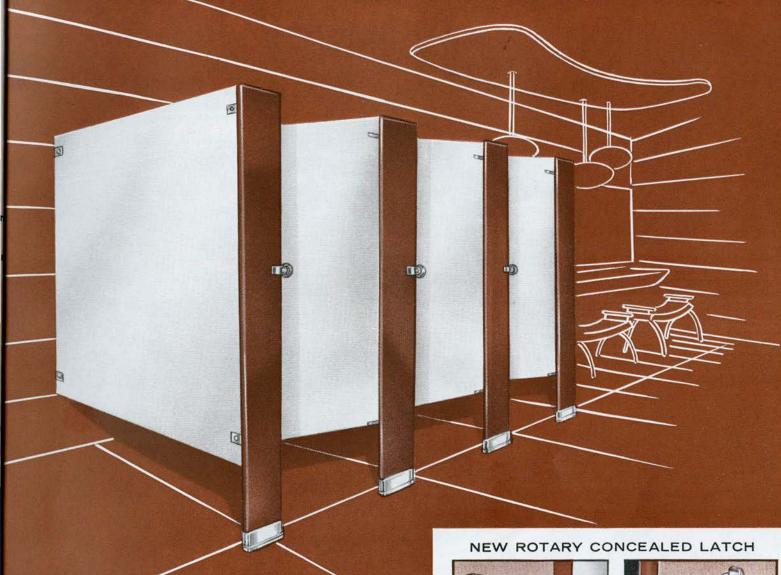
Day by day, increasing numbers of important fluorescent installations feature HOLOPHANE-2 Ft. Square PRISMALUME CONTROLENS . . . The range of application is wide: offices, banks, stores, lobbies, schools, salesrooms . . . Equa varied are the forms of luminaires: in large ceiling panels, in continuous runs, in groupings . . . Wherever it is used this CONTROLENS creates the pleasant feeling that something new and different has been achieved in lighting. Made of Prismalume (acrylic plastic) it affords crystal clarl color stability, lightness in weight, economical maintenance. The prisme light controlling features (not mere diffusing elements) provide highest quality illumination, with visual comf

Write for Complete Engineering Data



THE HOLOPHANE COMPANY LTD.

418 KIPLING AVENUE S. TORONTO 18, ONT.



#### **Foilet Compartments** with the **NEW LOOK**

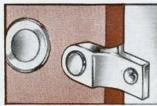
The new look provides a clean-cut appearance that is architecturally in keeping with any layout or decor.

The surfaces are uninterrupted by projections . . . new integral hinge brackets are flush with the pilaster ... rotary action latch is concealed. These exclusive advantages make toilet compartments by Westeel the most modern in concept and the most functional.

Ask for full information.

## ODUCTS LIMITED

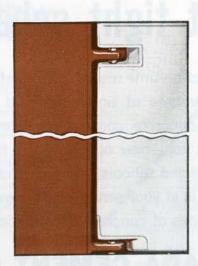
An all-Canadian, Canada-wide organization.



OUTSIDE OF DOOR

INSIDE OF DOOR

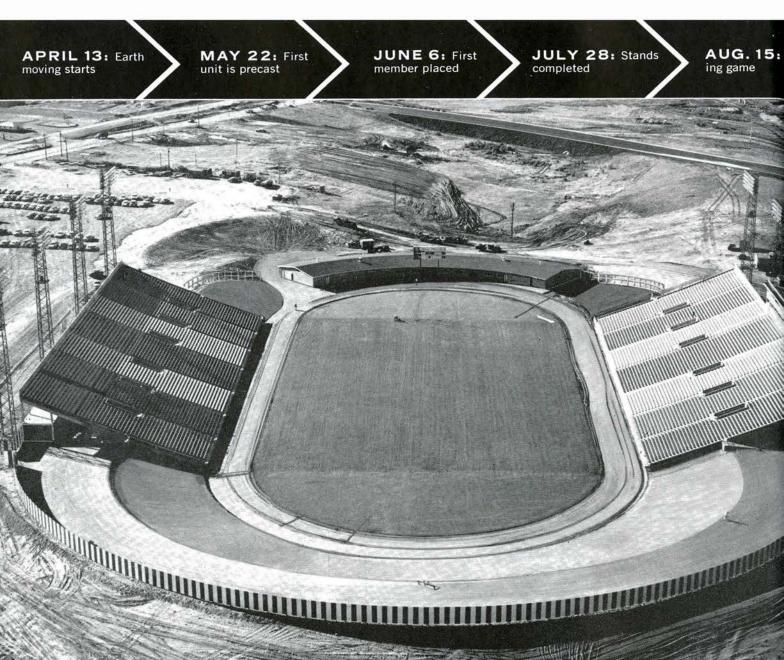
New 8800 Concealed Rotary Action Latch operates quietly and smoothly. It merges into the flush lines of the door, is simple to operate and is theftproof.



#### INTEGRAL HINGE BRACKETS

New hinge brackets are completely concealed in the pilaster. Give uninterrupted streamlined sweep to the appearance of the door.

Improved, concealed bottom hinge (not illustrated) provides smooth, quiet action ...longer life.



McMAHON STAD!UM Architects: Rule, Wynn & Rule. General Contractor: Burns & Dutton Concrete & Construction Co. Ltd. Supplier and Erector of precast and prestressed members: Con-Force Products Ltd.

#### To meet tight schedules...Precast Concrete

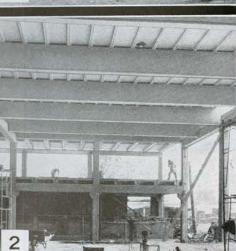
New erection-time records—more efficient use of manpower—less clutter and clean-up...guarantee of uniformity and high quality concrete...all are possible with precast concrete construction. New scope in design and in variety of surface textures, too—new opportunities for architectural distinction at modest cost in stadiums and schools, factories and churches. The Technical Sales Staff of Canada Cement is at your service—can provide any additional information you may require on all types of concrete construction.

#### CANADA CEMENT COMPANY, LIMITED

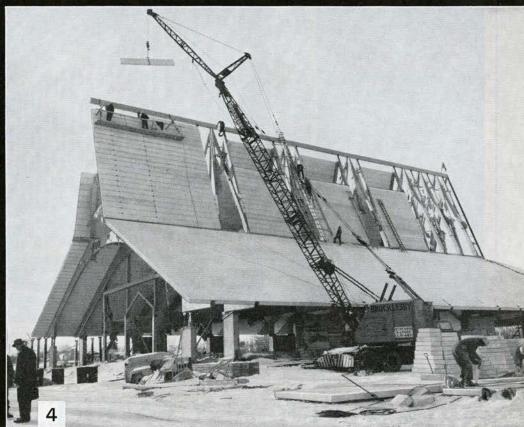


ARY'S 20,000-SEAT, McMAHON STADIUM, bleted within four months. Con-Force cts Ltd. and Con-Force Construction Ltd., ary, were responsible for fabrication and fon of the precast concrete stands consists columns, stringers, beams, seats and box supports requiring 2,000 cu. yd. etet. They completed the project in less ten weeks; most of the actual erection andled by a crew of 8 to 10 men.









## nade with CANADA CEMENT

WILSON CONCRETE PRODUCTS
 BELLEVILLE PLANT
 Designed and Built by Owner.

2. DOMINION PACKERS LIMITED

HOG SLAUGHTER BUILDING, MONTREAL esigned by: Burns & Co. Limited Engineering Staff. General Contractor: Foundation Co. of anada, Ltd. Manufacturer of precast concrete units: Hochelaga Pre-Cast Structures
Limited, Montreal.

3. BISHOP RYAN HIGH SCHOOL HAMILTON, ONT.

Architect: Frank H. Burcher.
Structural Engineer: C. C. Parker and Associates.
Manufacturer of precast members:
Murray & Associates.

4. ST. EDMUND'S OF CANTERBURY CHURCH BEACONSFIELD, QUE.

Architect: Roger D'Astous
General Contractor: Pisapia Construction Inc.
Precast concrete roof slabs by:
Siporex Ltd.

Please send me the following:

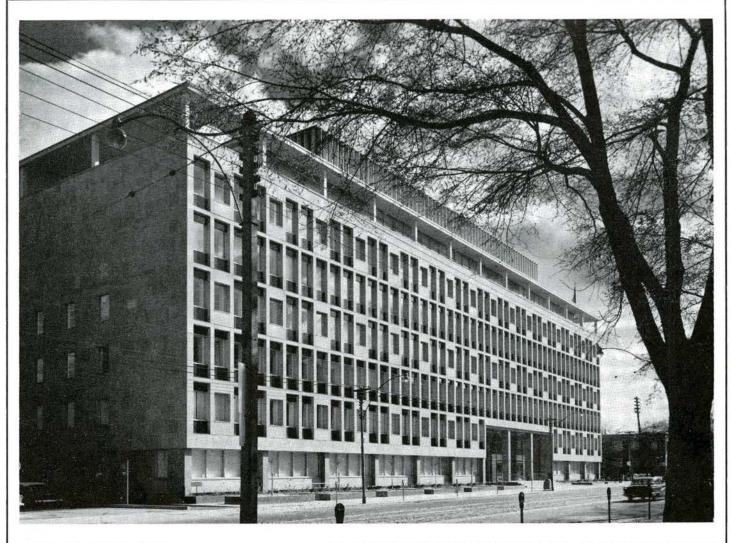
1 ☐ PRECAST CONCRETE WALL PANELS

2 ☐ PRECAST BRIDGE DECKS

3 PRECAST JOISTS

4 ☐ TILT-UP CONSTRUCTION

Simply tear off this corner, attach to your letterhead and mail.



ARCHITECTS: PAGE & STEELE

F. C. ETHERINGTON, CHIEF ARCHITECT, BOARD OF EDUCATION, TORONTO

#### EDUCATION CENTRE, TORONTO

Quality Construction by

#### DELL CONSTRUCTION CO. LTD.

**GENERAL CONTRACTORS** 



RO. 7-5493 2453 BLOOR ST. W., TORONTO 9, ONT.



#### RAIC Journal

#### **FEBRUARY 1962**

Managing Editor Walter B. Bowker

Assistant Editor Leonard Webster

Editorial Adviser Eric R. Arthur (F)

REGIONAL ASSISTANT EDITORS MARITIMES

LESTER J. PAGE, Halifax WEST COAST

CHARLES A. TIERS, Vancouver OUEBEC

CLAUDE BEAULIEU, Montreal

PRAIRIE PROVINCES
HENRY D. KALEN, Winnipeg

ADVERTISING MANAGER
LLOYD SAWYER

ADVERTISING REPRESENTATIVE
J. F. SULLIVAN

#### JOURNAL COMMITTEE

Chairman EARLE C. MORGAN (F)

F. BRUCE BROWN (F)
R. A. DICK
FORSEY PAGE (F)
D. E. KERTLAND (F)
R. SCHOFIELD MORRIS (F)
Toronto

GERARD VENNE (F)
Quebec

#### **EDITORIAL BOARD**

Chairman

R. A. DICK Toronto

Vice Chairman

L. A. OXLEY Toronto

H. A. DUNN Edmonton

K. E. R. KERR Vancouver

DONALD WOOKEY
Winnipeg

H. CLAIRE MOTT (F)
Saint John

WM. J. RYAN St. Johns

J. S. MCDONALD Halifax P. A. ALLWARD

H. D. R. BUCK
ROBERT C. FAIRFIELD
F. E. FLETCHER
HENRY FLIESS
W. N. GREER
EARLE C. MORGAN (F)
L. E. SHORE (F)
J. G. SPENCE
JOHN G. WASTENEYS
G. EVERETT WILSON (F)
Toronto

PETER COLLINS
Montreal

DENIS TREMBLAY (F)
Sherbrooke

J. A. LANGFORD Regina

#### COMPETITION RESULT



- 29 EDITORIAL Competitions: Models or Perspectives?
- 30 PROJECT Westwinds Family Club, Calgary. Architects & Engineers. J. Stevenson & Associates
- THE FATHERS OF CONFEDERATION MEMORIAL BUILDING COMPETITION RESULTS

Page 31, the winners of the competition, the Jury of Award and presentation of the first prize

Pages 32 & 33, Report of the Jury

Page 34, the winning design by Messrs Affleck, Desbarats, Dimakopoulos, Lebensold, Sise & Schoenauer

Page 39, second prize, Mandel Sprachman

Page 40, third equal, Gordon L. Cheney

Page 41, third equal, John Bland, Roy LeMoyne & Gordon Edwards Page 42, mentions, Messrs Grierson & Walker, Glen Hadley, Michael M. Kopsa, John B. Parkin Associates, John B. Parkin Associates (Montreal), James Secord & Saul Herzog

- 43 EDUCATION CENTRE, TORONTO

  The Education Centre housing the Executive, Administrative and Educational Offices of the Board of Education of the City of Toronto.

  Architects, Page and Steele
- 51 LUMBER GRADE MARKING by G. E. Bell, President of the Canadian Lumberman's Association
- 52 SASKATCHEWAN SYMPOSIUM ON ARCHITECTURE, REGINA A report by Henry Kalen of Winnipeg on the Symposium held in Regina during October 1961
- 54 OX-BOW HOUSE, ERINDALE, ONTARIO

  To create, on the site of a pioneer farm, a contemporary family residence, borrowing warmth and character from original hand-cut beams and weathered stone. Architect, Alan Crossley
- 67 GROUND FREEZING & FROST HEAVING
  by E. Penner. The February Canadian Building Digest Supplement
  from the Division of Building Research, NRC, Ottawa

#### NOUVELLES DE QUÉBEC

- 58 LE PARC DE MESY Une expérience par Jacques Folch-Ribas
- 61 Du Secretariat de l'AAPQ

#### DEPARTMENTS

- 63 Letters to the Editor
- 63 Book Reviews
- 64 Institute News
- 66 Provincial News
- 74 Coming Events
- 76 Product Index
- 78 Industry
- 92 Index to Advertisers

FRONT COVER. The model of the winning design in the Fathers of Confederation Memorial Building Competition by Affleck, Desbarats, Dimakopoulos, Lebensold, Sise & Schoenauer.

Published at 160 Eglinton Avenue East, Toronto 12, Ont. Telephone 487-4714. Advertising Office: 1133 Leslie Street, Don Mills, Ontario. Telephone (416) 447-5196. Subscriptions: Canada, Commonwealth and U.S. (12 issues) \$7.00 Foreign \$8.00 The Journal and the RAIC do not hold themselves responsible for opinions expressed by contributors. CCAB Member Authorized as 2nd Class Mail, P.O. Dept. Ottawa, and for payment of postage in cash.



#### The Royal Architectural Institute of Canada

Founded 1907 · Patron Her Majesty The Queen

**OFFICERS 1961-62** 

PRESIDENT, HARLAND STEELE (F), Toronto VICE-PRESIDENT, JOHN L. DAVIES (F), Vancouver HONORARY SECRETARY, F. BRUCE BROWN (F), Toronto HONORARY TREASURER, R. C. BETTS (F), Montreal EXECUTIVE OFFICES: 88 METCALFE STREET, Ottawa EXECUTIVE DIRECTOR, ROBBINS ELLIOTT SECRETARY, MAURICE HOLDHAM, MBE

COLLEGE OF FELLOWS

CHANCELLOR, H. H. G. Moody (F), Winnipeg DEAN, J. Y. McCarter (F), Vancouver REGISTRAR, F. BRUCE BROWN (F), Toronto

REPRESENTATIVES TO COUNCIL

ALBERTA ASSOCIATION OF ARCHITECTS - G. B. McAdam, T. A. GROVES, D. G. FORBES, H. L. BOUEY (F), J. A. CAWSTON (F). ARCHITECTURAL INSTITUTE OF BRITISH COLUMBIA -JOHN L. DAVIES (F), W. G. LEITHEAD (F), C. E. PRATT (F), P. M. THORNTON (F), J. H. WADE (F), R. W. SIDDALL. MANITOBA ASSOCIATION OF ARCHITECTS - J. E. SEARLE, G. A. STEWART, H. H. G. MOODY (F), S. LINDGREN. ARCHITECTS' ASSOCIATION OF NEW BRUNSWICK -N. M. STEWART (F), J. R. MYLES. NEWFOUNDLAND ASSOCIATION OF ARCHITECTS -W. J. RYAN, L. W. HOPKINS. NOVA SCOTIA ASSOCIATION OF ARCHITECTS — J. L. Darby, L. J. Page, C. A. E. Fowler (f). ONTARIO ASSOCIATION OF ARCHITECTS - F. B. Brown (f), E. C. S. Cox (f), G. D. GIBSON (f), C. H. GILLIN, G. Y. MASSON (f), N. H. McMurrich, W. T. Pentland, A. R. Prack (f), W. G. Raymore (f), H. Steele (f), G. E. Wilson (f), J. W. Strutt. PROVINCE OF QUEBEC ASSOCIATION OF ARCHITECTS -M. PAYETTE (F), R. C. BETTS (F), H. MERCIER (F), P. MORENCY (F), G. VENNE (F), F. J. NOBBS (F), H. A. I. VALENTINE (F), P. G. Brassard (f), R. E. Bolton (f), E. Fiset (f). SASKATCHEWAN ASSOCIATION OF ARCHITECTS — J. P. PETTICK, G. R. FORRESTER, G. BERRY.

CHAIRMEN OF STANDING AND SPECIAL COMMITTEES ARCHITECTURAL EDUCATION, JOHN L. DAVIES (F), Vancouver BUILDING RESEARCH, ALSON FISHER, Toronto PROFESSIONAL USAGE, HARLAND STEELE (F), Toronto SCHOLARSHIPS, A. T. GALT DURNFORD (F), Montreal DUTY ON PLANS, L. E. SHORE (F), Toronto EDITORIAL BOARD, R. A. DICK, Toronto INTERNATIONAL RELATIONS COMMITTEE, JOSEPH PETTICK, Regina JOURNAL COMMITTEE, EARLE C. MORGAN (F), Toronto LEGAL DOCUMENTS, MARVIN ALLAN, Toronto SPECIAL COMMITTEE ON THE PRESERVATION OF HISTORIC BUILDINGS. E. R. ARTHUR (F), Toronto

MASSEY MEDALS COMMITTEE, J. A. RUSSELL (F), Winnipeg PACKAGE DEAL COMMITTEE, JOHN M. DAYTON, Vancouver PUBLIC INFORMATION, G. Y. Masson (F), Windsor COMMITTEE ON HOUSING, JAMES A. MURRAY (F), Toronto ARCHITECTURE ABROAD, HARLAND STEELE (F), Toronto ARCHITECT-ENGINEER RELATIONS, C. A. E. Fowler (F), Halifax RAIC-CCA COMMITTEE ON BUILDING MATERIALS, ERNEST J. SMITH, Winnipeg PLANNING FOR 1967 CENTENARY, PETER THORNTON (F), Vancouver

Competitions: Models or Perspectives?

Concours: Maquettes ou Perspectives?

Now that the fathers of confederation Memorial Competition has come to a successful conclusion with a brilliant and beautiful solution, we can expect other competitions for buildings that will be connected in some way with the centenary celebrations. We hope that this editorial will be provocative, and that the Editor may expect quite a number of replies. There is no possible doubt, or as Gilbert would say, "no possible, probable shadow of doubt", that the competition was an outstanding success — firstly from a winning solution of genius on which the jury of award was unanimous, but also because of the high standard set by the remainder. Our question therefore has nothing to do with quality, nor, indeed, or quantity in the baser sense, but how best to interest many architects in the competitions of the future.

In the one just completed, one hundred and eighty members of the RAIC expressed more than interest by filling in a registration form. Forty-seven competed. We would like to know what happened to the remainder. We are aware that the final date was poorly timed, and that a serious break was inevitable by reason of Yule and New Year festivities. But that would not deter an enthusiastic architect, sound in wind and limb, with the goal before him of an outstanding building to be erected at an unique moment in our history as a nation. We find that many competitions in England call for perspectives rather than models, and that the answer to the call often runs into hundreds. In saying so, we are not unaware that there are more members of the RIBA, by far, than there are of the RAIC, or even of the AIA, but that does not take away from the point in question which is, whether there is resistance to the model for a variety of reasons. The chief of course are expense of making, cost of shipping and a general demoralization of a large office where everyone is agog to see what is going on. The Toronto City Hall competition was phenomenal in that five hundred and forty competitors submitted models even at the first stage, though it is true that many were extremely simple (competitors were invited to send in simple block structures) and several were so cheaply made they arrived in ruins from remote parts of the world.

We invite letters, but would ask our correspondents to ask themselves first how the child of their imagination is most fairly judged by a jury of award. Is it by a model in which all its qualities as well as its weaknesses are three dimensionally apparent to an expert jury, or by a perspective in which two sides only are visible and one is so distorted as to give only a vague idea of its worth.

And then, though "tell it not in Gath, publish it not in the streets" of Ottawa, perspectives can be most seductively faked — a feat hard to do in a cardboard model. We remember well an English war memorial which, in the perspective, showed insect-like people climbing eighth-inch steps to a cenotaph whose sides were occasionally broken by cumulus clouds. It seemed vast — Christ of the Andes, the Andes themselves, the Colossus of Rhodes — seemed insignificant by comparison. When it won the competition, it turned out to be twenty-three feet high. The city council felt gypped.

We are optimistic enough to believe that many competitions for a variety of purposes connected with Confederation will appear before 1967, and time to design, and time to build, will become increasingly short as the days go by. We are sure that an overwhelming recommendation for one method or another would be a matter of great interest to the RAIC, and the advice of that body to competition advisers would be seriously considered.

E.R.A.

L'econcours pour l'edifice commémoratif des Pères de la Confédération s'étant terminé en beauté, d'autres seront sans doute lancés en rapport avec les fêtes du centenaire. Nous voudrions par le présent article éveiller l'attention des lecteurs et attirer à la rédaction une foule de lettres. Il n'y a pas de doute ou, comme dirait Gilbert, "pas l'ombre possible ni probable d'un doute" que le concours a été couronné d'un très vif succès. Non seulement il nous a valu une oeuvre de génie, choisie à l'unanimité par le jury, mais les autres projets présentés étaient aussi de grande valeur. Il n'est donc pas question de qualité, ni même de quantité au sens large du terme, mais uniquement de la façon de stimuler l'intérêt à l'égard des concours futurs.

Au dernier concours, 188 membres de l'IRAC ont manifesté un intérêt véritable en s'inscrivant, mais 47 seulement y ont participé. Pourquoi pas les autres? La date limite était mal choisie, c'est entendu, et les fêtes de Noël et du Nouvel An sont venues interromper le travail. Mais était-ce suffisant pour arrêter un architecte enthousiaste, plein d'ardeur et d'ambition, en face d'une occasion de construire un immeuble exceptionnel à une époque unique dans l'histoire du Canada? En Angleterre, on demande souvent, dans les concours, des perspectives plutôt que des maquettes et les inscriptions se chiffrent par centaines. La RIBA a évidemment beaucoup plus de membres que l'IRAC et même que l'AIA mais cela ne répond pas à notre question qui est de savoir si, pour diverses raisons, la formule de la maquette ne plaît pas. Le principal désavantage de cette formule est évidemment le coût de la préparation et de l'expédition de la maquette et la désorganisation générale d'un grand bureau où chacun veut voir ce qui se passe. Le cas de l'hôtel de ville de Toronto a été véritablement phénoménal. Au premier stade. 540 concurrents ont présenté des maquettes. Il est vrai que beaucoup étaient très simples (on avait recommandé d'envoyer de simples structures en blocs) et que plusieurs étaient si bon marché qu'elles étaient déjà en ruines à leur arrivée de lointains pays.

Nous vous invitons à nous écrire mais, avant de vous prononcer, demandez-vous sous quelle forme le fruit de votre imagination sera le mieux apprécié. Est-ce sous forme de maquette où toutes les qualités et toutes les faiblesses sont exposées en trois dimensions aux yeux d'un jury averti ou sous forme de perspective où deux côtés seulement sont visibles, dont l'un si déformé qu'il ne donne qu'une vague idée de sa valeur?

En outre, mais n'allez pas le répéter dans les rues d'Ottawa, on peut truquer admirablement des perspectives, mais beaucoup plus difficilement une maquette en carton. Ici, nous songeons à la perspective d'un monument de guerre anglais représentant des personnes grosses comme des insectes montant des marches de 80 pouces vers un cénotaphe dont les côtés étaient ici et là brisés par des cumulus. L'oeuvre semblait grandiose, au point de faire pâlir le Christ des Andes, les Andes elles-mêmes ou encore le Colosse de Rhodes. Le concours terminé, le conseil municipal a appris qu'il s'agissait d'une construction haute de 23 pieds et il a eu l'impression d'avoir été roulé.

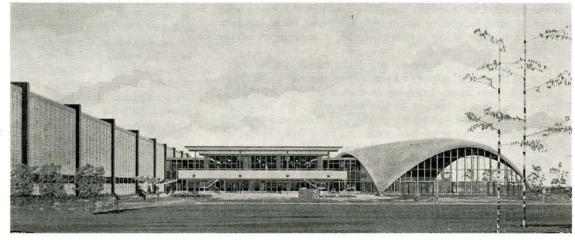
D'ici 1967, il y aura sans doute plusieurs concours en rapport avec la Confédération et les délais de préparation des projets et de construction seront de plus en plus restreints. Il est à peu près sûr qu'une recommandation nette en faveur de l'une ou l'autre formule intéresserait l'IRAC et que l'avis de cet organisme serait pris en sérieuse considération par les organisateurs des concours. — E.R.A.



#### PROJECT Westwinds Family Club, Calgary, Alberta

ARCHITECTS **ENGINEERS** 

J. Stevenson & Associates



Tenders were called in July for the first stage of this club which has been designed to provide for the social and recreational requirements of 2,200 families.

The first stage of construction will consist of the curling rink, swimming pool, wading pool and club house (coffee shop, dining rooms, lounges, lockers, etc.).

In general the construction will be a combination of reinforced concrete and heavy timber. The lower floors of the club house and gymnasium which are depressed to suit the natural grade of the site will be of reinforced concrete, while the upper floors are framed with laminated wood columns and beams with wood decking. The pool building which is a dome will be constructed of laminated wood arches and wood decking. The curling rink will be framed with laminated wood columns and beams and wood decking. The exterior walls of the curling rink will be of concrete block.

LEGEND

1 CLUBHOUSE

2 SWIMMING POOL 9 BASEBALL

3 CURLING

10 ARCHERY 11 BARBEQUE PITS

4 BADMINTON & BOWLING

12 CROQUET

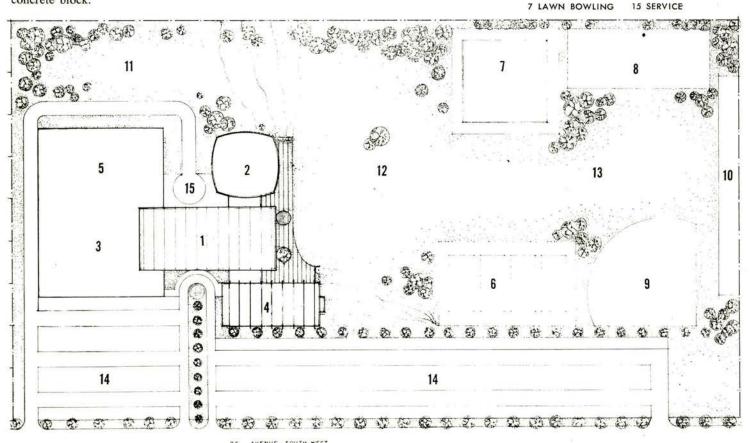
8 HOCKEY

5 SKATING

13 PITCH & PUTT GOLF

6 TENNIS

14 PARKING



COMPETITION RESULTS

#### First Prize

Affleck, Desbarats,
Dimakopolous, Lebensold
Sise & Schoenaur
Montreal

#### Second Prize

Mandel Sprachman Toronto

#### Third Equal

John Bland, Roy LeMoyne
& Gordon Edwards
Montreal

#### Third Equal

Gordon L. Cheney Toronto

#### **Mentions**

Grierson & Walker Toronto

> Glen Hadley Toronto

Michael M. Kopsa Toronto

John B. Parkin Associates
Toronto

John B. Parkin Associates (Montreal) Montreal

James Secord & Saul Herzog St. Catharines Journal RAIC, February 1962

## Fathers of Confederation Memorial Building

Charlottetown, PEI

"The work of the architect in our modern society consists largely of buildings of an impermanent nature.

"In the design of the Fathers of Confederation Memorial Building, the architect has an opportunity, rare in any generation, of designing a building for centuries. The competitor is wasting his time who thinks of this building as anything but a national shrine to which Canadians will forever pay homage as the birthplace of their nation."

From the introduction to the competition conditions.



The governor general presented the prizes at a dinner given by the Foundation in Ottawa on January 30. His excellency with members of the winning firm. Mr D. Dimakopoulos, left, and Mr R. T. Affleck, right.



The Jury of Award with the model of the winning entry, left to right, Dr Kaye Lamb, Dr E. R. Arthur, Chairman, Sir Basil Spence, Mr Charles Trudeau, Prof John Russell, Dr Frank MacKinnon and Mr Eric Harvie.

31

#### REPORT OF THE JURY

#### Introduction

The competition for the Fathers of Confederation Memorial Building attracted 47 competitors, and the Jury of Award was most impressed with the standard of design of the majority, and the high degree of imagination which was evident in many.

In general, competitors seemed conscious of the scale of the buildings on the surrounding streets and of the significance, scale and material of the Provincial Building. In the opinion of the Jury of Award, the old building was regarded as a national monument of historic and architectural importance and not as an obstruction, and were greatly influenced by the degree of skill and sensitivity with which competitors incorporated it in the new building complex and the landscaping of the site.

The design placed first by Messrs Affleck, Desbarats, Dimakopoulos, Lebensold, Sise & Schoenauer seemed to the Jury of Award to more than justify the holding of the competition. As the first building to appear in Canada on the eve of the centenary celebrations for Confederation, it will set a standard of architectural excellence and suitability that will not likely be surpassed. It is rare for the architect in our modern society to be set the problem of a complex permanent building on the town square of a city with a population of only 20,000.

The chief charm of the winning design is its absolute appropriateness to the local scene and the city at large.

The Jury of Award set themselves certain criteria for the judging of all entries, and the degree to which the winner achieved the standards set are listed below.

#### Site Plan

Even at a superficial glance, the spectator is made aware of this competitor's appreciation and sympathy for the historic Provincial Building, and the skill with which he integrates it with the new building. No other scheme shows it such respect. Other schemes have an east, west axis in which the Provincial Building plays a part, but the winner opens up his building on this axis with dramatic effect.

It will be noted elsewhere that the citizen of Charlottetown is able to enter all the departments of the Memorial Building from other parts, but the tourist enters the Memorial Hall on the vital axis of the Provincial Building, and, from there, entrance to galleries and library is straight forward and free from ambiguity.

The competitor has so planned his building that exciting glimpses of the Memorial Hall are obtained from many points of view. There is a civic quality about his building that is given emphasis by the inclusion, so to speak, of the Provincial Building.

His landscaping shows an unusual sensitivity to the layout of terraces and steps, and his preservation of so many trees was commended.

Cars are parked in such a way that they will be largely screened from view.

The jury strongly recommends that so beautiful a landscape will not be marred by the wooden poles that now surround it.

#### Scale

Scale is a subtle element in design related to the human figure rather than to mere size. This competitor achieved a most disciplined group of buildings that respect rather than overwhelm everything in the perimeter, whether church or stores.

The scale set by the exterior is handled equally expertly in the interior and in the delightful planted courts that will give colour and light to many interior rooms.

#### Plans and Sections

The more one studies this plan the more beautiful does it seem to unfold in terms of circulation and well proportioned space.

- (a) The tourist enters the Memorial Hall which he will undoubtedly enjoy before he proceeds without ambiguity of any kind to gallery or library or museum. Surprising vistas open up before him as he moves.
- (b) The general public can enter the various departments of the building from terrace entrances.
- (c) The library is accessible at night from the outside when the rest of the building might be closed.
- (d) The theatre, too, has an independent life.
- (e) The flow of traffic is always in public areas or corridors and never interferes with working areas.
- (f) The jury was impressed by the idea of the buildings rising from the datum line, but suggest that the narrowness of the area ways would present problems in maintenance.
- (g) The jury suggests that the freight elevators in the galleries are unsightly and deprive the director of much valued wall space. They hesitate to suggest what one might do, but the whole matter of elevators in this area, and book lifts and one elevator in the library will obviously be given intensive study.
- (h) Theatre arrangements were more flexible than in almost any scheme. The jury would, however, point to the undesirability of seats at an angle in relation to proscenium productions. It is recommended that seating and lighting on all the acting areas receive careful study.

#### Memorial Hall

The Jury of Award is confident that the Memorial Hall will fulfill the high hopes of the Foundation as a noble room in which the architect has expressed the idea of the Founding Fathers by their words engraved in the Stone and by light.

It is also greatly to the credit of the architects that the scale and interest of the Memorial Hall is achieved without domination of the whole complex.

It was mentioned on more than one occasion during the judging that the Memorial Hall should commemorate a meeting of Canadians from many walks of life, and that the ideals that led them to the Chamber in the Provincial Building in 1864 could be expressed in a hall where a human, rather than a monumental scale, determined the design.

All kinds of materials were suggested by competitors, but the winning design very appropriately calls for a stone as nearly as possible in colour and texture as the Provincial Building. Other materials equally suitable to the furnishings of the rooms in which they are placed will add enormously to the interest of the interior.

The idea of a unity between the old building and the new is obviously highly desirable, and is in the forefront of this competitor's proposal.

The square footage of this competitor's scheme compared favourably with others, but above all, his solution demonstrated quality without extravagance.

#### Second Prize Mandel Sprachman

A basically workable solution that is similar in concept to the winning design. However, it lacks appropriate sensibility and an appreciation of the intimate scale required.

Good siting in its relationship to Colonial Building, but lacks subtlety of relationship established by the winner.

Does not have the vistas and glimpses of old building provided by winner. Integration of Memorial Hall well handled within and as means of access to the surrounding elements. Close examination of planning and details revealed a certain meanness and tightness in the fitting of required elements into the various parts of plan.

#### Third Prize

Two schemes at opposite poles of design approach — the one highly imaginative with an emotional impact, the other highly ordered in its intellectual precision of form and detail — had bad faults of planning. The jury found no clear distinction which might have argued that one was better than the other; but in recognition of the outstanding conception in each case, decided to tie the two for 3rd prize.

Tie for 3rd Prize John Bland, Roy LeMoyne & Gordon Edwards

An elegant, classical concept which has produced an immaculate architecture. However, the jury felt that the competitor did not welcome the Colonial Building on the site.

Examination of the scheme ruled it out for serious consideration as a winner owing to serious faults in planning, particularly the theatre.

#### Tie for 3rd Prize An ingenious, Gordon L. Cheney a vertical pivot.

An ingenious, brilliant idea in its spiral arrangement of elements around the memorial chamber as a vertical pivot.

Probably provides more of interest and excitement to the visitor than any other scheme, due to variety of exciting vistas.

The scheme is a highly expressive monument which might easily be misinterpreted in symbolism, but which demonstrates an attempt to harmonize with the old through contrast rather than similarity.

#### Mention

A number of schemes were considered of sufficient merit to be singled out for Mention, in recognition of either good straightforward solutions or unusualness of idea. None, however, revealed a thoroughness of sound planning and conception which could have warranted the award of Prizes or Honourable Mention.

#### Mention Messrs Grierson & Walker

Probably the simplest scheme; very direct. Derives a monumental quality at the expense of good sound planning.

#### Mention John B. Parkin Associates

A striking sculptural approach resulting in an impressive spatial, monumental setting for the Colonial building. A delightful carillon. Unfortunately, the plan does not work well and entails the annihilation of the entire tree population on the site.

#### Mention Glen Hadley

A highly imaginative basic idea with great monumentality. The jury was not convinced of its practicability for it found too many of its questions were left unanswered by the planning and structure as indicated.

#### Mention John B. Parkin Associates—Montreal

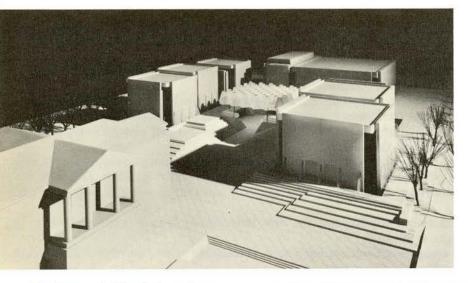
The jury felt this scheme should be mentioned for its imagination and bravura in spite of the fact that it was highly unsuitable as a solution.

#### Mention Michael M. Kopsa

A delicate, sensitive, quiet spoken scheme with many delightful features. However, inadequate from the practical planning point of view.

#### Mention James Secord & Saul Herzog

A formalistic concept which has entailed awkward unsuccessful fitting of the required elements into the arbitrarily chosen forms.



Fathers of Confederation Memorial Building Competition

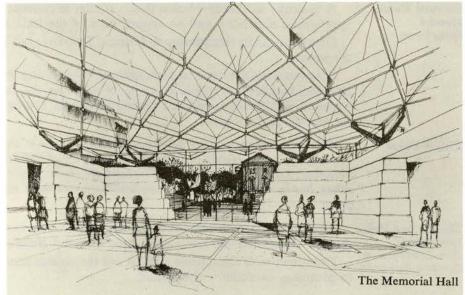
#### General Concept:

THE ACCOMPANYING SUBMISSION is based on the following main aims:

a To provide a building appropriate to the special commemorative requirement; which also fulfills the various specific functions outlined in the program.

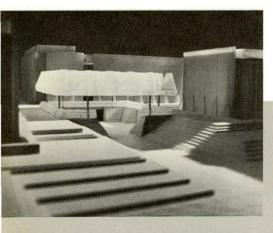
b To develop the entire site in such a manner as to maintain and enhance the quality of a green and pleasant garden square in the centre of Charlottetown, while at the same time providing a setting of dignity and repose for the Memorial.

c To develop the new project in harmony with the fine architectural quality of the existing Provincial Building, forming one integrated composition.



#### First Prize

Affleck, Desbarats, Dimakopoulos, Lebensold, Sise & Schoenauer Montreal



It was thought that these aims could be best served by a concept of great simplicity with a string sculptural relationship between the parts. This concept has been carried out through breaking the new building down into a number of clearly defined units; and by the three dimensional moulding of both site and building elements. The juxtaposition of the individual units was developed in response to the following factors: the problem of integrating the strong axial position of the Provincial Building with the overall composition; the need to create a new focus for the Memorial Hall; and the need to prevent the new construction from overwhelming the existing structure by mere size or height.

It was decided to keep all units of the new building, with the exception of the Memorial Hall, to a uniform height to further enhance the relationship of old to new; and also to contrast with the various heights that will undoubtedly develop in the future on the surrounding streets.

An important result of the moulding of the site is the provision of a two level plaza, the upper or Terrace level providing open air space about the buildings for pedestrian circulation and a multi-directional approach, (this was thought to be particularly useful in summer); and the lower "Concourse" level linking all parts of the building and the Memorial entrance hall together under cover. The upper, or Terrace level, is perforated by open courts, and each building element in effect grows up from the Concourse level through a court partially glazed or open. The horizontal glazed sections of these courts provide natural light to the Concourse level as well as that obtained directly through the open courts.

The Memorial Hall is given special significance by its location in relation to the other elements, its reduced height, and the special quality of its roof. It is thought of primarily as an extension inward of the Plaza, forming a central court with a very solid sculpted base and conveying the feeling of an open Forum under the sky.

Vehicular traffic, when required for special occasions at the Memorial Hall or at the South entrance of the Provincial Building would be permitted to travel over the paved area between the entrances and Richmond Street. The seventy curb side parking spaces were concentrated at the low end of the site in a well treed area in order to avoid too great a visual impingement of cars. The small garage for Provincial Cabinet Ministers' cars, was added as a convenience not out of keeping with the total scheme.

#### Structure and Materials

The construction throughout is to be of fireprooof reinforced concrete. The roof structure of all units except the Memorial Hall and Stage House are of reinforced concrete domes with poured concrete fill, and allowing for translucent roof domes at any point required. These roof slabs are all square and their depth increases as the span increases.

All walls consist of concrete vertical ribs on twelve foot centres with mechanical duct space between the ribs. Interior finish is to vary with the function of the building. Exterior finish to be of dressed stone of a color and texture similar to that employed on the Provincial Building. This stone veneer will be permanently adhered to vertical precast concrete wall slabs which will, in turn, be fixed to the concrete ribs.

The lower part of the vertical concrete ribs are canted outwards to strengthen the connection with the Plaza slab and express the fact that, though the wall surfaces plunge right down to the Concourse level, the edges of the Terrace level slab are supported by the wall structure.

Roof slabs are supported approximately 12 ft. from the corners of the squares with compression members carried down through normal wall.

Glazing occurs primarily at the re-entrant corners, developed by the location of columns.

The Memorial Hall is conceived as an open court without apparent walls. The roof is to be of glass sections, as shown on the drawings, using the high compressive qualities of the glass and employing light steel members only as connectors and to transmit tension stresses. The glass will be clear and partially transparent, partially translucent, depending on the thickness of the sections used. The aim is to bring into the interior of the Memorial Hall the changing quality of light, sunshine or overcast that exists at the time. Artificial lighting would be so arranged that the crystalline quality of the Hall would also be effective at night, both from interior and exterior.

Artificial lighting would also be provided at the horizontally glazed apertures surrounding all buildings to enhance the night quality from both Terrace and Concourse levels.

#### Art Work

The Fathers of Confederation are to be commemorated by suitable texts from their significant speeches of the time, inscribed into the stone walls facing the openings from the Memorial Hall and lighted by the overhead glazed apertures.

Works of sculpture would be commissioned for the courtyard of the Director's Office, for the Library and Theatre entrance plazas, and for the fountain in the Sculpture Court. Mural works would be commissioned for the theatre lobby and the Library entrance.

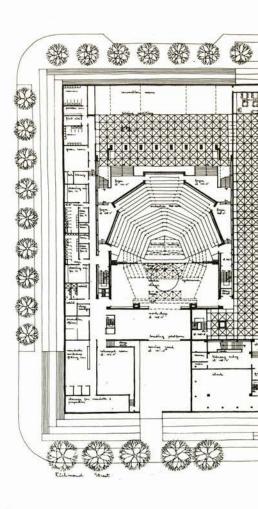
#### Planning:

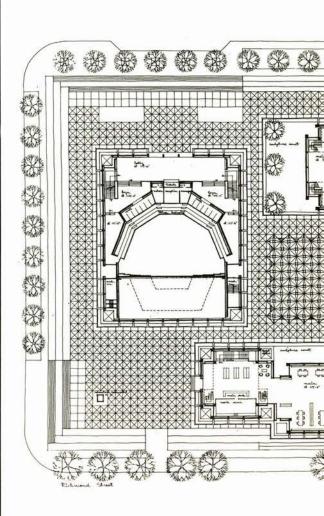
In developing the project, considerable attention was given to the relationship of the Memorial Square to the City of Charlottetown. The following general concepts were arrived at:

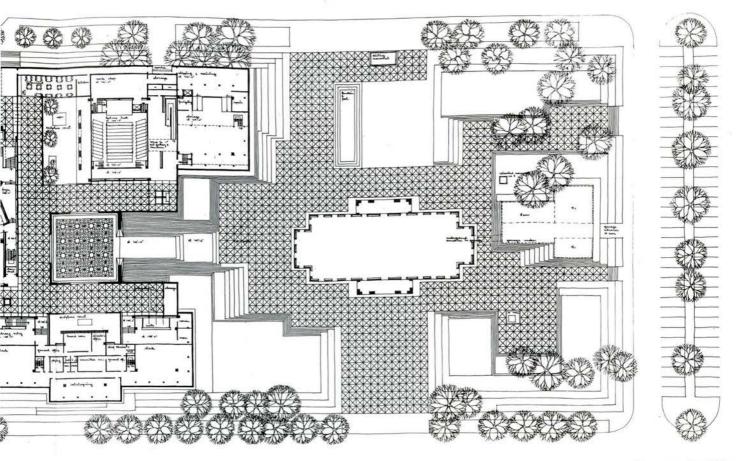
A ring road system should be developed around the downtown core of the City, with secondary streets only leading up to the Memorial Square and spoke roads leading out to the principal highways out of town and to the ferry dock. The Memorial Square would then be the heart of the core area within the ring road.

Parking for the entire downtown area, as well as the Memorial Square should be provided on or off the second-art streets within the ring road.

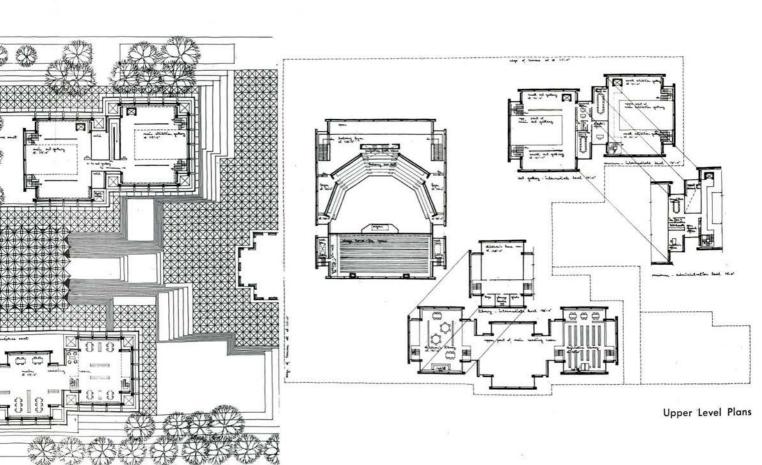
Great George Street from Memorial Square South to the Harbour and North to the ring road should be converted to a pedestrian mall to emphasize the link between the Memorial, the City and all of Canada.







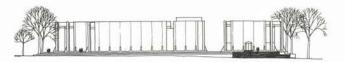
Concourse Level Plan



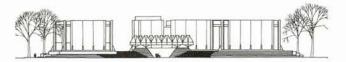
Terrace Level Plan



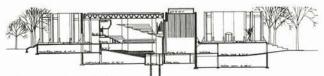
**Grafton Street Elevation** 



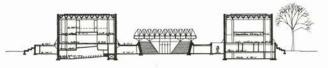
Queen Street Elevation



Memorial Hall Entrance Elevation



Section through Theatre

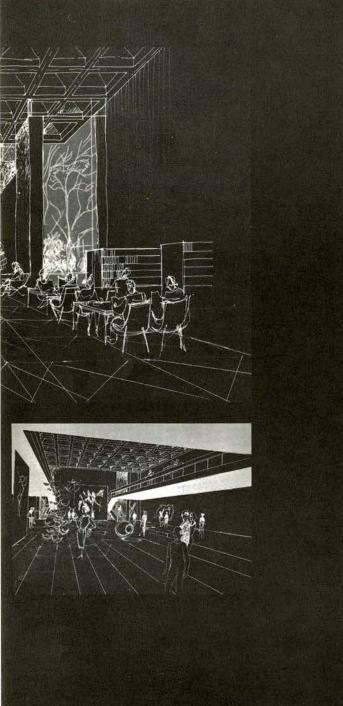


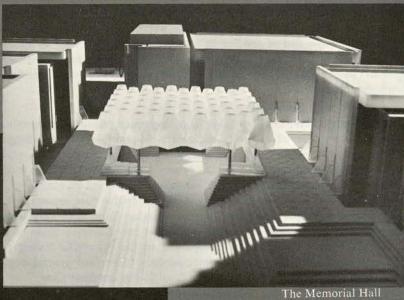
Section through Memorial Hall

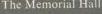


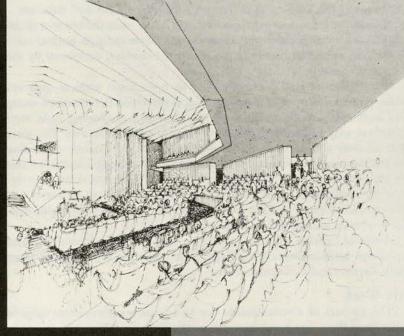
Fathers of Confederation Memorial Building Competition

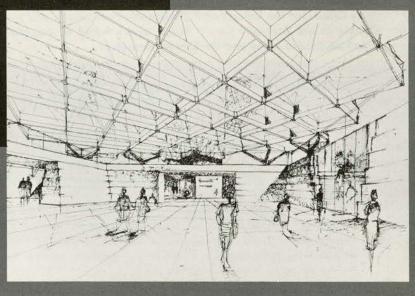
First Prize









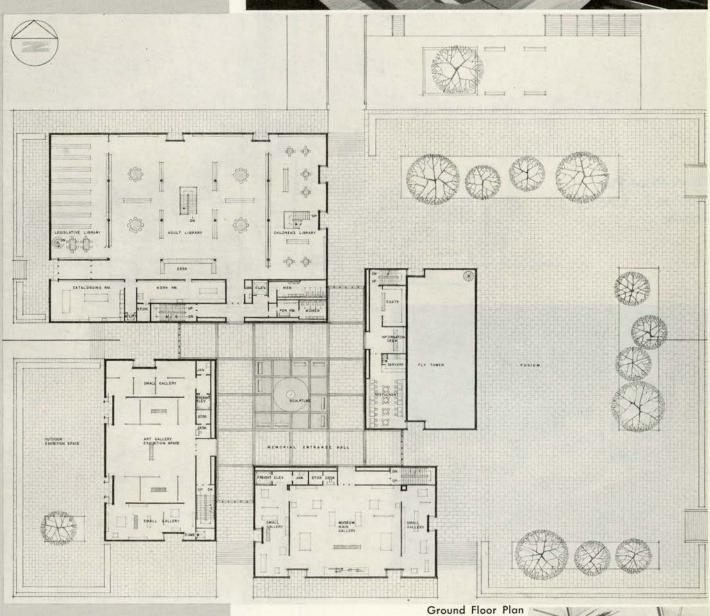


shown here depict: Above top, the Library, Above Gallery, Above Right, the Main Exhibition Gallery atre and Below Right, the Memorial Hall.

Fathers of Confederation Memorial Building Competition

Second Prize Mandel Sprachman Toronto





The granite floor and glass roof are symbolic of earth and sky. The sculpture growing out of the earth and reaching skyward is an expression of the increasing strength of Canada.

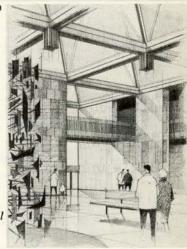
The Memorial Building on a limestone faced podium stems from Canadian soil. Not a light, flimsy expression of untried contemporary building technology, but enduring concrete faced with natural riven blue-grey slate.

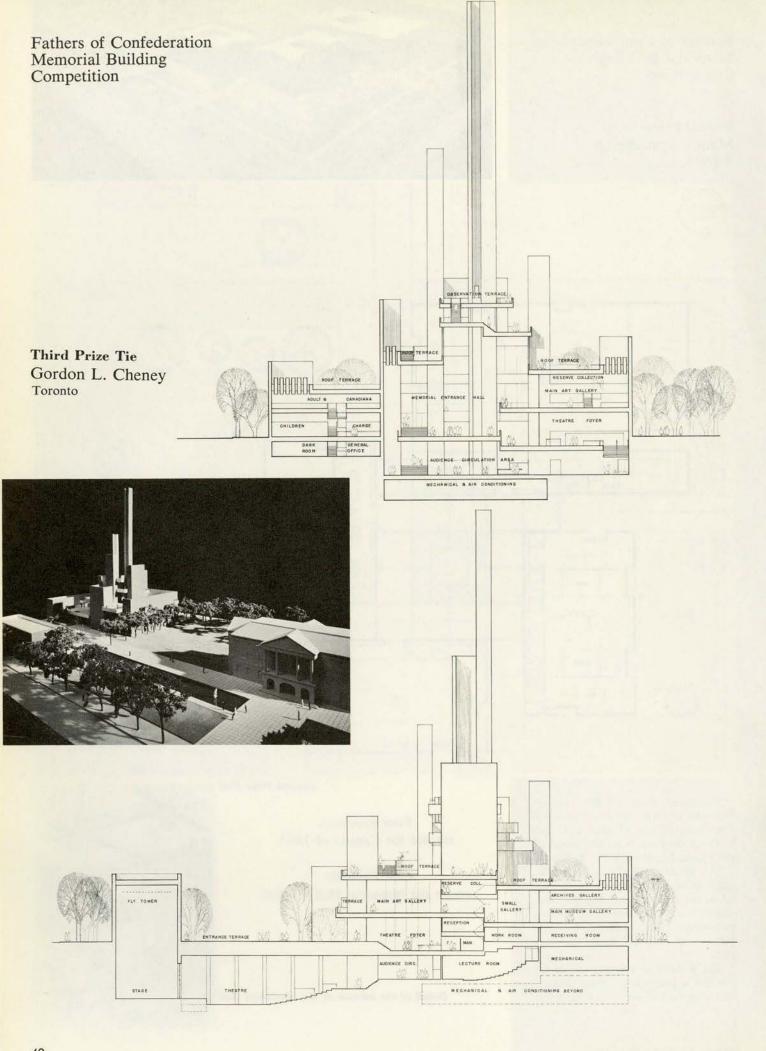
The podium at the east end of the site has a fountain sculpture commemorating the Fathers of Confederation.

Four Provinces created the Canada of 1867

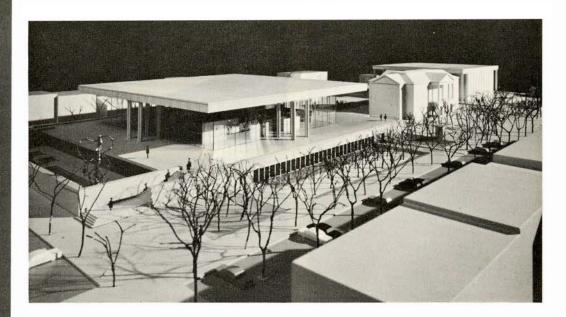
Four buildings create the Memorial Hall of 1967

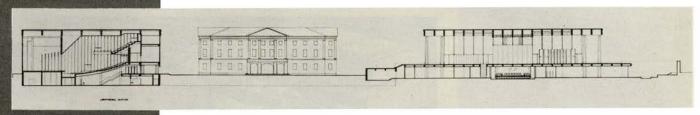
Detail of the interior of the Memorial Hall

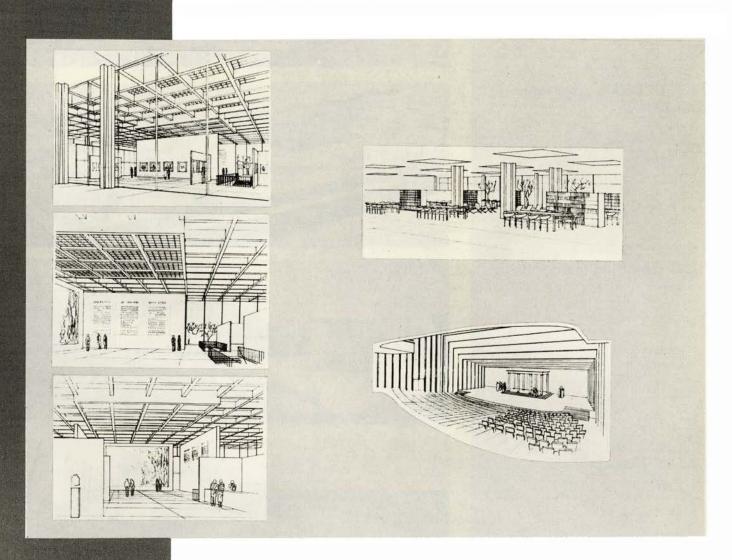




Third Prize Tie John Bland, Roy LeMoyne & Gordon Edwards







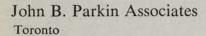
Fathers of Confederation Memorial Building Competition

Mentions

Grierson & Walker Toronto

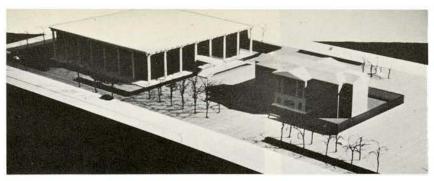
Glen Hadley Toronto

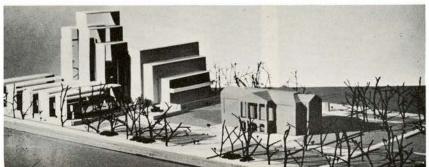
Michael M. Kopsa Toronto

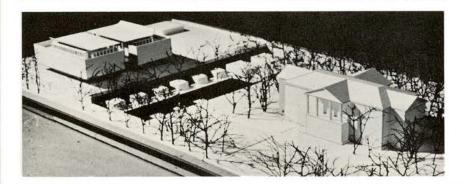


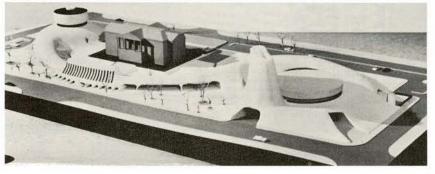
John B. Parkin Associates, Montreal

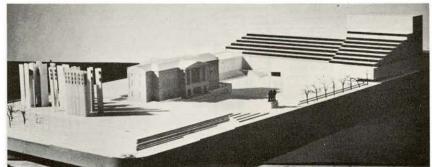
James Secord & Saul Herzog St. Catharines













## Education Centre, Toronto

COMPLETED AND OCCUPIED MARCH 1961.



ARCHITECTS
Page and Steele, Toronto

F. C. Etherington CHIEF ARCHITECT, TORONTO BOARD OF EDUCATION

CONSULTING STRUCTURAL ENGINEERS
M. S. Yolles & Associates

GENERAL CONTRACTORS

Dell Construction Company Limited

Photography by Charles Wilks

 $T^{\rm HE\ EDUCATION\ CENTRE}$  houses on seven floors totalling more than 200,000 sq ft, the Executive, Administrative and Educational Offices of the Board of Education of the City of Toronto.

Offices are located as follows: -

BASEMENT – Garage facilities, Receiving Area, Storage Rooms, Pump Rooms and an apartment for the Resident Caretaker.

FIRST FLOOR — Two-storey Entrance Foyer and Board Room, Members' Lounge and Committee Room facilities for the Trustees, Secretary's Department, Child Guidance Clinic and the Attendance Officer.

SECOND FLOOR - The Executive and Academic Offices of the Board and the Public Gallery of the Board Room as well as additional Committee Rooms.

THIRD FLOOR — Offices for the Metropolitan School Board, Accounting and Purchasing Departments of the Board. This floor also provides the bridge linking this building with the Supply Building of the Board to the south.

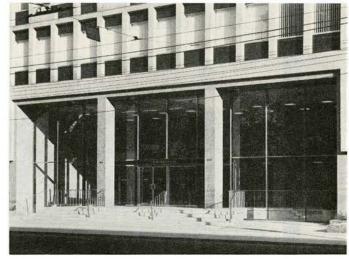
FOURTH FLOOR — The Architectural and Engineering Offices and the offices for the staff dealing with Maintenance and Operation of Plant.

FIFTH FLOOR — The Curriculum Centre, the Teaching Aid Centre including Sound Studio, Photographic Reproduction, Film Distribution, Map Planning, Mental Health, Mathematics, Guidance, Music Room and Health Centre.

SIXTH FLOOR — The Conference Room seating 250 with 16mm projection booth, Art Department, Science Department, Social Studies, Kindergarten and Home Economics Department, Language and Industrial Arts.

SEVENTH FLOOR - The Library and Cafeteria.

PENTHOUSE — Mechanical facilities including all ventilation equipment. The Boiler Room is located in the Supply Building and serves the whole group of buildings.



Above: The main entrance by day



Above: The foyer at night, showing the mural by Stefan Fritz. Sgraffito. (Three layers of \(^1\)/4" coloured plaster, black, natural and terracotta. The design is carved through the layers to expose the colours.)

#### STRUCTURAL DESCRIPTION

The Building is constructed of a reinforced concrete frame with composite beams and columns and "waffle" slab floors. Foundations extend to or below the level of the creek bed running below the building.

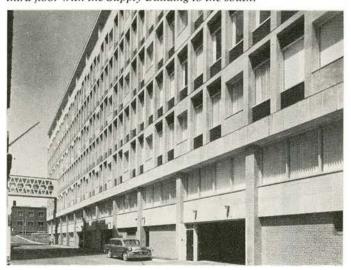
#### MATERIALS AND FINISHES

#### External

The building is limestone faced from the second to the sixth floor inclusive and is faced with polished Deer Island Granite on the first floor and for the exposed basement area on the south side.

On the seventh floor the walls are finished with glazed brick at the set back and balconies except at the west end where a "corrugated" effect has been created in concrete.

Below: The rear elevation from the S.E. The bridge links the third floor with the Supply Building to the south.



The Main Entrance is in mirror finished stainless steel throughout. Window frames are aluminum with anodized finish and all glazing is \(^{1}\_{4}\)" polished plate glass in fixed lights.

The penthouse is glazed in metal sash with fixed wired cast glass between precast concrete fins with painted finish.

The building has been landscaped on the main elevations and provision has been made for flood lighting same at night.

#### Internal

The Lobby and Foyer have been finished in Loredo Chiaro marble and this has also been used on the Ante Room wall to the Board Room. The ceiling of the Foyer is finished with acoustic plaster and the floor is Travertine.

#### EDUCATION CENTRE, TORONTO





The remainder of the walls in the Board Room area are walnut panelled throughout and the floors are carpeted.

Washrooms generally have ceramic tile floors and ceilings and glazed tile walls. The stalls are of structural glass.

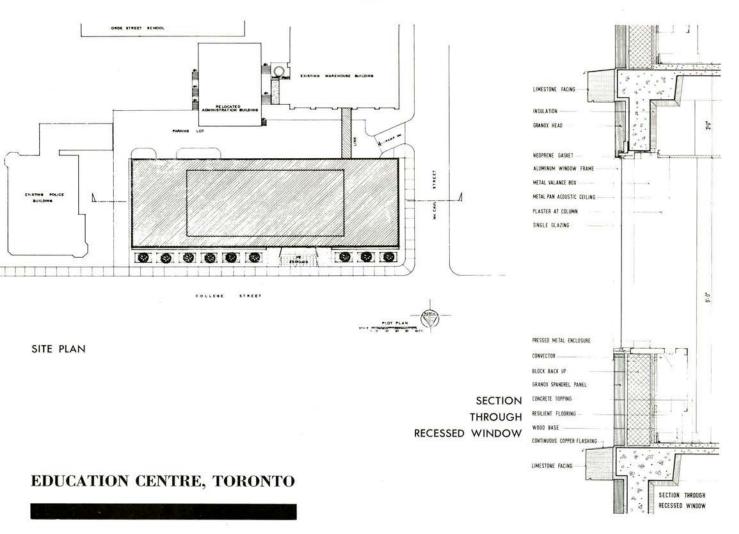
The executive area is finished throughout with walnut panelled walls, carpeted floors and metal pan acoustic ceilings or plaster ceilings. Extensive use has been made of indoor planting. The furniture in this area is walnut, matching the panelling.

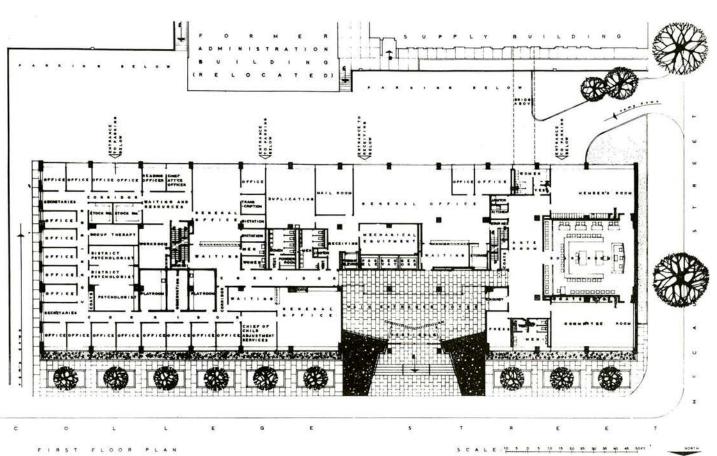
The remaining offices are generally finished with vinyl fabric in the corridors and painted plaster walls and metal acoustic ceilings. Extensive use has been made of demountable metal partitioning.

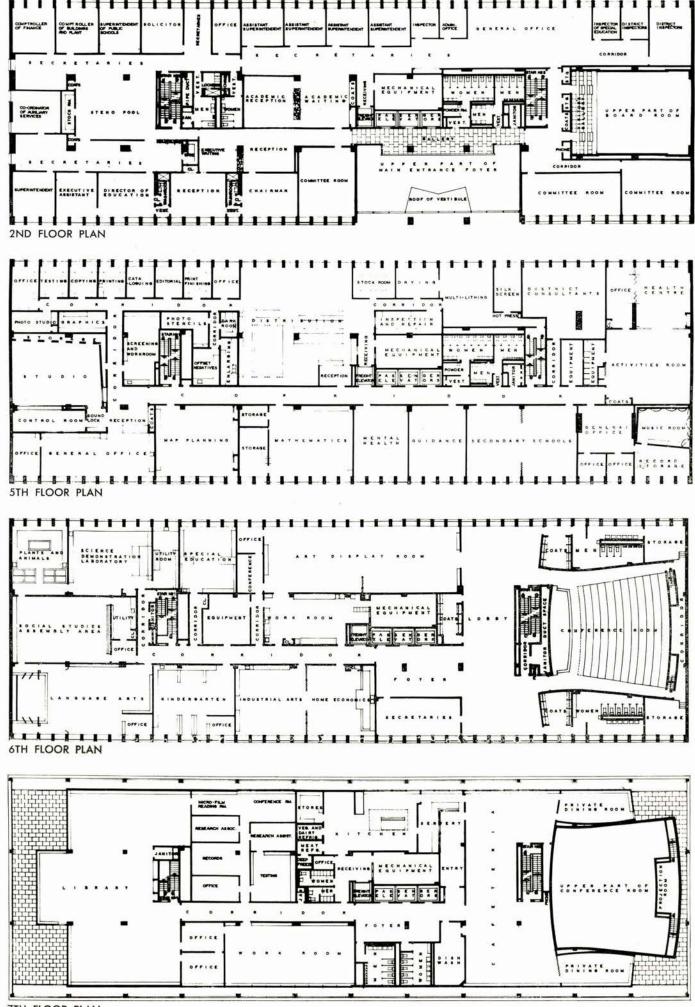
The Lobby and Conference Room on the sixth floor have been finished in cherry panelling.

Top: The Chairman's Office Centre: The entrance foyer Below: Typical General Office

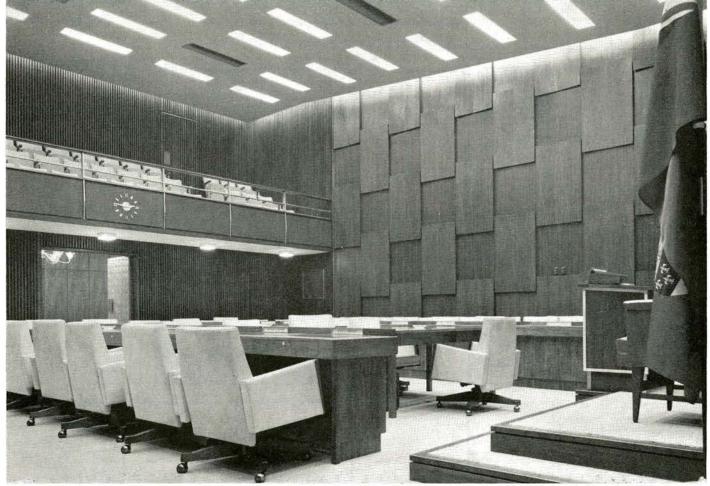








7TH FLOOR PLAN

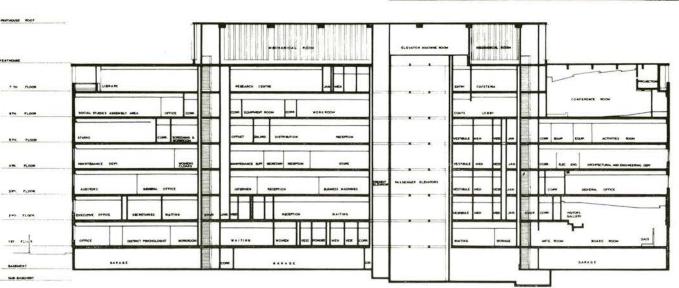


Above: The Board Room

Right: The entrance to the Executive Area



### **EDUCATION CENTRE, TORONTO**



Right: "Eating Habits of Man through the Ages." The murals by Stefan Fritz in the cafeteria on the 7th Floor.





#### ART

Murals have been provided in sgraffito in the Main Entrance Lobby, a ceramic mural on the sixth floor, painted murals in the Cafeteria on the seventh floor, a metal enamelled mural on the second floor in the Executive Suite and on the exterior a figure has been carved in the stone work with a stylized lamp of learning. In the Conference Room stylized figures portraying famous educators through the ages have been incized in the panelling and gold filled. A map of Canada has been mounted in the Social Studies Room.

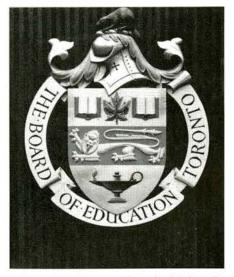








Above: A portion of the panelling in the conference room showing some of the gold filled figures carved into the surface by Stefan Fritz. The figures represent Confucius, Socrates, Quintilian, Comenius, Pestalozzi, Herbert, Montessori and Dewey. Extreme left: The map of Canada in the Social Studies room and left, the figure with the stylized lamp of learning.



Above: The Toronto Board of Education crest in the board room.



EDUCATION CENTRE, TORONTO

Right: The ceramic mural by Merton Chambers in the conference room lobby.

His working brief indicates the scope of the impressions depicted. "Since the client's activities cover all aspects of the child's education, the child in education becomes the important element. The basic step was simply a panel depicting the child in education. A child-like concept would be simple, so simplicity was the keynote."





Left: The metal mural in the Executive offices by Merton Chambers.

"All things in life move in an everlasting circle. So do the phases of education.

"There are four areas forming the circle in this panel.

"From the adults (two figures at left) come the child with his scribble and unintelligible dawdles (black area at bottom). A comparatively small area in life.

"Moving through this phase into the next, the primary school education, the child is still an individual—aggressive and untrained as to its social obligations, represented by strong colors, separate shapes, and contrasting sizes. The little red schoolhouse.

"In the next phase, secondary school education, the now thinking child grows in size and intellect and begins to conform, to belong to society, to be of value to the group of mankind. Shown by colors becoming less conflicting and shapes more of a unity. Classics predominate.

"On graduating the youths have become adults—responsible sobered individuals, yet now more capable of a complete unity, one with another. So the child is produced and the cycle is complete."

### Lumber Grade Marking

By G. E. Bell General Manager Canadian Lumberman's Association

Now that the lumber industry of canada is prepared and equipped to grade mark lumber, the architect can ensure that the lumber supplied to any of his projects is of the quality that he requires. Most other materials are certified as to quality and the lumber industry, after great labor, has finally brought forth the infant of grade marking its product.

This should be of quite considerable benefit to the architect, as there can be no doubt that the multiplicity of lumber grades has made it desperately difficult for the architect to specify with any degree of assurance and, even if he was able to specify satisfactorily, he has been in no position generally to check the lumber he received for grade.

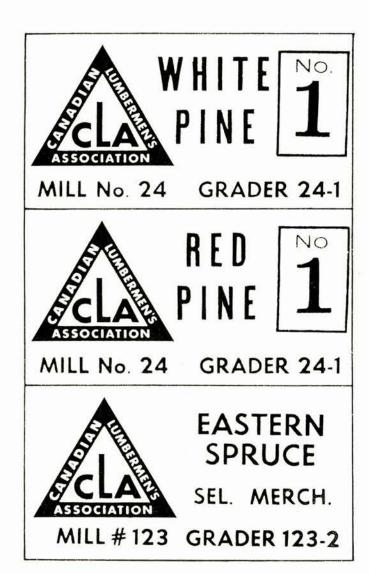
Briefly, the situation developed as follows: the Federal Housing Administration in the United States ruled in late 1959 that, effective 1 March 1960, all softwood lumber going into their homes be marked for grade. Last year, Central Mortgage and Housing Corporation made a similar ruling, and the effective date has now been announced as 1 April 1962. All joists, studs, roof rafters, sub-flooring and sheathing will have to be grade marked under the jurisdiction of some recognized grading authority. The Department of Public Works will also ask for grade marked lumber in its tenders, as will most of the other federal departments. It is expected that most municipalities across Canada will also adopt grade marking under the revised National Building Code, which is due early in 1962.

To police grade marking, a Canadian Lumber Standards Committee has been set up under the Canadian Standards Association and has, up to date, recognized nine Canadian grading groups as legitimate grading agencies. These in turn have instituted programs of licensing qualified graders to use the official grade stamp of the Association. At the present time, grade marked lumber is available and will be continually available in Canada. The cost of actually grade marking the lumber is very small and amounts in most cases to no more than 50 cents per thousand board feet. The official stamps will show the species of lumber, the identification of the mill and the mill grader, and the association under whose authority the material is grade marked, in addition to

the grade. CMHC has ruled that, for NHA purposes, the mark will appear from 18 to 24 inches from the end of the board. The marks must be visible after the house has been erected on at least 80 percent of the pieces.

To sum up, lumber can now be obtained properly grade marked under the authority of recognized authorities. It should be of considerable advantage to the architect to specify grade marked material.

Examples of the official mark are shown below.



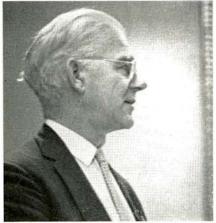
John E. Burchard



Dr Sam Lawson



Kyoshi Izumi



David Cass-Beggs

### Saskatchewan Symposium

by Henry Kalen.

"SASKATCHEWAN IS AN ARCHITECTURAL WASTELAND." This opening statement by Prof Eli Bornstein stood unchallenged throughout a day and a half of soul-searching and decision by some 120 participants attending the Saskatchewan Symposium on Architecture held at the Norman MacKenzie Art Galley, Regina, last October. The objective of the symposium was "to stimulate awareness of the architectural situation in this province—its problems and its potentialities—and to endeavour to find ways and means by which we can achieve better architecture."

To cope with the problem, no less than three distinguished speakers were present, John E. Burchard of MIT, Minoru Yamasaki of Birmingham, and John C. Parkin (F), of Toronto, as well as a dozen local architects, planners, and sociologists.

You cannot solve a problem without first defining it. This was the task of the four speakers who led off the proceedings with critical appraisals of the state of architecture in Saskatchewan. Prof Bornstein, speaking as an observer of the visual and aesthetic aspects of architecture in Saskatchewan, felt that the province was not shackled by tradition. Its indigenous architecture consisted of grain elevators — the unglorified cathedrals of the prairie — which, though not beautiful structures, were a good start. Stringent days when survival was important have quickly turned into affluent times, reflected in architecture as nothing short of hollow mockery. Although the time was ripe to rescue architecture, the attributes of courage, vision, imagination, and leadership seem to be missing in our architects. When should we begin?

Dr Sam Lawson, Director of Psychiatric Services, Regina, speaking as a user of functional aspects of Saskatchewan architecture, claimed that every user he had spoken to was critical of architects. Users expect function, blame the architect for everything and expect the architect to use the client's ideas, since every client feels he is an architect of some competence himself. As if to qualify his statements, he dwelt at length with an enumeration of functional requisites of psychiatric buildings, then called for a compromise between user and architect.

The next appraisal of Saskatchewan architecture was by a client, David Cass-Beggs, General Manager of the Saskatchewan Power Corporation. "Sameness, boxlike, and ugliness" were the terms he used to describe the prevailing architecture in Saskatchewan. If the client was surrounded by and satisfied with uninspired structures, he had no incentive to rise above the norm. In an attempt to achieve individuality, he resorted to the use of neon signs and the like, only to compound the pattern of ugliness. Cass-Beggs concluded with a question "Can ugly architecture be legislated against?"

Architect Kyoshi Izumi of Regina listed six conditions which make Saskatchewan architecture what it is today. The natural conditions, geography and climate tended to make buildings compact and outfitted extensively with mechanical equipment. Lack of skilled personnel and professional services in most areas made the architect hesitant to design refined, sophisticated buildings. Budgets rarely allowed for embellishment, landscape or extra care, nor did the architect's fee allow time to be devoted to refinement. Misunderstanding between the client and archi-

### on Architecture, Regina.

tect were all too common and resulted in such unhappy occurrences as extras. The client placed low value in the architect and his services. Finally, architecture suffered from the limitations of architects themselves.

Following adjournment for lunch, the assembly heard John Burchard's scholarly address titled 'What Kind of Social Milieu is Necessary to Create Good Architecture?' Since the *Journal* intends to publish the entire text when a transcript is available, only one of his important statements will be given here. During one of the panel discussions, Burchard offered a sure-fire solution to lift Saskatchewan architecture out of its shallows — but one 'great spectacular' is needed that will give the people a dramatic aesthetic experience, make them glow with admiration, and fill them with civic pride. The impact will be felt at all levels and would soon manifest itself physically in the community.

Minoru Yamasaki, in his after-dinner talk at the Saskatchewan Hotel, explained and illustrated his personal approach to architecture. Inspired by the richness of historic cultures, both Western and Oriental, he strives to create great beauty, serenity, surprise and visual delight, while honestly expressing plan and structure in terms of modern technology. As slides of his work flicked quickly by, the audience was amazed to hear him criticize his own work so often and so roundly. You could hear people murmuring "What are you talking about Yama? — that's great!" And when he sat down, the thundering ovation proved that this humble, courageous, honest architect had endeared himself to every man and woman in the hall. This is the man who would create in Regina that "great spectacular" as Burchard put it, when his commission to build Wascana Centre is fulfilled.

The following morning, John C. Parkin presented his paper on "The Architect-Client Relationship from the Point of View of the Architect". He reviewed the permutations of the architect's status and the client's relationship in history, beginning with the Middle Ages, in which the master-builder served a client patron. While the practice of architecture has changed from self-expressive individualism to specialized group practice, so has the client developed from patron to the impersonal committee. "We now appear to have come the full circle. The architect, who in the past, may have been occassionally that ideal combination of practical and artistic temperament, has now, in this century, become practical once more — may I observe — dangerously so! Whereas in the last century the dilettante and the art-for-art's sake movement dominated, in this century expediency, pragmatism and the dollar-sign endanger architecture as an art, and through it, the city itself.

"The constant and continuing experimentation in individual buildings . . . has caused many of our leading architects to lose sight of the central problem of the age . . . the relationship of building to building and the power to control the form of our environment." Parkin concluded by recommending a "fit and proper 'Hippocratic' oath" for the architect as an "ethical base for practice". It is an oath of the citizens of ancient Athens: "We will transmit this, our city, not less but greater, better and more beautiful than it has been transmitted to us."



Minoru Yamasaki



G. E. Kidder Smith

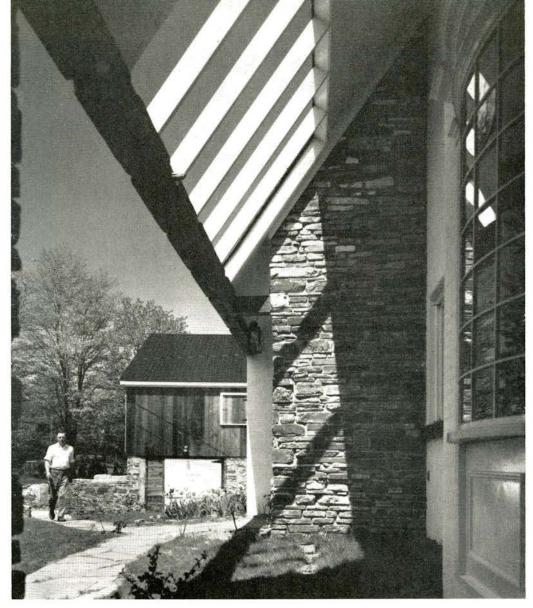


John C. Parkin



Prof Eli Bornstein

Journal RAIC, February, 1962



Ox-Bow House, Erindale, Ontario



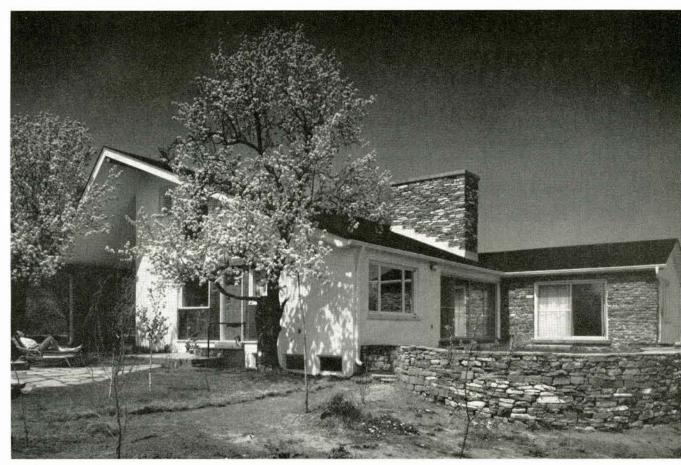
Architect and Owner Alan Crossley

General Contractor David Dyke Construction Ltd

PHOTOGRAPHY BY PANDA

The site is on an ancient "ox-bow" of Mullet Creek, near its junction with the Credit River. The site is partly wooded, and was once included in a Mississauga Indian Reserve.

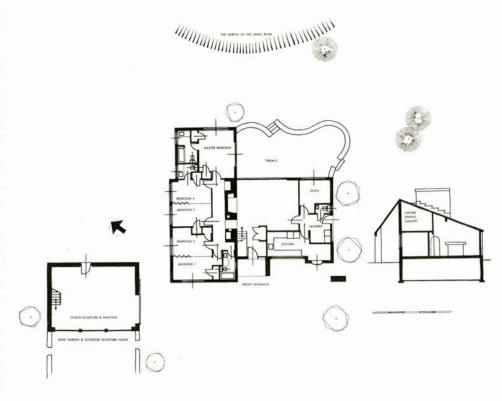
The writer was attracted to the spot through its beauty and also because an old barn on the property was admirably suited as a studio for painting and sculpture.



The House was designed to be modern, with some "Upper Canadian" character. This was largely achieved by the use of old hand-dressed beams and stone, which was fortunately available close at hand. An early settler's log cabin formerly stood on this spot.

The external brick of the house was painted white. A stone wall 4' 0" thick separates the bedroom section from the living areas, and is pierced by an archway. The large fireplace is equipped with antique, massive dogs topped by cannon balls, used in an early military building.

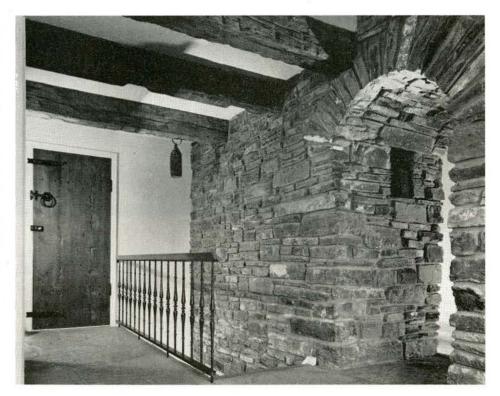
An interesting item is the door of the study. This door originally formed the main entrance to the Glendinning

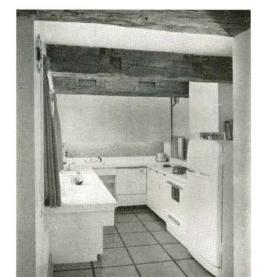




homestead, which was the first home to be erected by a white man when the Credit Indian Reserve was opened for settlement. One cannot resist thinking of all the people who have passed through it during its long service. Girls of a bygone age, dressed in party finery, have hurried out to awaiting carriages through it, brides and grooms have entered, and many a coffin must have passed it on less joyous days.

The plan has been designed to give flexibility and accommodate itself to changes in the size of the family. Boys' and girls' bedrooms can be divided by folding partitions. Decorative mosaic motifs in bathrooms were executed by the writer.





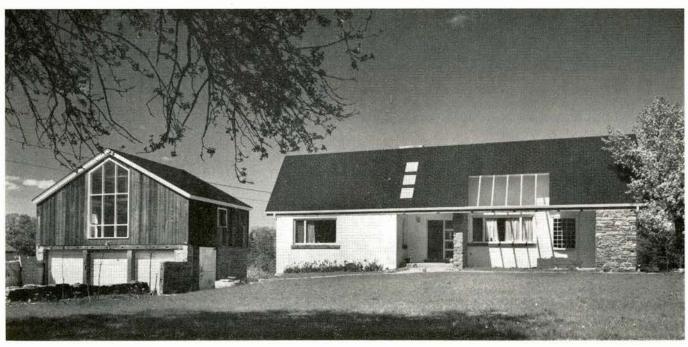
#### Ox-Bow House

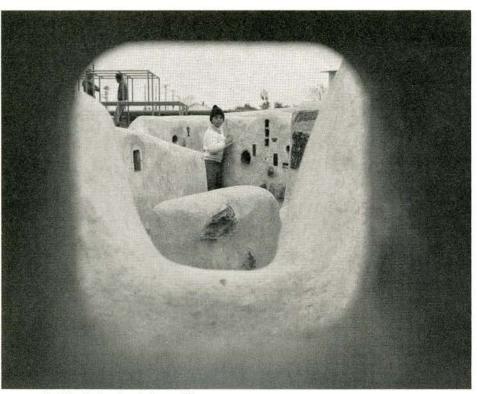


#### Conclusion

A year of occupancy has proved that the "perspective of time" inherent in the building is emotionally very satisfying. Visitors always linger in a relaxed atmosphere. The house is perfectly in sympathy with the old apple trees which surround it. As a final touch of delight, we have discovered a legendary ghost!







Le Parc de Mésy . . .

. . une expérience

Par Jacques Folch-Ribas

Le labyrinthe, jeu de forme libre



tion des éléments extérieurs et intérieurs de nos architec-La pataugeuse, de forme rognon s'inscrit sensiblement dans les

courbes naturelles du terrain.

tures.

puissions opposer à l'improvisation, ou à la non co-ordina-



L'aire de la pouponnière comprend une piste à une carré de sable, des balançoires, une glissoire ainsi que trois exèdres coiffés de treillis métallique.

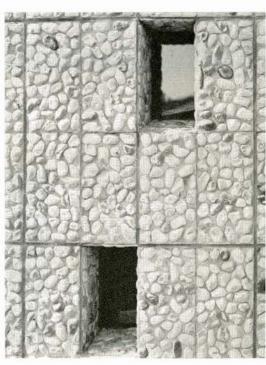
Le parc de Mésy est le résultat d'un travail d'équipe, avec ses hésitations inévitables, la complexité des problèmes posés par des corps de métier divers, ainsi que par la collaboration entre des artistes de disciplines trés différentes. Ce travail d'équipe porte la marque de celui qui, en dernier ressort, dirige ou plutôt choisit la solution finale.

Nous pouvons signaler l'extrême simplicité des moyens employés, l'absence de toute anecdote architecturale, alors qu'au contraire, dans le domaine des jeux proprement dits, une trés grande liberté d'invention a été favorisée. L'utilisation de matériaux, exprimeés "dans le sens" de leur propre nature, nous paraît egalement diane d'attention.

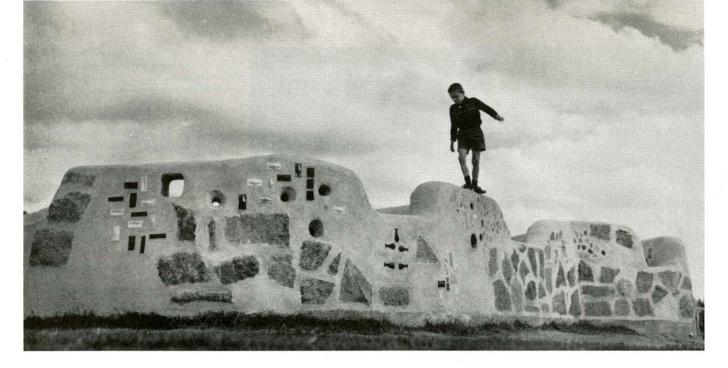




Les trois salles de l'abri sont réunies par un large dégagement don le mur courbe est percé de plusieurs trous multi-colores orientés vers le soleil qui pénètre du matin au soir. Deux abreuvoirs revêtus de galets de marbre blanc sont encastrés dans le mur du fond. La structure du bâtiment est en béton armé avec revêtement de dalles "Fulget" en galets de marbre. L'intérieur est enduit de ciment blanc; le plafond est recouvert de liége laissé au naturel; le sol est fini à l'asphalte de roche.



Journal RAIC, February, 1962





Voici les noms de ceux qui ont participe a ce travail. Architecte et urbaniste: Claude Beaulieu, Structure Beaulieu, Trudeau et Associes. Mecanique et electricite: Lefrancois, Laflamme et Gauthier. Sculpture exterieure: Denis Juneau; execution de J. Loubot. Labyrinthe Claude Beaulieu et Denis Juneau. Mosaiques de World Mosaic. L'entrepreneur etait la maison B. G. L., Ingenieurs-constructeurs. Les photographies sont de J. P. Beaudoin, A. Kilbertus et du Service des Parcs de Montréal.

Ce jeu-sculpture, et ciment peint, domine l'ensemble, de la pouponniere.



Journal RAIC, February 1962

#### Elections et Congrès de l'AAPQ

Des présences en nombre désarmant; des traditions rompues; un enthousiasme débordant; des records brisés; un congrès du tonnerre! Les architectes ont voté, les architectes ont assisté à l'assemblée annuelle, les architectes veulent survivre.

Il faut se reporter en novembre dernier pour s'expliquer les hauts faits des trois grandes journées du Reine Elizabeth. Dès la réunion du Comité des nominations, on avait senti que l'intérêt dans les choses de la profession allait provoquer une sortie en masse. Il y avait déjà des étincelles dans l'air. Chacun avait dressé sa liste, par écrit ou en esprit, et les commentaires allaient leur train sur la formation du nouveau Conseil. Puis la liste officielle vint. Simple question, sans doute, de contredire le Comité, six candidats négligés des sénateurs sont revenus à la charge: quatre d'entre eux ont par la suite obtenu la faveur des votants, dont le nouveau président lui-même, et un cinquième a terminé la course dix-sept votes seulement derrière le dernier élu.

Du bulletin de vote avait disparu cette année la localité du candidat. Rien dans les Règlements n'exigeait de l'indiquer, et pourtant on le faisait auparavant. Ou bien le bulletin doit fournir suffisamment de renseignements sur le candidat, ou bien il n'en doit donner que le nom. J'opterais pour la dernière formule. Que le bulletin énumère les candidats par ordre d'années d'admission engendre des situations cocasses et injustes, comme ce fut le cas par exemple pour le dernier figurant, cette année. Pour quiconque ignore Peter Collins, il n'a d'indication pour le juger que son année d'admission: 1957. Par contre, à tout électeur qui connaît la qualité et la culture du professeur, il semble pour le moins étrange qu'on le flanque tout au bas de la liste comme s'il était frais cuit du four scolaire. Non pas que les récents diplômés n'aient pas l'étoffe de bons conseillers, mais si l'on veut se servir d'un indice, l'année d'admission en l'occurrence, qu'à tout le moins celui-ci n'induise pas en erreur. A quand donc l'abandon de cette pratique plus ou moins sérieuse?

Le mois dernier, je me suis permis de fustiger la coutume douteuse de l'alternance français-anglais. Le vote du jeudi 8 février l'a brisée: le secrétaire honoraire et le trésorier honoraire qui se suivent dans la hiérarchie seront pour 1962 deux architectes d'expression anglaise. On a enfin mis en doute une tradition qui remonte problablement aux origines de l'AAPQ. Qu'on se pose maintenant la question au sujet des années d'admission. Seul, a mon avis, le nom du candidat devrait paraître sur la liste. Tous les membres paient la même cotisation, tous sont égaux. Le bulletin ne devrait jamais pouvoir tromper l'électorat.

Mais revenons à nos moutons. Une circulaire sortait de nos bureaux quatre jours avant le bulletin, sous la signature de Peter Dobush, avec une série de questions bien précises sur la façon de voter; un catéchisme de l'électeur, quoi. Deux jours plus tard, un manifeste entrait dans chaque bureau d'architecte, au grand scandale de certains. D'aucuns ont alors soutenu qu'il s'agissait là d'un manifeste-suicide. Comment alors expliquer que l'auteur du texte a recueilli plus de voix qu'il n'avait jamais décrochées dans le passé et que par surcroît lors du conclave secret du 8 février la fumée blanche a monté dès le premier tour de scrutin pour le porter à la présidence? M. Dobush avait préconisé la publication d'un programme électoral ou encore la tenue d'une assemblée où chaque candidat exposerait ses intentions. Ca ne fait pas professionnel, ça sent la politique, s'exclameront quelqu'uns. Une question seulement: est-ce plus professionnel de voter à l'aveuglette que de faire connaître ses vues? Comme l'a écrit un membre, suite à la circulaire Dobush, jusques-à quand nous forcera-t-on de voter pour treize alors que nous n'en connaissons qu'une demi-douzaine? Il ne serait certes pas nuisible de repenser ces principes de base des élections. Il n'est jamais question de considérer des règlements comme définitifs.

De toute façon, l'enthousiasme a été tel que 525 électeurs se sont prévalu de leurs droits; des bulletins entraient encore durant le congrès: deux architectes ont insisté pour nous faire parvenir leurs bulletins cinq jours après le dépouillement du scrutin. Ca, c'est du civisme! Comme résultat, tous les

membres du Conseil de 1961 qui briguaient de nouveau les suffrages ont été réélus, avec l'addition de quatre nouvelles figures: André Blouin, Eugène Corriveau, Gilles Côté et Aimé Desautels. A l'Exécutif, deux nouveaux venus: Jean Damphousse, qui brûle les étapes et brise par le fait même une autre tradition, élu à la 2e vice-présidence, et Peter Barott, au trésor. En somme, une équipe rajeunie et fort intéressante qui devrait abattre de l'excellente besogne au cours des douze prochains mois.

On n'a pas voulu s'en tenir au vote. Les architectes ont suivi leurs bulletins. Ils se sont présentés en personne et ceci en plus grand nombre que jamais, m'at-on appris. De mémoire d'architecte, aucune assemblée annuelle jusqu'ici n'a enregistré plus de présences. Ont assisté à au moins une manifestation du congrès: 263 architectes. Le déjeuner de l'industrie de la construction a attiré en tout 262 personnes. Les réunions d'affaires n'ont pas perdu de leur popularité: 69 architectes à la première et 75 à la deuxième. Les séances d'études ont connu des hauts et des bas: l'esprit de clocher semble encore exercer son influence. Un coup de maître, par contre, a été réalise au déjeuner des membres, le vendredi. Alors qu'aucun conférencier de l'extérieur ne figurait au programme, 140 membres de l'Association ont voulu rendre un hommage ému au Professeur J. Albert La Rue, dont les 45 années d'enseignement n'ont d'égal que l'humilité et le dévouement. C'est à ce même déjeuner que le président sortant de charge a donné, sur un ton mi-badin mi-sérieux, son rapport annuel, un résumé du travail considérable accompli en 1961 dans les domaines du tarif, des règlements, de la propriété de l'Association, des relations avec les ingénieurs, etc. Le nouveau président a alors pris le fauteuil, à une heure où une tâche encore plus lourde l'attendait. Mais, avec le support qu'on voudra certainement lui accorder, il complètera sûrement le travail amorcé et innovera en maints secteurs. Nous lui souhaitons la meilleure chance.

Puis devait se produire l'événement le plus sensationnel dans l'histoire de l'Association: la fameuse danse-spectacle du vendredi 9 février: sensationnel par la foule-record qui a littéralement fondu sur les Salles Duluth et Mackenzie (entre 500 et 600 personnes), sensationnel par l'apport des artistes Daudelin, Jasmin, Hébert, Tremblay et Webber, (lampes de table spécialement dessinées pour l'occasion, tamisage et jeux de lumière, formes et couleurs, en somme un aspect féérique), sensationnel enfin par les réactions diverses provoquées dans l'auditoire: enchantement pour ceux qui ont pu s'accrocher à une table; désappointement de ceux qui ont tardé à réclamer leurs réservations; leurs tables ont refusé de s'appeler réservées plus de quinze minutes; surprise et désemparement des organisateurs qui n'en revenaient pas de cette poussée collective. Il aurait fallu un comité des forces de l'ordre pour contenir cette mer envahissante. Le succès est un élément qu'on ne commande pas, mais quand il frappe, on en perd le contrôle. Qui aurait dit qu'enfin une soirée de l'AAPQ opérerait le miracle extraordinaire d'attirer autant d'architectes, artistes et amis. Une fois sortis vivants de l'aventure, les organisateurs peuvent faire le point: la collaboration artistes-architectes s'est avérée des plus fructueuses; elle a produit des choses fantastiques. Il faudra la continuer; elle ne peut que profiter aux deux groupes.

Enfin le déjeuner annuel a couronné toute la réunion de façon magistrale. Avec un conférencier de la trempe de Jose Luis Sert, on ne manque pas son coup. Un discours étoffé, de l'humour à revendre des suggestions fort pratiques ont procuré aux 241 personnes présentes trois-quart d'heure de délices intellectuelles. Depuis cinq ans, j'entendais réclamer à grands cris la venue d'un architecte de renommée mondiale. Grâce à l'équipe en charge, le rêve s'est concrétisé. Le déjeuner annuel fut une véritable agape architecturale. Dans un silence religieux où chaque spectateur buvait une à une les paroles sages de ce maître du premier art, on a goûté la présence du penseur, et tous les architectes ont quitté la salle avec l'espoir que l'avenir nous mettra de nouveau en contact avec d'autres gloires internationales.

Il fallait s'y attendre. Après un discours de Sert, on ne se replonge pas dans les affaires de l'AAPQ sans reprendre son souffle. La réunion de l'après-midi a accusé un retard de plus d'une demiheure. Pour un samedi, on



Le comité éxécutif élu durant la 71éme réunion annuelle et convention de l'Association des Architectes de la Province du Quebec. De gauche é droit: P. M. Barott, C. Davis Goodman, R. E. Boltoon, president en retraite, Paul-O. Trépanier, president, Francis J. Nobbs et Jean Damphousse.

peut se féliciter d'avoir groupé 75 architectes. Il faut avouer tout de suite que la cotisation annuelle ne nous a pas nui. Quand on veut porter une cotisation de \$80 à \$100, on doit s'attendre à recevoir de la visite. Plusieurs s'étaient à juste titre demandé ce qui adviendrait de la majoration. A certains moments on avait méme cru à une levée de boucliers pour battre le projet. Nous ne saurons jamais si c'est la réception fort bien réussie au siége social le jeudi, si c'est le bal, du vendredi, si c'est le déjeuner annuel du samedi, ou si c'est d'une façon générale tout l'ensemble du congrès, mais l'opposition à la hausse s'est réduite à neuf mains levées. La discussion n'a pas porté sur l'augmentation de \$20, mais sur l'appropriation des fonds. Deux chauds partisans de la bourse de l'AAPQ ont obtenu la garantie du nouveau président et de ses collégues que le quart du montant supplémentaire sollicité sera versé à un fonds spécial et étiquetté à cette fin, de façon à ce que jamais cette somme ne serve à des fins administratives. A l'instar du nouveau règlement relatif à la cotisation annuelle, tous les autres articles amendés par le Conseil au cours de l'année ont reçu la bénédiction pratiquement unanime des membres présents, y inclus la limite de quatre pouces carrés pour les cartes d'affaires dans les journaux, mais non dans le Messager du Sacré-Coeur!

Maintenant que les feux de la rampe sont éteints, que les voix se sont dissipées et que le cours normal des choses a repris son bonhomme de chemin, on peut glisser quelques conclusions. C'était le deuxième congrès de l'Association; c'était également la deuxième fois que le congrès relevait du même organisateur en chef et de la même équipe. Il n'y a pas d'autre expression qui me vienne à la plume: Chapeau bas devant Claude Longpré. En deux ans, Claude a réalisé une oeuvre colossale; il y est allé à fond de train de sa personne, de son temps et de ses énergies. Les heures qu'il a consacrées à la préparation du dernier congrès ne se comptent pas: il faut en avoir été la victime pour le savoir. Aussi nous avions toutes les raisons de croire qu'il accrocherait ses patins après un succès aussi retentissant. Tel ne fut pas le cas. Dès le lundi qui a suivi, il offrait ses services au nouveau président pour organiser au Manoir Saint-Castin, "un vrai congrès celui-là, un vrai de vrai". Vous avez donc tous rendez-vous l'an prochain au Lac Beauport où quelque chose de formidable vous attend.

Avant de terminer, j'aimerais rendre un hommage tout particulier au Comité féminin, sous la dispendieuse direction de Madame Jean-Louis Lalonde. On leur doit en large part la mémorable soirée du 9. Par humilité, nul doute, elles n'ont pas voulu damer le pion sur toute la ligne à leurs époux. L'an dernier, j'avais mentionné le tour de diligence pour dames, où la diligence avait brillé par son absence; cette année, je me garderai de faire allusion au défilé de modes du Bonaventure, je dirai tout simplement qu'il nous faut à tous les ans ungroupe de femmes aussi dynamiques et dévouées.

Jacques Tisseur.

#### LETTERS TO THE EDITOR

Editor, RAIC Journal,

I wish to express my appreciation and that of my associates to the Editor and staff of the Royal Architectural Institute of Canada Journal for their assistance and cooperation in publishing a resumé of the research project "Sport and the Community" which appeared so successfully in the September issue.

We were extremely pleased to have the opportunity of presenting this project to members of the architectural profession and the subsequent reprints which we received have made it possible for us to supply a demand for additional copies which could not otherwise have been met.

Most of all however I think your help has been encouraging. Thank you again.

C. Ross Anderson, Toronto

The following letter from the Mayor of Edmonton has been received by R. L. Elliott, RAIC Executive Director:

Thank you for sending me the final summing up in respect to the Residential Environment Report prepared under the auspices of the Institute.

Speaking for our own city, I wish to express appreciation of the voluntary interest in the promotion of better living environment and more attractive urban areas by the members of your Institute.

We are receiving great help and inspiration from the activities of the architects of our own city and district, and their contribution to the creation of a better community is greatly appreciated.

Elmer E. Roper, Mayor

Editor, RAIC Journal

On behalf of the National Joint Committee, I should like to express to you our sincere appreciation for the comments by Mr Harland Steele, President of the RAIC, in the December 1961 issue of the RAIC Journal, supporting a higher volume of wintertime construction. The sentiments Mr Steele expressed in his statement and in the editorial on the last page of the issue are, I assure you, most welcome, and should do much to encourage the support of a higher volume of construction and employment in the winter months.

S. D. C. Chutter, General Manager Canadian Construction Association

#### REGISTRATIONS

Ontario Association of Architects December 8, 1961

Acland, James Headley, B.Arch (Syracuse) M.A. (Harvard), 223 Cottingham St., Toronto 7. (University of Toronto)

Dale, Victor Charles, B.Arch, University of Manitoba. Site 4, Box 70, 11 Dejong Dr., Streetsville, Ontario. (John B. Parkin Associates)

Hughes, Douglas Alexander, B.Arch, University of Toronto. 46A Bernard Ave., Toronto 5. (Irving Grossman)

MacInnis, Garfield Allister, B.Arch, University of Toronto, Wegman Fellowship, Turnbull Scholarship, Booth Brick Scholarship, O.A.A. Scholarship. 240 Oriole Parkway, Apt. 202, Toronto 7. (Gordon S. Adamson Associates)

Orlowski, Stanislaw T., Dip. Arch. M.Sc (Arch) Leicester School of Architecture. 81 Rockport Crescent, Richmond Hill. (Dept. of Public Works of Canada)

The Alberta Association of Architects January 10, 1962

Migallo, Henry, ARIBA, Polish University College, School of Architecture, London, England, 2831 · 11th Avenue N.W. Calgary (City Planning Department, Calgary)

#### Change of Address

Stefan W. Sherbowich announces the new location of his office at 3252 Lawrence Avenue East, Bendale Plaza, Scarborough, Ontario effective February 15, 1962.

#### **Situations Wanted**

Architect desires partnership or association in growing and progressive practice. Ten years diversified experience in commercial, institutional and residential fields, with proven design record; currently in charge of medium size office. Age 32, married, family, will relocate for challenging opportunity. Ontario, Quebec preferred. Reply in strictest confidence to Box 107 RAIC Journal.

Structural Engineer desires permanent association or partnership with progressive architectural firm. Presently with architectural firm, in charge of structural department. Responsible for job supervision. Summary of experience etc. on request. Box 106, Journal RAIC.

Position with architectural firm in Canada wanted by licentiate of Incorporated Association of Architects and Surveyors, London, 1946; B Sc University of Hong Kong 1927; considerable experience in municipal and government architectural and engineering projects as civil engineer, structural engineer and clerk of works in Hong Kong, China, Singapore, Borneo and Liberia. C.P. Mak, GPO Box 1889, Hong Kong.

#### **BOOK REVIEWS**

LOUIS XVI FURNITURE by F. J. B. Watson. Published by Alec Tiranti, London. 162 pages of text and 242 photographic illustrations. Price 50/-.

This concise and compact book is divided into two sections with the first (preceding) section followed by an excellent survey of reproductions of black and white photographs. Although the author has presented the Louis "Seize" (Louis XVI) period within a limited format, his descriptions and details of the various and numerous types of furniture are thorough and precise. I believe, however, that at least twelve examples should have been illustrated in color because of the lavish use of materials during this period.

The author has modestly stated in the preface: "I have assumed that anyone sufficiently interested to read this book at all is already familiar with the special lines on which French eighteenth century furniture evolved". Unfortunately, (historically speaking) this is not the case with the average Canadian designer, architect, or to say the least with many historians. Too few designers are aware of the three main factors that govern architecture and interior design. Watson emphasizes the importance of these three factors: the social, economic and craft, (today it is scientific) that determined the LOUIS XVI furniture forms.

I highly recommend this book to students of architecture and interior design.

Lionel A. J. Thomas, Toronto

#### **NRC Publications**

The Division of Building Research of the National Research Council in Ottawa announces the publication of Supplement No. 5 to the National Building Code of Canada. The Supplement consists of an entirely new version of the Housing Standards, similar to those which are being used by CMHC for construction financed under the NHA. For the first time these Housing Standards are now published as an integral part of the National Building Code, supplementing the new Part 9 (Residential Construction), included in the 1960 edition of the Code. which appeared some months ago.

The division has also published its first issue of "Building Research News" a quarterly leaflet supplementing other publications of the Division, and containing miscellaneous information of interest and use to the building indus-

try in Canada.

THE COUNCIL of the Royal Architectural Institute of Canada met on Saturday, January 27th in the new head-quarters of the Province of Quebec Association of Architects, 1825 Dorchester Boulevard West, Montreal, with the President, Mr. Harland Steele, in the chair.

Twenty-four representatives from eight provinces were present:

Nova Scotia: C. A. E. Fowler (F), John L. Darby and Lester J. Page.

New Brunswick: Neil M. Stewart (F) and J. R. Myles. British Columbia: J. L. Davies (F).

Quebec: Maurice Payette (F), R. C. Betts (F), Henri Mercier (F), Pierre Morency (F), Francis Nobbs (F), Paul Brassard (F), Richard Bolton (F) and Edouard Fiset (F).

Ontario: F. Bruce Brown (F), A. R. Prack (F), G. Y. Masson (F), Harland Steele (F), G. E. Wilson (F) and J. W. Strutt.

Manitoba: James Searle and H. H. G. Moody (F).

Saskatchewan: Joseph Pettick.

Alberta: D. G. Forbes.

The Montreal meeting followed the practice first inaugurated at Toronto in January, 1961, of holding mid-year RAIC Council meetings between Annual Assemblies.

The eleven-member RAIC Executive met in quarterly session at PQAA headquarters on Friday, January 26th.

The following items of business were conducted by Council:

#### Financial Statement

Financial statements for the year 1961 were presented and approved and a 1962 budget was approved subject to review after the end of the first quarter.

#### RAIC Revenue

The Council agreed that there is a need for an increase in RAIC revenue to carry on the expanded program of the Institute. The Executive Committee was directed to study a number of specific proposals which came under discussion in Council, and to present definite recommendations at the 55th Annual RAIC Assembly to be held at Vancouver May 30-June 2.

#### Report on 1961 Operations of RAIC Journal

The Managing Editor's report for the publishing year 1961 showed that a decline of 16.72% in sold advertising space had been suffered during the year, attributable chiefly to business uncertainty in 1961 and to the general decline in business paper advertising which has been apparent since 1957. The Council noted that the quality of the Journal, in respect to both content and presentation, had been maintained at a high level. The Council registered its appreciation for the outstanding service provided for many years to the Journal by Professor Eric R. Arthur (F), who is this year retiring as Editorial Adviser to the Journal.

#### Massey Medals for Architecture 1961 Competition

Arrangements for the administration and judging of the 1961 Massey Medals competition were an improvement over four previous competitions, and publication last November of the descriptive exhibition brochure (3,000 copies) in French and English added greatly to the interest among the general public. The Council acknowledged with appreciation the financial assistance afforded by CMHC and Canada Council towards publication of the brochure, and noted with satisfaction that the Information Division of External Affairs is distributing some 800 copies to countries abroad.

Since a number of prominent architectural firms in Canada did not participate in the 1961 competition, steps are being taken to encourage them to enter the next competition. With reference to the Canadian tour of the 1961 Massey Medals exhibition now being conducted by the National Gallery of Canada, efforts are to be made to include a larger number of cities in the next touring exhibition. Council has recommended that approval be sought from the Massey Foundation to enable RAIC control over the itinerary of subsequent exhibitions. Starting in September, 1962, the 1961 exhibition, under the sponsorship of the Smithsonian Institution, will tour a number of major US cities.

#### Proposed New RAIC Headquarters Building

The Premises Committee, headed by Mr. G. E. Wilson, O.B.E., (F), of Toronto, has recommended a site for a new RAIC headquarters building to be located on the "Mile of History" on Sussex Drive in Ottawa, an area now being studied for re-development by the National Capital Commission. If a suitable site can be made available, the Premises Committee will present to Council a proposal for financing and the conducting of a national competition for the design of the building to be erected in time for the 1967 Centenary Celebrations, and the dedication of Sussex Drive as a ceremonial route in the National Capital.

#### Committee on the Profession

Mr. H. H. G. Moody (F), of Winnipeg, Chancellor of the College of Fellows and immediate Past President of the Manitoba Association of Architects, was appointed chairman of this new Committee to succeed John C. Parkin (F). Other members are Messrs. Peter Dobush (F), of Montreal; Peter Thornton (F), of Vancouver; and R. S. Morris (F), a Past President of the RAIC, of Toronto.

This Committee, established as a result of a resolution presented at the 1961 Assembly in Quebec last May, is to review the status of the architectural profession in Canada and the role and the program of the RAIC. One of the immediate considerations of the Committee will be to analyse the organization and constitution of the executive bodies of the RAIC and the financial structure of the Institue, and to report to the Vancouver Assembly in May.

#### International Relations

Mr. Joseph Pettick, Regina, chairman of the International Relations Committee, also formed as a result of a 1961 Assembly resolution, has been very active in recent months and the Council passed a motion to be presented at the 1962 Annual Meeting that the RAIC seek membership in the International Union of Architects so that the Institute may take its proper place in the international field through official Canadian representation at the Seventh Congress of the IUA, to be held at Havana, Cuba, September 1963.

#### Canadian Joint Committee on Construction Materials

This Committee of RAIC and Canadian Construction Association members has been very active during 1961, having produced a "Guide to the Preparation of Effective Product Literature" which has been widely accepted. During the past year sales seminars for product manufacturers and suppliers were conducted at Scarborough in January, 1961 and at Toronto in April. Plans now include a product literature competition which will lead to the presentation of an annual advertising excellence award. The competition is under the sponsorship of the Construction Materials Committee, and the first award is expected to be made at the RAIC annual dinner in Vancouver on June 2. The Council endorsed action being taken by the Institute to foster, through co-operation of Provincial Associations, local architect-manufacturer committees.

#### Implementation of Residential Environment Report

The 1960 RAIC "Report of the Committee of Inquiry Into the Design of the Residential Environment" created wide-spread interest across Canada and this interest has been continuous since the publication of the Report, as evidenced by the steady receipt at the RAIC headquarters of articles and queries from various sources. Upon the recommendation of the RAIC-CMHC Joint Committee on Housing, special emphasis has been placed in recent months on those recommendations concerning the architectural profession. Many of the recommendations require study in depth and many will come under special study at a two-day housing conference to be organized at Carleton University in Ottawa this September. Details of the Ottawa housing conference, sponsored by the Joint Committee, will be announced later.

Council noted with considerable satisfaction that the work of the RAIC Commmittee of Inquiry has given rise to the formation last October of the Canadian Council on Urban and Regional Research, which is to have its inaugural convention in Ottawa from March 15 to 17 this year.

#### RAIC Centenary Planning Committee

The RAIC is maintaining close liaison through Executive Director Elliott with the Canadian Centenary Council which is engaged in advance planning for Canada's 100th birthday in 1967. Council members suggested that efforts by the architectural profession to aid in planning the birthday activities in 1967 will succeed or fail in direct proportion to the level of participation of provincial associations and architect chapters. Council members stressed the fact that members of the RAIC Committee should establish close liaison with the Council bodies of their local associations and with the officers of local chapter organizations so that they will be in a position to reflect local opinion to the national body. A memorandum containing over a dozen ideas for potential centenary development by the profession was circulated last October to local chairmen of the Centenary Committees and to Provincial Officers.

#### Visiting Committee

A visiting Committee consisting of Messrs. R. S. Morris, P. Thornton, H. H. G. Moody and R. A. Bolton has been formed to review curricula of existing Schools of Architecture and to assist Schools to maintain minimum standards. This Committee has been invited by the University of British Columbia to visit its School of Architecture immediately prior to the opening of the RAIC 1962 Assembly and coincidental with the dedication of a new Fine Arts Center on the BC campus. It is hoped that Sir William Holford, President of the RIBA, who is convention key-

note speaker, will meet with members of the Visiting Committee.

#### Minimum Syllabus

Seven provincial associations have now adopted the suggested minimum syllabus of study made available by the RAIC three years ago and in November, 1961 candidates in five provinces wrote a total of 31 examination papers.

#### Fee Uniformity Committee

Council received a report on the draft national fee schedule, which outlines conditions of engagement of the architect and a schedule of charges for professional services. Mr. E. C. S. Cox (F), of Toronto is chairman of a Fee Uniformity Committee with representatives in each provincial association. A second draft, with numerous amendments, is being circulated by Mr. Cox so that provincial representatives may discuss its contents confidentially with local councils prior to presentation to the next meeting of the Executive Committee of Council.

#### National Inventory of Historic Buildings

A great deal of work has been accomplished by a Committee under the chairmanship of Dr. Eric Arthur towards stimulating interest in the preparation of a National Inventory of Historic Buildings in Canada. The RAIC Committee has initiated a photographic exhibition of "Gems of Canadian Architecture" (40 historical buildings) and a meeting was held at the RAIC last December with representatives from various government departments and agencies with a view to preparing the exhibition for formal opening in November 1962. Efforts are being made to obtain the necessary financial support from the Federal Government.

#### 1962 Assembly

Plans are well advanced by the Host Committee of the AIBC and the Executive of the RAIC in organizing for the 55th Annual Assembly of the Institute to be held at the Bayshore Inn in Vancouver on May 30 - June 2. Council was informed that Sir William Holford, President of the RIBA, had accepted the RAIC invitation extended to him to be the guest of honor and to address the Assembly. A number of post-convention tours will be available to members and their wives to the World's Fair at Seattle, to Japan, to Hawaii and to Mexico. Full details of the program will be distributed to members in due course.

#### Selection of the Allied Arts Medallist

The Council ratified selection by the Executive Committee of Mr B. C. Binning of Vancouver as Allied Arts Medallist for 1962. Mr Binning is a West Coast artist of considerable repute, being the head of the School of Fine Arts at the University of British Columbia, and a Professor of the School of Architecture at UBC. He has worked in close association with architects during the past few years.

#### 1963 Annual Assembly

Council has approved the dates for the 1963 Annual Assembly to be held at Hamilton, Ont., during the period May 22 - 25, 1963.

#### Code for the Conduct of Architectural Competitions

The Council ratified the final revision of RAIC Document No 4, Code for the Conduct of Architectural Competitions, and this Document is now available from the RAIC headquarters. It will be published in the March issue of the Journal.

#### **Assembly Preview**

Planning for the 1962 RAIC Annual Assembly gathers momentum now that we are into the New Year. Host Committee Meetings are going to be more frequent and the usual lunch hour session in the AIBC Council Chamber is not going to allow sufficient time to take care of everything. For its first meeting of 1962, the Host Committee gathered in one of the private diningmeeting rooms of the Bayshore Inn, Convention Headquarters. All members thus had a chance to sample the excellent fare provided by this Hotel and also to examine the accommodation which has been reserved for Convention activities

The main item of business settled at this January meeting of the Host Committee was the Friday evening function under the heading of "special events". Apparently this particular spot on the four-day convention program has been in the past referred to as "The Andrew Cobb Night", an evening traditionally devoted to entertainment. Past conventions have made much of this event and, not to be outdone, the AIBC Host Committee is making arrangements for an evening which is certain to appeal to many. The locale is to be Vancouver's Chinatown, second only on this continent to that of San Francisco. The Marco Polo Restaurant in the heart of Chinatown will be the scene of a complete and specially prepared Chinese banquet which will be accompanied by oriental music, and will feature an authentic version of the Chinese Lion Dance. Visitors from Eastern Canada in particular will be attracted to this exotic event since it will afford a rare opportunity to sample genuine Chinese cooking and entertainment-an opportunity which is possibly unique to Vancouver. It is hoped that copies of the menu will be available

for advance mailing to all members of the RAIC.

Final details are yet to be confirmed, but most of the arrangements for Post-Convention Tours have been settled by the Tours Sub-Committee. A description of the proposed tours makes attendance at the Convention seem almost redundant. Tour No. 1, for instance, will allow for twelve days in Japan; Tour No. 2 provides for two weeks in Hawaii; and Tour No. 3 begins with three days at the Century '21 Exposition in Seattle, followed by two weeks in Mexico and return direct to Winnipeg and points East, as part of a package deal. Tours are being carefully organized to allow all participants the maximum of leisure time and freedom of movement. A large number are expected to travel to Seattle and to take in the three day visit to the Century '21 Exposition, which promises to be a major event of the year and of special architectural interest, available within a few hours of Vancouver. All tours will depart from Vancouver on the Sunday following the close of the Convention. More will be said in this space later about matters of interest at Century '21.

It should be noted that graphic design of stationery, programs, announcements, etc, has received special attention in planning for this Assembly, and a particular effort has been made to secure an appropriate symbol expressive of the Assembly "Theme", the profession and the locale—a subtle and difficult problem. The design finally selected is the creation of John Vincent a third year student in the UBC School of Architecture, and is the result of a one-day sketch problem in design given to all third and fourth year students. Vancouver artists, Hopping and Kovach, have translated the student design into a form suitable for reproduction and have also advised on the overall graphic design problem. C. A. Tiers.

The Bayshore Inn, Vancouver, Site of the 1962 RAIC Annual Assembly



#### PROVINCIAL NEWS

#### Saskatchewan Annual Meeting

The Saskatchewan Association convened its bi-centennial Assembly on October 19, 1961 in the Hotel Saskatchewan, Regina.

Of a total membership of 67, 49 members registered for the Assembly. New members, S. H. Diamond, R. K. Ewing, J. A. Paddock, D. D. Ramsay, T. F. R. White, W. E. Boucock, Uldis Arajs, R. G. Cooper and N. Soerensen were introduced to the meeting.

The following excerpts were highlights of the report presented by retiring President, J. Pettick:

"The Provincial Architects' Association of Saskatchewan was formed when a Bill was assented to by the Executive Council of the Government of Saskatchewan on March 23rd, 1911. The organization meeting of the Association was held at the Wascana Hotel in Regina, on April 8th, 1911. The year 1961 marks the Bi-Centennial of the Association. Of the Charter Members of the Association, only Mr. Frank H. Portnall (F), of Regina, is actively practicing.

"Many changes have taken place over the past fifty years. At the time the Association was formed, the population of Saskatchewan was 492,432. The population of the Province now stands at 913,000. The volume of construction during this period has increased in approximately the same proportion as the increase in population. During this interval, and in particular during the past fifteen years, a definite shift in population from the rural areas to urban centres has caused a considerable increase in the tempo of commercial construction.

In the field of residential design, distinct apathy is evident. There is a definite need for increased interest and active participation in this field by our members.

"In the field of public relations, the Architects of Saskatchewan are individually doing a creditable job on behalf of the profession. During the past year, our members have been prominent leaders in community affairs, hold-

#### CANADIAN

### **BUILDING DIGEST**



DIVISION OF BUILDING RESEARCH . NATIONAL RESEARCH COUNCIL

### GROUND FREEZING AND FROST HEAVING

by E. Penner UDC 624.131.436.6

Frost damage to building foundations, retaining walls, driveways, walks and similar structures is common throughout Canada, and although it is not equally serious in all areas the resultant cost each year is high. This Digest contains a brief description of the physical processes involved in ground freezing and frost heaving and some suggestions on ways to prevent or diminish frost damage to various structures.

The results of frost heaving have been observed from earliest times. Swedish literature dating back to the 17th century indicates that the uplifting of boulders in the field and the breaking of plant roots in the winter were associated with frost heaving. At first, frost heaving of the soil was thought to result from the expansion of water on freezing. The present concept is that growing ice crystals draw water from the surrounding soil and develop into ice lenses.

#### Ground Freezing and Frost Penetration

When wet soil freezes, the main process is the physical change of soil water from liquid to solid that turns the soil into a hard mass resembling concrete. Its relatively high strength can be attributed in part to the binding together of soil particles with ice. In a porous body like soil, water exists in a network of inter-connecting pores; when it freezes, this network becomes rigid and encloses the soil particles in a solid block. If the soil is dry it cannot "freeze" in the accepted sense although its temperature may be well below 32°F.

It has been found that all the water in soil does not freeze at the same temperature. In studies with a saturated silty clay half the water remained unfrozen at 28°F; 1/6 was still unfrozen at -4°F. Because all soils have a similar freezing pattern, it is not surprising that the strength of frozen soil increases as the temperature is lowered and more water freezes. It has been shown recently that the strength of heavy-textured soils increases 3 or 4 times as the temperature is lowered from 18 to 0°F.

The rate at which soil freezes is dependent upon its thermal properties, moisture content, and the ambient air temperature. Of these, probably the most important is the amount of water to be frozen, since it requires 144 heat units (Btu) to freeze each pound of water and by comparison only about 0.20 heat units to change the temperature of a pound of dry soil by 1°F. The density, conductivity of the soil particles and water content all influence the over-all thermal conductivity of soil. Because clay particles have a higher insulation value than silt or sand particles and since clay soils normally hold more moisture than silts and sands, the depth of frost penetration is usually greater in silt and sandy soils (light-textured soils) than in clays and silty clays (heavy-textured soils).

There are other factors that influence the depth of freezing. The insulating effect of snow deserves special mention. It has been shown that each foot of undisturbed snow reduces the depth of soil freezing by approximately the same amount. Among meteorological factors such as air temperature, sunshine, precipitation, and wind velocity, air temperature is probably the most significant.

The use of "degree-days of freezing" as a guide in calculating frost depth for a given area illustrates the strong influence air temperature has on soil temperature. A degree-day of freezing results when the mean outside air temperature for one day is 1F deg. below 32°F. For example, if the average air temperature for a given day it 31°F this is one degree-day of freezing. The "freezing index" is simply the total number of degree-days of freezing for a given winter.

The use of the freezing index to predict the depth of frost penetration must be used with caution since it is based only on air temperature and does not take into consideration other factors such as soil type, snow cover and local climatic differences. In areas where no actual frost penetration information is available, the freezing index is a useful guide. Figure 1 shows the freezing index plotted against depth of frost penetration as determined from an analysis of many records of frost penetration in the northern United States. This design

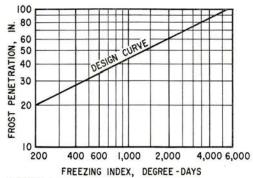


FIGURE 1
"DESIGN CURVE" OF OBSERVED FROST
PENETRATION IN EXCAVATIONS.

curve was developed by the U.S. Corps of Engineers and is used as a guide to the depth of frost penetration in the design of airport pavements. A "freezing indices" map of Canada has been prepared by the Department of Transport and may be obtained from the Division of Building Research in a paper describing its use (NRC 3573).

#### Frost Heaving

In many cases where ground freezes no outward change is visible, although as indicated earlier the strength of the soil will be increased. In other cases, however, the ground heaves and the resultant displacement of the soil may cause considerable damage. The actual vertical displacement is far in excess of the expansion that occurs when water freezes. Heaving occurs when the right combination of fine grain soil, soil moisture and soil temperature exists.

As the mean air temperature drops in the fall of the year, the surface of the ground will freeze. With the lower air temperatures of approaching winter, the freezing plane slowly penetrates the soil. In a fine-grained moist soil a peculiar phenomenon occurs. At the freezing plane, the water in the soil turns to ice. This is, in effect, a drying action and water in the unfrozen soil beneath moves toward the freezing plane in the same way that water will move from moist soil to dry soil. This water, on reaching the freezing plane, is able to flow through and around the soil particles there and to join the ice crystals above, thus adding to the growth of a lens or layer of pure ice. Pressure is developed so that the ice and soil above it are lifted.

When there is an adequate supply of water to the freezing plane in soil of the proper type the ice lens can grow almost indefinitely. At the same time the freezing plane is prevented from penetrating further into the unfrozen soil because of the heat made available from the water as it freezes.

In practice, the freezing plane seldom remains stationary for any prolonged period; the supply of water may decrease or the rate of heat loss may increase due to a change in conditions. The balance between the heat from freezing of the water and the heat loss to the surface is then disturbed, and the freezing plane advances until the conditions for growth of a new ice lens are restored. This results in the formation of a series of ice lenses separated by layers of frozen soil, and is the most common situation in nature.

Ice lenses frequently develop in the soil under road surfaces and cause them to heave. As thawing proceeds downward from the surface in the spring, these ice lenses thaw and contribute water to the soil. In some cases the water that has accumulated as a result of the ice lens formation and subsequent melting is sufficient to cause the soil to lose strength, and

the action of traffic may cause the paved road surface to break, through loss of support.

The expansion of soil from the formation of ice lenses varies over a wide range, but vertical movements of 4 to 8 in. are not unusual and as much as 24 in. has been reported.

Heaving pressures also vary over quite wide limits and depend mainly on the type of soil and its moisture content. A saturated soil will develop the maximum heaving pressure; as the moisture content drops, heaving pressure drops also and is reduced to zero in a soil with low moisture content. The type of soil has an influence, with clay soils developing higher pressures than silts. Pressures in excess of 14 psi have been measured, and in a laboratory experiment a pressure of 213 psi was developed in a clay soil. Pressures of this order are much in excess of the pressures found under roadways or under the footings of most buildings, so that these structures can be heaved quite readily when conditions are appropriate for ice lens formation. No heaving can take place, however, unless the heaving pressure exceeds the load on the soil.

The three basic requirements for frost heaving are: 1) a freezing plane in the soil; 2) a fine grain soil through which moisture can move; and 3) a supply of water. If any one of these factors can be controlled, frost heaving can be prevented. Since it is seldom economically possible to control soil temperature, frost heaving is usually prevented by replacing the fine grain soil with a coarse granular material. Soil moisture can also be controlled by careful attention to drainage, so that the extent of frost heaving is greatly reduced.

#### The Nature of Frost Heaving Soils

In a site investigation for a building project it is often necessary to determine whether ice lenses will form in the soil. This may be very difficult to determine if the soil is at the borderline between frost-heaving and non-frost-heaving material. The characteristics of a soil with extensive frost heaving ability are well known, as are those of a non-frost-heaving soil. The difficulty arises where there is a blending of both frost-heaving and non-frost-heaving soils.

The size of the particles in a soil has a marked influence on its properties, and this characteristic is often used to assess the heaving potential. The determination of particle size is relatively easy since most testing laboratories have facilities for making this analysis.

While a prediction of ice lensing based on the particle size of the soil is widely used, there are many cases where frost heaving has occurred in soils considered safe after an examination of particle size. Attempts have been made to use some other property, such as the height-of-capillary-rise, that more adequately describes the frost-heaving ability of a soil. Although this type of test is more difficult, the results provide a more realistic indication of frost heaving characteristics, giving an indirect measure of the size and distribution of soil pores.

A theory now held, based on the correlations between pore size and heaving pressures, is that the smaller the pore size the greater the pressure. The way in which pore size distribution affects the heaving pressure is being investigated.

In general it can be said that coarse sands and clean gravels do not heave, while fine sand and silts are very susceptible to heaving. Clays also are very susceptible although they normally heave slowly but often with tremendous pressures. Silts show a high rate of heave but have much lower heaving pressures. When silts, sands or gravels are contaminated with clay, however, heaving ability is usually much enhanced and becomes less predictable.

At present the most reliable method of spotting a frost-heaving soil is to carry out a laboratory freezing test, although soils that show frost heaving in the laboratory do not always do so in the field. The test is therefore apparently on the safe side, but further research is required before completely reliable predictions can be made.

#### Prevention of Frost Damage

Frost heaving is not usually a problem in heated structures since the heat loss from the building keeps the temperature in the soil adjacent to the foundation above the freezing point. Difficulties often arise, however, in unheated detached buildings or in unheated additions to heated buildings. Damage also occurs to roads, sidewalks and shallow underground service lines.

A detached unheated building located on frost heaving soil may show no signs of distress owing to the fact that the foundation has been raised uniformly so that no stresses have been induced in the structure. Because of the nonuniformity of soil and other factors such as variable snow cover, it is more usual, however, to have differential heaving. This may also occur where the building has supports carried on footings located inside the structure. Due to the protection provided by the building, the penetration of frost under the interior column footings may be less than that under the perimeter footings. Under these circumstances there is a possibility that differential movement will occur.

If conventional foundation walls and footings are used for detached unheated buildings, the footings should be located below the level of maximum frost penetration. In such cases the backfill should be carefully selected and well drained. If this is not done, frost heaving in the backfill may occur that will lift the foundation wall because of the adhesion of the soil to the wall.

Where a detached building is located on a concrete slab on grade, protection will be provided by placing the slab on a mat of coarse granular material, which will act as a buffer against any movement of the soil under the mat. A mat 12 to 18 in. in thickness is usually adequate.

Unheated additions to buildings located on frost heaving soils are often damaged if their foundations do not extend below the frost level. This is due to the fact that some or all of the foundation of the addition is beyond the influence of the heated structure. In such cases frost penetrating below the shallow foundations will cause heaving that will result in a racking of the addition. Because of this danger, additions should have foundations extending

below frost line with suitable backfill to prevent lifting of the foundation walls.

Retaining walls can be protected from being forced out of line by backfilling behind the wall with clean granular fill material and providing weep holes for drainage at the bottom of the exposed wall.

While driveways can tolerate some differential movement, particularly when a flexible covering such as asphaltic concrete is used, this movement should be kept to a minimum to avoid cracking and subsequent entry of water into the subgrade. Normally it is desirable to have a uniform subgrade to reduce differential heaving. This will often require a special mixing of the soil at the site. An addition of 6 in. of clean granular fill will provide added support for the covering during the thawing period if subgrade softening occurs in the spring from the melting of the ice lenses.

Run-off water from buildings should be directed away from critical areas by proper landscaping around the building. This will, at the same time, provide better subgrade drainage, which is particularly important for driveways when only a thin layer of granular subbase material is used.

Frost heaving can be prevented if the soil temperature or the soil moisture content or the soil type can be controlled. Where differential movement cannot be tolerated, it is usual practice to replace the soil. Good drainage will reduce the extent of frost heaving, but it is usually not possible to lower the soil moisture content by drainage alone to a point where heaving is entirely eliminated.

While heated structures have little to fear from frost action, this does not mean that the depth of their foundations should be decreased. A foundation located below the frost line will also, in most parts of Canada be in a region of uniform soil moisture content throughout the year. This can be as important a consideration in the design of a building as are the provisions to prevent frost heaving.

This is one of a series of publications being produced by the Division of Building Research of the National Research Council. It may be reproduced without amendment if credit acknowledgement is made. 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, Ottowar Canada

#### COMPETITION



THE CANADIAN
JOINT COMMITTEE

on Construction Materials
of the
Royal Architectural
Institute of Canada
and the
Canadian Construction
Association

announces the institution of its

FIRST

ANNUAL AWARDS FOR EXCELLENCE IN BUILDING PRODUCT LITERATURE

In Three Classifications

### PUBLICATION ADVERTISING CATALOGUES

BROCHURES AND LEAFLETS

JURY OF AWARD P. T. M. Barott, MRAIC, Montreal Chairman

Paul-O. Trépanier, MRAIC, Granby W. G. Raymore, FRAIC, Toronto Robert Briggs, MRAIC, Toronto Ernest Smith, MRAIC, Winnipeg Allan Harrison, Montreal Graphics Designer

Applications for entry forms must be mailed by March 30th, 1962 to Walter Bowker, Managing Editor, Journal of the Royal Architectural Institute of Canada, 160 Eglinton Avenue East, Toronto 12, Ontario. Entries should be mailed to arrive at the above address between April 16 and 19. Entry fee, \$25.00.

Judging of entries will take place in Toronto on or about May 4, 1962. The presentation of awards and display of winning entries will take place at the Annual Assembly of the RAIC at Vancouver May 30-June 2. ing executive positions in the Chambers of Commerce of the Province, all major service clubs, and cultural organizations in the allied arts. Through their active participation in community affairs, these members have accomplished much in establishing the aptitude of the architect in fields where vision and general planning, both social and physical, are required.

"During the past year, the activities of the Association, as executed by Council, have varied widely in scope and detail. The scope of affairs has embraced architecture on the provincial, national, and international level.

"Under the chairmanship of Alan Vanstone, a Joint Committee on Building Materials has been formed in Saskatchewan. Considerable progress has been made by this Committee, working in conjunction with material suppliers and contractors in the Regina area. A report, relating to bidding procedures, manufacturers' literature, and specification writing, has been submitted, and is presently under study by the members of Council.

"The Saskatchewan Association of Architects was represented by Allan Smith at a Regional Conference held in Winnipeg, in January 1961, to discuss the implementation of the Report of the RAIC Committee of Enquiry into the Residential Environment.



Gordon Arnott, Regina
President of the Saskatchewan
Association of Architects

"During the past year, on behalf of the Association, the President has attended two Council Meetings of the RAIC, one of which was held in Toronto, in January 1961 and the other in Quebec City in May of this year.

"Following the Annual Assembly in Quebec, an International Relations Committee was formed by the RAIC. At the request of the Executive Committee of the RAIC, your President has accepted the Chairmanship of this new Committee.

"During the month of July, 1961, your President attended the Sixth Congress of the International Union of Architects, held in London, England, as the Official Observer of the RAIC. Over 1700 architects participated in this Congress, representing sixty-four Nations of the world. The theme of the Congress was 'New Techniques and Materials — Their Impact on Architecture'."

After presentation of the various committee reports, elections to Council were held with J. Langford and W. Marvin, replacing retiring members G. J. Berry and J. Pettick.

Following adjournment of the Assembly, the Council elected as its officers for 1961-62: G. R. Arnott, President, H. A. Larson, First Vice-President; W. E. Marvin, Second Vice-President; G. R. Forrester, Honorary Secretary Treasurer.

On Friday October 20th a large number of the members attended a Symposium on Architecture in Saskatchewan, sponsored by the Saskatchewan Arts Board in conjunction with the Saskatchewan Association of Archi-This two-day symposium was tects. held in the Norman Mackenzie Art Gallery and featured as guest speakers John E. Burchard, Dean of the School of Humanities and Social Science at MIT on "What kind of social miliew is necessary to create good architecture"; and John C. Parkin (F), Toronto, on "The Architect-client relationship from point of view of the Architect".

The Association were hosts for an evening reception, dinner and dance for those attending the Symposium which included representatives of various government bodies, school boards, and other interested organizations. Speaker at the dinner was Minoru Yamasaki, FAIA, renowned architect from Birmingham, Mich., with slides of some of his work, comments on his design concepts, and a critical appraisal of his own designs.

Association members K. Izumi, G. H. Kerr and J. Pettick participated in the panel discussions which formed a large part of the Symposium.

There was unanimous agreement that this Assembly and post-Assembly Symposium were of outstanding value to the Association and worthy of consideration for future Assemblies.

During the Symposium, a display of models and drawings of works of Association members set up in the Art Gallery building was well-patronized.

G. R. Forrester, Saskatoon.

Manitoba Annual Meeting

THE 47th Annual Meeting of the Manitoba Association of Architects was held at The Royal Alexandra Hotel, Winnipeg, on January 20th, 1962.

Mr. Stewart E. Lindgren was elected President of the Association for 1962. Mr Isadore Coop was elected Vice-President and Mr A. H. Brett, Executive Secretary. Elected to serve three-year terms on the MAA Council were Messrs Ken Bacon, Jim Lewis and J. E. Whenham.

The business meeting during the morning and part of the afternoon was confined to a number of subjects of importance in the construction field in Manitoba and throughout Canada. Among these were Metro Planning for Greater Winnipeg, the Massey Medals competition, wherein Winnipeg architects received five awards for outstanding design of the nineteen presented to Canadian architects, and study of the Implementation into the Inquiry on Residential Environment throughout Canada.

Considerable discussion centered around the plans for celebrating the Canadian Centenary in 1967, in which architects will take a prominent part. The restoration of historic buildings which have played a prominent part in our history since 1867 and before that time, was discussed at length and plans made by Manitoba architects to contribute their skill and creative thought.

Along with this is the reminder that the School of Architecture in the University of Manitoba will be observing its 50th Anniversary in 1963.

At this meeting, Mr Gilbert Parfitt, for many years our Provincial Archi-



Mr. Stewart E. Lindgren newly elected President of the MAA.

tect, was appointed an Honorary Life Member of the Manitoba Association of Architects.

At the Annual Luncheon, Prof J. Hoogstraten, Vice-President (Development), University of Manitoba, gave a very informative address on campus planning at the University "past, present and future".

In the evening the Annual Dinner and Dance was held in the Tea Lounge of the Royal Alexandra Hotel.

Report of the Retiring President

ON BEHALF of the Council of the MAA, I herewith give you a summary of the business transacted, and action taken by your council during the year 1961. I also add certain comments and make some recommenda-

tions for consideration in the conduct of your affairs for the future.

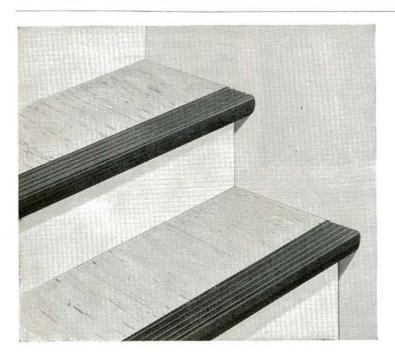
Besides the regular monthly Council Meetings where the routine business of the Association is conducted, a good deal of the work is also done by the various committees appointed by Council. This year we have printed and distributed among the members all of these committee reports in advance of the Annual Meeting. This has been done for two reasons: first, to give all of our members time to read and digest the reports in order to be able to discuss any points in them more intelligently at the Annual Meeting; and second, to save a great deal of time during the meeting. I would recommend that this practice be continued.

Before the general discussion on Committee reports I would like to make some observations of my own, in regard to committee reports:

In general I feel that at least insofar as the more important committees are concerned, and especially those where the business in hand has not yet come to any final conclusion, that it would be advisable to re-appoint the same Chairman and perhaps all of his committee, in the succeeding year. This would give much better continuity and would best serve the interest of the Association.

Those committees which deal with "External Affairs" rather than our own internal business are all important for best public relations.

The Public Relations Committee is an important one — and will be more so as our Association grows. It is rather badly curtailed financially until we can allocate to it a greater budget—and perhaps some of you will wish to make suggestions here. Ken Bacon, the Chairman, has done a good job in his



SPECIFY

# Smith VINYL STAIR NOSING

- Permanently attractive
- Quieter cushions shock
- Safer under foot
- Wipes clean no dirt collects

Write for complete technical data and samples.

### SMITH MANUFACTURING LIMITED

Weston, Canada

Also makers of Smith Stair Tread, Carpet Undercushion and Binder Bars.

60-12

first year under these difficult conditions—and if he remains Chairman I am sure he will do better with experience.

The Committee on Implementation of Residential Environment is also a public relations committee dealing with this one specific matter, and Morley Blankstein has done good work here for the second year. Until this subject has been fully developed, he should certainly continue his good work.

The Committees dealing with the Builders Exchange and with the Professional Engineers are also "external affairs"-except that they concern our relations with our Associates in the building industry-rather than the larger public. Both of these committees are important to our own welfare. Perhaps the Engineers-Architects Committee is more difficult in that it involves the other profession with perhaps some conflicting interests. matters outlined in Jim Whenham's report are difficult in their solution-but all important for the good of our profession. I would welcome all suggestions from our members in regard to the items of this report-and especially would ask all of our members to co-operate in correcting the weaknesses which are pointed out in this report.

The Editorial Committee of RAIC Journal under the Chairmanship of Don Wookey reports good work done over the last year. Their main object is, of course, to put forward our Manitoba Work in Competition with the other Provincial Associations for publication in the Journal. I would suggest that our Manitoba News Letter each month should come under their terms of reference rather than the Publicity Committee—which deals with the lay public.

The Program Committee and the Joint Lectureship Committee are both "Internal Affairs" and both have been ably administered by Issy Coop and Doug Gillmor. The Program Committee is pretty onerous and is one which could well be passed around from year to year. The "Lectureship" is better



Architects: Earl C. Morgan and Page & Steele, Cons. Mech. Engineer: G. Granek & Associates

In stack and boiler breeching...

# long life Plicast Lining specified for O'Keefe Centre

New Toronto cultural centre, built at a cost of 12 million dollars, is regarded as the finest opera house in America. The architects demanded the best materials for every phase of this magnificent centre.

They specified Plicast L.W.I. 20 to form a monolithic lining for 200 feet of stack and boiler breeching because it's conservatively rated to withstand temperature to 2000°F. Plicast shields stack and breeching completely from corrosive and abrasive attack to add many more years of maintenance-free life.

Here's why Plicast is gaining favor among architects everywhere: Monolithic: it forms a jointless lining that prevents penetration of destructive thermal and chemical elements. Insulation is 3 times more efficient . . . 45% lighter than fire brick. Eliminating costly cutting and shaping saves installation time.

WRITE TODAY FOR FREE CATALOG 75 giving complete detailed information.



#### PLIBRICO (CANADA) LTD.

Dept. 6, Box 10, New Toronto, Ontario

Halifax • Montreal • Winnipeg • Edmonton • Vancouver

# F

#### H.&R.JOHNSON (CANADA) LTD. HAMILTON, ONTARIO

P.O. Box 62, Stn. "B"

The well-known brand of H & R Johnson ceramic wall tile, specified in Canada for forty years is now available direct from their Hamilton factory.

4¼ x 4¼ size in ¼" and 5/32" thicknesses 6 x 6 size in ¼" thickness

Both sizes are in a range of 23 colours, applied at Hamilton to the imported bisque.

Colour samples and all information on application to:

#### D. A. WHITE & CO. LIMITED

1035 Beaumont Ave., Montreal, Que. Telephone: CR. 1-4653

2035 Eglinton Ave. W., Toronto Telephone: RU. 7-0344

14536 118th Ave., Edmonton Telephone: GL. 5-3311 chaired by the member on Council representing our School of Architecture.

The Discipline Committee and the Registration Committee-both "internal"-are probably the most important ones we have for the well-being and healthy state of our Association. These are standing committees and both of them are most ably chaired by Jim Searle at the present time. It is recognized that this puts a considerable load upon one of our most efficient and hard working members and perhaps next year he can be relieved of one of them. In the meantime, "Registration of New Members" and the unfortunate occasional necessity of "Discipline" is in good hands. It would be very nice if we could find ourselves in the happy position of being able to disband the latter committee.

The Registration Committee is being changed to a Registration Board under the proposed revisions to our by-laws which will be the subject for a special General Meeting this year.

Finally I would like to congratulate Professor John Russell on his State of the Union Message in regard to the School of Architecture which we all are glad to note still remains the best school in Canada.

I will not take up the time of this meeting by enumerating all of the routine business conducted by your Council during the past year except to tell you that the most important piece of work accomplished was a complete revision of the by-laws governing our Association. This was a joint effort of the entire Council when we held several special and long meetings going over the old by-laws clause by clause.

This work is now completed and is being finally checked by the Association solicitors. It is the intention of the incoming Council to call a special General Meeting at which they will be read and discussed — and I hope, ratified. We will send out draft copies to everyone before this meeting is held in order to get your best criticism and suggestions

In regard to the RAIC and its relations with our Association, we think we are on a sound foundation and the collaboration and consultations between all Provincial Associations and the RAIC are continually improving. The Manitoba Association of Architects had one of the best representations to the RAIC Assembly last year-and all took an active part in the proceedings. As you know, Mr Jim Searle is a member of the Executive Council of the RAIC representing the Prairie Region and he and your president will attend a special mid-year Council Meeting being held in Montreal, January 26-27. There are a number of important subjects under discussion including plans for Canada's Centennial; a new HQ building for the RAIC; proposed new fee schedule to govern all Provincial Associations in Canada; a new international relations committee; changes in the RAIC Council membership; and the ever present subject of RAIC finances—which are temporarily rather bent. Your representatives will report back to you the results of this Council Meeting.

A president's report for the year 1961 would not be complete without mentioning the outstanding achievement of four of our members and their Associates in winning 5 Silver Medals out of 19 in the recent Massey Medal Competition. On behalf of the Association I heartily congratulate Messrs Libling Michener & Associates and Messrs Waisman-Ross & Associates.

I summarize the following recommendations I would like to make:

- 1. That committee reports and the Financial statement are sent to all members in advance of the General Meeting.
- 2. That Chairmen of Committees whose work is of an important nature, or where work is still uncompleted, remain on the job when asked by Council to do so.
- 3. That the Editorial Committee take over responsibility for the Manitoba News Letter each month to the *Journal*.

  4. Finally that the general membership take a more active part in the affairs of the Association—and that when asked to do a job make sure that it is promptly and efficiently executed. I feel that too much work has to be done by too few willing workers. If we are to have a strong professional association we must have all possible support from our membership.

In conclusion I wish to thank all members of Council for their help and support—and to express my appreciation to Chairmen and members of our working committees—and last but not least—our hard working Executive Secretary who has had to bear with me over the year.

The honour of having been your president is acknowledged to all members of the Manitoba Association of Architects.

H. H. G. Moody, President.

#### COMING EVENTS

May 17-18, 1962

Eighth Annual Canadian Muskeg Research Conference University of Saskatchewan

May 30th to June 2nd, 1962
55th Annual Assembly
Royal Architectural Institute of Canada
Bayshore Inn, Vancouver, B.C.



#### DISTRIBUTORS THROUGHOUT CANADA

Evans Building Products Ltd. 3628 Burnsland Road Tel: CHestnut 3-5506 Calgary, Alberta

Evans Building Products Ltd. 11226 - 156th Street Tel: HU. 9-5581 Edmonton, Alberta

Evans Building Products Ltd. 1213 Winnipeg Street Tel: JO. 8-1653 Regina, Saskatchewan

Barnes Engineering Sales Ltd. 7377 Kingsway Tel: LAkeview 1-7795 Burnaby 3, B.C.

B. T. Leigh 736 Newport Avenue Tel: EV. 3-9685 Victoria, B.C.

Acme Sash & Door Co. Limited 400 Des Meurons Street Tel: CHapel 7-1171 St. Boniface, Manitoba

Geo. H. Belton Lumber Co. Limited 313 Rectory Street Tel: GEneral 2-3731 London, Ontario

Mayno Davis Lumber Co., Limited 57-75 Duke Street Tel: CEntral 2-5311 Ottawa 4, Ontario

Belton Lumber Company Limited Devine Street Tel: DIgby 4-3637 Sarnia, Ontario

Pella Products Company, Division of Overhead Door Co. of Toronto, Limited 289 Bering Avenue Tel: BElmont 9-3077 Toronto 18, Ontario

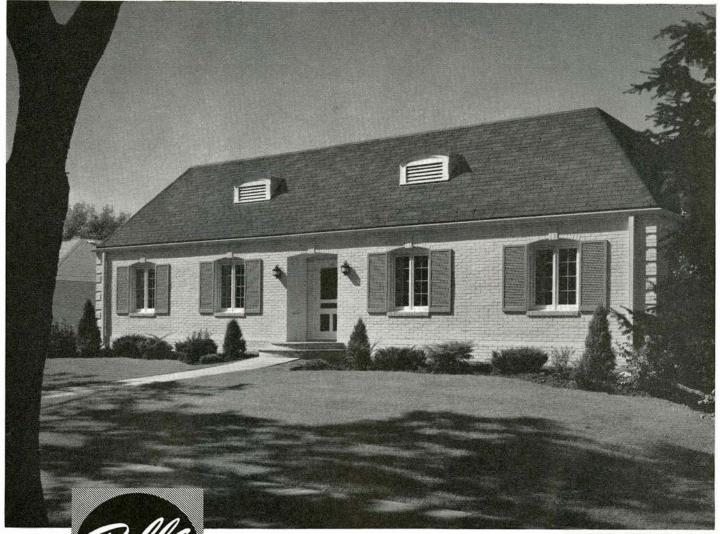
Matthews Lumber Company, Limited 1495 Howard Street Tel: CL. 4-1143 Windsor, Ontario

M. F. Schurman Company, Limited P.O. Box 1390 Tel: 436-2265 Summerside, P.E.I.

Price Agencies Limited 6252 St. Lawrence Blvd. Tel: CRescent 2-5781 Montreal 10, Quebec

Jacques Chalifour Enrg. 2485 chemin St. Louis Tel: 527-4400 Quebec 6, P.Q.

ROLSCREEN COMPANY, PELLA, IOWA



#### Modern as tomorrow-these windows star in the traditional role PELLA WOOD CASEMENT WINDOWS feature ROLSCREEN . . . .

the original "instant screen" that rolls down in the spring, rolls up in the fall. Little wonder women applaud them. And, self-storing storms and screens with stainless steel, spring-type weather stripping give year 'round comfort and convenience. For traditional themes, mun-

tin bars snap in and out, to speed up painting and cleaning. PELLA offers 18 ventilating units to 24" x 68" glass size and 48 fixed units for full design freedom. Consult your classified telephone directory or the Canadian distributor list which appears at left.



# CASEMENT WINDOWS

PELLA ALSO MAKES QUALITY WOOD TWINLITE® AND MP WINDOWS. WOOD FOLDING DOORS AND PARTITIONS SLIDING GLASS DOORS AND ROLSCREENS

#### PRODUCT INDEX

FEBRUARY, 1962

Products advertised in this issue listed in accordance with RAIC-AIA Standard Filing System

**Masonry Materials** 

o macomy materiale	
Tremco Manufacturing Company	10
(Canada) Limited	10
Sand Lime Products Institute Canada Cement Company Ltd.	24-25
Canada Cement Company Ltd.	24-23
5 Brick Masonry	
Dur-O-wal Limited	81
Plibrico (Canada) Limited	73
10 Masonry Unit Construct	ion
Natco Clay Products Limited	93
12 Roofing & Siding	
Anaconda American Brass Limited	3
Atlas Asbestos Company Limited	15
13 Structural Metals	
Dominion Bridge Company Limited	6-7
14 Miscellaneous Metal Wo	ork
Dominion Aluminum Fabricating	***************************************
Limited	83
Hubert Industries	86
Smith Manufacturing Limited	72
15 Ornamental Metal Work & I	Metals
	ird Cover
16 Doors, Windows	
	nd Cover
Canadian Crittall Metal Window, Limited	21
Kawneer Company Canada, Ltd.	90-91
Northrop Architectural Systems	16
	77-78-79
Rusco Canada Limited Bac Truscon Steel Works	k Cover
Truscon Steel Works	89

Canadian Crittall Metal Windows,	
Limited	21
19 Carpentry, Luml	jer
Ramset Fasteners Limited Connor Lumber and Land Co.	89
23 Floor & Wall Finis	hes
Atlas Asbestos Company Limited Johnson, H & R (Canada) Ltd.	15 73
26 Glass & Glazin	g
Pilkington Glass Limited	11-12-13-14
27 Hardware	
Canada Hardware Ltd. Corbin Lock Division, International Hardware Company of Canada	
Limited	94
28 Furnishings & Interior	Decoration
Eatons of Canada	84
29 Plumbing	
Aristocrat Manufacturing Company	89
Delta Faucet of Canada Ltd.	7
30 Heating, Ventilat Air Conditioning & Refi	ing, rigeration
Lloyd Register and Grille Co. Limite Vapor Heating Limited	404 44 44 44 44 44 44 44 44 44 44 44 44
31 Electrical	
Eldon Industries of Canada Limited	l 82
Holophane Company Ltd. The	2

(Continued on Page 78)



2489 BLOOR STREET - TORONTO 9, ONTARIO



#### DISTRIBUTORS THROUGHOUT CANADA

Evans Building Products Ltd. 3628 Burnsland Road Tel: CHestnut 3-5506 Calgary, Alberta

Evans Building Products Ltd. 11226 - 156th Street Tel: HU. 9-5581 Edmonton, Alberta

Evans Building Products Ltd. 1213 Winnipeg Street Tel: JO. 8-1653 Regina, Saskatchewan

Barnes Engineering Sales Ltd. 7377 Kingsway Tel: LAkeview 1-7795 Burnaby 3, B.C.

B. T. Leigh 736 Newport Avenue Tel: EV. 3-9685 Victoria, B.C.

Acme Sash & Door Co. Limited 400 Des Meurons Street Tel: CHapel 7-1171 St. Boniface, Manitoba

Geo. H. Belton Lumber Co. Limited 313 Rectory Street Tel: GEneral 2-3731 London, Ontario

Mayno Davis Lumber Co., Limited 57-75 Duke Street Tel: CEntral 2-5311 Ottawa 4, Ontario

Belton Lumber Company Limited Devine Street Tel: Dlgby 4-3637 Sarnia, Ontario

Pella Products Company, Division of Overhead Door Co. of Toronto, Limited 289 Bering Avenue Tel: BElmont 9-3077 Toronto 18, Ontario

Matthews Lumber Company, Limited 1495 Howard Street Tel: CL. 4-1143 Windsor, Ontario

M. F. Schurman Company, Limited P.O. Box 1390 Tel: 436-2265 Summerside, P.E.I.

Price Agencies Limited 6252 St. Lawrence Blvd. Tel: CRescent 2-5781 Montreal 10, Quebec

Jacques Chalifour Enrg. 2485 chemin St. Louis Tel: 527-4400 Quebec 6, P.Q.

ROLSCREEN COMPANY, PELLA, IOWA



# Rich wood stars in this dramatic "panel-show"

From rich veneer beauty to dramatic panel proportions, PELLA WOOD FOLDING PARTITIONS offer pleasing answers to problems of space division. You can specify from these 6 genuine wood veneers: PHILIPPINE MAHOGANY, AMERICAN WALNUT, OAK, PINE, BIRCH or ASH. Ask us to do the finishing at the factory or have it done on the job. Stable wood core construction prevents warpage. Pat-

ented "live-action" steel spring hinging assures smooth, easy operation. Available for all widths and heights up to 20'1". Consult your classified telephone directory or the Canadian distributor list which appears at left.



of a series

# FOLDING PARTITIONS

PELLA ALSO MAKES QUALITY
WOOD FOLDING DOORS,
WOOD SLIDING GLASS DOORS,
WOOD CASEMENT AND MULTI-PURPOSE
WINDOWS AND ROLSCREENS

33	Elevators, Moving Stair	ways,
Ltd. Stephen	roducts Corporation of Canada, s-Adamson Mfg. Co. of Canada ited	85
35	Equipment	
Hughes-	ck of Canada Limited Owens	87 92
	Pencil Company Limited	20

39 Acoustics	
Canadian Johns-Manville Co. Ltd.	8-9
Cweco Industries Limited	88
Not Classified	
Aluminum Company of Canada Limited	82
Dell Construction Co. Ltd.	26
Taylor Woodrow (Canada) Ltd.	80

#### NEW LITERATURE

"Field Engineered Products for the Control of Draft." 12 page specification guide covering the application of Field Barometric Draft Controls on gas, oil-gas, oil and coal fired furnaces, boilers and incinerators, in the 5" through 34" outlet range. Field Control Division, Mendota, Illinois.

A folder on Waste King Universal's full built-in line of food waste disposers, automatic dishwasher-dryers, gas and electric ovens and surface units, available from Waste King Universal, 3300 E. 50th St., Los Angeles 58, California.

Catalog (K-207). A 16-page 3-color catalog introducing a new series of glass blocks. Labelled design No. 33, the block is a ran-dom pattern available in 8" and 12" sizes. Available from Kimble Glass Company, Toledo 1, Ohio.

Bulletin 2000 on the new International "COMPAK" packaged water-tube boiler series. The International Boiler Works, East Stroudsburg, Penna.

A catalog describing the streamlined look in recessed lighting fluorescent Shallow Line troffers. Bulletin A is available by writing to the Advertising Department, C & M Pro-ducts, Ltd., 124 Crockford Blvd., Scarborough, Ontario.

The new Dominion Linoleum floorings catalogue. Dominion Oilcloth and Linoleum Co. Ltd., 2200 St. Catherine Street East, Montreal 24.

A 95-page revised building specification. A guide to safe and accepted design and construction procedures reflecting the many new steels, steel products, fabricating techniques and design concepts developed in recent years. American Institute of Steel Construction, 101 Park Avenue, New York 17, N.Y.

The Thiokol slide rule gauge that reads off required quantities of polysulfide-base sealing compound for any set of joint dimensions. On request from Thiokol Chemical Corporation, 780 North Clinton Ave., Trenton 7, New Jersey.

Part II of the Report on Finishes and Finishing Standards as developed and prepared by the Research and Development Committee of the Store Front and Entrance Division of the National Association of Architectural Metal Manufacturers. National Association of Architectural Metal Manufacturers, 228 North Lasalle Street, Chicago 1, Ill.

Torit Bulletin No. 359 illustrating the wide range of Torit Dust Collectors of both the Cloth Filter Type and the Centrifugal Cyclone Type Separator. D. M. Duncan Machinery Co. Limited, 1958 Wyandotte East, Windsor, Ontario.

A descriptive folder and test report, on "Spacecrate", a unit combination of precast concrete slab and open web steel joist. Schell Industries Limited, Woodstock,

#### **INDUSTRY**

#### NEW PRODUCTS

Aluminum Eaves Troughs. Hunter Doug-las Limited, Box 90, Youville Station, Montreal, Que.

Beautycraft MARK IV design in plumbing fixture trim. Mueller Ltd., Sarnia.

Sub-Surface lighting for dea-graph microfilm camera. Department M, Charles Bru-ning Company (Canada) Ltd., 37 Advance Road, Toronto.

Elkay "250" Plus Stainless Sink. Canadian Zurn Industries, Ltd., 396 Hopewell Avenue, Toronto, Ontario.

High Speed Table Model Whiteprinter, The Revolute Starlet 80. Department "M", Charles Bruning Company (Canada) Ltd., 37 Advance Road, Toronto, Ontario.

The Seal-O-Matic extra-compact automatic door bottom made of extruded aluminum and extruded vinyl. Further information may be obtained by writing Macklanburg-Dun-can Company, Box 1197, Oklahoma City 1, Oklahoma.

A line of quartz lamp heaters for spot heating needs for applications ranging from basements, garages and porch areas to gymnasiums, airplane hangers and loading docks. Information can be obtained from the General Electric Company, Electric Comfort Heating Section (NB), Appliance Park, Louisville, Ky.

An electric radiant ceiling panel suitable for installation in new or remodeled homes for application in bathrooms, kitchens, game rooms, and above large glass panels or sliding doors. More information can be obtained from the General Electric Company, Electric Comfort Heating Section (NB), Appliance Park, Louisville, Ky.

#### **NEXT ISSUE**

ANNUAL MEETING Ontario Association of Architects

ANNUAL SCHOOL SECTION Ecole D'Architecture de Montréal

> FRANCIS C. SULLIVAN by Martin Birkhans

ARCHITECT AND SOCIETY by Walter Gropius



#### DISTRIBUTORS THROUGHOUT CANADA

Evans Building Products Ltd. 3628 Burnsland Road Tel: CHestnut 3-5506 Calgary, Alberta

Evans Building Products Ltd. 11226 - 156th Street Tel: HU. 9-5581 Edmonton, Alberta

Evans Building Products Ltd. 1213 Winnipeg Street Tel: JO. 8-1653 Regina, Saskatchewan

Barnes Engineering Sales Ltd. 7377 Kingsway Tel: LAkeview 1-7795 Burnaby 3, B.C.

B. T. Leigh 736 Newport Avenue Tel: EV. 3-9685 Victoria, B.C.

cme Sash & Door Co. Limited 400 Des Meurons Street Tel: CHapel 7-1171 St. Boniface, Manitoba

Geo. H. Belton Lumber Co. Limited 313 Rectory Street Tel: GEneral 2-3731 London, Ontario

Mayno Davis Lumber Co., Limited 57-75 Duke Street Tel: CEntral 2-5311 Ottawa 4, Ontario

Belton Lumber Company Limited Devine Street Tel: Digby 4-3637 Sarnia, Ontario

Pella Products Company, Division of Overhead Door Co. of Toronto, Limited 289 Bering Avenue Tel: BElmont 9-3077 Toronto 18, Ontario

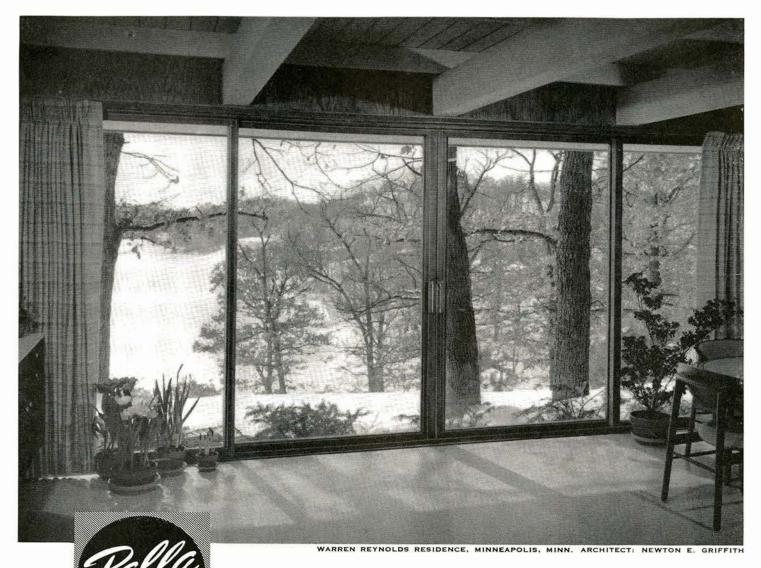
Matthews Lumber Company, Limited 1495 Howard Street Tel: CL. 4-1143 Windsor, Ontario

M. F. Schurman Company, Limited P.O. Box 1390 Tel: 436-2265 Summerside, P.E.I.

Price Agencies Limited 6252 St. Lawrence Blvd. Tel: CRescent 2-5781 Montreal 10, Quebec

Jacques Chalifour Enra. 2485 chemin St. Louis Tel: 527-4400 Quebec 6, P.Q.

ROLSCREEN COMPANY, PELLA, IOWA



#### The big difference begins where the glass ends

PELLA SLIDING GLASS DOORS with frames of real wood say home to your clients. And, wood frames can be finished or painted to go with any decorative schemes-inside and outside. Wood frames eliminate condensation, too. Stainless steel and wool pile weather stripping combine to provide exceptional weathertightness. Screens close automatically. Removable muntin bars are available in regular or diamond shapes to add the traditional touch. o, ox, xo, oxo and oxxo combinations in 33", 45" and

57" glass widths. Custom sizes, too. Ask your Pella representative to show you a sectional sample of wood frames with steel "T" reinforcement. Consult your classified telephone directory or the Canadian distributor list which appears at the left.



SLIDING **GLASS DOORS** 

PELLA ALSO MAKES QUALITY WOOD CASEMENT AND MULTI-PURPOSE WINDOWS, WOOD FOLDING DOORS AND PARTITIONS AND ROLSCREENS

# School and Gym Floors Our Specialty!

AVOID BUCKLING AND WARPING OF MAPLE FLOORING with EDGE GRAIN CONNOR'S 'LAYTITE'

Up to 50% Less Expansion in the Use of Edge Grain

(ACCORDING TO FOREST PRODUCTS LABORATORIES)

AVAILABLE IN REZILL-CUSH\* SYSTEM —
"CONTINUOUS STRIP" — REGULAR STRIP

FOR DETAILED SPECIFICATIONS WRITE OR CALL

SEE SWEET'S FILE Specs. #13J/CO.

#### CONNOR LUMBER AND LAND CO.

PHONE VI 2-2091

P. O. BOX 810-B . WAUSAU, WISCONSIN

BU. S. PAT. OFF. \*TRADEMARK

#### AN IMPORTANT MESSAGE FOR

#### EVERY ARCHITECT AND ADVERTISER

To our advertisers

Every Architect in Canada subscribes to the Journal of the Royal Architectural Institute of Canada. And it must be remembered that Architects, through their selection and specification of materials, equipment and furnishings used in buildings, form one of the largest purchasing groups in the Dominion. The presentation to the Architects of your message in the pages of their official publication impresses them favourably and familiarizes them with your product; the Journal is the outstanding means of advertising for the building industry in Canada.

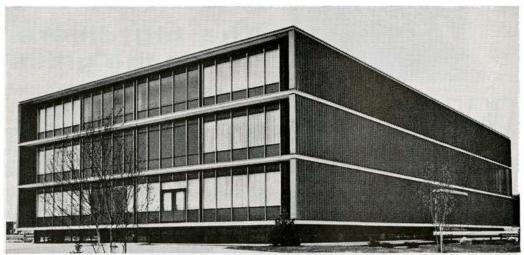
#### To the architects

By carefully studying the advertising pages of your JOURNAL you will make yourself familiar with all the products offered by our Advertisers. In writing for catalogues and literature, please refer to advertisements in the JOURNAL.

# NEW CANADIAN HEADQUARTERS for HOSPITAL ASSOCIATION



Architects: Peter Dickinson Associates Engineers: Giffels & Vallet of Canada Ltd.



The new, three-storey headquarters building of the Ontario Hospital Association, at Flemingdon Park, near Toronto, built by Taylor Woodrow (Canada) Ltd., was officially opened by the Hon. Leslie M. Frost, Q.C., Prime Minister of the Province of Ontario.

A number of unusual architectural features are incorporated in its design, the most striking being vertical louvres which curtain the entire exterior of the east and west walls. The louvres are controlled from within the building and will admit or repel sunlight as required. Along the front of the building is an ornamental pool with fountains. The total floor area is approximately 45,000 sq. ft.

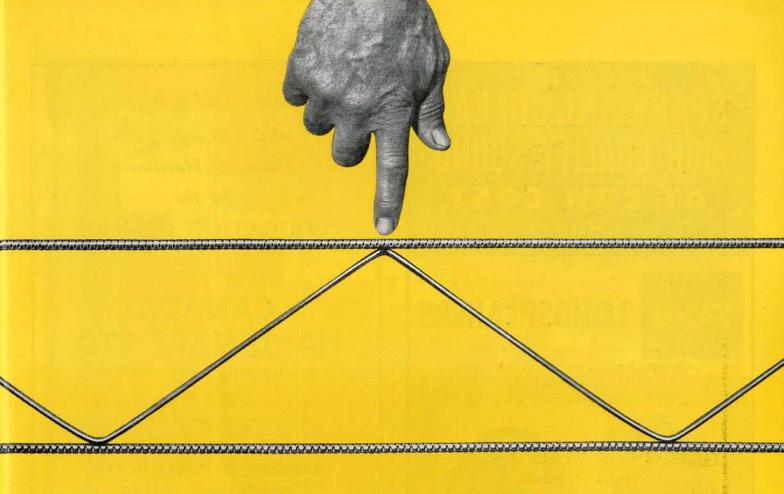
The building contains an assembly hall seating 200 persons, two lecture rooms, a library and a staff cafeteria.

#### **TAYLOR WOODROW**

#### **BUILD EVERYWHERE**

**BUILDING & CIVIL ENGINEERING CONTRACTORS** 

42/48 CHARLES STREET EAST . TORONTO . TELEPHONE: WALNUT 8-4441 - 10 PARK STREET . LONDON WI



# This is Dur-o-wal

## the masonry wall reinforcement with the butt-welded construction

Together with its proved trussed design, Dur-o-wal is distinguished from other metal-rod reinforcement by the electrically butt-welded contact between cross rods and side rods. All rods are held securely straight and level in a single plane, for bonding and structural efficiency.

This makes for reinforcement that exceeds accepted standards. Dur-o-wal increases the flexural strength of a masonry wall 71 to 261 per cent, depending on weight Dur-o-wal used, type of mortar, number of courses.

An independent new research study shows that Dur-o-wal tied walls outfunction brick-header tied walls. Write to the Hamilton, Ontario, address below for 44-page test report.

### DUR-O-WAL LTD.

Masonry Wall Reinforcement and Rapid Control Joint

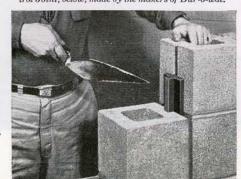
#### 789 Woodward Avenue, Hamilton, Ontario

U. S. DUR-O-WAL MANUFACTURING PLANTS

- Dur-O-wal Div., Cedar Rapids Block Co., CEDAR RAPIDS, IA. Dur-O-wal of III., 260 S. Highland Ave., AURORA, ILL.
- . Dur-O-wal Prod., Inc., Box 628, SYRACUSE, N. Y.
- Dur-O-wal Prod., Inc., 4500 E. Lombard St., BALTIMORE, MD.
   Dur-O-wal Northwest Co., 3310 Wallingford Ave., SEATTLE, WASH.
- Dur-O-wal Inc., 1678 Norwood Ave., TOLEDO, OHIO
- Dur-O-wal Prod. of Ala., Inc., Box 5446, BIRMINGHAM, ALA.
- Dur-O-wal Div., Frontier Mfg. Co., Box 49, PHOENIX, ARIZ. Dur-O-wal of Colorado, 29th and Court St., PUEBLO, COLO.
  - Dur-O-waL of Minn., 2653-37th Ave., So., MINNEAPOLIS, MINN.



STRENGTH WITH FLEXIBILITYbasic masonry wall requirement is met for sure (and economically!) when Dur-o-wal, above, is used with the ready-made, self-flexing Rapid Con-trol Joint, below, made by the makers of Dur-o-wal.



# SPARKLING CLEAR HIGH QUALITY SOUND AT LOW COST

WITH



### **LOUDSPEAKERS**







TYPE 880 MK. 11 8" OUTSIDE DIAMETER

#### SPECIALLY DESIGNED FOR:

\* P.A. SYSTEMS

\* HOSPITALS

**★** SCHOOLS

**★ SUPERMARKETS** 

\* AIRPORTS

Manufactured to exacting specifications, R. & A. Loudspeakers have proven reliability in thousands of applications around the world. O.E.M. or replacement Hi-Fi and TV. Capture the thrilling purity of sound that is a feature of every R. & A. Loudspeaker. Design eliminates external magnetic field, ensures accuracy of alignment. Dust proof. A speaker for every requirement.

Free Technical Data and Engineering Assistance on Request



We are proud to have been selected to supply all Finishing Hardware for the

#### EDUCATION CENTRE

TORONTO BOARD OF EDUCATION

Architects: PAGE & STEELE

#### CANADA HARDWARE LTD.

12 ALEXANDER STREET, TORONTO
WA. 3-4653

Hardware Manufactured by

SARGENT OF CANADA LTD.
PETERBOROUGH, ONTARIO



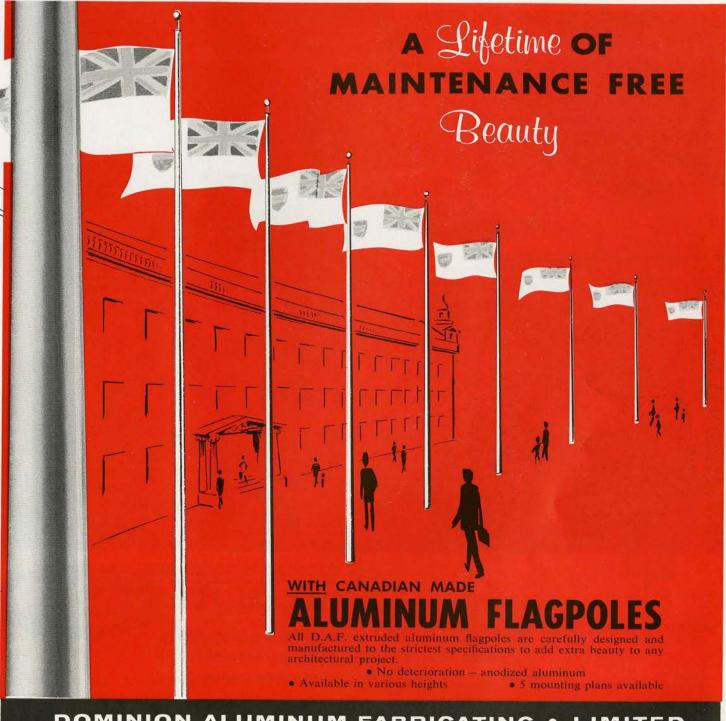
#### Junior Architect

Must be eligible for registration with P.Q.A.A. Experience while desirable, is secondary to potential for development into "top flight" architect. Initial responsibilities will include design work on Plant Offices and general industrial architecture. Location: Montreal.

Please write to:

Aluminum Company of Canada, Limited,

Staff Personnel Division, P.O. Box 6090, Montreal 3, Quebec.

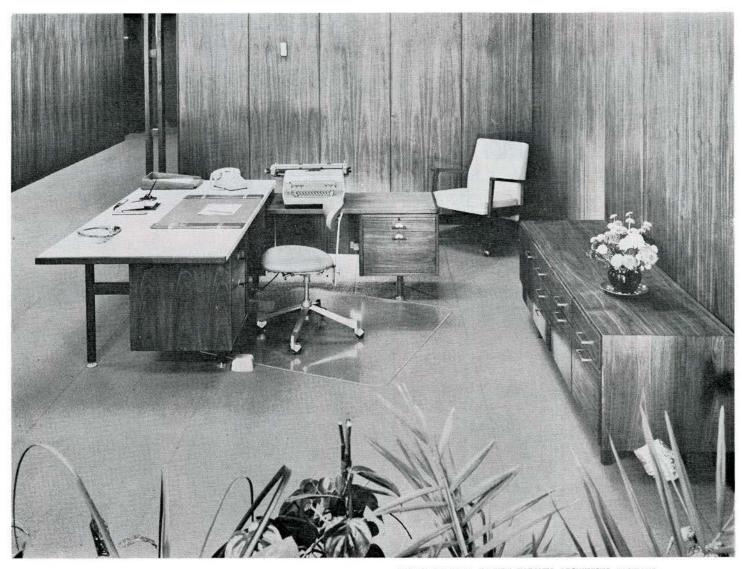


#### DOMINION ALUMINUM FABRICATING

write for further information to:

10 JUTLAND ROAD • TORONTO 18 • ONT

Manufacturers of Canada's most complete line of aluminum Handrails . Flag Poles . Expansion Joint Covers • Grid systems for suspended ceilings . Sun Control Louvres. Representatives in Ontario, Quebec, Manitoba, Saskatchewan, Alberta, British Columbia.



NEW EDUCATIONAL CENTRE, TORONTO, ARCHITECTS: PAGE AND STEELE... OFFICE FURNISHED WITH JENS RISOM FURNITURE CRAFTED BY GUILDHALL CABINET SHOPS TORONTO, ONTARIO.

FROM DRAFTSMAN TO CRAFTSMAN . . .

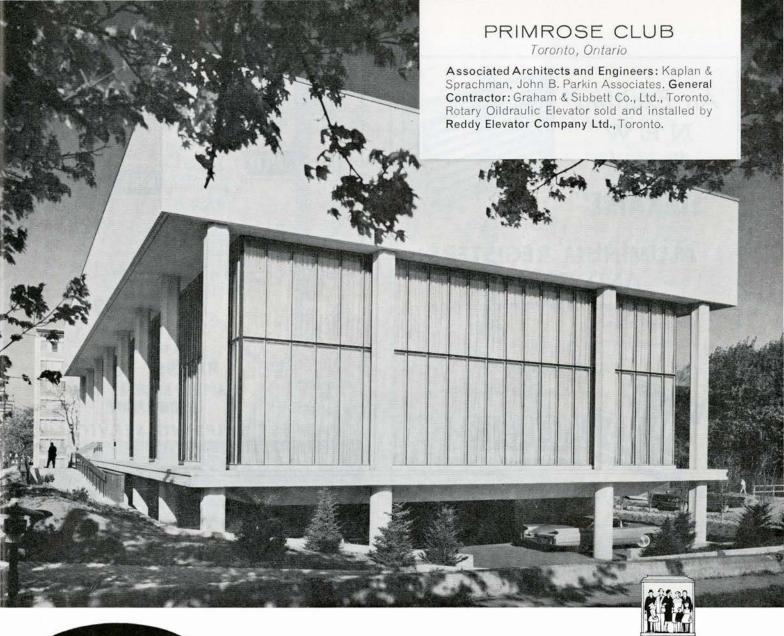
#### YOUR PLANS ARE IN SKILLED HANDS WITH EATON'S CONTRACT SALES SERVICE

WE TRANSLATE YOUR IDEAS IMAGINATIVELY WITH FURNITURE THAT COMPLEMENTS YOUR TOTAL DESIGN -WHETHER IT BE WOOD, METAL OR PLASTIC - WITH EACH COMPONENT COMPLETELY FUNCTIONAL BY ITSELF OR IN COMBINATION WITH OTHERS. MOREOVER FROM INITIAL ESTIMATE TO WORK COMPLETION, YOU ARE KEPT IN TOUCH STEP BY STEP . . . WHEN YOUR CONTRACT JOB IS DONE BY

- VICTORIA
- VANCOUVER
- EDMONTON
- CALGARY
- SASKATOON
- REGINA WINNIPEG
- HAMILTON
- LONDON TORONTO
- MONTREAL MONCTON
- HALIFAX

## EATON'S OF CANADA

CONTRACT SALES SERVICE FROM COAST TO COAST



Cotary Oildraulic ... the modern elevator for modern buildings

UP . . . BY AN OIL-HYDRAULIC

Give yourself more design freedom, and your clients better vertical transportation, by specifying Rotary Oildraulic Elevators for buildings to six stories.

Because it's pushed up from below by a powerful oil-hydraulic plunger, there's no machinery penthouse to spoil roof lines. Shaft walls don't support the elevator and no counterweights are required, saving construction costs and space. Flexibility in power unit location is an aid to utilization of interior space for maximum efficiency of building functions.

Rotary Oildraulic Elevator operation is efficient throughout the entire load range of passenger and freight service. Controls and speeds are available for all traffic patterns; modern cabs and entrances enhance any interior design.

Installation and maintenance service are available throughout Canada. Ask for assistance on elevator planning and specifications. Mail coupon for catalogs.

Rotary Oildraulic Passenger and Freight Elevators are manufactured in Canada by



DOVER PRODUCTS CORPORATION

OF CANADA, LTD. - ELEVATOR DIVISION Chatham, Toronto, Montreal, Calgary

Dover Products Corporation of Canada, Ltd. **Elevator Division** 

140 Merton Street, Toronto 7, Ontario

Please send catalogs on Rotary Oildraulic Passenger and Freight Elevators to:

Name Company Address



'FLEXAIRE"



# ALUMINUM REGISTERS AND GRILLES

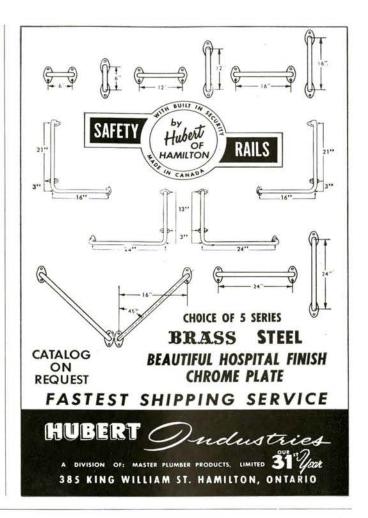
for all commercial applications in a wide range of sizes.

Made and tested in Canada.

PROMPT DELIVERY



30 SIX POINTS RD., TORONTO 18, ONTARIO BE. 9-2351



#### Chandeliers Manufactured by Residential



Entrance lobby to conference room, Education Centre, Board of Education, Toronto Architects: Page and Steele

#### Manufacturers and Designers of Custommade Lighting

Custom-made lighting fixtures for functional and decorative purposes our specialty. Work done on our premises in any required style for institutions and residences. Illustrations and typical drawings available on request.

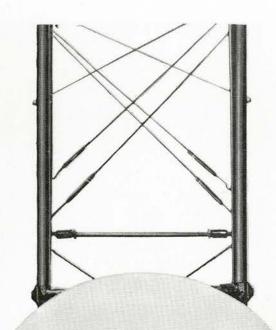
# RESIDENTIAL LIGHTING STUDIO CO. LTD.

489 Dupont St., Toronto 4, Ont.

LE. 7-3138

# BASKETBALL BACKSTOPS

Every gymnasium has its own space problems. That's why Brunswick has designed nine basic models of basketball backstops. They can be put in front of stages, over balconies, or suspended from the ceiling. From the practical Wall-Braced design to elaborate, electrically operated units, Brunswick has the right backstops for every school. Complete specifications of all gym equipment available on request.



#### FOLDING GYM SEATS

Brunswick designers have proven that folding gym seats can be comfortable. Unique construction allows more room for leg and foot movement while providing the maximum in safety. When not in use, seating units fold against the wall so that every inch of floor space can be put to greater use. Brunswick's ease of operation means that one person can set up an entire grandstand in minutes.



SCHOOL EQUIPMENT OF ADVANCED DESIGN

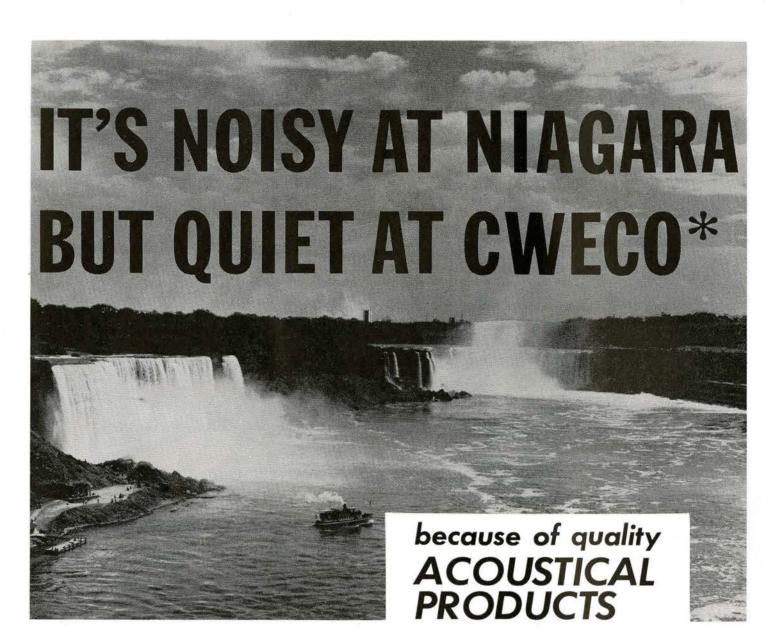
# BRUNSWICK

BRUNSWICK OF CANADA LIMITED

Head Office: 1156 Dundas Highway East, Cooksville, Ontario

VANCOUVER · CALGARY · WINNIPEG · TORONTO · MONTREAL · QUEBEC CITY

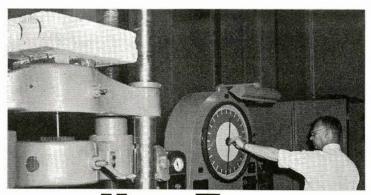






\*\*CWECO — the home of 'Made in Canada' quality acoustical products has its offices and rooms beautified and sound conditioned with five different company manufactured acoustical products. From the moment you enter — and throughout the entire Cweco building — an aura of quiet pervades — providing another modern building with today's foremost requisite . . . quiet. You'll find it at Cweco.





# U. of T. TESTS Ramset FASTENERS

In the picture above, engineers at the University of Toronto use the Baldwin Testing Machine to make sure Ramset studs perform in precast slabs exactly as promised.

Such "outside" research, performed by independent organizations, very often is used to supplement and verify the continuing program of research performed at the Ramset factory.

Duplication of research is your double assurance that Ramset Fasteners will prove absolutely satisfactory on the jobs for which they are specified.



11-15 Laplante Ave. Toronto, Ont. Ramset fasteners are made in Canada since 1949



# BRADLEY WASHFOUNTAINS THE LAST WORD IN ECONOMY

In schools, colleges, institutions throughout the country—thousands of hands are washed daily the Bradley Washfountain way. No wonder architects, purchasing agents, members of school boards find it only natural in their choice of Bradley Washfountains. From recommendations through past experience, Bradley has proven to be economical and provide the maximum in sanitation.

Write today for our catalogue showing all models of Washfountains as well as the popular economical Multi-Person Showers—a copy sent free on request.

ARISTOCRAT

MANUFACTURING COMPANY LIMITED • 77 PELHAM AVE. • TORONTO

Robt, Somerville Ltd. 2720 Crescentriew Drive North Vancouver, B.C. W. Reynolds & Co. Confederation Bldg. Winnings, Manitohy John Brooks & Co., Ltd 6525 Somerled Ave. H. K. Bolshow P.O. Box 61 J. C. Frott & Co., Lt P.O. Box 866



ABV6001

# **TRUSCON**

STEEL WINDOWS and DOORS

NOW BONDERIZED
with BAKED PAINT FINISH

TRUSCON Steel Windows and Doors with the bonderized and baked painted finish are winning the acclaim of building people everywhere ... Specify TRUSCON bonderized and painted STEEL windows and doors—Canada's top standard of quality at "down-to-earth" cost... Immediate delivery too.



For your copy of our 48-page "Powder

Driven Fastener Hand

gation, please write-

without obli-

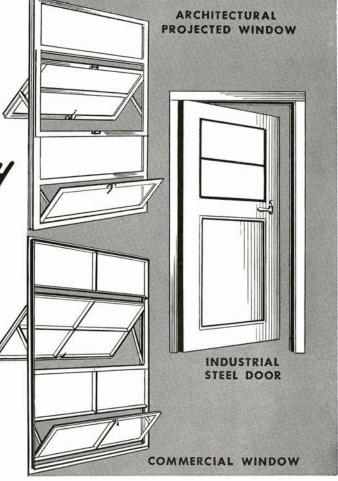
DOMINION STEEL AND COAL CORPORATION, LIMITED

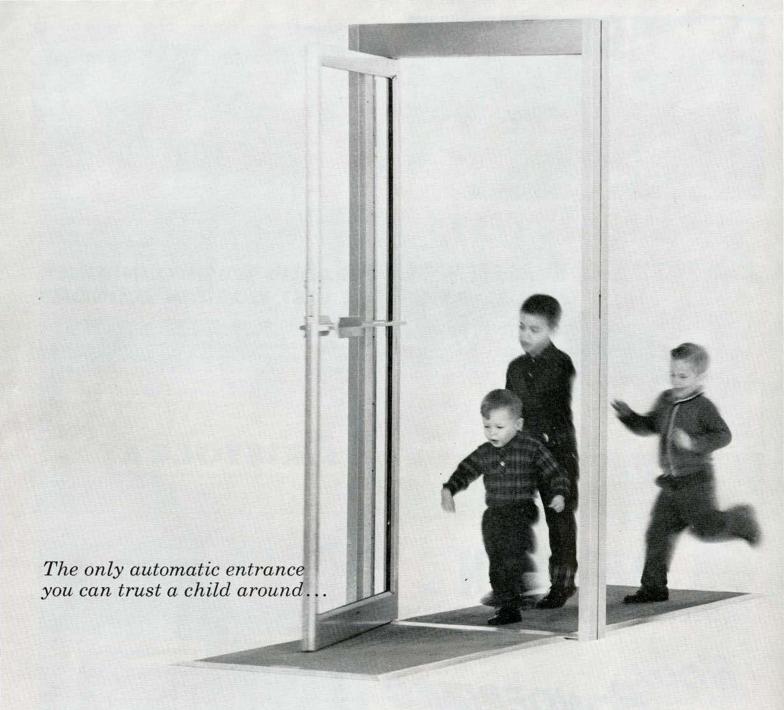
#### TRUSCON STEEL WORKS

LA SALLE, QUEBEC

SALES OFFICES:
WALKERVILLE - TORONTO - WINNIPEG - MONTREAL
REPRESENTATIVES:

Halifax - St. John's, Nfld. - St. John, N.B. - Quebec City - Ottawa - Regina Calgary - Edmonton - Vancouver





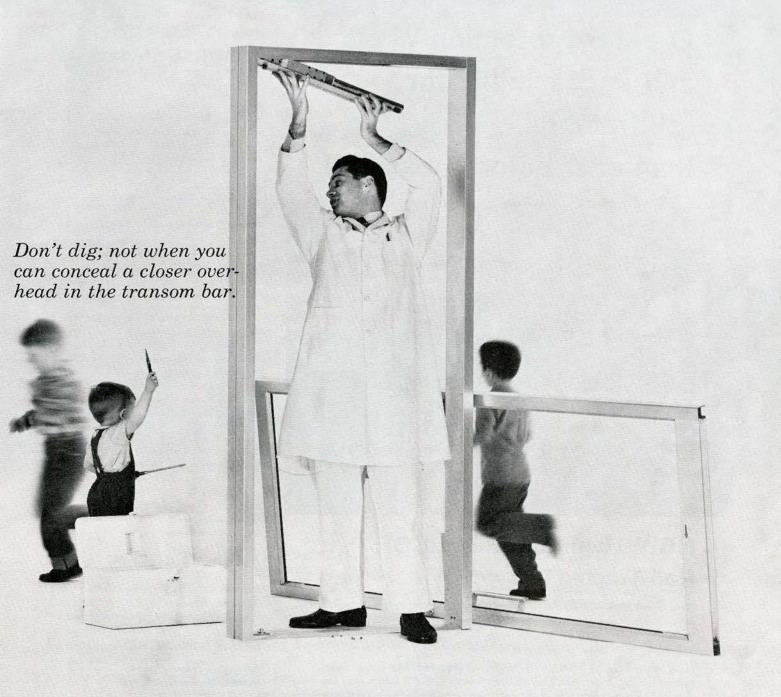
# Kawneer, the **SAFE** automatic entrance

□ In an accident analysis for two supermarket chains, an insurance company found that each chain had 98 accidents per year involving automatic entrances (53% struck by the door, 36% hands or arms caught in closing door). Children from 2 to 5 were involved in 60% of the accidents. Cost of settling the 196 accidents studied: \$26,000. (No Kawneer Automatics were involved.) □ Specifying the safe Kawneer automatic entrance spares a great many innocent people injury and pain, and saves your client considerable money. □ The Kawneer Automatic is safe because it provides finger and hand protection at

both jambs. It is well-nigh impossible for the door to swing back and hit those who go through it the wrong way, because when the door is pushed through the wrong way, the power cuts off. This also serves as a panic breakaway. 

The new Kawneer A5 Automatic is most reliable...it is the only automatic in which the whole entrance—operator, mat, door and frame—carries the UL and CSA labels. Service is now excellent, and being improved upon every day by a growing network of service agencies. 

But first and foremost, remember that when you specify Kawneer, you specify the safe automatic entrance.



# Kawneer's **ECONOMICAL** way to conceal a closer

☐ It costs time and money to locate a cement case for a floor closer in exactly the right spot. And it costs even more when, in spite of all precautions, the cement case ends up located in the wrong spot. Not to mention the fact that ripping into the cement with a jackhammer in an effort to correct the mistake can be dangerous... broken reinforcement or ruptured waterproofing. ☐ Kawneer provides a simple, easy solution; a closer concealed overhead in the transom bar. ☐ Consider the advantages. The architect gets a clean looking entrance—same as with a floor closer, but doesn't have to allow for the reinforcement and waterproofing being

placed deep into the slab.  $\square$  Contractors can pour floors faster, without waiting for cement case forms to be built and located.  $\square$  The sub-contractor saves because his installation costs are much lower than with floor closers.  $\square$  Yet, even though it offers all these advantages, The Kawneer Concealed Overhead Closer sells for the same or less than

floor closers. 

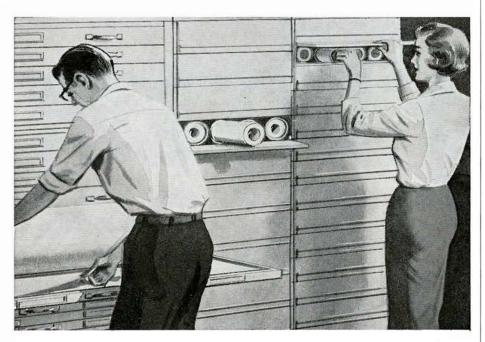
The Kawneer Concealed Overhead Closer comes complete with door and frame. 

Specify a Kawneer Concealed Overhead Closer entrance package; it's the economical way to conceal a closer.



KAWNEER CO., Niles, Mich., Richmond, Calif. KAWNEER CO. CANADA, LTD., Toronto, Ontario.

# Greater protection and accessibility for roll tracings than ever before possible!

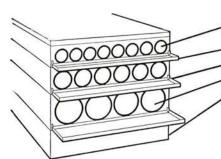


# NEW Hamilton MODUCOR Roll Tracing File

New Flexibility—MODUCOR Roll Tracing Files come in 8, 6, and 4-tube modules. Any combination may be stacked in self-supporting units as high as space allows. Also designed for symmetrical stacking adjacent to Hamilton Unit System Files.

New Accessibility—These Hamilton-engineered file units have spring-loaded doors that stay either open or closed. Units may be stacked so upper level file doors open up... while lower level doors open down. Label holder runs full length for easy identification.

New Protection—Foil-covered tubes encased in steel frame assure moisture, dust, and smoke resistance for valuable tracings.



- Select from 1 1/8", 2 1/8", or 4" tube diameters for filing flexibility
- Full-length label holder
- · Spring-loaded door, full length
- Steel-rimmed, foil-covered tubes
- Rigid base

WRITE TODAY for illustrated brochure on Hamilton MODUCOR—the most practical Roll Tracing Files on the market.

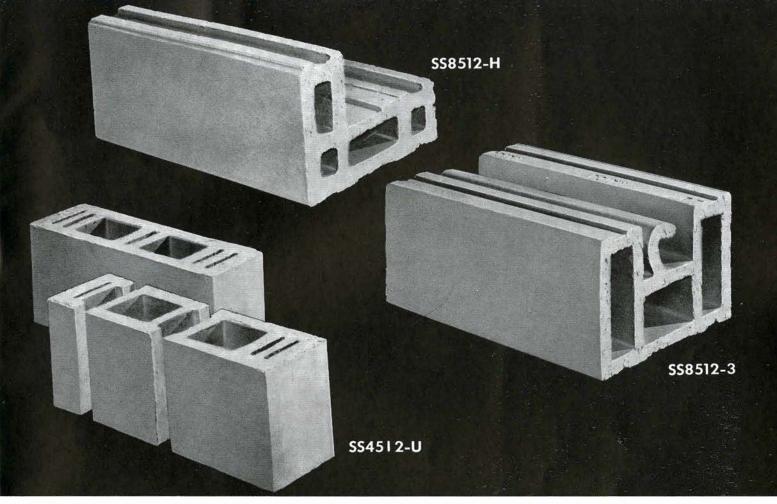
# **Hughes-Owens**

HALIFAX MONTREAL OTTAWA TORONTO HAMILTON

WINNIPEG EDMONTON REGINA CALGARY VANCOUVER

# INDEX TO JOURNAL ADVERTISERS

							Р	ag
Aluminum Compan	y of	Cai	nad	a, I	Lim	ited	١.	8
Anaconda America								
Atlas Asbestos Co								1
Atlas Steels Limite								
Aristocrat Manufac	turin	g (	Com	pai	ny			
Limited			( <del>1</del>	177	•	( <b>1</b> )	×	8
Brunswick of Cana	ıda	Lim	ited	-	*		•	8
Canada Cement Co	mpo	ıny,	Lim	nite	d	_	24	1-2
Canada Hardware	Ltd.					•	-	8
Canadian Crittall A	<b>Neta</b>	W	indo	ow,	Li	mite	be	2
Canadian Johns-M	anvi	lle	Co.	Lte	d.	-	-	8-
Clerk Fenetres -								ve
Connor Lumber and						-	-	8
Corbin Lock Divisio							Já	
Hardware Comp								9
Cweco Industries Li								8
Dell Construction C								2
Delta Faucet of Car								7
Dominion Aluminum				-				8
Dominion Bridge C					be	-	-	6-
Dover Products Con					1201	4227		8.
Canada, Ltd Dur-O-waL Ltd			-	_	-	-	0	8
DOI-O-WOL LIG.	-	1070	30 <del>11</del> 3	( <del>*</del>	255	170	7	۰
Eatons of Canada		-	-		-			8
Eldon Industries of								8:
								1.50
Holophane Compar	ny Lt	d.,	The				-	2
Hubert Industries							177	8
Hughes-Owens -		_	-		_		2	9
Johnson, H. & R., (	Can	ada	) Lt	d.	-	-	-	7
Kawneer Company	Car	nad	a, L	.td.		-	90	-9
loyd Register and	Grill	e C	o. L	imi	ted	-	2	8
Metropole Electric I	nc.	-	•	٠	-	-	-	3
Natco Clay Produc Northrop Architectu							•	9:
Normirop Architecto	, ai	3 y S	em	•	-	ā	Ē	
Pilkington Glass Li	mited	١.			11	-12	-13	-14
Plibrico (Canada)							_	7:
								5.0
Ramset Fasteners	Limit	ed	-	-	-	-	-	89
Residential Lighting	Stu	dio	Co	. Li	d.	-	_	86
Rolscreen Company	-		74	-75	-76	-77	-78	-79
Rusco Canada Limit								
and Lime Product	s Ins	titu	te	-	-	*	$\approx$	17
imith Manufacturin	g Li	mit	ed	-	-	7	-	7:
tephens-Adamson								
Canada Ltd		•	•	•	•	-	18	-19
taulas Waadsau (6		d\	144					01
Taylor Woodrow (C Tremco Manufactur					-			80
(Canada) Limited					4		-	10
ruscon Steel Work							-	89
apor Heating Lim	ited	•	•	•	-		-	
Venus Pencil Comp	any	Lim	ited	•	-	¥	×	20
Westeel Products Li	mited	d -	•	•	-	-	-	23
White, D. A., & Co.	Lim	ited	-		-	-	•	7:



## NATCO Handi-Grip Tile

Unshrinkable

#### For Smooth Load-Bearing Back-up

NATCO Smooth Face Load-Bearing Back-up Tile and Load-Bearing Wall Tile, furnish the maximum insulation, a high fire resistance ratio, an efficient sound decibel reduction. It also eliminates plastering — permanently attractive.

Natco low-cost structural tile walls are speedily and economically erected.

Natco Structural Tile is unshrinkable.

Natco Structural Wall Tile is hard-burned (true to dimension) manufactured by the de-airing process and burned in oil fired kilns to maturity.

Specify and use Natco.

No other masonry construction which meets Toronto Building Code requirements (1600 lbs. per square inch gross area) for load-bearing strength, is as light in weight per cubic foot of wall.

12" Load-Bearing Brick and Tile Walls	MATERIALS	WT. LBS.	CODE NUMBER	QUANTITIES PER 100 SQ. FT.		
6th Course	BRICK COURSING			3C=8½"	3C=8"	
Bond	Face Brick			700	788	
	Ontario Dimensions					
	8" x 51/4" x 12" Header	14	SS8512H	67		
	8" x 51/4" x 12" Stretcher	16	SS8512-3	133		
	3¾" x 5¼" x 12" Universal	10	SS4512-U	AS RE	QUIRED	
	Modular Dimensions				T.	
<b>41</b>	75/8" x 5" x 115/8" Header	14	SS8512-HM		74	
	75/8" x 5" x 115/8" Stretcher	16	SS8512-3M		148	
	35%" x 5" x 115%" Universal	10	SS4512-UM	AS REQUIRED		

## NATCO·CLAY·PRODUCTS·LIMITED

55 EGLINTON AVE. EAST TORONTO, ONTARIO



FACTORY: ALDERSHOT P.O. HAMILTON, ONTARIO



# ...FAST!

UNIT Lock by CORBIN is delivered to the job completely factory-assembled—comes as a unit—installs as a unit—requires no adjustment, assembly or re-assembly. In addition, Unit Locks deliver a long life of maintenance-free performance.

On multiple-door installations in schools, institutions, hotels and other large projects, the saving is substantial.

And, where wood or metal doors reach the job already pre-cut with a notch, the advantages are even greater. Locks are simply taken from the box, placed in the door, 3 screws tightened—and the job is done!

#### **Attractive Designs**

Shown is the popular CORBIN Unit Lock in Melody Design No. 911. Other smart-looking designs are available in brass, bronze, aluminum or stainless steel trim. All functions. ULapproved for Class B, C, D and F Label doors. May be masterkeyed with other CORBIN locks.

It pays to make it CORBIN-throughout!





#### Who has the world's best newsstand?

Ed Kernan has and he's proud of it. His newsstand is architect-designed and constructed of granite panels and gleaming stainless steel. Built for ground level wear and weather resistance, this newsstand, like its big brother building the Bank of Montreal's Head Office, is a new addition to Montreal's St. James Street district. A jewel among newsstands, it is a striking illustration of the compatibility of stainless steel with other building materials.

Stainless steel's high strength permits it to be used in thinner sections for lighter weight that can save space, reduce structural steel and foundation materials. Moreover, no allowance or protection for corrosion is needed. Stainless steel retains gleam, beauty and quality indefinitely.

Big or small, your next design project will be better and more beautiful in stainless steel.

For assistance, please contact the Atlas Architectural Development Department in Toronto or Montreal.

Atlas Steels Limited, Canada's largest manufacturer of stainless steels, Welland, Ontario.





Canadian Legion Hall, George R. Pearks, V. C. Branch, Summerside, P.E.I.

Architect: G. Keith Pickard, Charlottetown, P.E.I. Contractor: M. F. Shurman Co. Ltd., Summerside, P.E.I.

# Standard RUSCO STEEL WINDOWS

### used for Attractive Curtain Wall Effect ...

The flexible beauty of design of Rusco Steel Windows, in a variety of types and sizes, permits complete freedom of architectural imagination.

A wide choice of decorator colours in durable baked enamel, blend or contrast with all structural materials.

The rigidity and durability of galvanized tubular steel allow greater use of glass without sacrificing structural strength. Draught-free vertical or horizontal sliding openings function easily, quietly year after year.

Available with screens and self-storing, removable storm sash to increase insulation and functional efficiency . . . to save heating dollars. Glass replacement is easier, faster, less costly.



A Product of Canada

Call or write your nearest Rusco Office about

#### RUSCO WINDOWS AND DOORS

RUSCO CANADA LIMITED

750 Warden Avenue, Scarborough, Ontario

St. John's, Nfld. Halifax, N.S. Charlottetown, P.E.I. Moncton, N.B. St. John, N.B. Fredericton, N.B. Quebec City, P.Q.

Three Rivers, P.Q. Joliette, P.Q. Drummondville, P.Q. Granby, P.Q. Sorel, P.Q. St. Jean, P.Q.

St. Jerome, P.Q. Montreal, P.Q. Valleyfield, P.Q. Val d'Or. P.Q. Ottawa, Ont. Kenora, Ont.

Kingston, Ont. Toronto, Ont. Hamilton, Ont. London, Ont. Kitchener, Ont. Chatham, Ont.

Sarnia, Ont. Windsor, Ont. Sudbury, Ont. St. Catharines, Ont. Sault Ste. Marie, Ont. Fort William, Ont.

Winnipeg, Man. Brandon, Man. Regina, Sask. Saskatoon, Sask. Calgary, Alta. Edmonton, Alta. Vancouver, B.C.

#### **RUSCO SALES OFFICES**