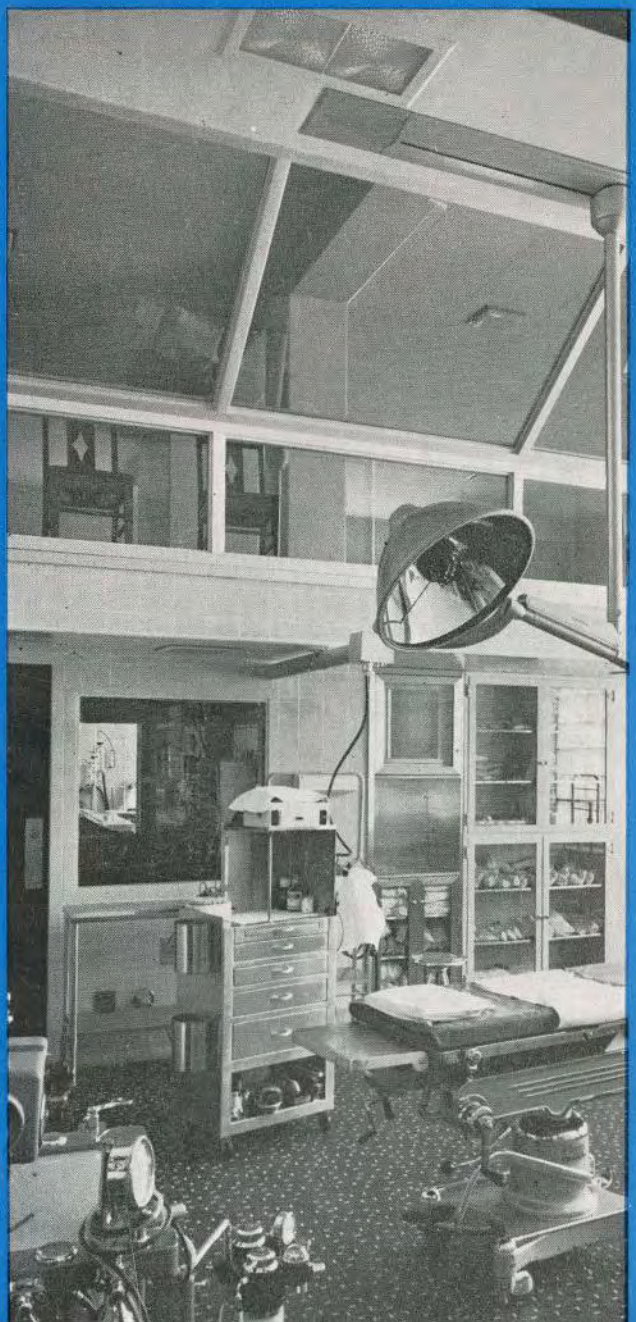
ROYAL ARCHITECTURAL INSTITUTE OF CANADA JOURNAL



JUNE 1961

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

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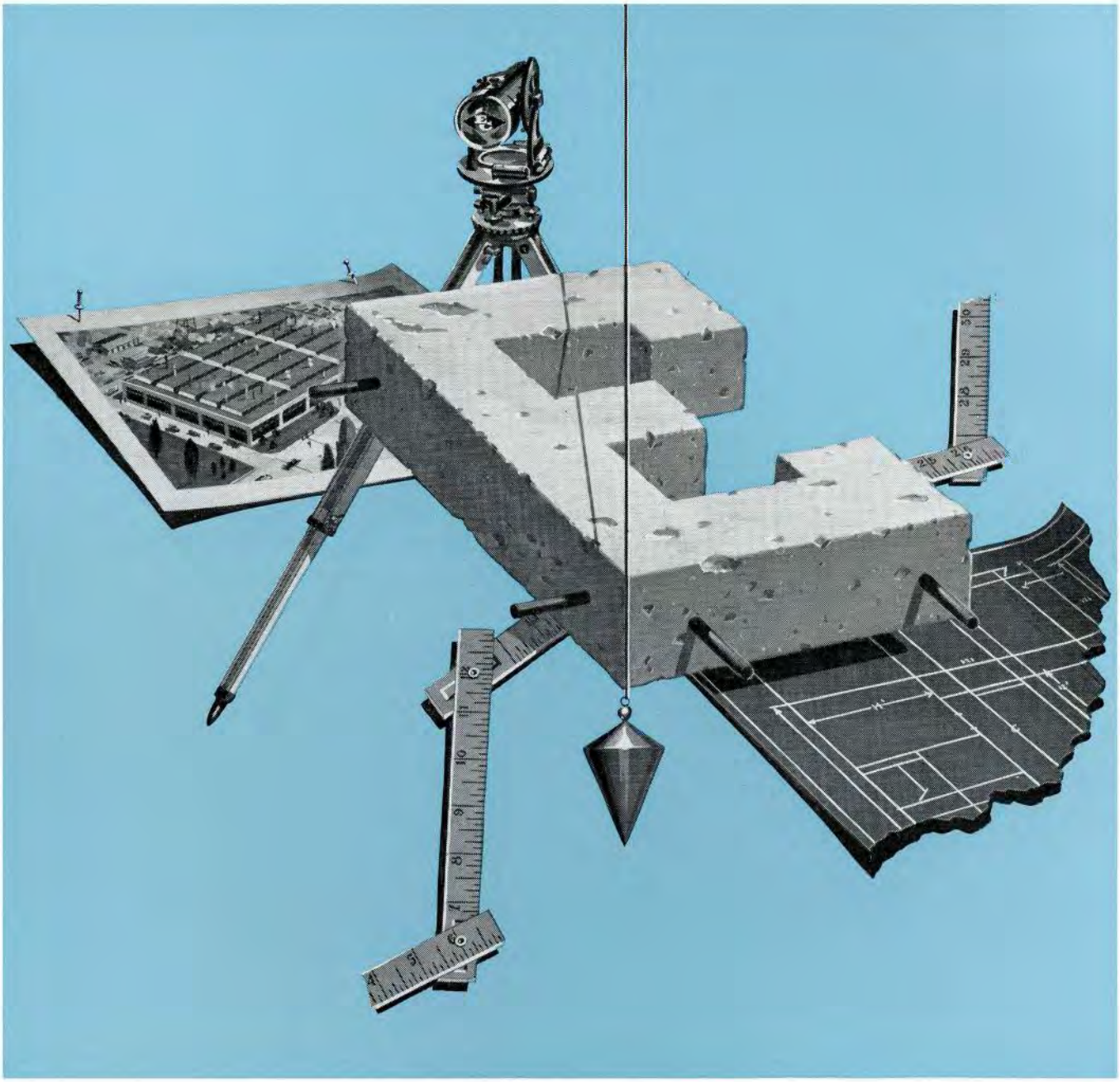

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These are the chairs ☐ That are part of the room that Royal built!

This is the planter ☐ That adds to the chairs ☐ That are part of the room that Royal built!

This is the table ☐ That fits the corner ☐ That joins the planter ☐ That adds to the chairs ☐ That are part of the room that Royal built!

These are the ottomans trim and neat ☐ That feature a moulded foam-rubber seat, ☐ That fix to the table ☐ That fits the corner ☐ That joins the planter ☐ That adds to the chairs ☐ That are part of the room that Royal built!

This is the Royal Viscount line ☐ That saves you space by unique design ☐ That comes in colours that make rooms glow ☐ That beautify tables sleek and low ☐ That match the ottomans trim and neat ☐ That feature a moulded foam-rubber seat ☐ That fix to the table ☐ That fits the corner ☐ That joins the planter ☐ That adds to the chairs ☐ That make up the room that Royal built!

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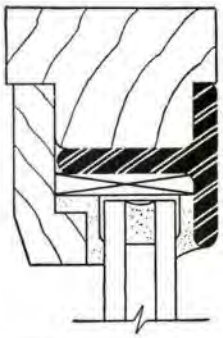
can be painted or finished naturally

Please your clients with the new decorating possibilities of PELLA SLIDING GLASS DOORS. Achieve warm, traditional effects with natural wood and *removable* muntins in regular or diamond patterns. Quality wood frames plus a combination of stainless steel and wool pile weatherstripping make this sliding door weathertight – prevent condensation.

Available in 33″, 45″ and 57″ glass widths. Can be glazed with ¼″ plate and ⅝″ or 1″ insulating glass. For complete specifications, contact your nearest distributor. Consult your classified telephone directory or the list at right.



The welded steel T-section on all four sides of the 1¾″ Ponderosa Pine door panels accounts for its rugged strength and slim lines.

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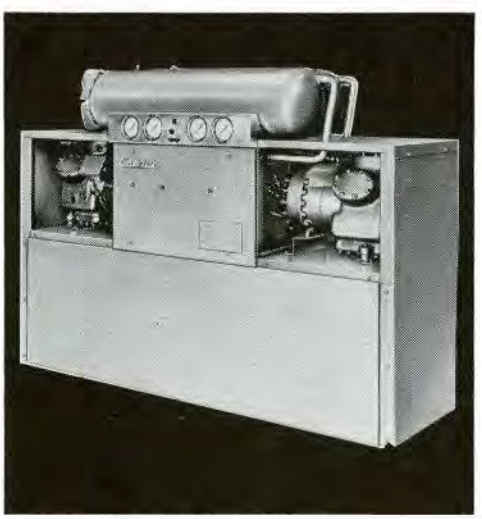
A complete family of fan and coil units in nine sizes from 5 to 50 tons—available both in direct expansion and water chilled models. Highly versatile, the variety of fan arrangements allows a wide range of flexibility. In many instances, this permits installations impossible with other units. These Weathermakers satisfy the trend in commercial air conditioning for versatility and space conservation, as well as for attractive appearance.

51 Series Weathermakers

For new and existing buildings, these versatile units provide the benefits of a central air conditioning system at a fraction of the cost. An across-the-sill model is available, which ties in with central system heating through existing steam or hot water lines —or uses built-in electric resistance heat—to provide efficient and economical year-round heating and cooling. Neither unit requires remodeling or ductwork.



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The most compact completely packaged liquid chillers ever offered. Available in 15, 20, 25 and 30 ton models, these units represent a substantial saving to your clients in floor space as well as efficient performance. Quiet in operation, this complete Carrier refrigeration system is designed to chill water for air conditioning or industrial process cooling applications. Available with or without condensers.

For complete details about these new developments, see the Carrier dealer listed in the Yellow Pages. Or write to Carrier Air Conditioning (Canada) Limited, 70 Queen Elizabeth Boulevard, Toronto. Offices and dealers in principal cities.

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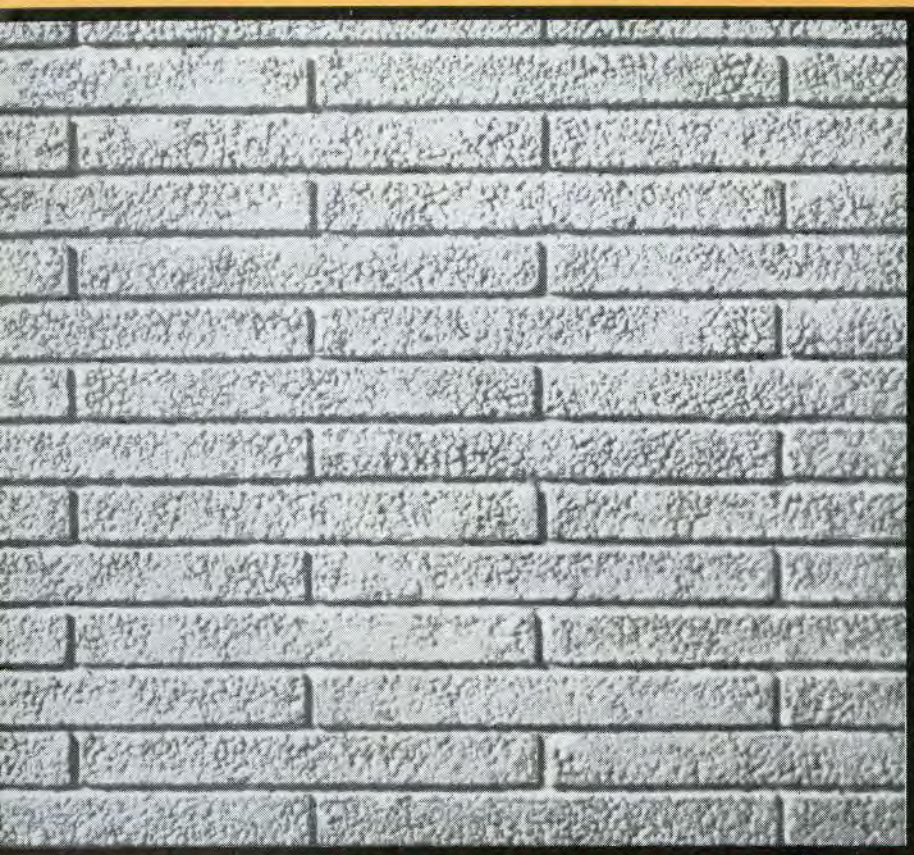
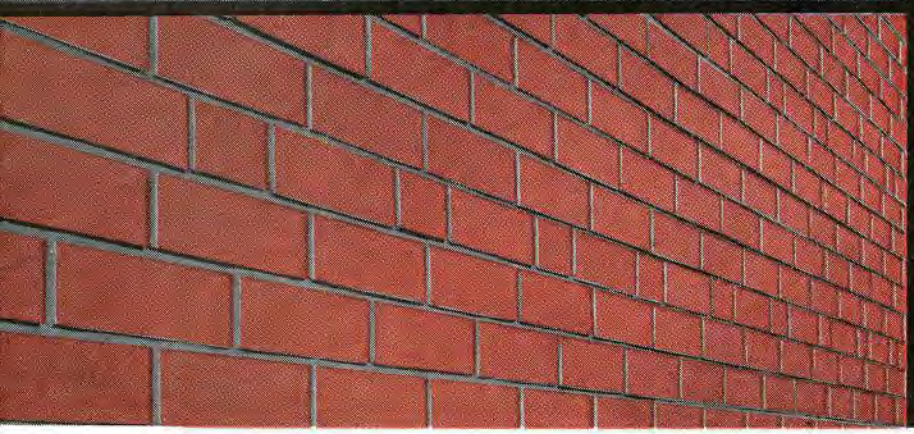
For all types of MASONRY work...





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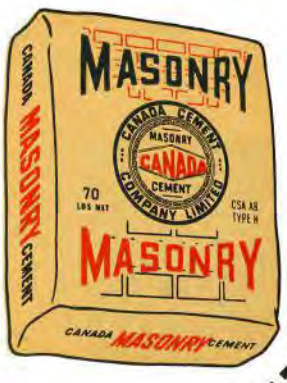
This modern cementing material is ready-to-mix with mason's sand and water—requires no lime or Portland cement, no soaking or slacking. It provides in one package the workability, adhesion, watertightness and other properties of a high quality masonry mortar.



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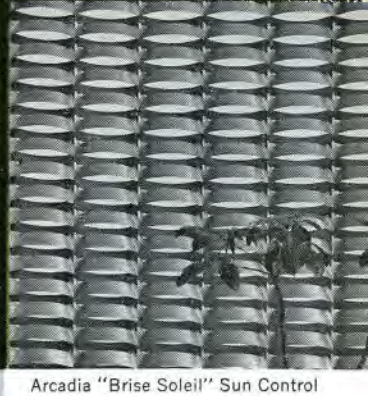
Arcadia joins Acme



Arcadia "Brise Soleil" Sun Control

Arcadia Sliding Glass Doors
Case Study House Triad
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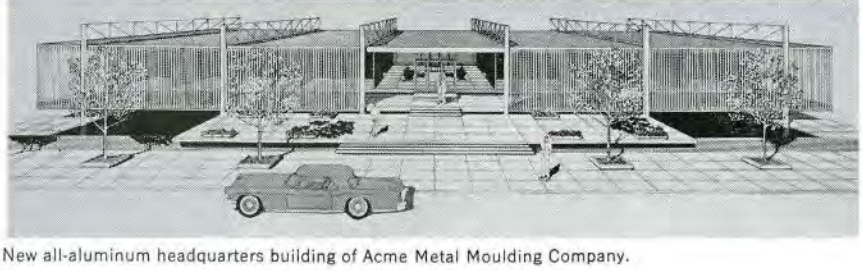

New all-aluminum headquarters building of Acme Metal Moulding Company.

Arcadia Metal Products, producer of the famous Arcadia sliding glass doors, "Brise Soleil" sun control systems, and the "601" Window Wall system, has been acquired by Northrop Corporation as part of Northrop's diversification into architecture and building. Arcadia will combine operations with Acme Metal Moulding Company, a subsidiary of Northrop Corporation and one of the nation's major producers of aluminum storefronts and entrances. Through this merger complete lines of architectural aluminum which are fully integrated in design, finish and production, will be available to architects and builders. Headquarters of the combined operation will be in a dramatic all-aluminum office building, designed by Craig Ellwood, and now under construction at 5022 Triggs St., Los Angeles 22, California.

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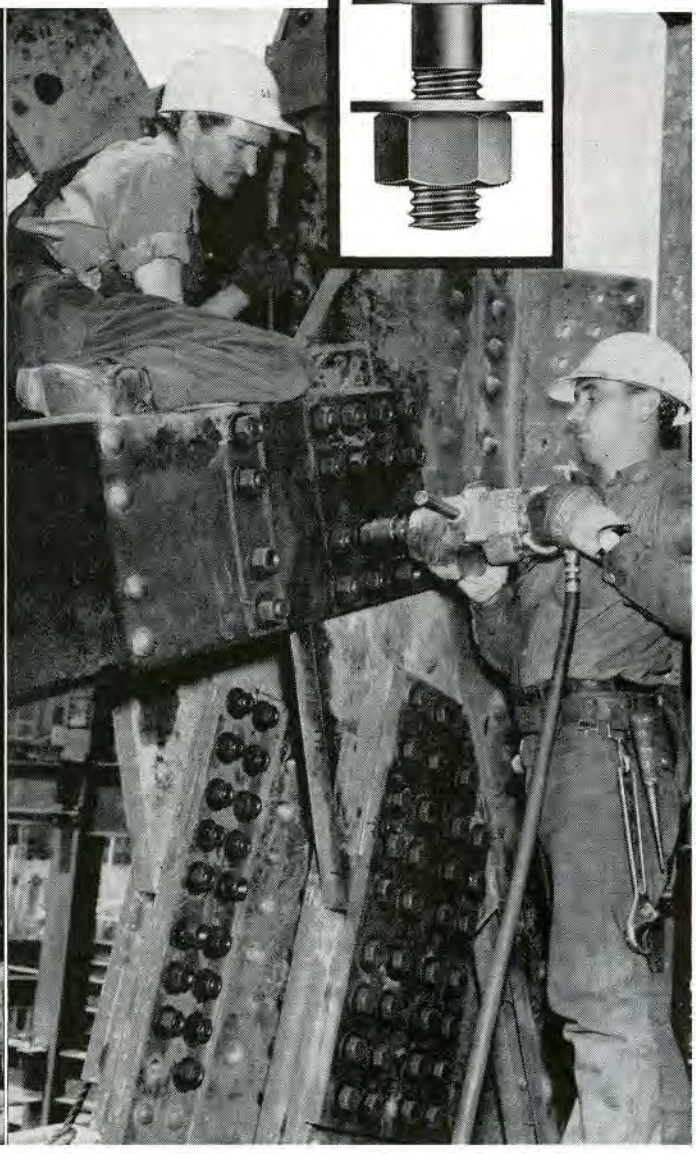

STELCO HIGH-STRENGTH BOLTS

speed construction of Canada's largest building

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Architects:
I. M. Pei & Associates

General Contractors:
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High-strength bolts assure speed and strength in the field assembly of steel for the 42-storey cruciform building at Place Ville Marie, Montreal, the largest building in Canada. The speed advantage of bolting over riveting helped erectors place 750 tons of steel in 55½ hours, during construction of the 4-storey below-street-level stage.

Stelco High-Strength Bolts have proved their superiority over rivets in terms of lower cost, stronger joints, faster erection and less labour. Two men can set three bolts as fast as a four-man crew can set two rivets. Bolting eliminates heat hazards, reduces noise, requires less equipment, and cuts inspection and maintenance costs.

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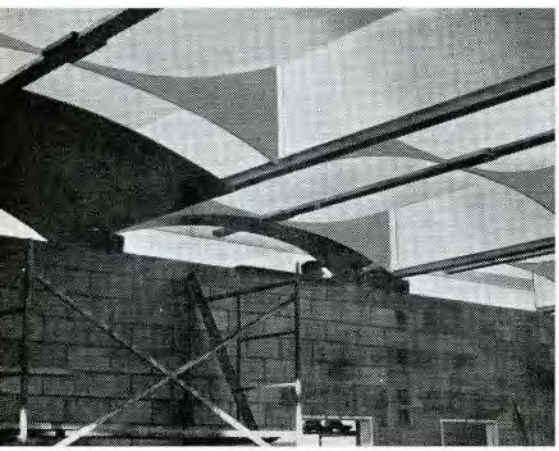
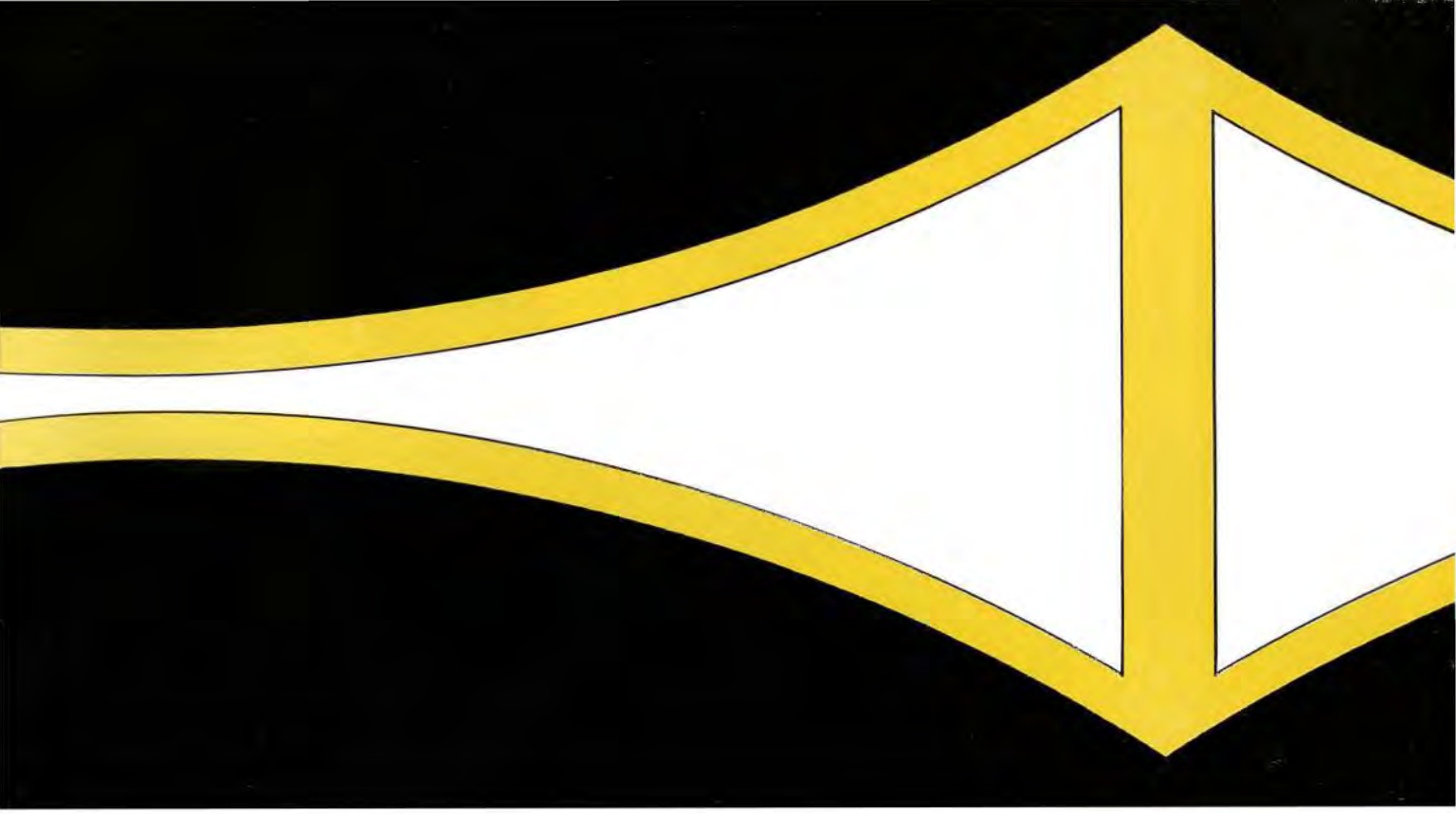


FIR PLYWOOD BOX BEAMS AND FINE CARS ON DISPLAY

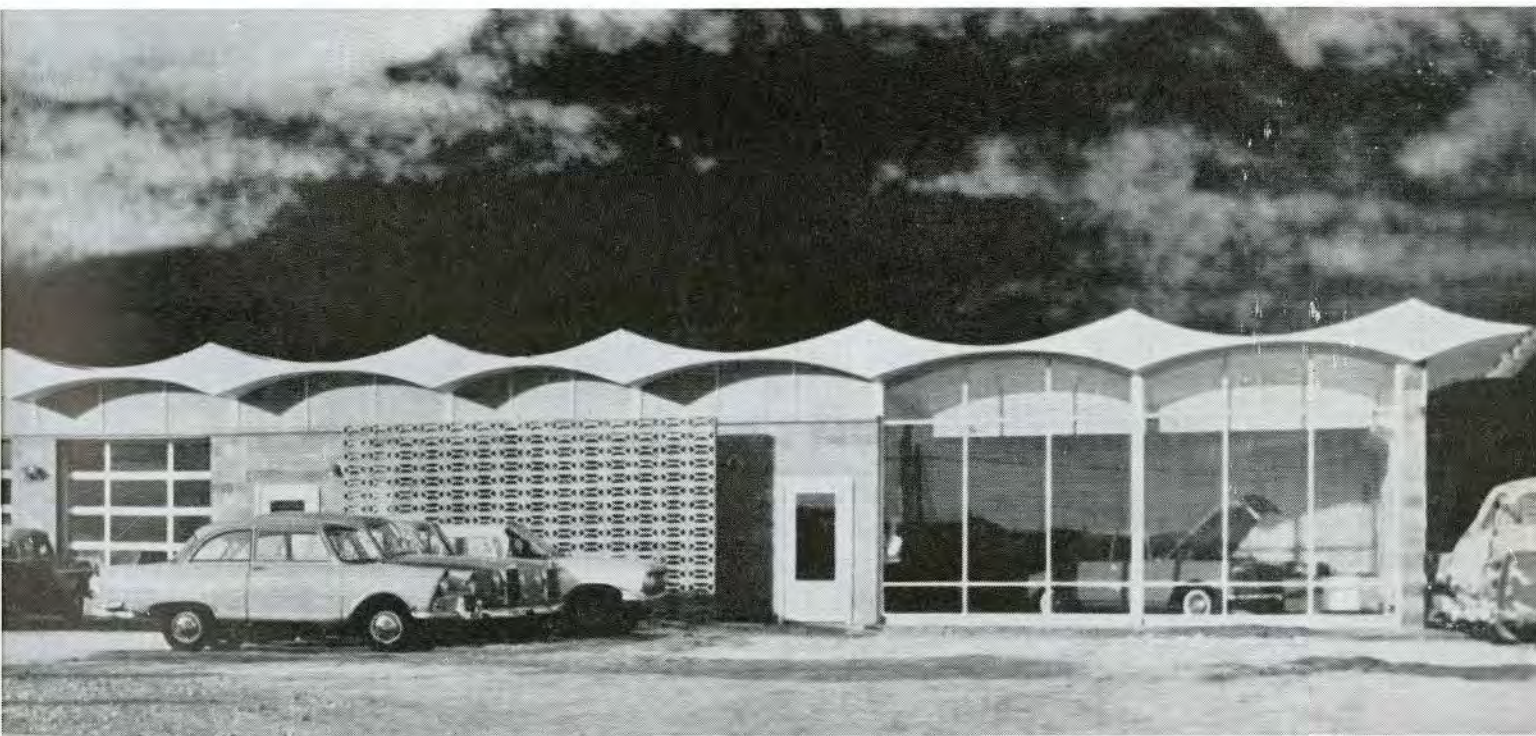
A Box Beam simply consists of vertical Fir Plywood webs with lumber flanges along the top and bottom edges, and vertical stiffeners at intervals along its interior. Fir Plywood's shear strength makes spans of 100 feet practicable, although spans of only 24 feet were required for this automobile showroom for Prescon Motors, Saskatoon, Saskatchewan.

The architect, Tinos Kortes of Saskatoon, aimed at designing a building to the same standards of quality, classic styling and sound engineering as the cars it was to display. The result is a stimulating blend of big windows, stone grilles and roofs of flowing rhythm which arrest attention and enhance the value of the cars.



The originality of the roof design is in the idea of enclosing the Box Beams with curving, scarf-jointed Fir Plywood panels. They were glue-nailed to the beam flanges and to the 2″ x 6″ spacer members. The consulting engineers were Choukalos, Woodburn, Hooley & McKenzie, and the contractors were Maguire Construction Limited, Saskatoon, Saskatchewan.

The Box Beam is yet another structural component of Fir Plywood that offers wide scope to the architect for sound engineering in the modern idiom. You have only to consult the Plywood Manufacturers Association or any of its Fieldmen across Canada to take advantage of these new ideas.



Now...

CANADIAN INDUSTRIES LTD., Office Building, Montreal. *Architect:* Greenspoon, Freedlander & Dunne—Montreal. *Consulting Architect:* Skidmore, Owings & Merrill — New York City. *General Contractor:* Anglin-Norcross (Quebec) Ltd., Montreal. *Flooring Contractor:* Metallicrete Floor Co. Ltd., Montreal.

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Newly Laid Concrete in ONE OPERATION

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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.

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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.

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NEW ROTARY CONCEALED LATCH

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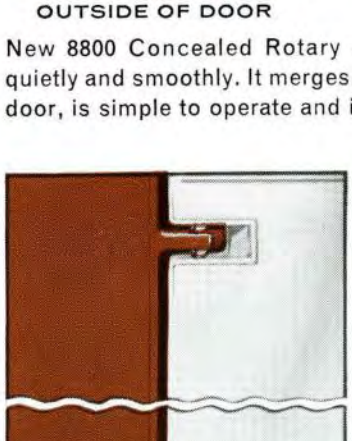
New 8800 Concealed Rotary Action Latch operates quietly and smoothly. It merges into the flush lines of the door, is simple to operate and is theftproof.



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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.

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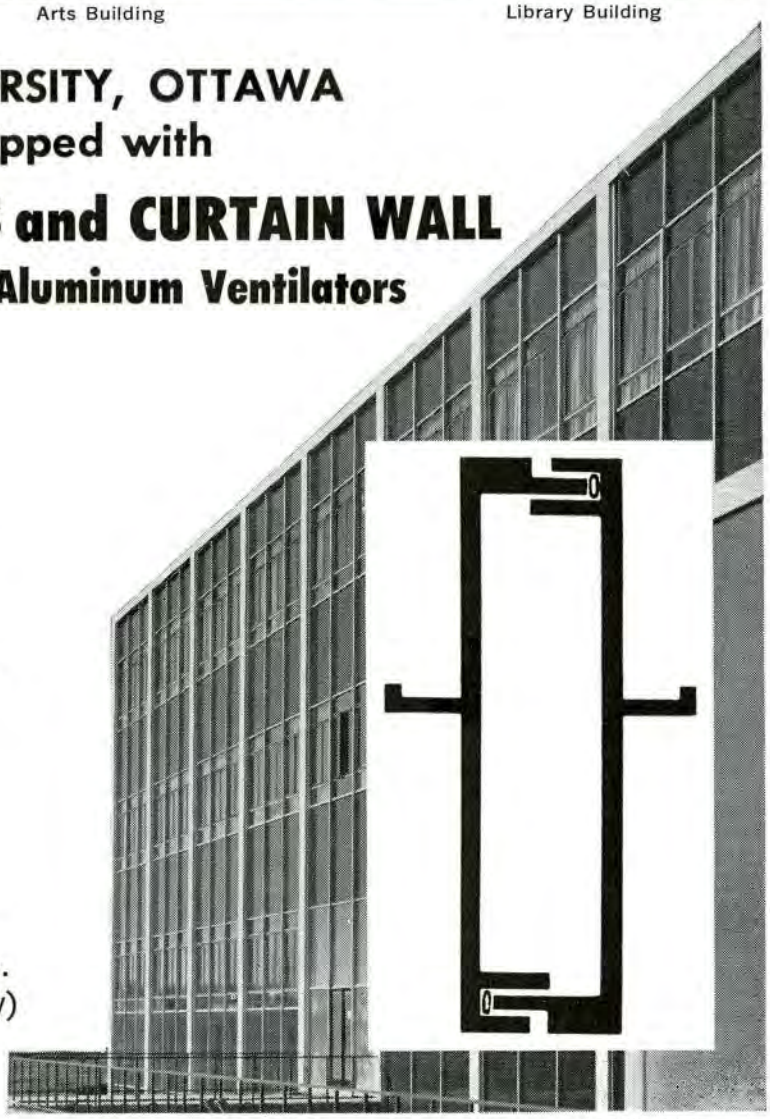

Science Building Showing Aluminum Curtain Wall

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. Geo. A. Crain and Sons Ltd. LIBRARY BLDG. Doran Construction Co. Ltd.

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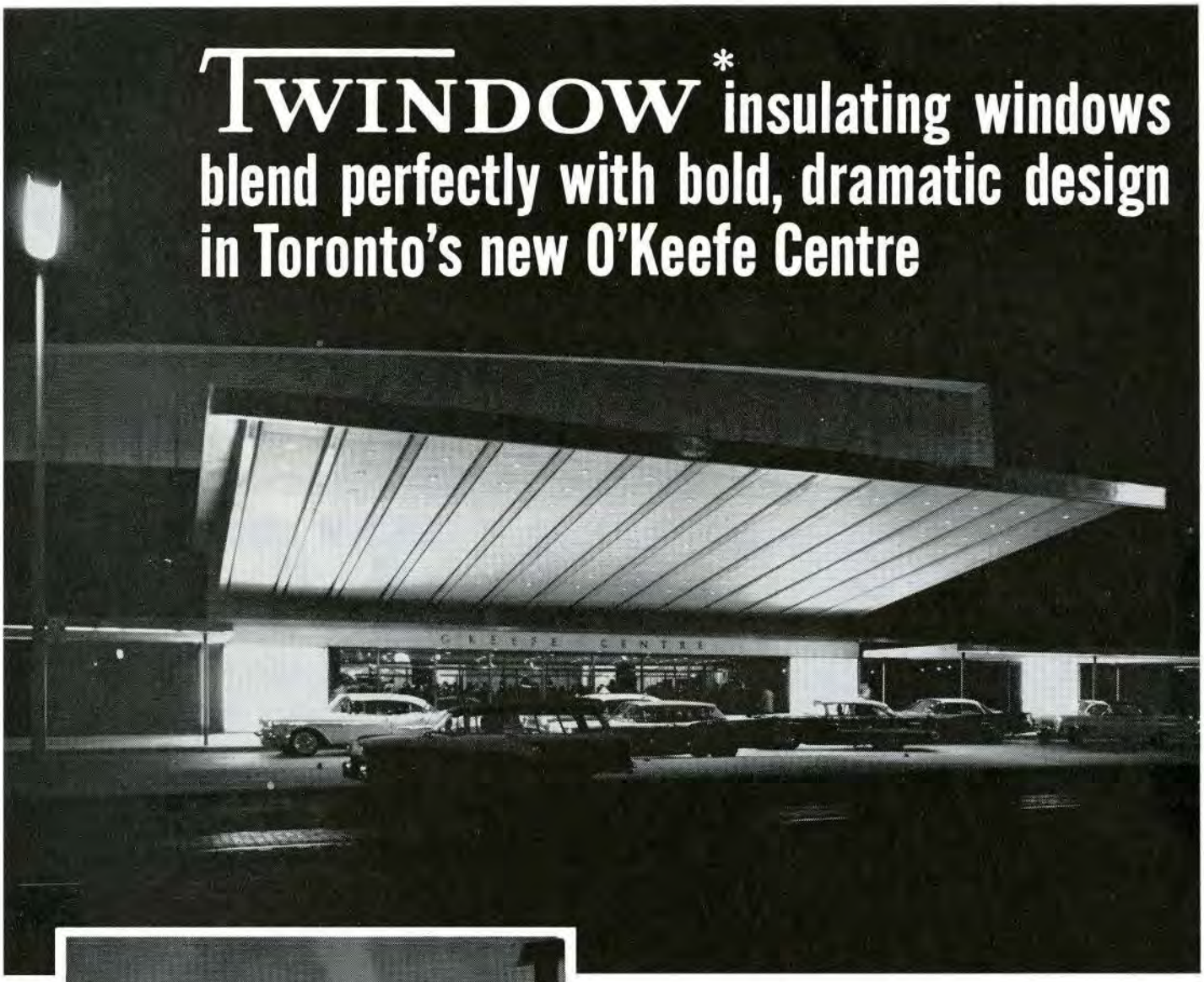
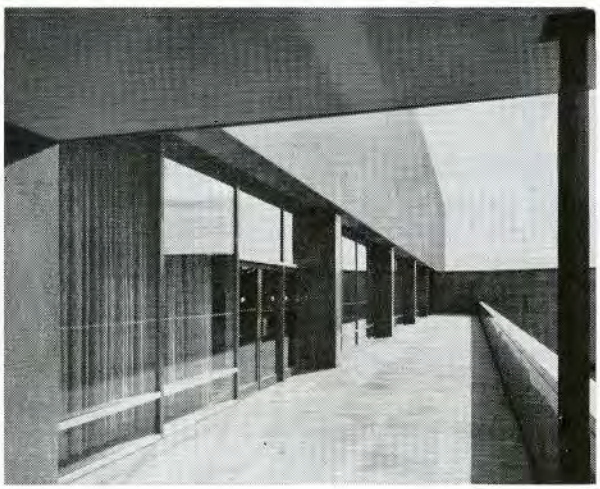
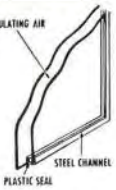




ARCHITECTS: *Earle C. Morgan and Page & Steele*

CONTRACTOR: *Anglin-Norcross Ontario Ltd.*

GLAZING CONTRACTOR:
Canadian Pittsburgh Industries Limited



Versatility is just one of the benefits of Twindow* Insulating Windows. There are many others. Twindow's twin-glass insulation keeps building interiors warmer in winter, cooler in summer . . . offers fuel savings and installation economies. Many of Canada's most prominent architects find Twindow fits in with the most imaginative designs for schools, hospitals, municipal centres, office buildings and homes too. No doubt this modern glazing would complement your designs. It could be very well worth your while to investigate further.

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Architects: Shore & Moffat, Toronto, Ont.
General Contractor: Redfern Construction Co. Ltd., Toronto, Ont.
Aluminum Fabricator: Williams & Williams (Eastern) Ltd.

Everywhere throughout Canada today are the signs of change and progress as the new continues to replace the old. In Toronto, a significant example is the entirely aluminum and glass-clad Mackenzie Building which gives an impressive new appearance to the commercial heart of the city. Rising amid older buildings which represent earlier eras in Toronto's spectacular advance, it is a symbol of new architectural achievement in the modern age of aluminum. Its aluminum curtain wall with its distinctive integral grey anodized finish presents a distinguished exterior with all the beauty of classic lines—maintenance-free and enduring.

The services of Alcan's architectural sales specialists are freely available to your architect to help him take full advantage of aluminum's qualities in your building plans. Consult him or write for further information to Dept. 23, P.O. Box 6090, Montreal.

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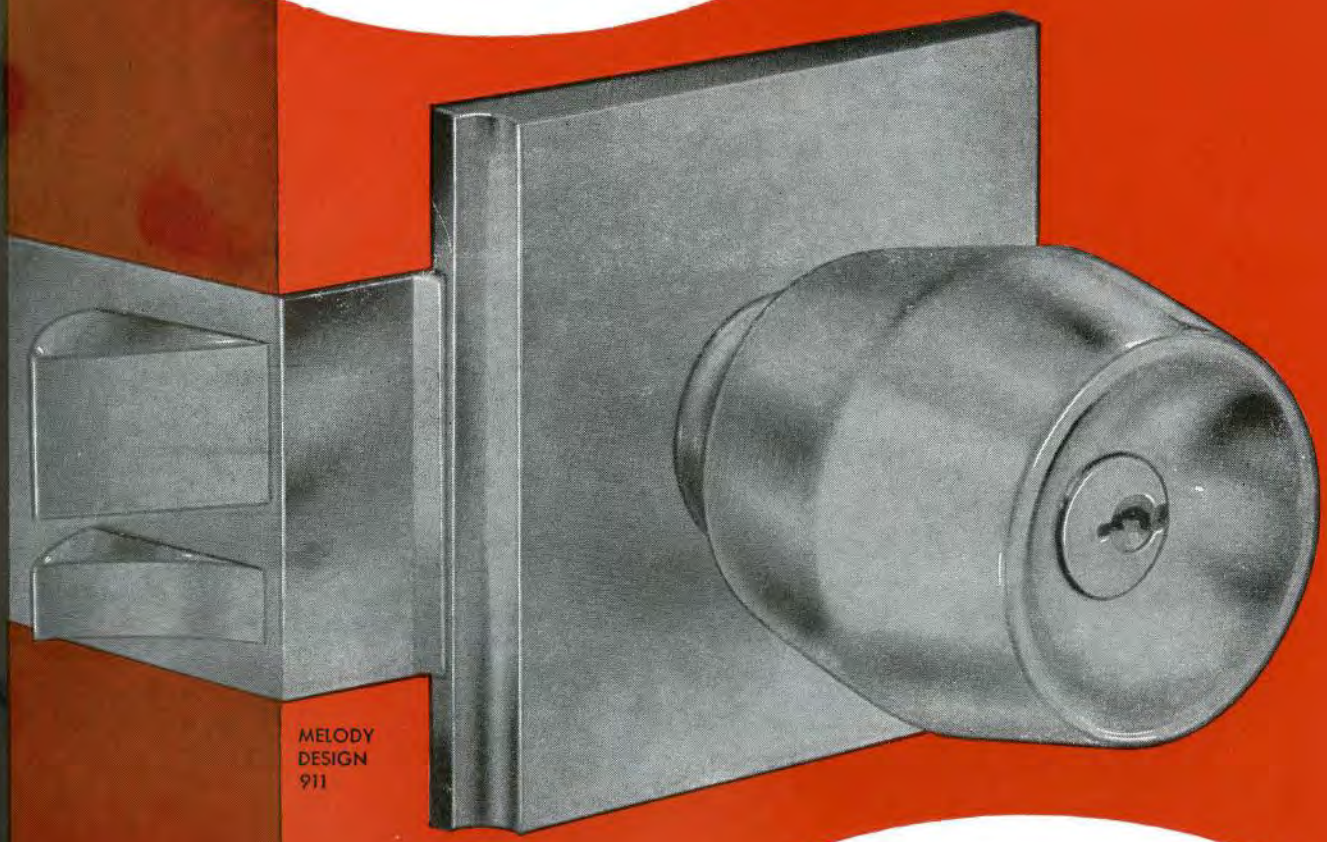

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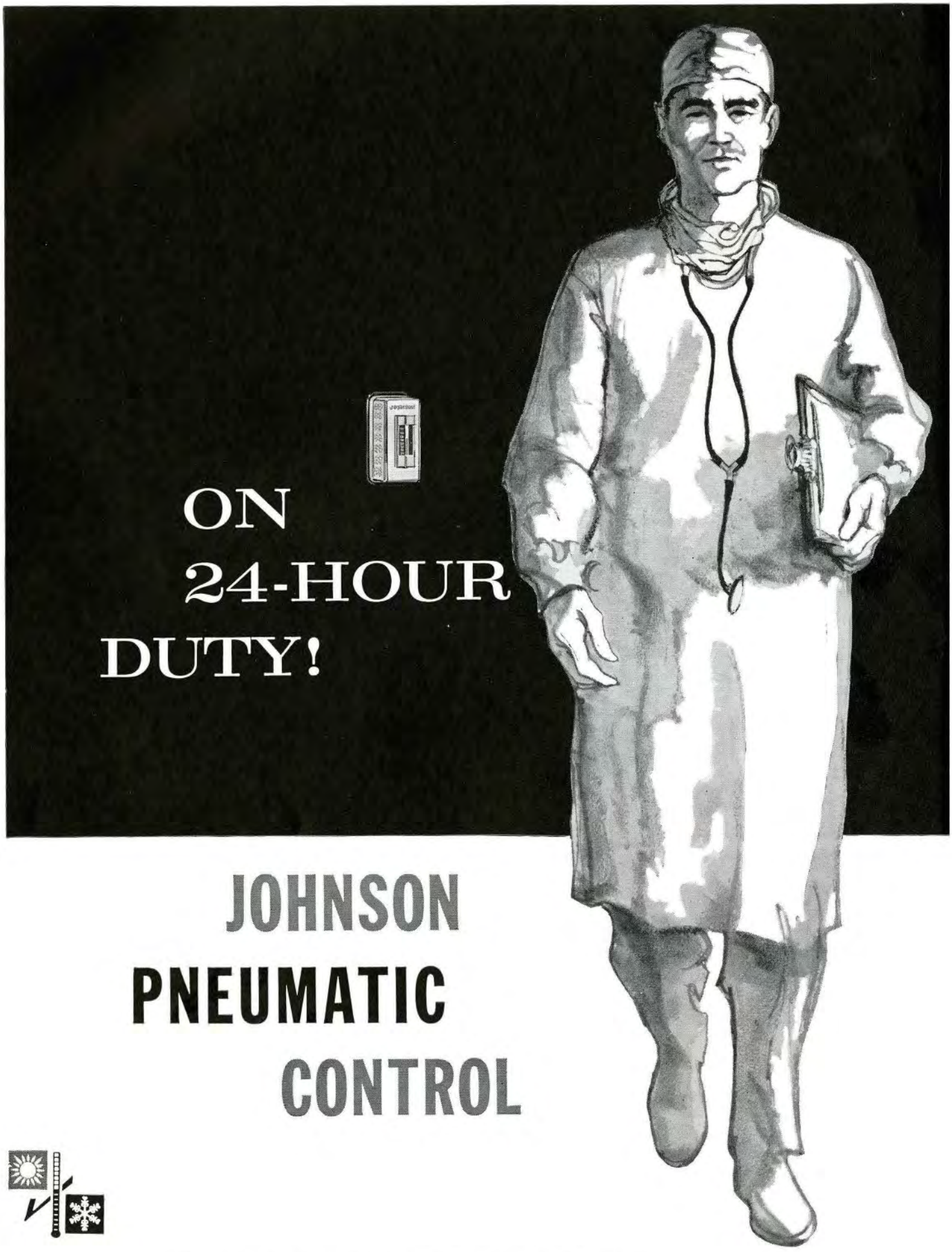

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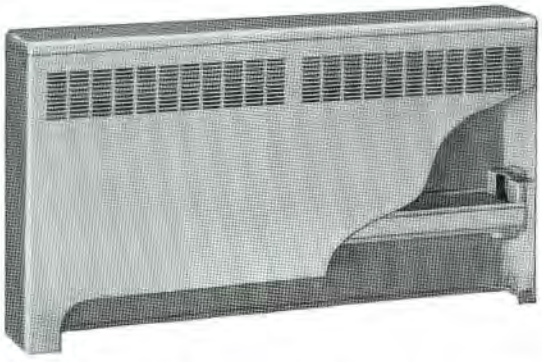

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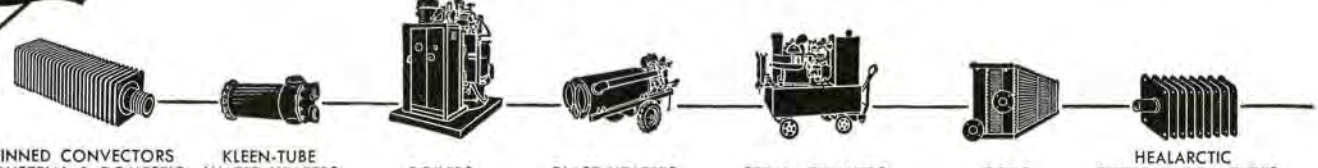

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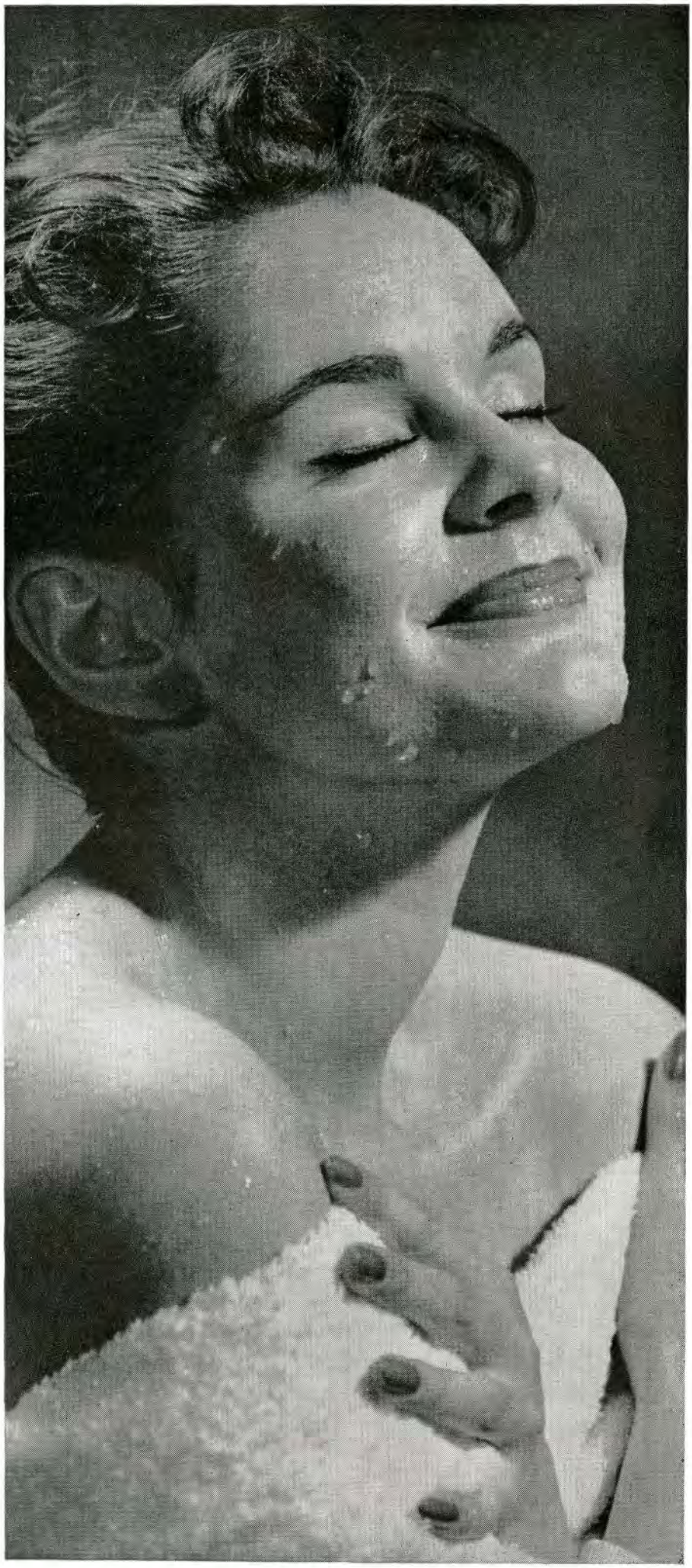

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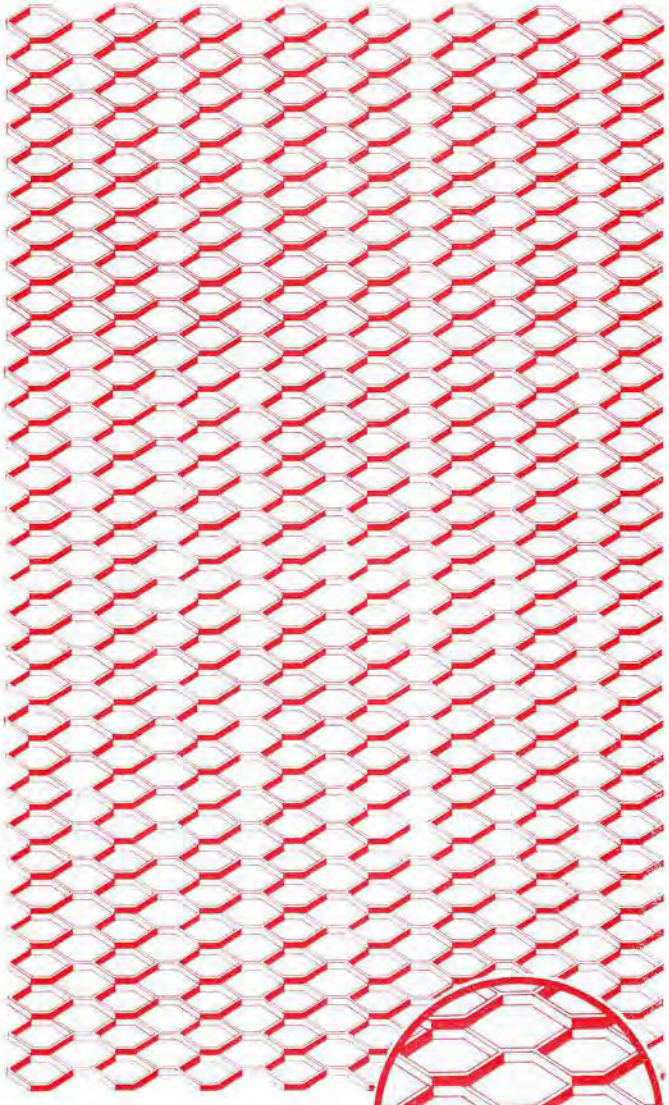

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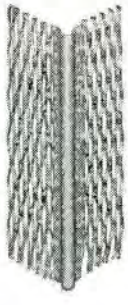

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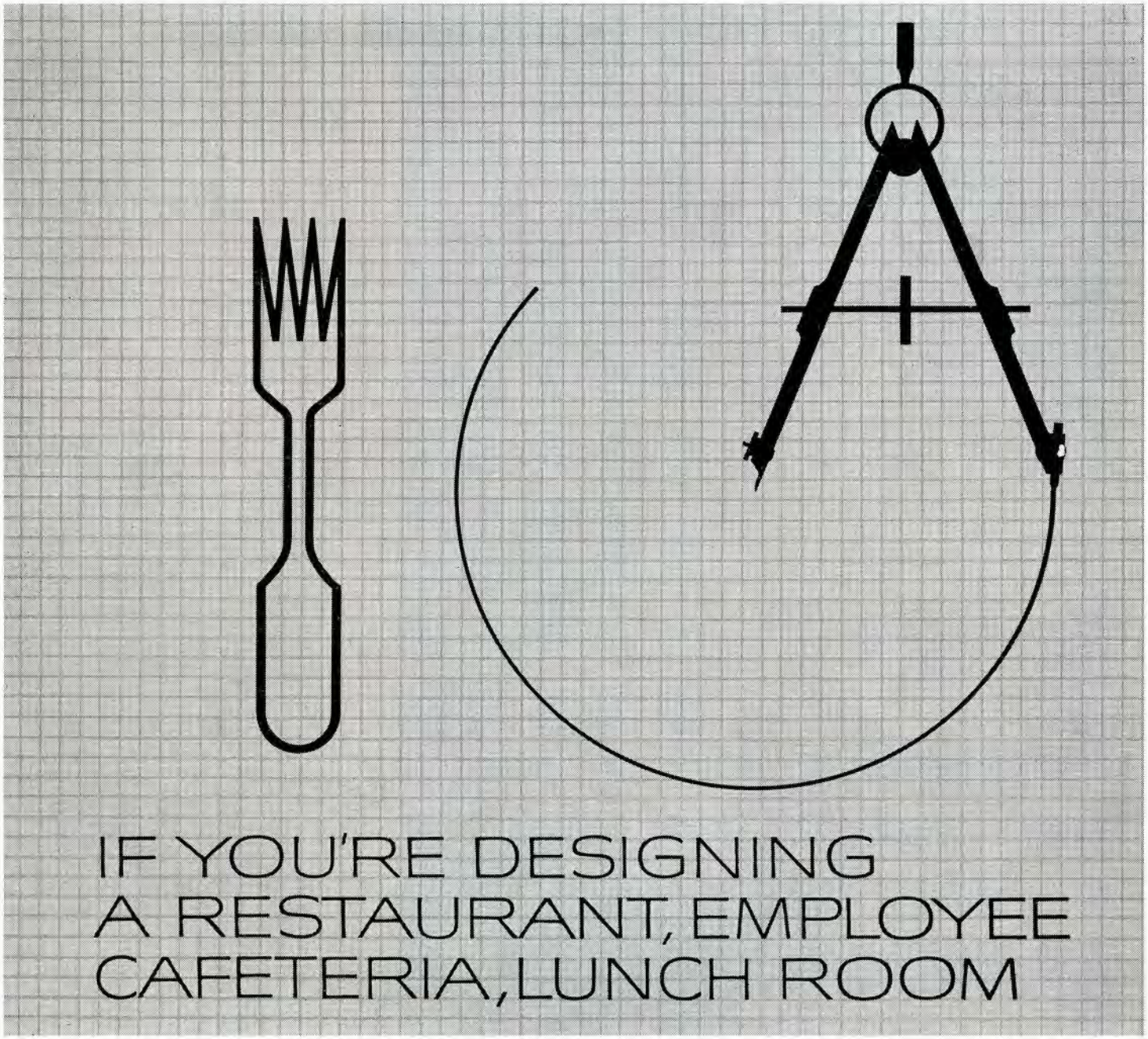

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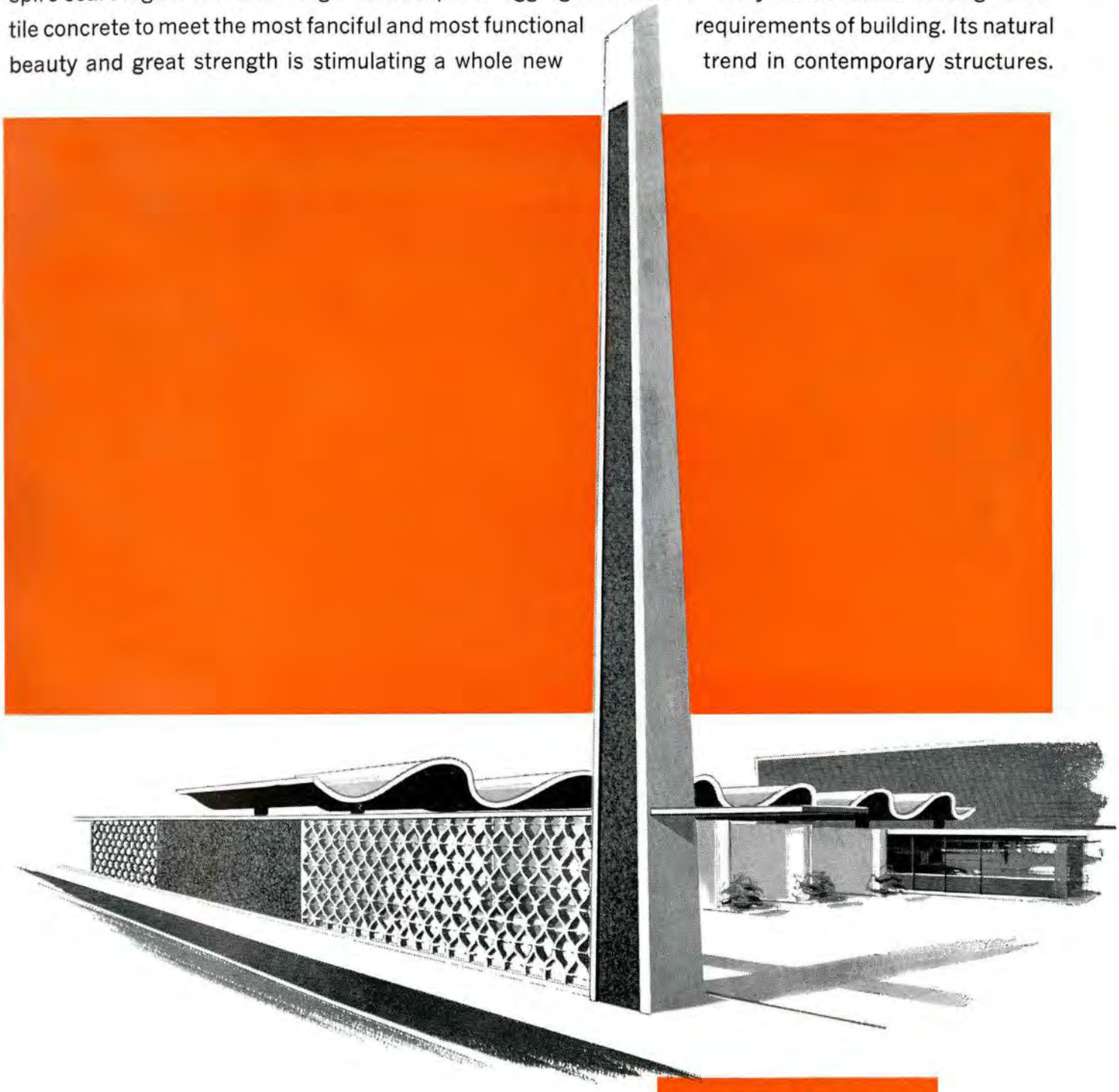

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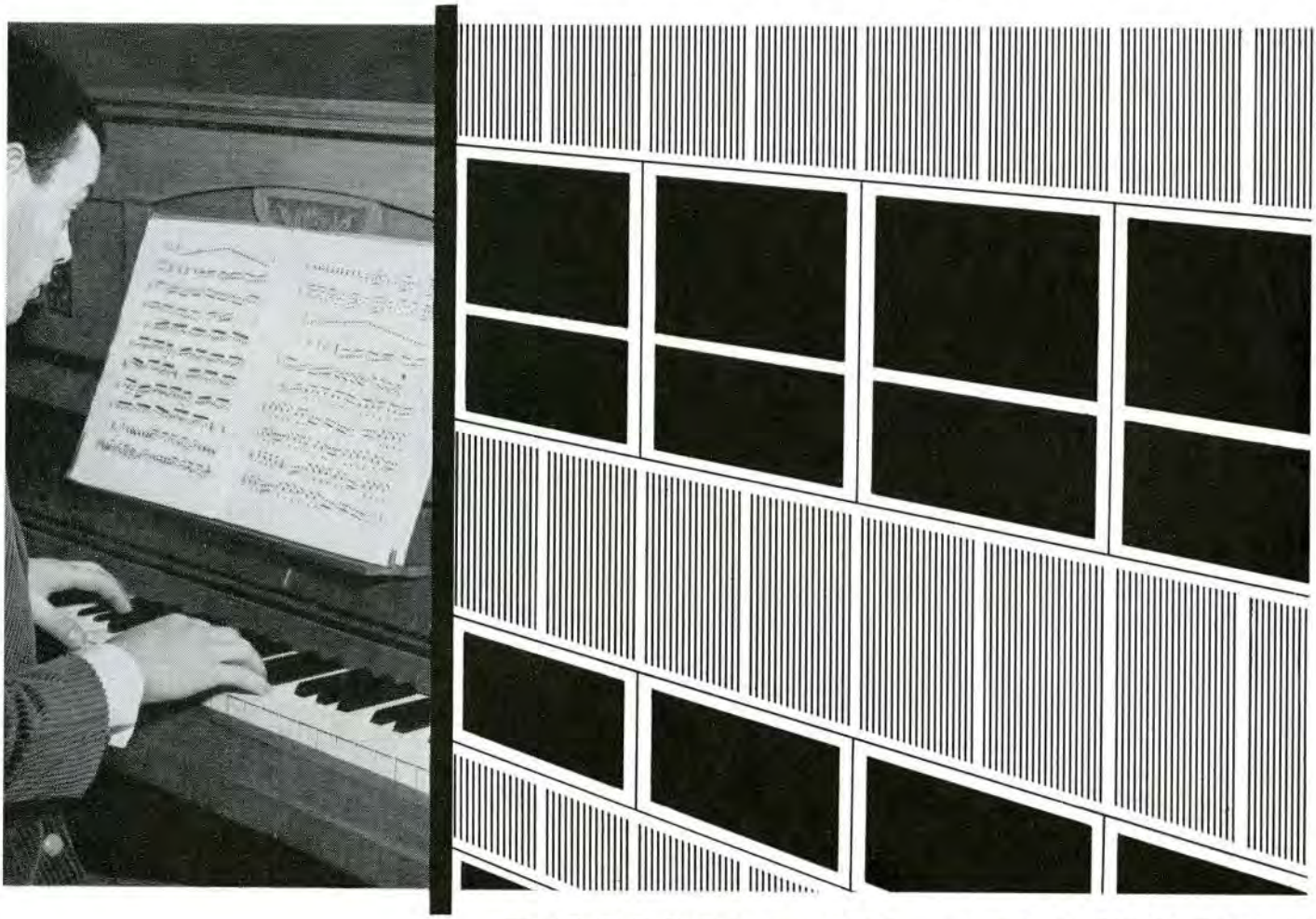

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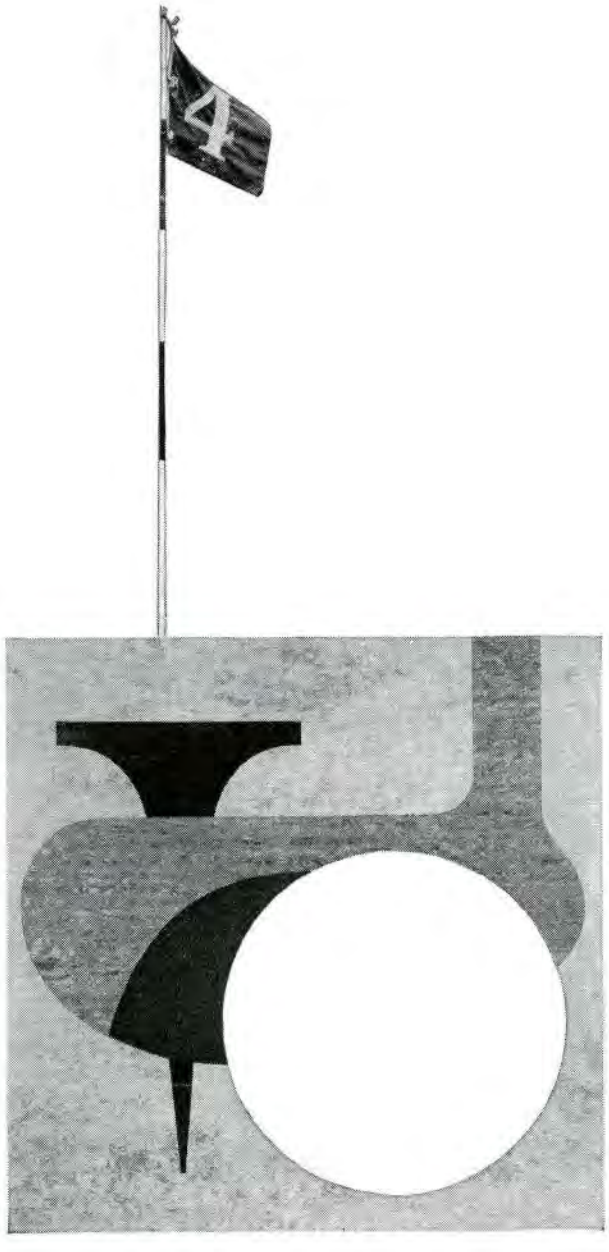

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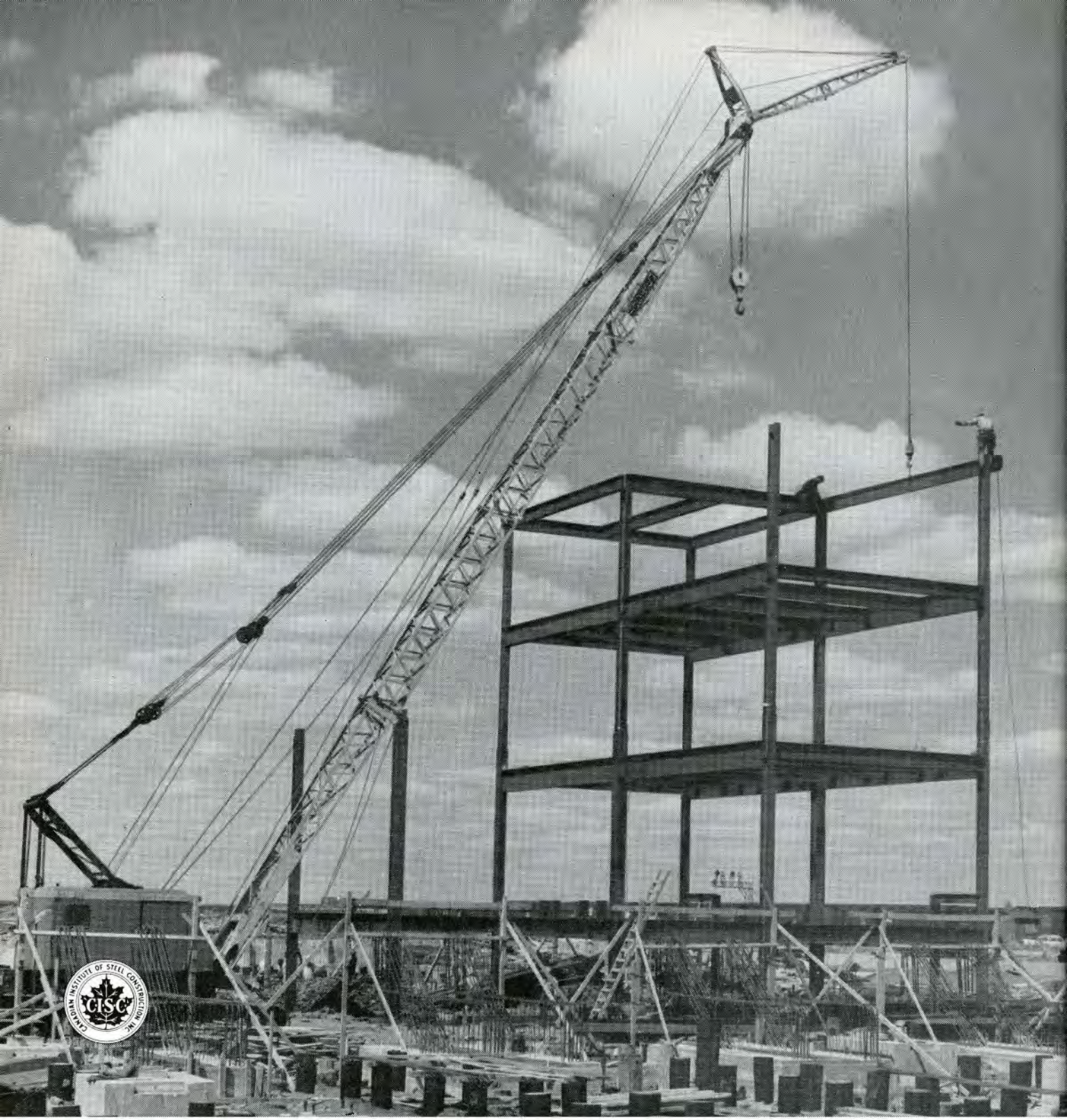

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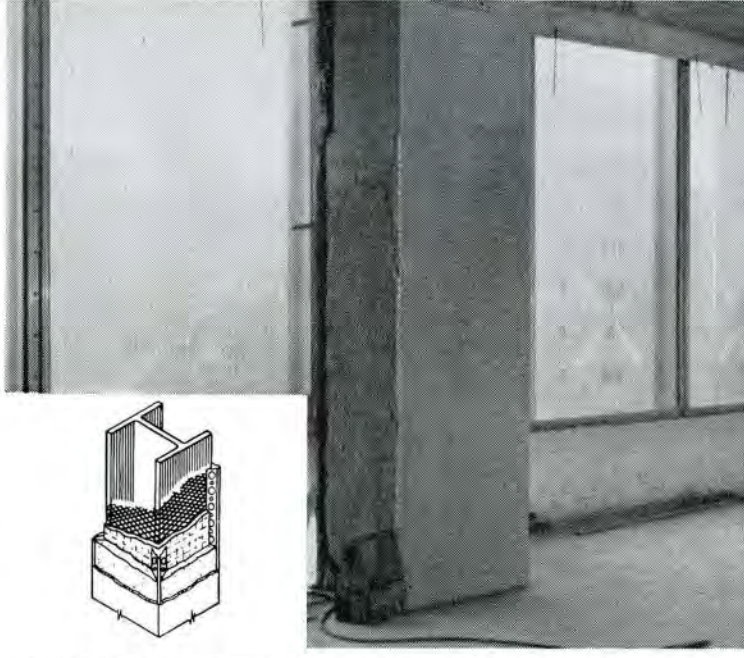
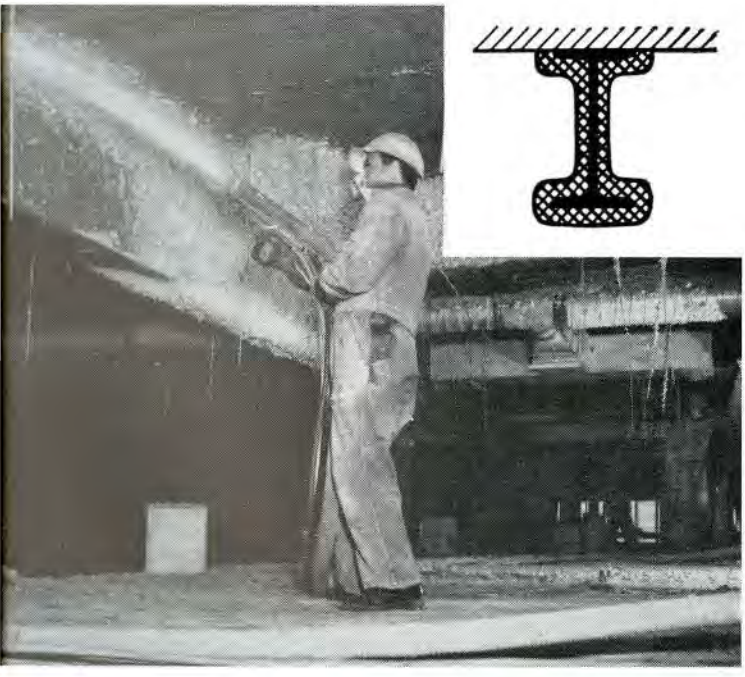
The modern steel frame building is a *light* building. It always has been, but now, with the development of G40.8 and A36 steels, it is even lighter. Permissible working stresses are increased and section sizes reduced for the same loadings. Add to this, light weight floor systems, light weight fireproofing and light weight steel partition studs, and overall dead weight is way down. This can really cut foundation costs—a factor that must be considered in cost estimates.

Light gauge steel cellular floor is covered with thin layer of concrete. Material is available in several shapes and sizes to suit span and service requirements. Cellular floors can provide built-in air conditioning duct, and raceways for electrical services, etc.

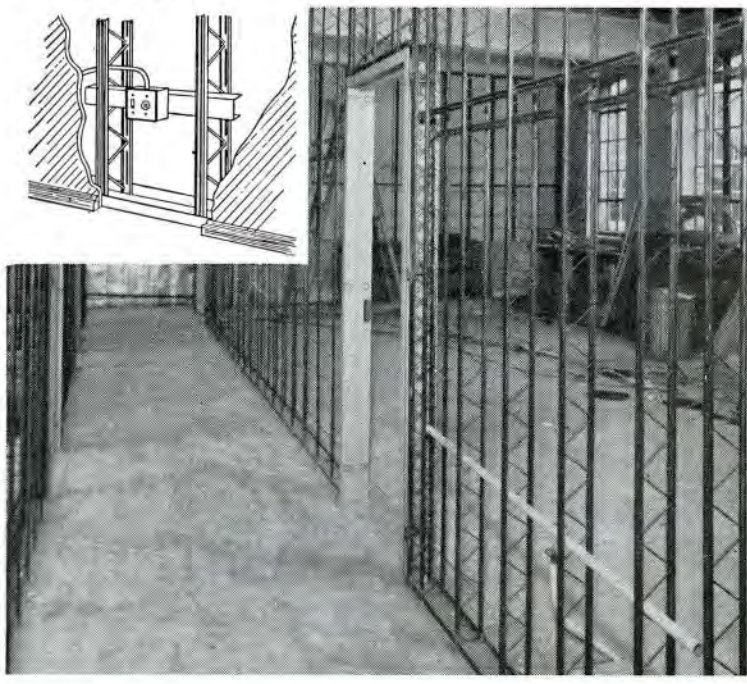


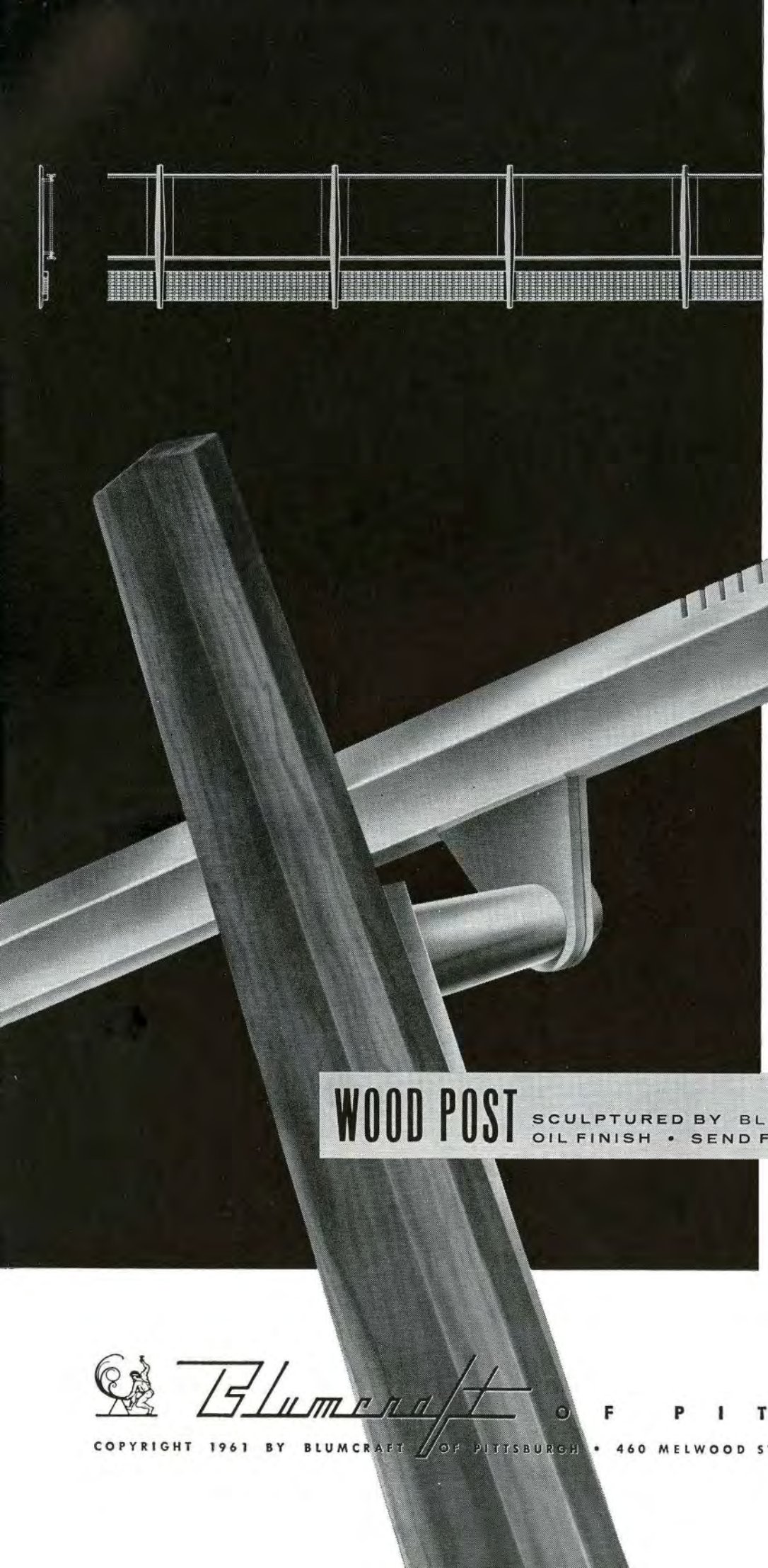
Vertical columns are fireproofed and finished with gypsum plaster over self furring metal lath. Recesses between column flanges provide excellent ducts for service pipes.

Mineral fibre, in this case asbestos, is sprayed on steel to provide light weight fireproofing. Material also provides valuable acoustical characteristics.



DB Litebilt open web steel stud sections provide one of the most efficient methods of building light weight low cost partitions. The material is available in four stock sizes of various lengths.





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HOSPITALS

WHEN THE ELDER MR SAARINEN was asked some years ago how he would choose an architect to do a school, he replied "Find a young man who has never done one". There was a time in Canada when hospital work was considered so specialized that the field was covered by firms of architects who did nothing else. There may still be such, but it is encouraging today to see hospitals taking their place within the field of the general architectural practitioner. Even the most specialized firm must one day have done its first hospital, and the conscientious young architect is in a better position today to take a hospital job than were his predecessors of twenty-five years ago.

His principal support will be the hospital consultant whose usefulness is by no means limited to the inexperienced firm. Almost equally valuable are a body of intelligible literature, which takes the place of stock plans, and frequently revised and re-edited pamphlets from Washington, and the services of our own Canadian provincial and federal departments of health and welfare. Elsewhere in this issue, Mr Keenlyside pays tribute to the outstanding service of the Federal Department in Ottawa under Mr. Gordon Hughes.

It is to be expected that provincial departments will vary greatly in this area of their responsibility, but, with all modesty, we must refer to the Guide to Hospital Planning in Ontario, which was published some years ago under the direction of a committee of architects, a hospital consultant and engineers. It is still available, and, from what we hear, still studied in places as near as the US and as far off as Sweden. Mr Keenlyside may find areas in which there have been changes in detail and technique, but the principles remain the same and they have been culled from unimpeachable sources in many countries.

The acute general hospital is the one that first comes to mind, but the specialist is also conversant with the widely differing functions of hospitals for the convalescent, the chronic and the mentally ill. It is likely that no more sanitoria will be built in Canada, and that the tubercular patient will be accepted in the future like any other patient in the general hospital. Improved treatment for the tubercular and their gradual reduction in numbers may eventually make available sanitoria throughout the country for other purposes. This should relieve the pressure on all hospitals for accommodation for the chronically ill, but it will not solve the problem of what is best for them. The argument still goes on as to whether the chronic is best served in a separate building or in a wing of a general hospital. The problem becomes somewhat academic so long as neither is supplied in sufficient numbers to relieve a very acute situation throughout Canada. *E.R.A.*

HOPITAUX

IL Y A QUELQUES ANNEES, M. Saarinen, père, à qui on demandant quel architecte il choisirait pour la construction d'une école, répondit: "Un jeune qui n'en a pas encore construit". Jadis, la construction d'hôpitaux était tenue au Canada pour un domaine absolument spécialisé, réservé aux maisons d'architectes qui ne faisaient pas autre chose. La situation n'a peut-être pas tellement changé mais il fait bon de noter que le domaine s'ouvre de plus en plus à l'architecte ordinaire. Même la firme la plus spécialisée a dû commencer par un premier contrat et le jeune architecte consciencieux d'aujourd'hui est beaucoup plus favorisé sous ce rapport que ses prédécesseurs d'il y a vingt-cinq ans.

En premier lieu, il peut compter sur l'expert en construction hospitalière dont les conseils sont utiles non seulement aux maisons sans expérience. Une autre aide presque aussi précieuse lui est fournie par des écrits très clairs qui remplacent les plans tout faits ainsi que par des brochures souvent revisées et rééditées émanant de Washington. Enfin, il y a les ministères fédéral et provinciaux de la santé et du bien-être. Dans une autre colonne, M. Keenlyside vante le service du ministère fédéral à Ottawa, dirigé par M. Gordon Hughes.

Il est probable que la qualité des services provinciaux varie sensiblement sous ce rapport mais, en toute modestie, nous mentionnons le Guide to Hospital Planning in Ontario, publié il y a quelques années sous la direction d'un comité d'architectes, d'un conseiller en construction hospitalière et d'ingénieurs. Ce document est toujours disponible et on dit qu'il est encore consulté tout près de chez nous, aux Etats-Unis, ainsi qu'en des pays aussi lointains que la Suède. M. Keenlyside peut trouver des changements de détail et de technique mais les principes demeurent les mêmes et ils ont été puisés aux meilleures sources en divers pays.

Lorsqu'il s'agit d'hôpitaux, on pense naturellement aux institutions pour les cas de maladies aiguës, mais le spécialiste en connaît d'autres dont les fonctions sont bien différentes: institutions pour convalescents, pour maladies chroniques ou mentales. Il est peu probable que d'autres sanatoriums soient construits au Canada. Les tuberculeux seront admis dans les hôpitaux ordinaires; grâce à de meilleurs traitements et à la réduction du nombre des tuberculeux, on arrivera peut-être à libérer les sanatoriums et à les affecter à d'autres fins. Cela remédiera au manque d'espace, dans tous les hôpitaux, pour les malades chroniques mais ne déterminera pas ce qui vaut le mieux pour ces derniers. On continue de discuter pour savoir s'il est préférable les placer dans des bâtiments spéciaux ou dans une aile d'un hôpital ordinaire. A l'heure actuelle, toutefois, la discussion est plutôt spéculative puisqu'ils n'ont ni l'un ni l'autre.

HOSPITALS

14 BED

LITTLE BOW MUNICIPAL HOSPITAL

ARCHITECTS
Meech, Mitchell, Robins & Associates

25 BED

PICTURE BUTTE MUNICIPAL HOSPITAL

ARCHITECTS
Meech, Mitchell, Robins & Associates

40 BED

TERRACE & DISTRICT HOSPITAL

ARCHITECTS
Thompson, Berwick & Pratt

100 BED

SURREY MEMORIAL HOSPITAL

ARCHITECTS
Gardiner, Thornton, Gathe & Associates

1400 BED

TORONTO GENERAL HOSPITAL

ARCHITECTS
Mathers & Haldenby

In examining the plans published in this issue it is of interest to keep in mind the architectural problems that are common to all hospitals:

1 *Patient Accommodation*

2 *Patient Diagnostic and Service Facilities*

3 *Patient Segregation: Obstetrics, Pediatrics, General, Very Ill, Accident, etc.*

4 *Patient Traffic*

5 *Staff Traffic*

6 *Public Traffic*

7 *Control and Separation of Traffic*

8 *Handling and Distribution of Goods*

9 *Return of Re-usable and Disposable Goods*

10 *Distance of Horizontal Travel*

11 *Horizontal and Vertical Conveyance*

12 *Communications*

13 *Personnel Comfort and Accommodation*

14 *Administration and Management*

15 *Safety*

16 *Mechanical and Electrical Facilities*

17 *Ease of Maintenance*

18 *Cost*

19 *Future Expansion*

HOSPITALS

THIS ISSUE — devoted to recently completed hospitals — covers a broad selection from the very small to medium size to an extension to a very large hospital, reflecting the problem of hospital construction across Canada.

It might be said that the 14 and 25 bed hospitals are uneconomic units, difficult to staff and not fully equipped to deal with all the medical – surgical problems that may descend upon them. However, small communities, distant from large centres, have no alternative but to provide this size of accommodation. They must, of course, depend on the larger centres to provide complete diagnostic and service facilities.

The medium size hospitals illustrated in this issue have all made provision for expansion. Most make use of the double corridor which is useful for several reasons. In smaller hospitals it permits easier handling of the constantly shifting type of patient load and still allows reasonable segregation. It reduces the spread of the building, which is very important when expansion occurs. Toronto General started out as a medium size hospital. It has, of course, undergone vast growth in order to maintain its services to the community and to provide the facilities necessary for a great teaching hospital.

Many buildings created as an entity will have a good chance of remaining as originally conceived. This is not so with most hospitals. Pressures that cause expansion exist as soon as a new hospital is built. This poses a difficult design problem for the architect. The pressures for growth are both external and internal and are not necessarily constant for all communities nor equal in force. The only certainty is that they will occur. The medical and nursing professions are relatively young. New discoveries occur frequently that cause demands for space and services within the hospital. Community growth, scientific discovery, social changes, health education, clinical and post graduate training and research, all eventually have their effect. These forces tend to cause the expansion of existing facilities rather than the construction of complete new hospitals.

In solving the problems common to all hospitals, a balance must be maintained. To over-emphasize one at the expense of others will result in difficulties. Creating a 150 bed hospital on one floor solves the vertical transportation problem by elimination, but leaves a permanent horizontal traffic problem and aggravates future expansion out of all proportion. Thoughtful planning always reflects internal functioning. Architects must be aware of and be prepared to explore the numerous functions of the hospital departments with special reference to their effect on the building plan. A complication arises due to the time lag in planning and construction. Data and theories used in planning are always three to five years old by the time the building is completed. Hence it becomes important to develop planning theories and techniques which anticipate future requirements, or at least allow for adjustments when the time comes. Towards that end there is need for research both in operating methods and in planning. Canadian architects trying to resolve this problem depend upon their own ability to carry out research on advice gathered from the medical and nursing professions; on government agencies and on books, and periodicals – and haphazard contact with fellow architects.

The American Institute of Architects acknowledged this problem many years ago and set up a national committee on Hospitals and Health. This committee held their

annual meeting in Montreal on May 8th to May 10th, 1961. The business session dealt with a lengthy and diverse agenda. Information and discussion was freely exchanged between members.

When the American Institute of Architects acknowledge the problem of hospital planning by appointing a standing committee on Hospitals and Health, they also acknowledge their conviction that the architect must be the leader of the team charged with creating hospital facilities. The duties of the committee are well worth quoting:

"To take professional leadership in the Study of the principles of planning health facilities and the total remedial environment: to establish productive contacts at the national and regional levels and to co-operate with governmental and private agencies in matters of mutual interest, and to disseminate its contributions to professional knowledge by publication and conference". The Committee keeps in touch with actively interested former members and makes every effort to increase the number of corresponding members.

Similar committees have been organized in certain states and regions in order that State Health Departments may be able to discuss hospital problems with their local committees. Such State architectural committees are in direct contact with the AIA committee, as the State Health Departments are in contact with the United States Public Health Services.

Our problem is similar in many respects to that of our American associates. Basic problems are the same – variation comes in method and with regional Canadian situations.

An issue dealing with hospitals would be incomplete without reference to Gordon Hughes, Chief of the Hospital Design Section, Department of National Health and Welfare. Gordon Hughes has done more than any other person to assist hospitals nationally and to assist architects nationally. He is knowledgeable, helpful and an excellent critic. The RAIC has already made him a Fellow – perhaps we could make him a Fellow with bar.

There are certain problems that Gordon Hughes has been able to resolve and assist the profession in resolving. There are others that, due to the nature of Mr Hughes' position and the nature of the problems, require work on the part of the RAIC as a whole.

We should organize a national committee similar to the American one – provincial committees can come later. This is the reverse of the principle of the BNA Act but is the only one that will work at the moment. We should not attempt to duplicate the work of the American committee but gear the activities to the need of Canadian hospitals and architects. If the RAIC should agree to form such a committee, here are some problems that could be tackled immediately.

(a) The sifting of technical papers and books, etc. that have been published to determine what is excellent, good or poor, with special reference to Canadian methods and problems.
(b) The publishing of such information.
(c) Setting up the mechanics of gathering information, from the nursing, medical and research organizations, that affects the buildings we create.
(d) The publication of a complete statement of responsibilities, relationships and procedure in planning, designing and building a hospital. The OAA has issued a leaflet on hospitals. This could be expanded to cover the question more fully.

There are undoubtedly other items that readers of the *Journal* could add.

P. M. Keenleyside

The two municipal hospitals illustrated on this and the following page, were both constructed in communities close to major hospitalization facilities. They were both constructed within a budget of $10,000 per bed for each building.

The planning of both buildings was on similar principles, with a central service core, and most wards orientated to the south.

Services provided in each building include: nurses' call system, intercommunication system, piped oxygen and suction, central vacuum cleaning system, climate control for nurseries, operating room and delivery room, forced hot water heating and high pressure steam for sterilizing.

A. E. CROSS

LITTLE BOW HOSPITAL

Reinforced concrete foundations with concrete floor slab on open web steel joists, exterior walls masonry and aluminum spandrels with baked vinyl finish, frame interior partitions and frame roof.

PICTURE BUTTE HOSPITAL

Reinforced concrete foundations with precast prestressed concrete structural frame, floors and roof systems. Interior partitions frame, exterior walls masonry and aluminum spandrels with baked vinyl finish.

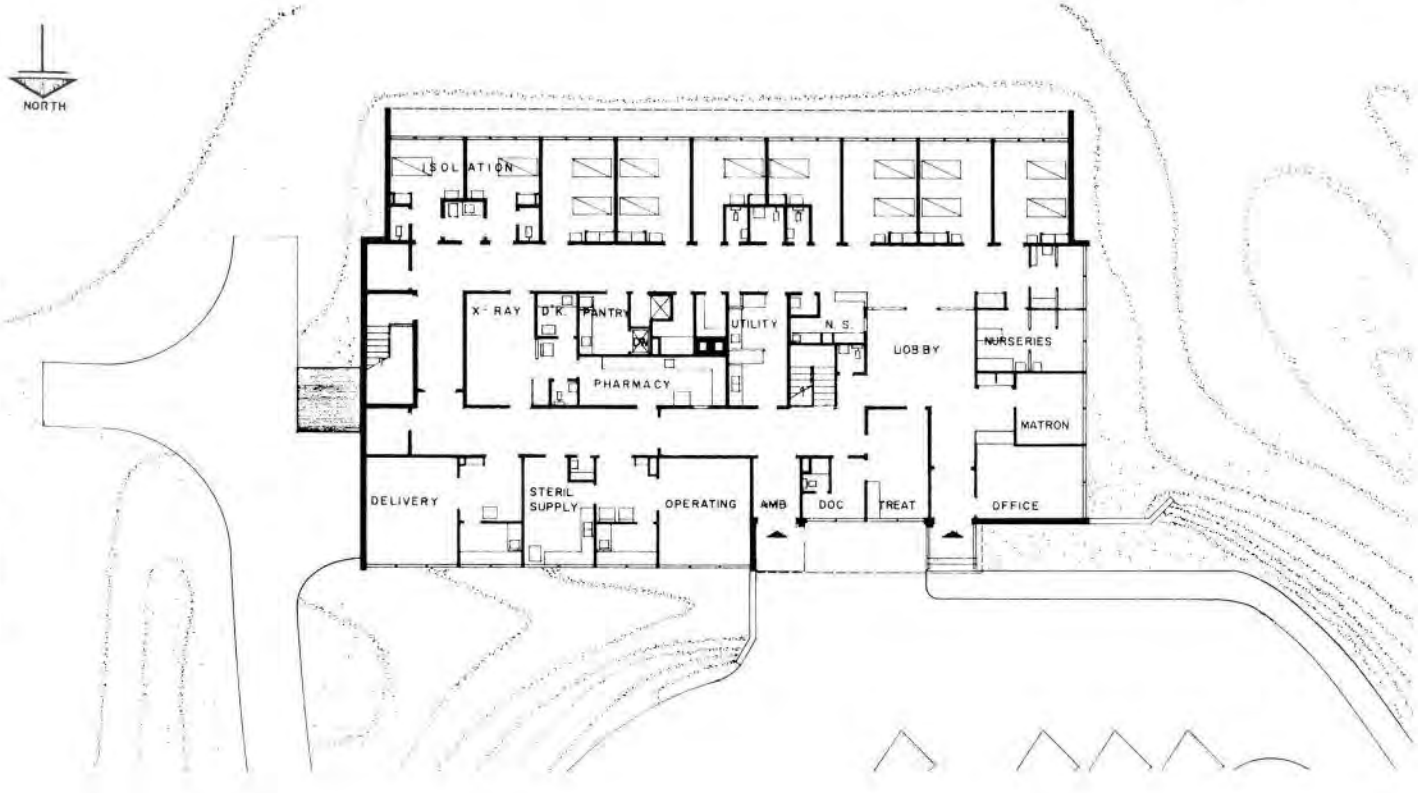
Little Bow Municipal Hospital, Alberta

ARCHITECTS
Meech, Mitchell, Robins & Associates. Lethbridge

CONSULTING ENGINEERS
Haddin, Davis & Brown Ltd. Calgary

GENERAL CONTRACTOR
Bird Construction Co. Ltd

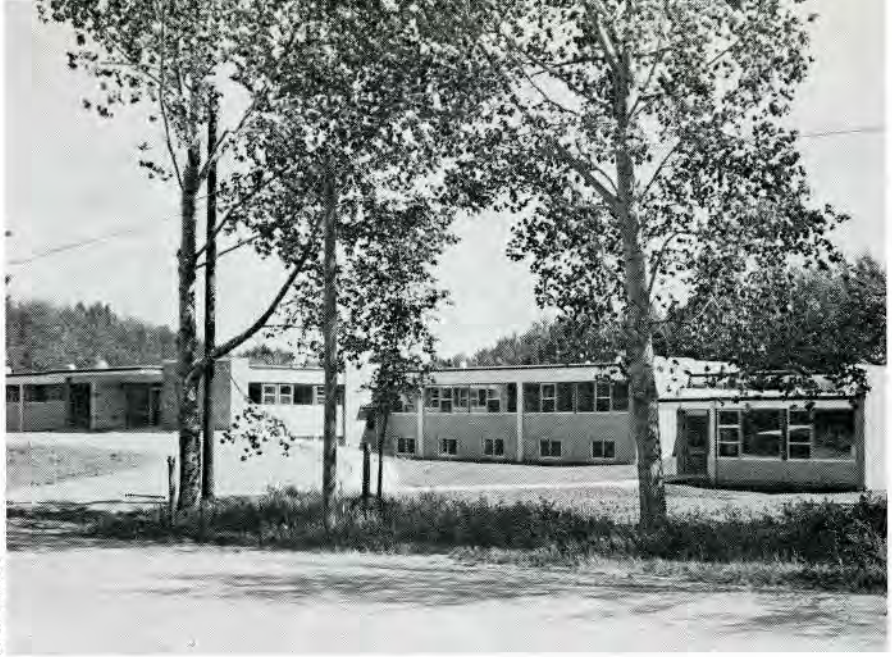
BASEMENT PLAN



ARCHITECTS
Meech, Mitchell, Robins & Associates. Lethbridge

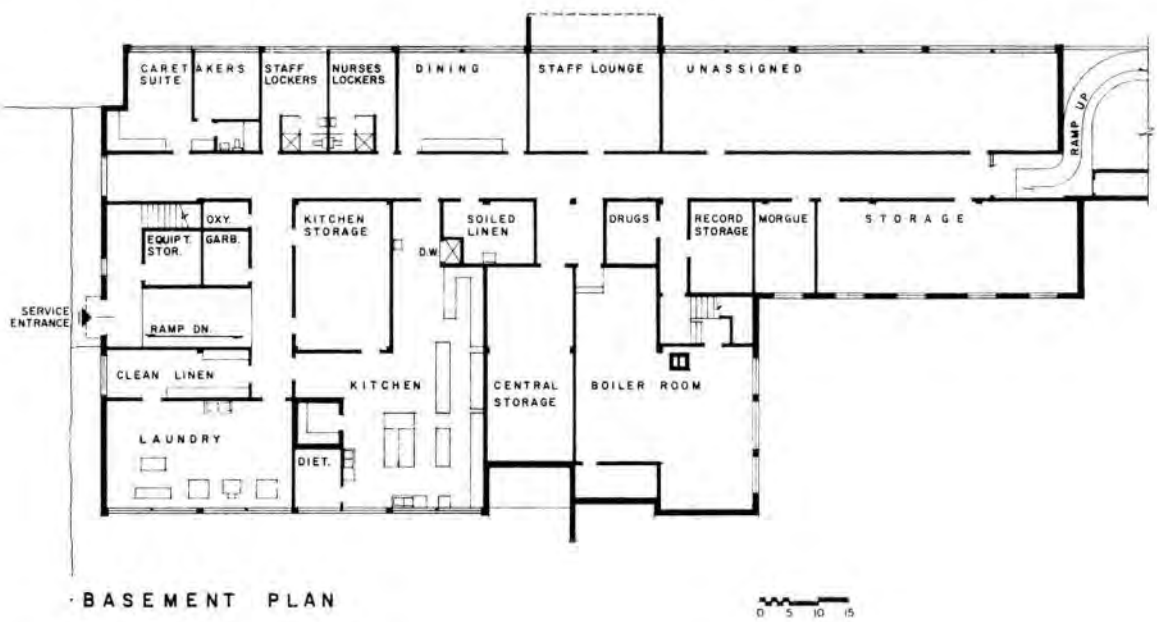
CONSULTING ENGINEERS
Haddin, Davis & Brown Ltd. Calgary

GENERAL CONTRACTOR
Oland Construction (1959) Ltd

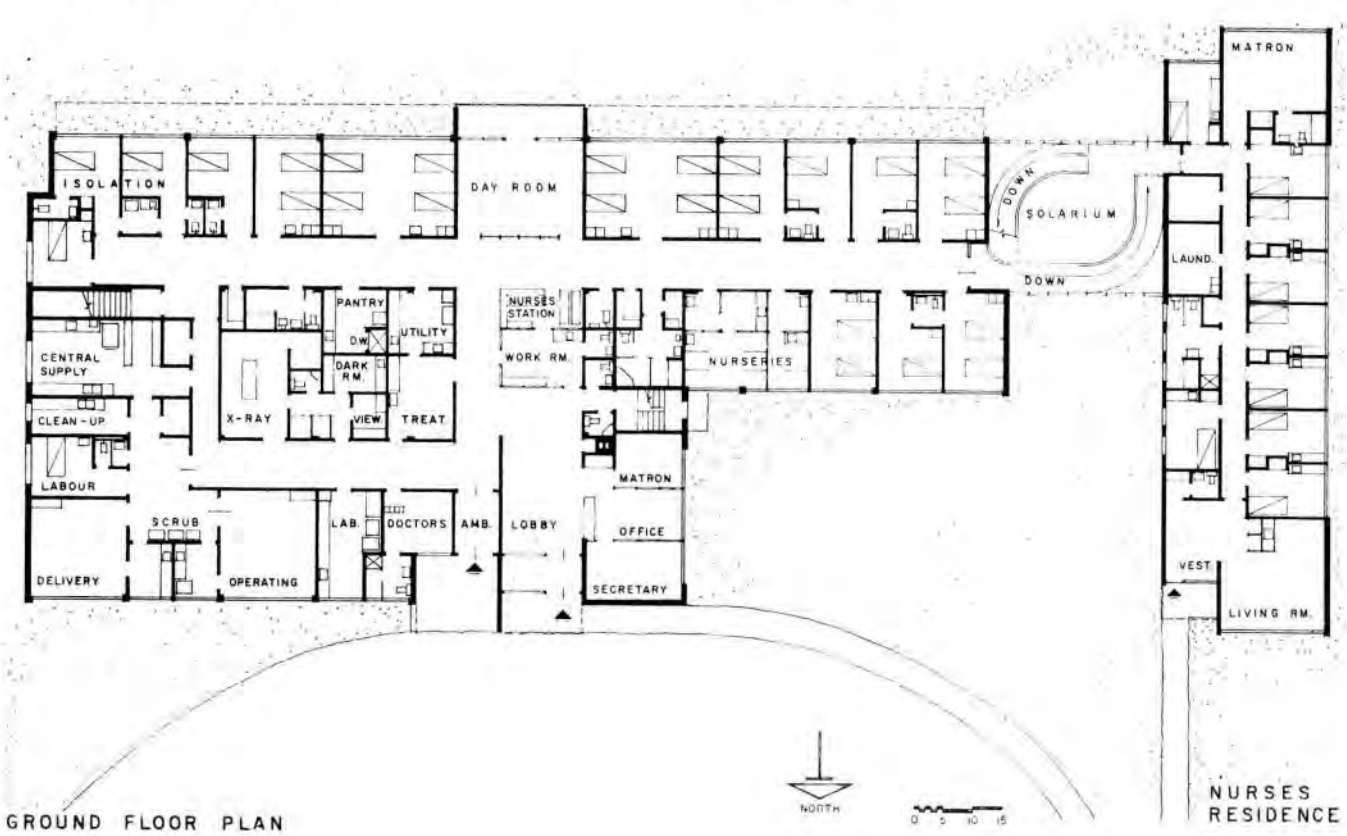


A. E. CROSS

Picture Butte Municipal Hospital, British Columbia



BASEMENT PLAN



GROUND FLOOR PLAN

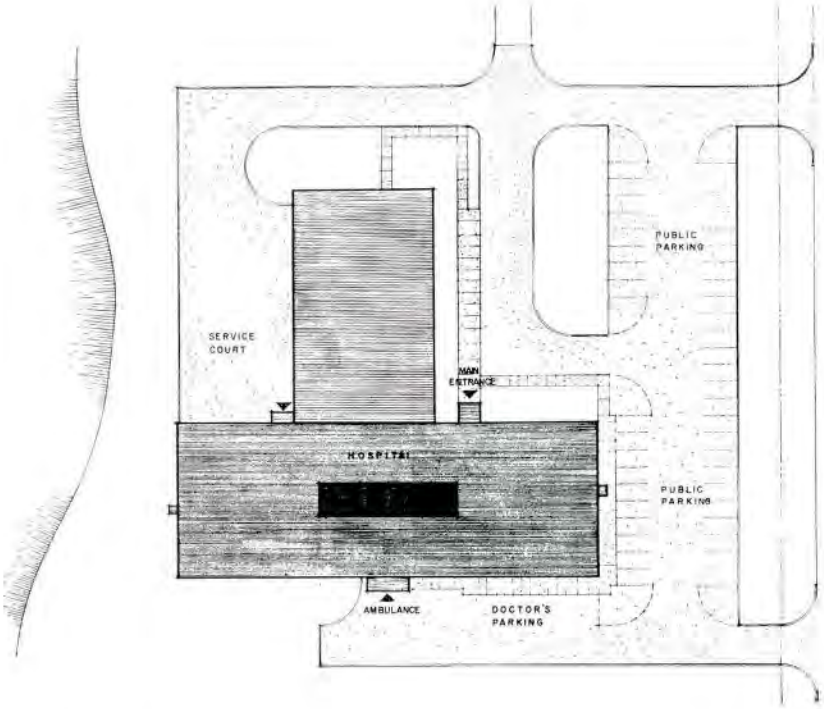
ARCHITECTS
Thompson, Berwick & Pratt. Vancouver

STRUCTURAL ENGINEER
Thorson & Thorson

MECHANICAL ENGINEER
D. W. Thompson & Co. Ltd

ELECTRICAL ENGINEER
Simpson & McGregor

GENERAL CONTRACTOR
P. Kiewit & Sons Co. of Canada Ltd



Terrace and District Hospital, British Columbia

The community of six thousand people which the hospital serves is situated at the junction of the main C.N.R. lines to Kitimat and Prince Rupert; forty miles from Kitimat and ninety-five miles from the Pacific coast port of Prince Rupert. Terrace is the centre of a large logging area, the principle product of which is telephone poles. The "*Terrace*" on which the town is built was formed by the Skeena River, and is surrounded by magnificent snow-capped mountains.

Because the hospital is sited close to the Skeena River and flood conditions, the entire building is situated on grade. It is located at the south end of an eleven acre area, the north half of which is heavily wooded with pine and spruce. A nine-bed nurses' residence is currently being constructed some two hundred feet from the hospital, in a grove of pines.

All basic hospital services are located on the main floor of the building, with the nursing unit, including obstetrics, on the second floor. A simple double corridor plan was utilized to provide easy segregation of pediatrics, maternity, medical, and surgical beds, all controlled from the central nurses' station. The hospital has a forty-bed setup, with provision for ten beds to be allocated at a future date. It is planned for future expansion to about eighty beds, with the second floor to be expanded over the one-storey service wing.

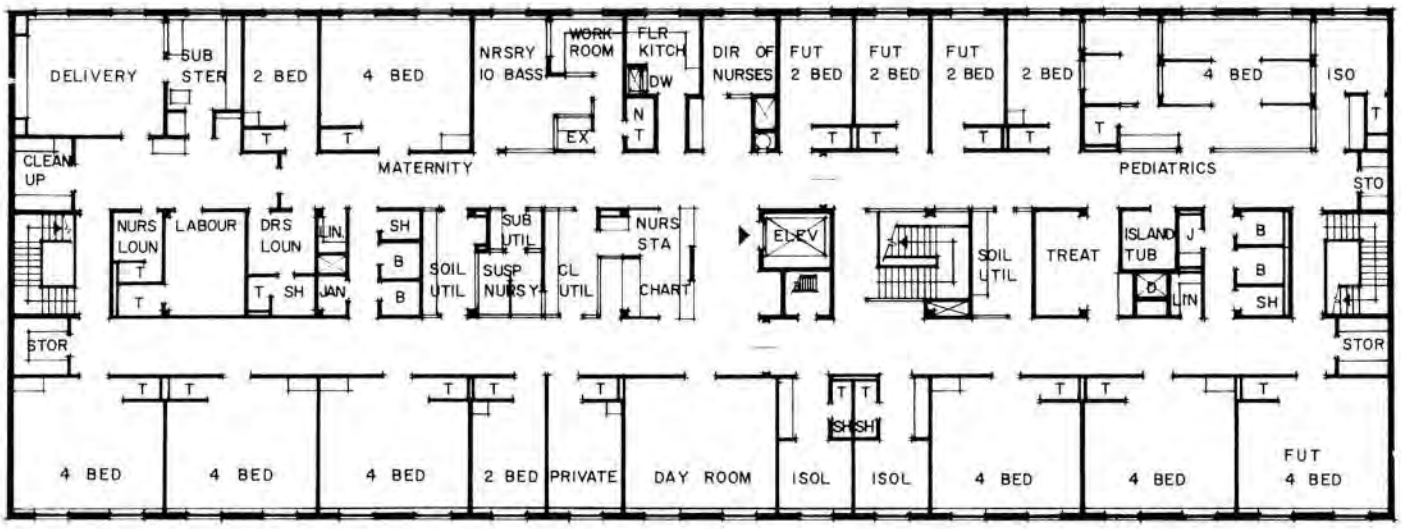
A single hydraulic elevator and dumbwaiter provide inter-floor transportation. One interesting feature of the entrance lobby is the relationship of the central staircase and the staff elevator. The latter has been "hidden" from the public to encourage them to use the stairs. All main floor exterior walls are constructed of masonry so they may be easily removed for future expansion. The building construction is reinforced concrete, using slab and rib joist via steel pan forming. Exterior faces are painted architectural concrete and concrete masonry.

Floors throughout are terrazzo; partitions steel studs with gypsum lath and plaster. All ceilings are suspended, some with fibred glass panels, and others suspended gypsum lath and plaster.

Heating is a combination of hot water and forced hot air. Surgical and obstretical facilities are provided with complete air conditioning and humidity control. Emergency power is provided; doctors' paging system is audio, and the nurses' call system is the standard visual type. Special control lights are set up in the ceilings of the nursing corridors to indicate from which corridor calls are originated.

Oxygen and suction are piped throughout the building, with nitrous oxide serving operating and delivery rooms.

Colours have been co-ordinated with the furnishings, fabrics, etc. Landscaping of the hospital site is currently being carried out. The building was completed in March, 1961, after a construction period of approximately thirteen months.



ABOVE: SECOND FLOOR PLAN

GROUND FLOOR PLAN

0 10 20 30 40 50

JOHN FULKER

Surrey Memorial Hospital, British Columbia

ARCHITECTS
Gardiner, Thornton, Gathe & Associates

STRUCTURAL CONSULTANT
Read, Jones, Christoffersen. Vancouver

MECHANICAL CONSULTANT
Heat & Power Engineering. Vancouver

ELECTRICAL CONSULTANT
Royce Rich. Vancouver

GENERAL CONTRACTOR
G. H. Wheaton. Victoria

The Surrey Memorial Hospital was constructed on a gently sloping site of approximately 18 acres. The building was located to the rear of the site to allow for expansion of up to approximately 320 beds and for future construction of Nurses Home, Medical Clinic and Interne Residence.

The double corridor type of plan was selected for two reasons. The first being to plan a hospital to operate at a minimum cost and secondly, to design a building easily expandable to approximately 320 beds.

The boiler house and laundry are located to the east of the main building in such a way as to allow expansion area between laundry and main building. The compact CDR will expand over the laundry roof but retain its central location after the programme has been completed.

Emergency ambulance entrance and emergency operating are on the second floor a short distance from operating suite. The ambulance entrance is controlled by a buzzer system to the second floor nurses station.

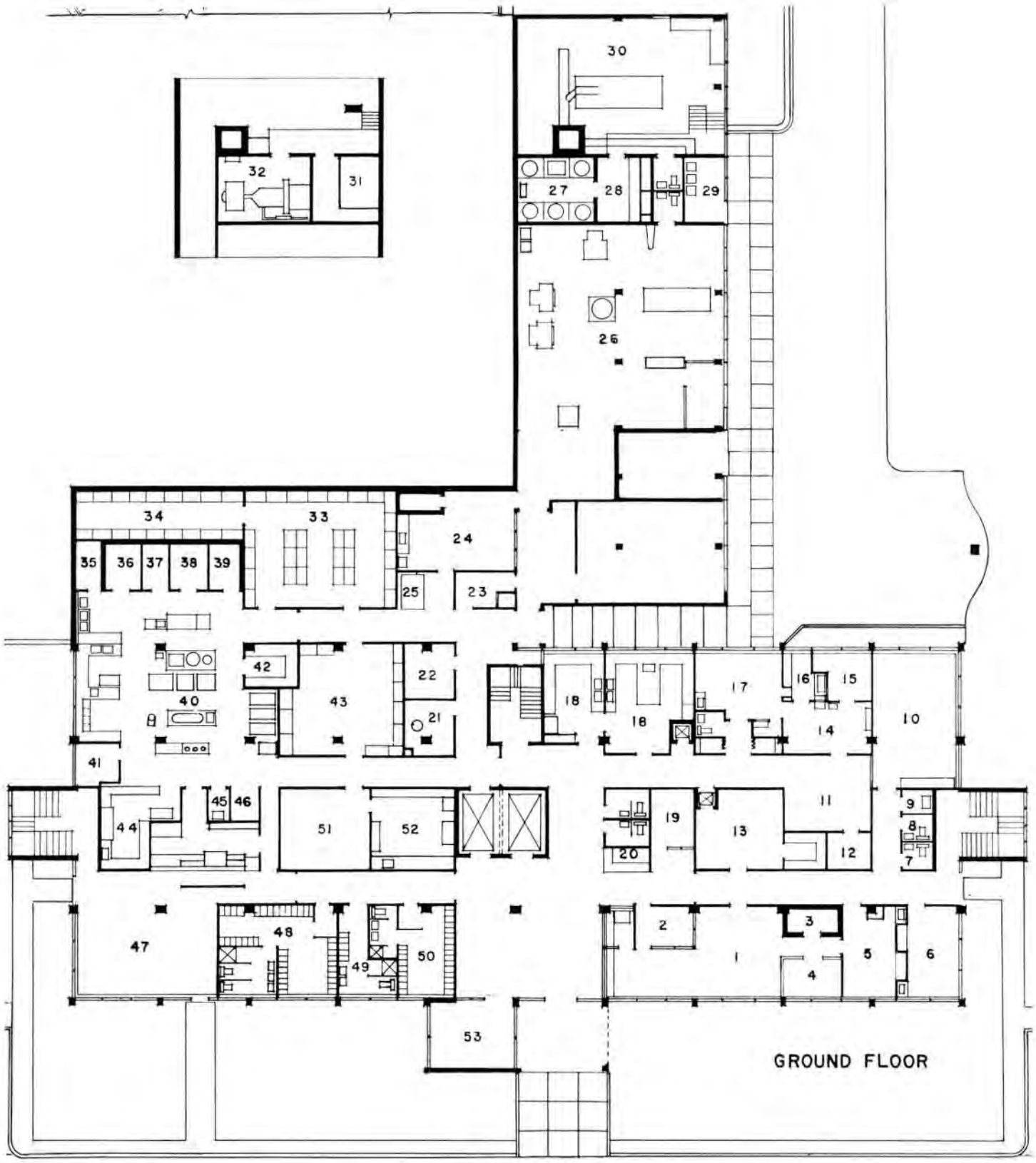
Expansion of the hospital to the south would include basically: a new out-patient department on ground floor, expansion of operating and obstetrical suites on 2nd and 3rd floors and a new nursing unit on the 4th floor. To the north, on the ground floor, expansion of kitchen, cafeteria, general stores, new morgue and service entrance is to be planned. Upper floors would house complete new nursing units.

For economy of construction a reinforced concrete frame with ribbed and flat slab floors was selected. The upper three floors on the east and west elevations are enclosed with curtain walls with large pivot and top hung transom windows arranged so that cleaning can be carried out from inside. Both corridors and centre core floors are of terrazzo. Partitions are set on top of terrazzo floor so that future remodelling in the expansion programme can be made without expensive floor and base repairs. Wards all have vinyl tile flooring, general office, locker room, cafeteria, kitchen, laboratory X-Ray all have granwood flooring.

Heating is hot water with panel type convector units in all rooms supported on angle frames set independent of curtain wall insulated panels. Oxygen and suction outlets are installed throughout in wards, nurseries, operating and case rooms. Oxygen is stored away from Hospital Building.

Audio visual nurses' call system provides direct communication between nurses' station and patients and includes emergency call plates in all patients' lavatories and bathrooms.

The emergency generator set was sized to allow operation of general lighting, one passenger elevator, boiler controls, ventilating fans, operating and case room lighting, one sterilizer in C.D.R. and one range in the kitchen. Kitchen equipment and sterilizers are electrically operated, laundry equipment, such as tumbler and ironer, are gas operated.



LEGEND

GROUND FLOOR
1 General Office
2 Admitting Office
4 Accountant's Office
5 Administrators Office
6 Director of Nurses Office
10 Board Room
11 X-Ray Waiting Area
13 Medical Records
15 Radiologists Office
16 Dark Room
17 X-Ray Room
18 Laboratory
19 Chest X-Ray Room
24 Morgue
26 Laundry
30 Boiler Room
31 Incinerator Room
32 Generator Room
33 Bulk Food Storage
40 Kitchen
41 Dieticians Office
42 Day Stores
47 Cafeteria
50 Nurses Locker Room
52 Pharmacy
SECOND FLOOR
201 Major Operating
202 Sub-Sterilizing
203 Minor Operation
204 Central Sterilizing
205 Doctors' Lounge
206 Ambulance Entrance
207 Emergency Operation & Plaster Room
208 Examination Room
223 Recovery Room
224 Clean-up Room
THIRD FLOOR
347, 349-358 Wards
301 Delivery
302 Sub-sterilizing
303 Labour & Emergency Delivery
304 Clean-up Room
305 Labour Room
307 Sterile Linen
311 Examination Room
324 Suspect Nursery
328 Nursery
FOURTH FLOOR
441-448 Wards
450-458 Wards
457 Isolation
404 Examination
411 Diet Kitchen
440 Security Room


AMBULANCE ENTRANCE
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FOURTH FLOOR

JOHN FULKER

SURREY MEMORIAL HOSPITAL, BRITISH COLUMBIA

JOHN FULKER

Modernisation of the Toronto General Hospital

ARCHITECTS
Mathers and Haldenby, Toronto

MECHANICAL & ELECTRICAL ENGINEERS
H. H. Angus and Associates, Toronto

STRUCTURAL ENGINEERS
C. D. Carruthers and Wallace Consultants Ltd, Toronto

PHOTOGRAPHS BY PANDA

By A. S. MATHERS and E. W. HALDENBY

FOR CLOSE TO HALF A CENTURY, the Toronto General Hospital has served a growing Toronto, its suburbs and beyond. It is the major medical training centre for the University of Toronto and the source of much significant research. Because of its size and scope, it has been able to provide specialised treatments not available elsewhere.

As more frequent and more extensive demands were made upon its facilities, renovations, additions and other improvisations were made to keep the hospital in a position to serve all those who called upon it. However there were not enough beds, and services were inadequate.

Commencing in 1948, an extensive survey of the hospital's immediate and long range requirements was begun. The survey was designed to determine policy and the priorities of the additional accommodations and the modernisations required to bring the standard of service up to a high level. It was determined that the entire program should be divided into two phases; one, a group of new buildings added to the present facilities, so located as to connect with the existing services; the other, covering long term renovations of the existing buildings.

The following is a list of the main building projects which have been undertaken as part of the overall planning and development for the hospital. These may be divided into two main groups, (A) new buildings and (B) modernisation of existing buildings. The numbers of the building projects listed coincide with the numbers on the plot plan shown.

A New Buildings:

1 A group of buildings, located centrally on the site, comprising a new emergency and admitting department, diagnostic and therapeutic radiology departments, new operating and delivery rooms, patient accommodation, laboratories, medical records department, central surgical supply, students' teaching area, neuro-surgical department, eye department, genito-urinary department, obstetrics and gynaecology department, neurology department, rehabilitation and physical medicine departments, main cafeteria and kitchen and centralised warehouse and receiving. This group of buildings is known as the Central Building Group.

B Modernisation of existing buildings:

2 Improved out-patients' facilities, including ear, nose and throat, eye and dental.
Demolition work necessary in connection with the new main entrance, Central Building Group.

3 Demolition of Dunlap Building and re-construction of north-west corner of the Private Patients' Pavilion.

4 The demolition of the south 20 feet of the Records Building and re-construction of the south wall.
Improved cardio-vascular services.

5 The modernisation of the 8th and 9th floors of the Private Patients' Pavilion, including private and public beds, acute therapy areas, recovery wards and specialised operating theatre.

6 Extension to cardio-vascular investigation unit.
Other Improvements.

7 Enlarged laundry facilities.

8 The clinical investigation unit, comprising metabolic research facilities and research laboratories and patient accommodation.

9 Modernisation of the out-patients' facilities (Larkin Wing), including dermatology, obstetrics and gynaecology, medicine and special clinics.

10 Modernisation of the existing College Street surgical wards.

The approach to the planning of the new buildings was a difficult one. After months of research and study, it was tentatively decided that the scheme that provided the accommodation under one roof, rather than in separate buildings, was the sounder approach. Such a plan would prove more economical from the construction standpoint as well as providing a much more efficient, economical and functional hospital administration. In addition to the dollars and cents saving, the conversion from long, time-consuming horizontal transportation runs, to faster vertical transportation, effects many economies in time and personnel. The centralising of operating rooms, warehouse and receiving, central surgical supply, the kitchen and cafeteria, laboratories, and the combining of admitting and emergency departments with its consequent saving in manpower, achieve the same effect.

If this was to be done, the problem was to find or make an area somewhere on the hospital's fourteen acres which would be large enough to contain such a structure. The first restriction was that no demolition could be permitted until replacements were ready for use. The logical place for a large central structure would be at the centre of gravity of the entire area. Unfortunately this position was occupied by the West Nurses' Residence. The fact that it would be necessary to provide accommodation for two hundred nurses, at present housed in that building, almost immediately forced discard of this plan.

As can be seen from a study of the site plan, there was only one place where such a building could be erected with due consideration to the factors outlined, and that was in the garden area immediately behind the existing Radiology Building, The scheme, of course, was based on the assumption that this existing University Avenue building would be razed immediately upon completion of the new building.

Once the decision on the location of the building was made, the general shape and disposition of various departments was the new problem. The existing emergency and admitting departments were antiquated and inadequate, and due to the increased volume of traffic on University Avenue, poorly located. Since Elizabeth Street was by nature a service street and College Street is crowded with traffic, Gerrard Street was the alternative. From the new admitting department on Gerrard Street, it would be necessary to connect up to all other existing buildings, including the Private Patients' Pavilion, the new central building group, the College Street building, and the existing out-patients' building department.

Due to the physical restrictions of the site, a "T" or "Y" shape or some variation of these was indicated.

It was finally decided that a large, central multi-storied unit with an east-west axis and with a two-storey "T" on the north-south axis with a basement and sub-basement, was the best solution. The actual dimensions of this proposed "T" building were determined by the requirements of the operating room floor, which contains a complete bank of centralised operating rooms with all the necessary ancillary services. Thus the general shape and overall dimensions of the complete "T" were established.

The admitting and emergency services were moved off University Avenue and were accommodated in a block fronting on Gerrard Street and connected to the south end of the basic "T" and to the east end of the Private Patients' Pavilion. Due to the topography of the site, which falls twelve feet from College Street to Gerrard Street, basement level, where admitting and emergency were to be located, is actually at grade, so that foot and vehicular traffic enter directly without the necessity of steps or a ramp. This location for admitting made it accessible to all services in the hospital.

The connection of the new building with the existing College Street building was a matter of exhaustive study. Several types of traffic were to be handled, including service, visitors, hospital staff, students, surgical and x-ray patients. A system of tunnels was worked out, which provided an efficient link between all buildings with a minimum of cross traffic and interference.

The principle adopted in planning the new main central block is based on a double corridor arrangement. By this means, all the exterior walls with natural light could be devoted to patients' accommodation and all ancillary services such as nurses' stations, utility rooms, treatment rooms, etc. are contained within the central core. This plan keeps the nurses' services within easy reach of all patients, since the services located in the core are accessible from either side. Time and motion studies proved that the actual distance travelled by nurses in any normal day is greatly reduced by the use of the double corridors. Air-conditioning and mechanical ventilation, of course, permit the full use of completely interior areas, such as the core.

Possibly the most important single feature of the entire design of the new building is the fact that all main services have been centralised. In a hospital of this complexity, spread out over fourteen acres, with the necessity to maintain and connect into the services of the old building, the obvious need was for centralisation. This has been achieved in the following departments: admitting, kitchen and cafeteria, operation rooms, central surgical supply, laboratories, warehousing and receiving.

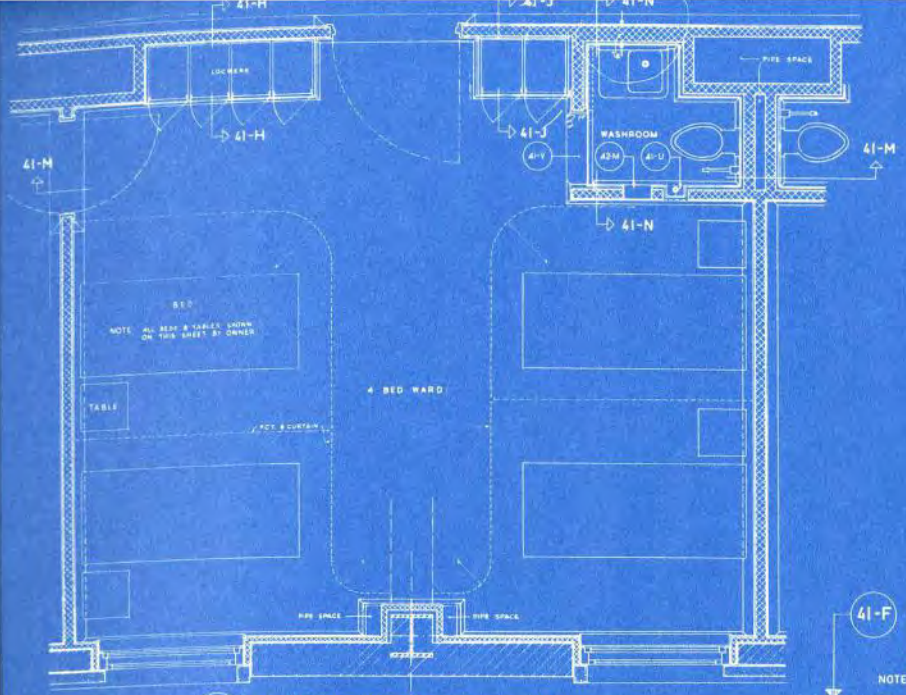
The foregoing are a few of the highlights contained in the plan of this hospital. In addition to the many features in the new structure, there are certain features of the modernisation programme which should be mentioned.

1. The enlargement and improvement of the existing out-patients' facilities.

2. Improved cardio-vascular services, consisting of private and public wards, a recovery area and specially designed cardio-vascular operating rooms. In addition to this, there is a cardio-vascular investigation unit comprising laboratories and special x-ray facilities for this specialised subject.

3. In keeping with the trend for research, a new clinical investigation unit, comprising metabolic research facilities and laboratories for various subjects, is under construction. A complete basement of the College Street medical wing has been converted to include facilities for these needs.

4. The modernisation of the existing College Street surgical public wards is in progress in keeping with the latest hospital standards. All such planning has been to convert the old-fashioned open wards to a maximum of four-bed ward accommodation, including all necessary services.



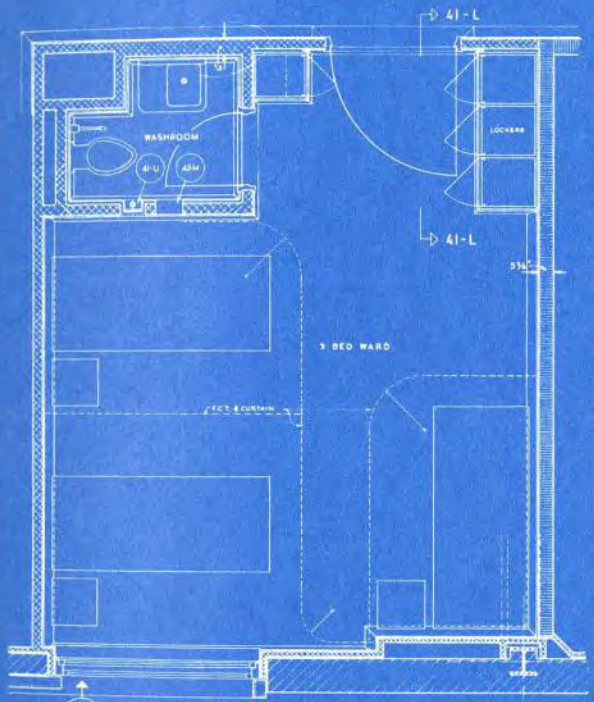
41-A PLAN OF TYPICAL 4 BED WARD

NOTE: ALL OTHER 4 BED WARDS SHOWN ON 1/8" SCALE PLANS ARE SIMILAR.

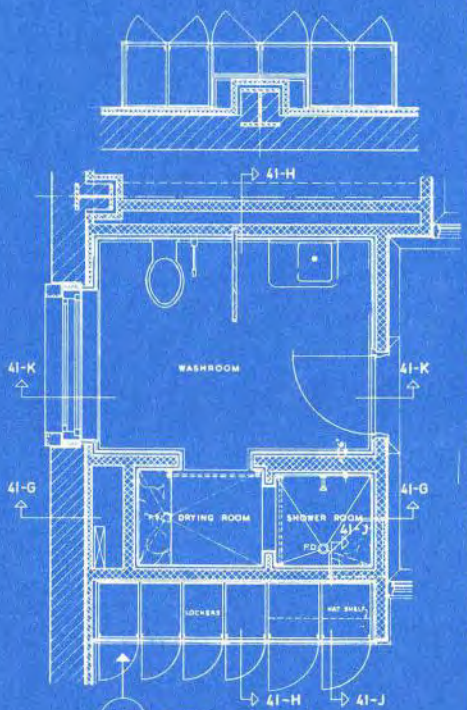
41-F DETAIL PLAN OF LOCKER UNITS

ROOM 12-29

NOTE: ROOM 12-27 SIMILAR

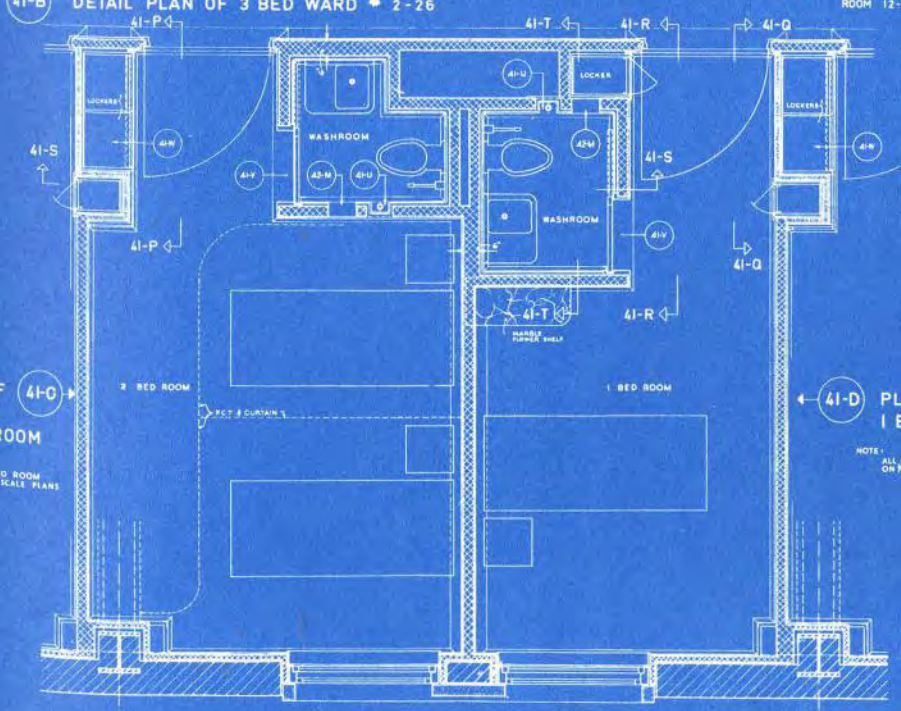


41-B DETAIL PLAN OF 3 BED WARD • 2-26



41-E DETAIL PLAN OF WASHROOM & SHOWER

ROOM 12-5 & 12-4

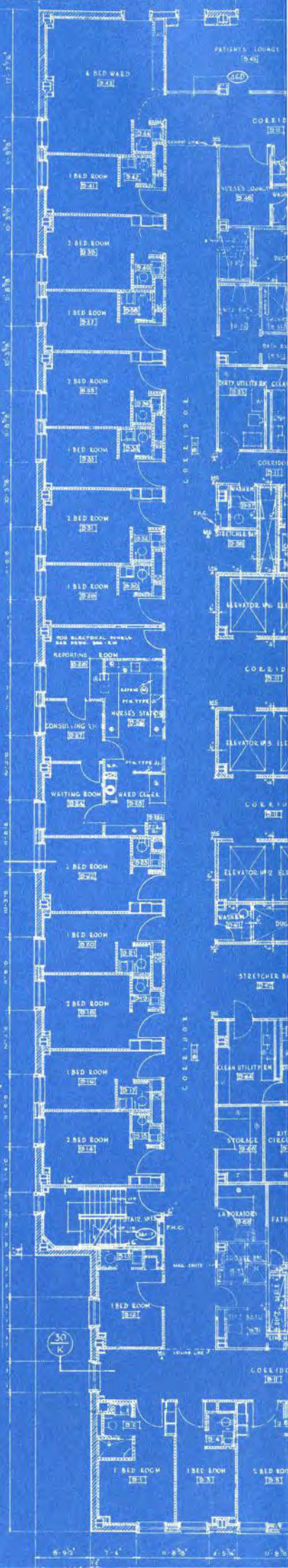


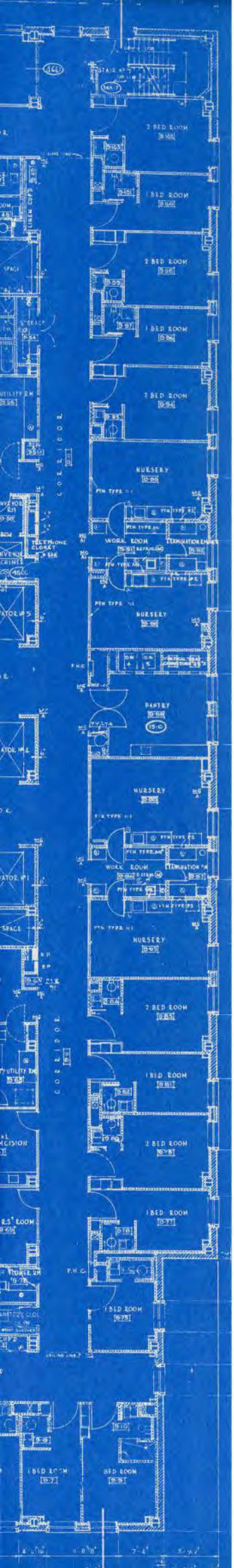
PLAN OF TYPICAL 2 BED ROOM 41-C

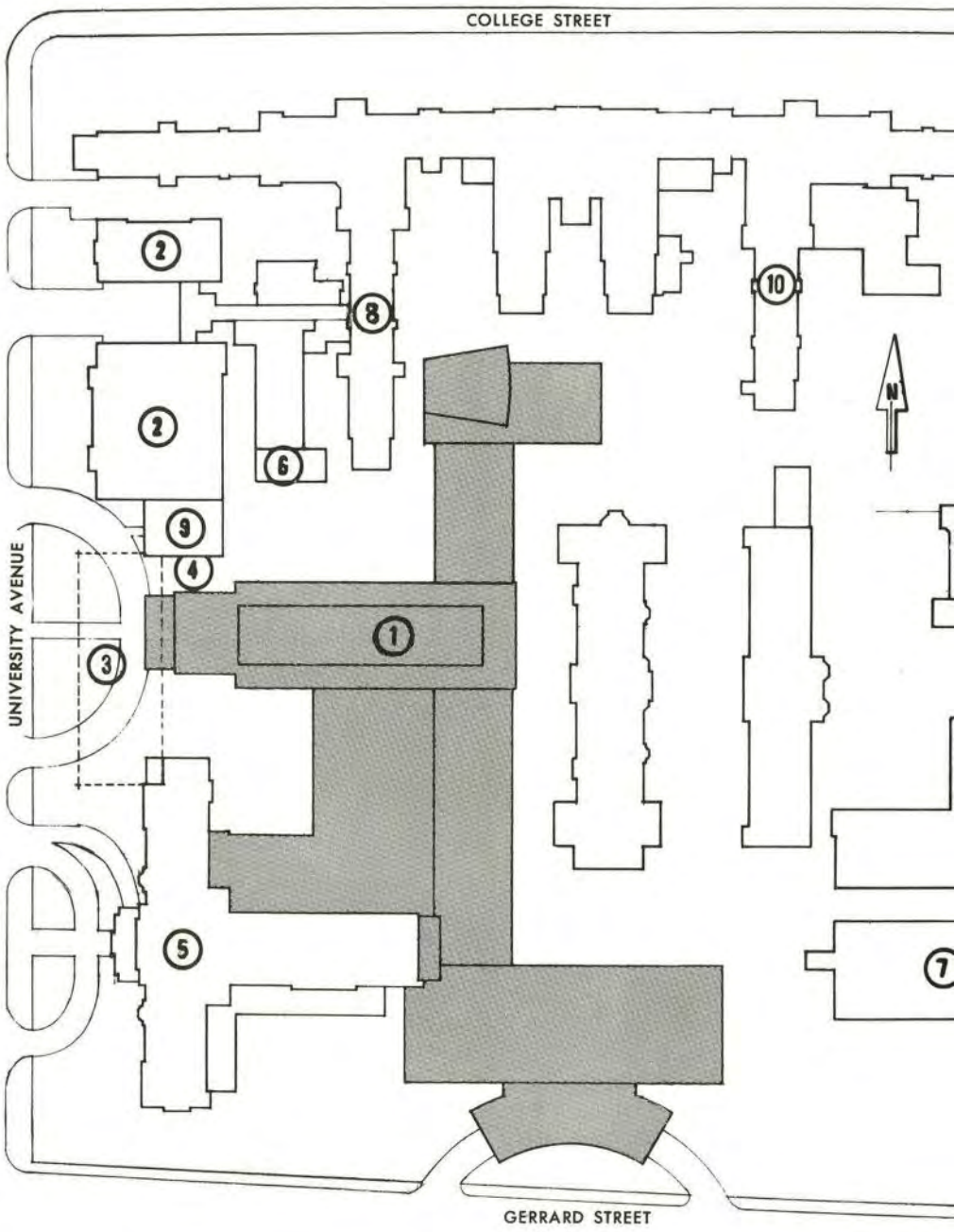
NOTE: ALL OTHER 2 BED ROOM SHOWN ON 1/8" SCALE PLANS ARE SIMILAR

41-D PLAN OF TYPICAL 1 BED ROOM

NOTE: ALL OTHER 1 BED ROOM SHOWN ON 1/8" SCALE PLANS ARE SIMILAR.







Left: Typical ward floor

Extreme left: Typical ward plans

TORONTO GENERAL HOSPITAL

ADDITIONS AND RENOVATIONS

ARCHITECTS

Mathers & Haldenby. Toronto

LEGEND

1 New Central Building Group.

2 Improved Out Patients' Facilities.

3 Demolition of Dunlap Building and Reconstruction of North-west Corner Private Patients' Pavilion.

4 Demolition and Reconstruction of the South half of the Old Records Building.

5 The Modernization of the 8th and 9th Floors, Private Patients' Pavilion.

6 Cardio-Vascular Investigation Unit

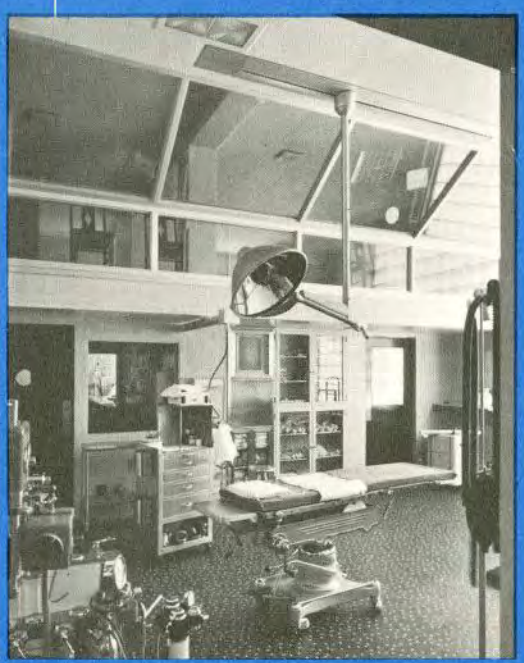
7 Enlarged Laundry Facilities.

8 The Clinical Investigation Unit.

9 Modernization of the Out Patients' Facilities.

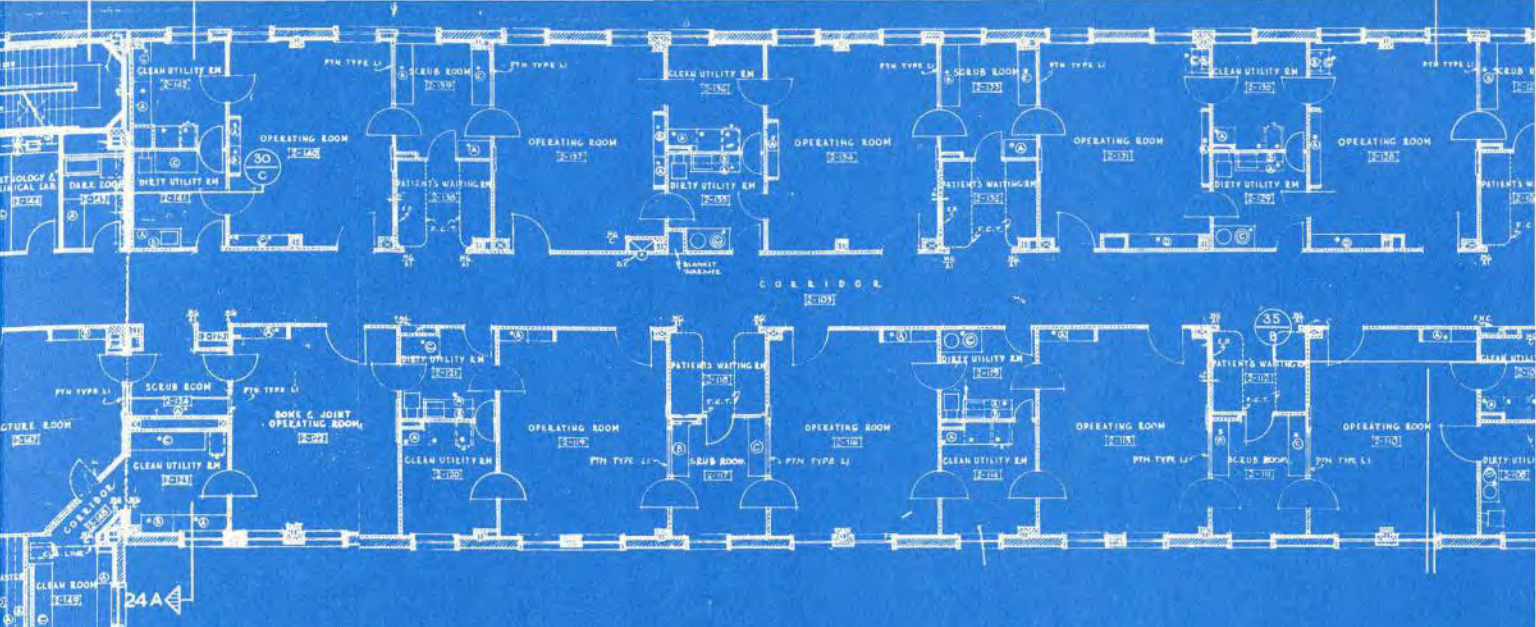
10 Modernization of the College Street, Surgical Wards.

- **SITE PLAN**
- **TYPICAL WARD FLOOR**
- **TYPICAL WARD PLANS**
- **MAIN OPERATING ROOM FLOOR**
- **TYPICAL OPERATING SUITE**
- **GROUND FLOOR PLAN,** ***Emergency and admitting departments, rehabilitation and physical medicine***



Left: Cardio-vascular operating room

Below: Typical operating suite, central building



General view of operating room in a typical operating suite

Marconi Image Amplifier for cardio-vascular investigatio

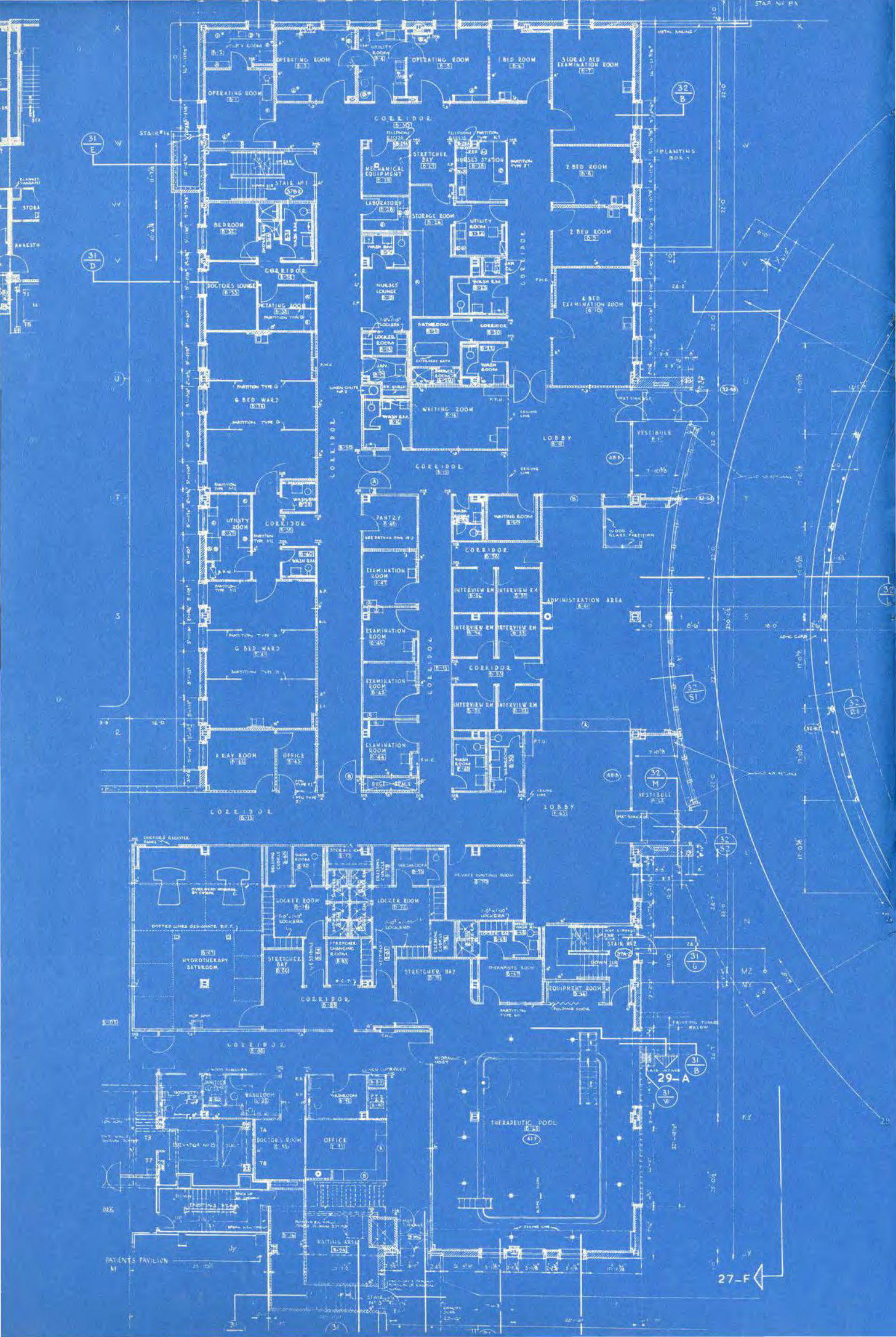
View of the post-operative recovery ward, Central Building

Chemistry laboratory, twelfth floor, Central Buildi

Left: Main operating room floor, second floor, Central Building

Right: Ground floor plan, Gerrard Street

Emergency and admitting partments including rehabili tion and physical medicine


OPERATING ROOM
OPERATING ROOM
OPERATING ROOM
1 BED ROOM
3 (OR 4) BED EXAMINATION ROOM
CORRIDOR
STRETCHER BAY
NURSES STATION
2 BED ROOM
2 BED ROOM
MECHANICAL EQUIPMENT
LABORATORY
STORAGE ROOM
UTILITY ROOM
WASH RM
NURSES' LOUNGE
4 BED EXAMINATION ROOM
BATHROOM
CORRIDOR
WASH ROOM
WAITING ROOM
LOBBY
VESTIBULE
BED ROOM
DOCTOR'S LOUNGE
DICTATING ROOM
6 BED WARD
CORRIDOR
PANTRY
WAITING ROOM
UTILITY ROOM
CORRIDOR
EXAMINATION ROOM
INTERVIEW RM
INTERVIEW RM
ADMINISTRATION AREA
EXAMINATION ROOM
INTERVIEW RM
INTERVIEW RM
6 BED WARD
CORRIDOR
EXAMINATION ROOM
INTERVIEW RM
INTERVIEW RM
X RAY ROOM
OFFICE
DUCT SPACE
WASH ROOM
VESTIBULE
CORRIDOR
LOBBY
LOCKER ROOM
LOCKER ROOM
PRIVATE WAITING ROOM
HYDROTHERAPY BATHROOM
STRETCHER BAY
STRETCHER CHANGING ROOM
STRETCHER BAY
THERAPISTS ROOM
STAIR NO 2
EQUIPMENT ROOM
CORRIDOR
CORRIDOR
THERAPEUTIC POOL
OFFICE
PATIENTS' PAVILION M
29-A
27-F

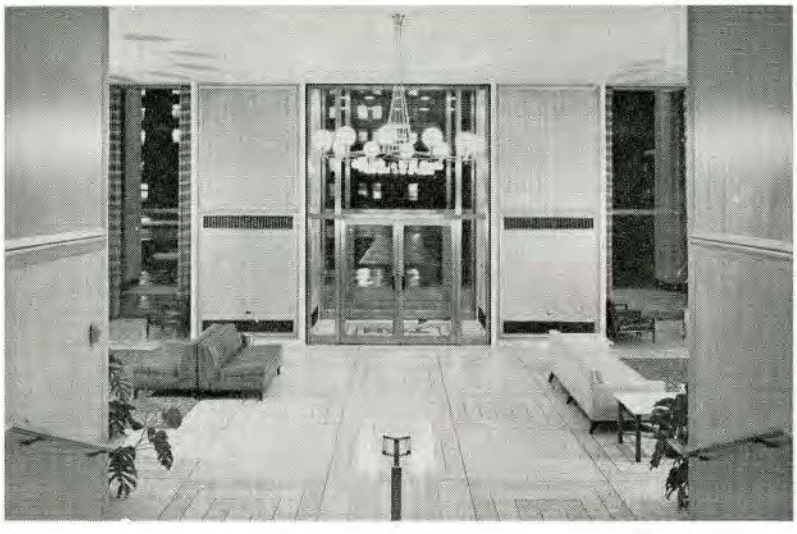
Right: University Avenue looking south

Below: Emergency and admission departments, Gerrard Street

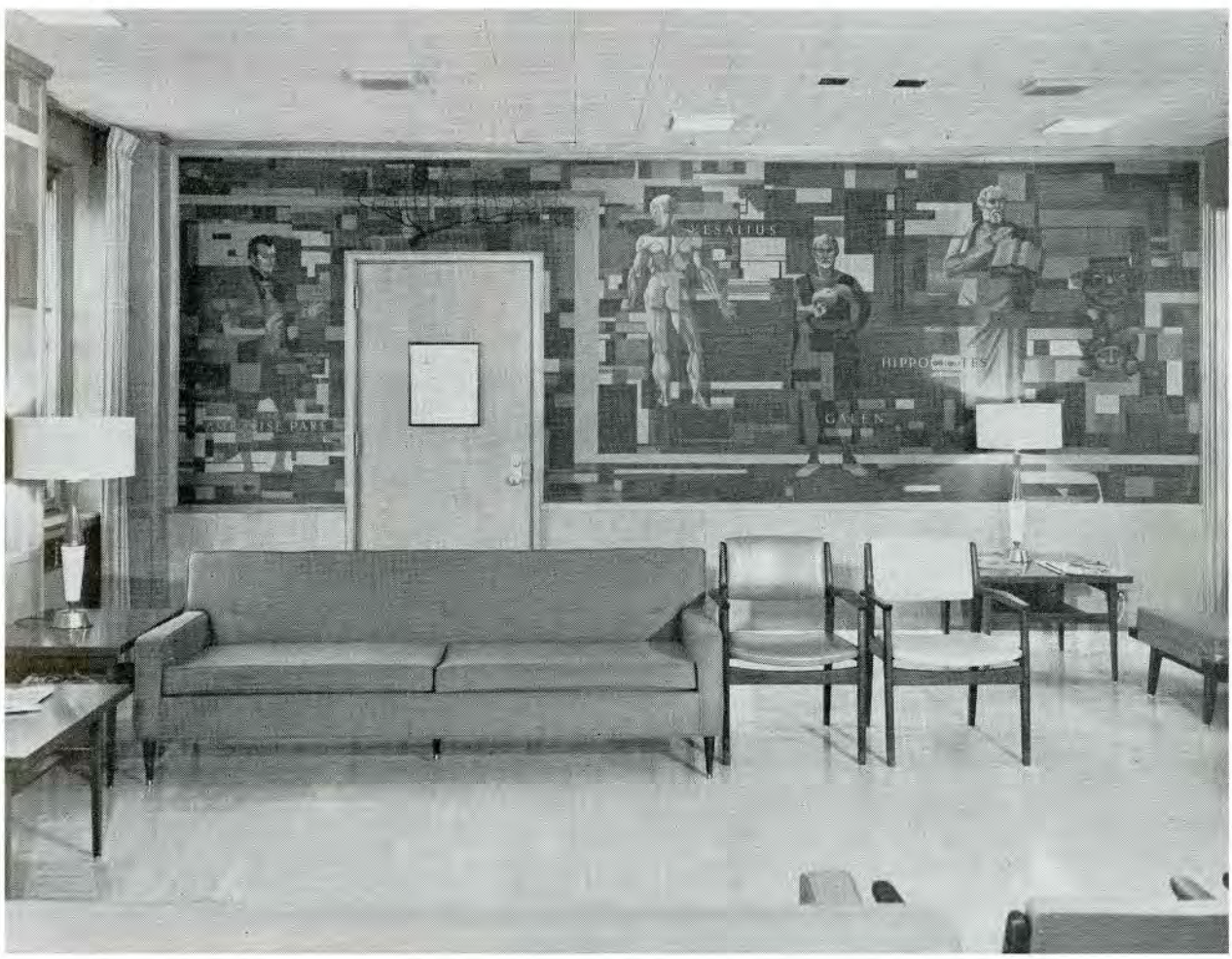
MAIN ENTRANCE

Centre block

University Avenue



Two murals by Charles Comfort in the Neuro-surgical department



Above: The mural by Sydney Watson in the quiet room

Above: Cardio-vascular operating room in the private patients' pavilion, seen from the cantilevered balcony

Above left: Waiting room and pre-natal clinic, out-patient department

Left: Examining room, obstetric and gynaecological out-patient department

Above: The Hydro-therapy pool, Department of Rehabilitation and Physical Medicine

Below: Typical bed ward, central building

One of the most vital services in any large hospital is the efficient operation of the kitchen facilities and the successful distribution of the food. Bearing in mind the need for centralization, the kitchen has been located in such a position as to enable a complete system of transverse and vertical conveyors for delivery of heated food.

Left: The servery

Below left: Exit from the cafeteria showing soiled dish conveyor

BOOK REVIEWS

NEW BOOKS ON HOSPITAL DESIGN

"PLANNING THE SURGICAL SUITE" by Warwick Smith, ARIBA, ARAIA. Publishers, F. W. Dodge Corporation, 471 pages, $12.75.

Planning the Surgical Suite is an excellent book, the outcome of the author's many years of intensive study in hospital design. The author is an Australian who, for the past ten years, has studied and worked with architectural firms in England, Sweden and the United States. In 1954 he was awarded the Henry Saxon Snell Prize, given semi-annually by the British Government for research in hospital architecture.

Mr Smith has a fine analytical mind and his writing matches it. His book is an exhaustive study on the problem of the surgical suite. It is an authoritative reference book which should prove of great interest to the architect and the hospital administrator. The author discusses the location of the surgical suite, patient traffic and personnel traffic, the movement of goods and sterilization procedures for equipment, goods and utensils and then discusses schematic plans based on the general requirements for such traffic and procedures. Room relationships, sizes, and the location of fixed equipment within the rooms is analyzed with respect to sterile area and movement of personnel. Dimensioned illustrations of mobile equipment in general use are included. The equipment illustrated has been carefully chosen. It all bears a definite relation to man's size and shape and therefore the dimensions given will be valid until man changes that state. The requirements of the department of anaesthesiology, the recovery room and ancillary rooms are most carefully and fully described and discussed.

The author analyzes the best materials and finishes for specific rooms and describes the heating, ventilating, air conditioning and electrical facilities required for the various areas that make up the surgical suite.

Towards the end of the book a check list has been provided which is designed to establish the basis for a program which in turn the architect can translate into an architectural design.

Each chapter carries references to authoritative publications which will provide greater details on specific subjects.

The difficulties involved in collecting accurate information which will assist in the designing of a new surgical suite are outlined, and the hope is expressed that an extensive research program will be created to obtain information needed but not now available.

P. M. Keenleyside, Toronto

"HOSPITALS, CLINICS AND HEALTH CENTRES": An architectural Record Book, published by F. W. Dodge Corporation; 264 Pages; $9.75.

This book is divided into four sections; one section deals with hospitals; another with special departments in a hospital (operating, pediatric and X-ray); a third with rehabilitation centres; the fourth with health centres, clinics and offices.

The introduction to the first section describes briefly the basic principles of hospital planning with special emphasis on circulation and summarizes the problem succinctly as follows:

"Separate all departments, separate types of traffic, yet save steps for everybody; separate everything, yet have everything close together – that's all there is to it. If it sounds impossible – well it is – but it is still possible to do very well or very poorly".

It is regrettable that in this otherwise admirable introductory review, no mention is made of yet another cardinal principle which adds still further to the impossibility of the task – "provide for future expansion". Plans that seem to work well frequently fall apart when expansion is considered; then, it is discovered that a department which is intended to be a dead end becomes a through street and internal "central" departments have been effectively boxed in. Some of the plans in the book fail when this criterion is applied.

Individual hospital plans and accompanying photographs and descriptive matter which follow are intended to give practical demonstration to the theories enunciated in the introduction. Some dozen and a half hospitals are illustrated and it is interesting to note that of these, all but one use the double corridor type of plan in whole or in part. This, of course, is one logical solution to the problem of trying to get everything central and close together. The double corridor plan permits a utility area between parallel corridors which also serve rooms on the periphery. The use of two corridors shortens and fattens the building. In this type of plan, the internal areas are usually not too great and can be used by the many service rooms in which no one works for any great length of time or by such rooms as Operating and X-ray in which lack of daylight is no disadvantage. Some excellent examples of this type of plan are included.

The boxed-in service departments, as mentioned, pose an expansion problem. They also raise another important question, the answer to which will have a serious effect on planning. Should the principle of the "automat" take priority over people? Must employees be required to spend an entire working day without a glimpse of daylight? Hospitals that have tried this find that the machine is no stronger than the human link that tends it. Disgruntled personnel and high-turnover make for inefficiency.

The second and succeeding sections of the book follow the same method of presentation as the first; a concise introductory review of the principles involved, followed by illustrations intended to exemplify the principles. They contain a profusion of excellent photographs and a considerable amount of useful background information.

In the foreword, Editor Wm Dudley Hunt Jr says that the book is intended to be a source book of information and enlightenment for architects, consultants and hospital administrators. It is not flattering to this group that so many of the articles have a definite selling character ("more efficient", "lower operating costs", etc) and one would prefer to see more foreign examples – there is only one Canadian and one Finnish, the latter unaccompanied by any floor plan. Nevertheless, we think the editor has achieved his goal, and the book will make a useful addition to the reference shelf.

B. Kamiker

A PERMANENT HOME FOR THE RAIC

DURING THE EVOLUTION of the Royal Architectural Institute of Canada from a small office employing a part-time secretary to a national headquarters with a permanent staff of five, many architects have cherished a hope that the Institute would one day purchase or erect a building in Ottawa to house the RAIC offices.

A first step toward this goal was taken by the Executive Committee in April in forming a Premises Committee under the Chairmanship of G. Everett Wilson (F), Toronto, an Executive Committee member and Past President of the Ontario Association of Architects.

A further step forward came last month when delegates to the Annual Assembly at Quebec City on May 20 unanimously adopted two resolutions proposed by Mr Wilson. They read as follows:

"Resolved that this Assembly is in favour of the principle of having a headquarters building in Ottawa."

"Resolved that the Executive be authorized to examine our requirements and recommend available property and methods of its acquisition including the execution of options, all with the approval of Council."

The way is now clear for the Premises Committee to undertake an extensive study of potential headquarters sites in Ottawa and submit a full-scale report to the Executive Committee when it meets at mid-September.

Members who may be unfamiliar with the rate of growth in the RAIC program in recent years may properly question the necessity of taking action now to erect an Institute headquarters.

The Institute conducted a survey by questionnaire of about 40 architectural societies throughout the world earlier this year, and found that most national architectural societies occupy their own buildings or are planning to this end.

The facts are that the RAIC is presently housed in 1,200 square feet of unsatisfactory rental accommodation. The RAIC in Ottawa and the *Journal* in Toronto pay annually nearly $8,000 in rent. Over forty years, a rental outlay on this scale would cover the outlay of a headquarters building costing more than $300,000.

Recent developments within the *Journal* organization, following the direct assumption of its management by the Institute on January 1, 1960, now makes possible the physical consolidation of the *Journal* editorial offices with the RAIC Executive Offices in Ottawa. The drafting of a contract for 1962-1963 for the soliciting of *Journal* advertising by Lloyd Sawyer as *Journal* Advertising Manager, will enable the advertising offices to remain in Toronto in closer proximity to advertising agencies and advertisers.

Existing capital will enable the Institute to purchase a suitable site when such action appears appropriate. The plans of the Premises Committee envision a methodical step by step development of this very important project. Action will be taken to keep the RAIC membership and Provincial Associations fully informed as each step is taken.

SIEGE PERMANENT POUR L'IRAC

AU COURS DE L'EVOLUTION de l'Institut royal d'architecture du Canada, depuis ses débuts dans un petit bureau dirigé par un secrétaire à temps partiel jusqu'à son entrée dans un siège national où il lui faut employer cinq personnes à plein temps, combien d'architectes n'ont-il pas rêvé de voir leur Institut logé dans un édifice bien à lui, construit ou acheté à Ottawa?

Le Comité exécutif a fait un premier pas en ce sens en avril dernier lorsqu'il a établi un Comité de l'immeuble sous la direction de M. G. Everett Wilson, AIRAC, de Toronto, membre de l'exécutif et ancien président de l'Association des architectes de Toronto.

Une autre étape a été franchie le 20 mai dernier lorsque les délégués à l'assemblée annuelle à Québec ont approuvé à l'unanimité deux résolutions de M. Wilson, dont voici le texte:

"Cette assemblée approuve en principe que l'Institut ait à Ottawa un édifice lui servant de siège."

"L'exécutif est autorisé à étudier nos besoins, à recommander une propriété disponible ainsi que les moyens de l'acquérir et à signer à cette fin les options nécessaires, le tout avec l'approbation du Conseil."

Ainsi, le Comité de l'immeuble pourra faire une étude des emplacements convenables pour l'établissement d'un siège et présenter un rapport complet à l'Exécutif à son assemblée de la mi-septembre.

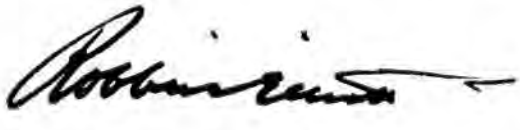
Pour ceux de nos membres qui n'ont pas suivi de près l'essor du programme de l'Institut depuis quelque temps, il peut sembler prématuré de viser à posséder un immeuble spécial.

Au début de l'année, nous avons envoyé un questionnaire à une quarantaine de sociétés d'architectes du monde entier et nous avons appris que la plupart des sociétés nationales ont, ou songent à se procurer, leur propre immeuble.

A l'heure actuelle, l'IRAC occupe 1,2000 pieds carrés dans des bureaux qui ne lui conviennent pas. Il paie en loyer pour ces bureaux à Ottawa et pour les locaux du *Journal* à Toronto près de $8,000 par année. A ce compte-là, il aura, dans quarante ans, payé le coût d'un immeuble de plus de $300,000.

La réorganisation du *Journal,* depuis que l'Institut en a assumé la direction immédiate le 1er janvier 1960, permet de réunir sous un même toit à Ottawa les bureaux de rédaction et les bureaux administratifs de l'Institut. Le contrat d'annonce préparé pour 1962-1963 à l'intention de M. Lloyd Sawyer, directeur du service d'annonces du *Journal,* permettra à celui-ci de continuer son travail à Toronto, où il sera plus près des annonceurs et des agences de publicité.

Les fonds accumulés permettront à l'Institut de se procurer un emplacement lorsque l'occasion se présentera. Le Comité de l'immeuble entend procéder de façon très méthodique dans la réalisation de cet important projet. On verra à tenir les membres de l'Institut et les associations provinciales au courant de chaque décision qui sera prise.



The Fifty-fourth Annual Assembly, Quebec City, May 17-20, 1961

BY THE ROVING REPORTER

One has a feeling on arrival in Quebec that nothing can happen to dampen one's enthusiasm for the days ahead. Such a feeling comes, of course, from the pervading atmosphere of the old town, and the proverbial hospitality of the people. There is something, too, that one misses in ordinary life – the presence of history that is so absent in the air of Don Mills, Ontario, or Manor Park. We had one memorable lunch in a club that may be the oldest in North America. Certainly, we had our gin and tonic in a room in which the Governors-General of Canada were represented by portraits from the beginning. In the proper mood, we sympathized with Dufferin and Ava when he saw the unfriendly arches that greeted him in Vancouver; with Elgin's shade as the House of Commons discussed today the return of the Parthenon marbles, and we bowed to His Grace of Argyle for writing our favorite hymn "Unto the Hills" to the tune of Sandon.

We walked twice into the lower town, stopped, it must be admitted, by the irresistible attractions of the Vendome, and three times we circumnavigated the wall of the Citadel. As chairman of the RAIC Committee on the Preservation of Historic Buildings we called on Major Guimond, the Curator of the Museum, a fascinating place which we studied with the aid of a flashlamp during a temporary shortage of power. It was Major Guimond who pointed out to us the strength of the outer entrance in contrast to the refinement of the inner gateway – all, by the way, the work of Col Elias Walker Durnford, the great grandfather of the Chancellor of the College of Fellows, Mr Galt Durnford. We were happy to see, too, a tablet that Mr Vincent Massey referred to at a previous RAIC Assembly – the one which refers to the commissariat building

Commenced 17th June, 1839
Completed 15th Nov., 1839
Estimated expense £7200-19-11
Cost £6996-5-6

We took pleasure in drawing this to the attention of Mr Viljo Revell who would like to think that his estimate of cost of the Toronto City Hall was estimated as closely. Nearby, we paid our respect to the Mann store which is named after that Capt Gother Mann who made the earliest plan of Toronto in 1788, a fact which the guide book failed to record. Governor Simcoe or Lord Dorchester preferred that of Aitken which, considering our hills and ravines, was somewhat less absurd than Mann's, but, only, somewhat.

On a former visit to Quebec, we were shown a charming fortified little turretted gaol designed to hold twenty-nine fortunate women, and, this time, we heard of a College which was, formerly, a mental hospital. We were interested in that because we, in Ontario, have turned two university buildings into mental institutions. One has to travel to observe how different our cultures are.

The reader will see that it was difficult to leave so much history and beauty to return to the Chateau Frontenac where female beauty was not lacking, and history was being made by the RAIC. If, in these notes, we fail to point to any history making event, it must be attributed to our closeness to the scene. A century from now even the Building Community Seminar may mark a milestone (or a mill stone) in the evolution of the architectural profession in Canada.

It is on that Seminar that I have been asked to write, but I should be remiss if I did not congratulate the RAIC Executive on an exceedingly well run Assembly, and on obtaining a trio of speakers of outstanding quality. They were, of course, Mr Philip Will, President of the AIA, the Hon René Levesque, Minister of Natural Resources, Province of Quebec; and Mr J. Alphonse Ouimet, President and General Manager of the Canadian Broadcasting Corporation. I thoroughly enjoyed Mr Will's speech and, in later conversation, we recalled together his firm's participation as a finalist in the Toronto City Hall Competition. The other two speakers were equally good, but with them one had a feeling of pride that such people as Mr Levesque and Mr Ouimet occupied positions of power and influence in Canadian life. Both speeches were marked by a sense of humour, a keen sense of responsibility, a high degree of sensitivity, and a knowledge of our profession and its responsibility to society that came, one felt sure, from the head and the heart and not from the hastily prepared notes of a subordinate. We sat beside one American friend during Mr Ouimet's address, and he was clearly deeply impressed by its sincerity and intellectual breadth. At the same dinner, we were fortunate to sit with Mr & Mrs H. L. Fetherstonhaugh. "Fether" was the first Chancellor of the College of Fellows (class of 1932), and he must have been surprised and moved, as I was, to see the youthfulness of those who were that evening presented with certificates of fellowship. In our day, if fellowship in the Institute did not mean dotage, it did indicate a point of no return after a lifetime of serving on committees and/or a whole galaxy to one's credit of noble buildings. If we cheered more loudly than the rest, it was because the venerable dean and piscator extraordinary, Mr John Y. McCarter, introduced three fellows to the Chancellor who were once our students. And finally, we remember no recipient of Honorary Fellowship more worthy of the highest honour of the RAIC than Mr Stewart Bates.

As a matter of fact we were not asked to write any of the foregoing which we have used as a means of

Left to right: Dr Eric Arthur (F), the Journal's Roving Reporter; W. G. Leithead (F), Vancouver; J. Y. McCarter (F), Dean of the College of Fellows, Vancouver; and H. L. Featherstonhaugh (F), Montreal, the first Chancellor of the College of Fellows

ASSEMBLY PHOTOGRAPHS COURTESY CANADIAN PACIFIC

sneaking up on the Building Community Seminar. The panel consisted of Mr Anthony Adamson (Town Planner), Mr Jean Paul Cartier (Montreal Contractor), Mr W. N. Hall and Mr Butler (Engineer of Edmonton).

The trouble with the seminar from the outset, was that the seminarists had prepared their remarks in the peaceful order of their respective offices as far apart as Edmonton and Montreal without being aware that the "keynote" speaker, Mr Adamson, would prepare his remarks on odd scraps of paper in an aeroplane approaching Quebec and that his caustic comments, picturesque phrases and occasional sweeping generalities would make the solemn papers that followed seem like Sermons from the Mount.

Mr Adamson's selfless, critical definition of a planner gave the keynote to his speech. "He is a man of eminent intellect and great understanding; a generalist in a world of near specialists; he is without an axe to grind of any kind and I don't see how any of you gentlemen can cast any 'asparagus' at him at all. If you would all just do as you are told by the town planners, we would not need to sit on panels.

"In my province of Ontario every municipality thinks it has established adequate planning when it has a planning board to supervise, a planning director to direct, control bye-laws to control, a zoning bye-law to restrict and a committee of adjustment to vary the restrictions. All too frequently this 'growth control' has no proper foresight nor philosophy nor grand strategy behind it and it deteriorates into political manoeuvres to get the municipality into a good bargaining position to soak subdividers, or to meet to-day's immediate demands of politics, economics or traffic or to reduce the mill rate.

"This is not town planning and its operation frequently injures the growth it is designed to improve."

Mr Adamson referred to the RAIC report of the Committee of Enquiry into the Design of the Residential Environment, where he noted that even the well-to-do, the upper third of our population, lead unhappy, frustrated lives in the new suburbs. Since our daily life was richer than other ages could know, how he asked, could we improve on urban environment? It was not, in his opinion, "by arranging for smoother co-operation between contractor, engineer, architect, manufacturer and planner. There have to be social, political and economic changes as revolutionary as the changes which have taken place in our technology. When these occur, our environment will mirror a changed society."

Only Mr Hall was a match for Mr Adamson, but, even he, quite naturally, seemed uneasy. With sacred cows lying dead all over the place, it was from Mr Butler's paper (already published in the Journal) that the panel drew its sustenance. Mr Butler had unwisely confided in Mr Adamson of all people that "sewage was his bread and butter". From there on, panelists and spectators took up the scent – sewage, dry and wet and the frightful waste of waste came from a dozen unexpected quarters. There did, however, come a time when the subject seemed to be exhausted, and Mr Adamson dropped his best brick in a reference to "this effluent society".

Mr. Hall began his remarks by saying:

> "I have been asked to not only represent the views of the building supply industry but that of the customer – the client for whom buildings are built. It is my interpretation that the definition of a manufacturer of building materials is one that produces products for the use of the industry rather than products for a specific project, as is done by sub-contractors. Manufacturers, such as ourselves, produce, in large volume, what they believe are quality materials at low prices. Specifications of these materials are developed by the industry and groups from the industry meet, as members of the Canadian Standards Association, to determine specification standards. Products are distributed through channels which have historically been developed and evolved for economic reasons.
>
> In the last few years many new and basic products have been introduced by manufacturers on a substantial scale. For example, prior to the war very few houses were insulated. Today, with very few exceptions all new

The chairman, Mr Richard Bolton (F), Montreal, opening the Building Community Seminar on May 19: members of the panel, left to right, Mr A. N. Hall, P Eng, FCIC, Montreal; Mr P. M. Butler, P Eng, MEIC, Edmonton; Mr A. P. C. Adamson (F) MTPIC, Toronto; Mr Bolton; Mr J-P. Cartier, Montreal, and Mr Marvin Allen, Toronto, spokesman for the architects

houses are insulated. Again, in the last twenty years the use of gypsum lath has replaced wood lath practically completely in the housing field. Plastic laminates (Arborite or Formica), vinyl flooring, polystyrene insulating foams, plastic pipe, are examples of continuing developments. Manufacturers like ourselves are continuously seeking new products to develop, which is another way of saying, seeking new needs to be satisfied and in this respect constantly seek the advice of the building community.

"Though progress has been made, greater strides have to be made if we are to keep pace with general technological changes. The industry needs the results of research. It has been slow to change – time has been the research tool – something new is accepted if it has stood the test of time. We need facilities for accelerated testing under controlled conditions. Without this basic tool new products are slow to be accepted and as a result slow to be developed.

"Where, how and what kind of research do we need? We can and do have research in the building supply industry. It is, generally speaking, narrow – dealing only with specific products, and we have the National Research Council doing excellent work in a broader field.

"The RAIC, I understand, has a research committee. How do we bring these forces together for the common benefit of the building community. One means might be to set up a research operation sponsored by the RAIC, but largely supported by the building supply industry and the National Research Council. Another, and perhaps the best approach, would be to set up a Canadian counterpart of the Building Research Institute in the United States.

"A question we might well ask is how long should a product last. I suppose the answer would be as long as possible – at a cost a product can be given greater life. This really leads us into the question as to the life for which a building should be designed. Here economics are the important factor. At a cost buildings can be designed to last indefinitely. How do the architects resolve this problem? Do they ask how much money you want to spend or do they ask what is the life required? I suspect neither question is asked – in some cases the architect may be like an artist who paints the best picture he can. From a client's point of view cost is a very important element – a design without a cost is as useless as a truck without wheels – we cannot use either."

This paper produced a lively discussion on two topics: research and the life of a product. I am quite certain that the great industry over which Mr Hall presides, does research in the same meaning of the term as that done by NRC, but whenever the word was used by architects, we were quite convinced that they meant testing. It might even be true that the aims of the RAIC Committee on Building Research are really in the field of testing rather than research. Testing is expensive, but research requires financial assistance from governments or Rockefellers. It is surely a misnomer for a committee. The irrepressible Mr Harry Kohl got into the act on testing as with private enterprise and ethics, but got little support for the idea of an RAIC sponsored testing department.

Mr Randolph Betts developed the idea of the "life of a product" into the extremely interesting subject of the building with a predictable life. "Are we not", he suggested. "building for permanence and posterity in an economy based on obsolescence?" That is a subject that might well be called research and worthy of the best efforts of the Committee. As chairman of a committee set up years ago by the Hon Mr George Drew for that very purpose in school construction, I have to admit failure, but the problem remains.

Mr Cartier quite rightly made no attempt to integrate his remarks with any of the philosophies of the keynote speaker and got right down to business.

"In our industry-wide objective of providing the client or customer with a good product which will still enable the producer, architect, engineer, contractor and sub-contractor to realize a reasonable profit and eliminate frictions between parties, I would venture the following suggestions to obtain smoother co-operation.

First –

Better specifications, eliminating the weasel clauses which in effect make the contractor responsible for all designer's errors or omissions or uncertainties such as soil conditions, and segregating the separate trades into units with individual responsibilites.

Second –

Elimination of non-reimbursable deposits for plans.

Third –

A better knowledge of cost analysis of building projects before entering the design stage. The miracle of good design is, that more can be had for less.

"The industry today is suffering from a large surplus production capacity and our inability to sell it, also of letting a great portion of the volume go to incompetent organizations, with the competent ones left unemployed, and the remedies are:

1. A judicious choice of the list of tendering contractors, limited to a reasonable number, paying more attention to the pre-qualifications and solvability.
2. All parties of the industry should unite in a promotion campaign to increase the demand for construction, thereby, use our surplus production capacity and expedite the development of our country.
3. To increase the efficiency of our industry by stepped-up training programs for tradesmen, supervisors, engineers and construction management, and by research and development work for new techniques, material and equipment.
4. By continued expansion of the wintertime program, etc., all with a view to keeping construction costs at a level that will be attractive to investors.
5. By taxation incentives such as accelerated depreciations, sales tax exemptions and added deductible expenses which would apply on commercial, industrial, and engineering projects qualifying as wintertime construction."

This prompted Mr Marvin Allan to say that we could combat the package dealer by giving a better service—even to a knowledge of land use and amortization as a service to the client. We may have been dozing when the gong went on a discussion that can only be described as chaotic and, all too often, irrelevant. If the moderator summed up, he would be fit material for the presidency of the United Nations Assembly in its darkest hours. For me, the meeting ended with the very bright remarks of Mr Warnett Kennedy who confessed complete bewilderment at the discussion. He was one of the few who did not quote Mr Will's happy phrase "the physical debauchery of our fair land"; he looked with some misgivings at the approach of the "plastic millennium", the rise of the "architractor", and the twin menaces in the architecture of our time of the gimmick and "finmanship".

Mr Kennedy made any customary summing up quite superfluous, and I am sure that Mr Bolton's heartfelt gratitude was later expressed to the gentleman from Vancouver. *E.R.A.*

L'Institut à Quebec

PAR JACQUES TISSEUR

Comme toute assemblée annuelle qui se respecte, la 54e de l'Institut s'est inaugurée par un coquetel, au Salon Riverview du Château Frontenac, désigné pour les fins du programme comme la réception de la Société des Architectes de la région de Québec. Cédulée pour neuf heures, l'ingurgitation n'a réellement pris corps que vers dix heures moins le quart, et à peine une heure et demie plus tard, Fernand Caron donnait instruction d'endiguer le flot et pour cause, le budget n'en pouvait plus: deux pour-cent du revenu brut de l'AAPQ venait d'y passer. La Société locale peut donc se féliciter de n'avoir eu qu'à permettre l'usage de son nom; autrement sa maigre allocation annuelle n'aurait duré qu'un quart d'heure.

Le cauchemar des tables d'honneur et le choix des conférenciers aux repas officiels ont causé de nouveau des maux de tête aux organisateurs du congrès. Une dame "point de mire" qui n'était pas sensée prendre le déjeuner avec nous et qui nous arrive alors que tous les personnages de la première table ont pris place; un haut dignitaire de l'Eglise et un maire qui, après avoir accepté l'invitation, se font attendre et finalement se défilent; le premier ministre de la province remplacé à deux reprises mais non sans raison: la Chambre avait siégé deux nuits de suite jusqu'à une heure et cinq heures respectivement; voilà de quoi se demander si l'on devrait continuer d'importuner l'Eglise et l'Etat de nos invitations parfois embarrassantes.

En guise de consolation, l'Institut a eu la main assez heureuse avec ses trois conférenciers aux repas principaux: un philosophe, un "critique" et un humoriste. Au déjeuner du jeudi, le président de l'AIA, M. Philip Will, jr, nous a présenté une causerie fort judicieusement texturée. Il a brossé pour son auditoire une esquisse de l'état de la construction hier, aujourd'hui et demain. Au cours des années quatre-vingt, d'après Charles C. Baldwin que le conférencier a cité, les architectes étaient des dilettantes. Ils fournissaient de temps en temps des dessins pour les plans proposés par le client, mais la plupart du temps, ils occupaient un poste semblable à celui d'un surintendant de construction. Ils étaient sensés ne rien connaître des lois du bâtiment, des valeurs immobilières ou du financement hypothécaire. Leurs services étaient alors assez simples: aucun diagramme de filerie, aucune climatisation, aucune science de l'acoustique, peu de recherche ou d'analyse économique.

Aujourd'hui, les demandes imposées aux professions chargées d'établir les plans sont presque impossibles à satisfaire et les outils technologiques à notre disposition nous stupéfient et semblent trop rapides pour que nous les comprenions immédiatement. Ce n'est pas le changement qui est étonnant, c'est la rapidité du changement. La façon professionnelle d'exécuter les projets est désuète.

Que nous réserve l'avenir? La grande frontière de la profession d'architecte se voit reculée. Le client de l'architecte n'est plus seulement celui qui acquitte ses honoraires mais le public muet qui souffre ou bénéficie également de ses services. La détermination de la fin sociale, une compréhension des besoins du peuple selon son environnement physique, une responsabilité morale de façonner les fins pour lesquelles il construit sont à la base de la mission nouvelle non seulement de l'architecte mais de la collectivité du bâtiment qui, a précisé M. Will, est sur le point d'être mise à l'épreuve comme elle ne l'a jamais été auparavant. Dans ce nouveau monde de changements technologiques et sociaux, a-t-il ajouté, il n'y a pas de place pour des querelles de juridiction entre hommes de différentes disciplines. De nouvelles équipes se formeront, composées de géographes, démographes, experts en écologie humaine, économistes agraires, statisticiens, psychologues, artistes et même des poètes. Qui dirigera ces équipes? Comme l'environnement physique est le produit de la conception et que la conception est le domaine de l'architecte, ce dernier paraît tout désigné pour en être le meneur, à condition cependant qu'il soit homme de vision, de détermination, de compétence et de compréhension.

Pour le déjeuner de l'AAPQ du vendredi 19 mai, on avait demandé au Ministre des Ressources naturelles du Québec, M. René Lévesque, de nous adresser la parole. A en juger par les commentaires nombreux et contradic-

Left to right: Mr Jacques Tisseur, PQAA secretary; Mrs A. Leslie Perry, Quebec; Mr Randolph Betts (F), Montreal; Mrs R. P. Fleming, Montreal; Mr Gerard Venne (F), Quebec, chairman, host committee; Mrs Betts and Mr Philippe Coté, Quebec

toires qui ont suivi, le conférencier avait quelque chose à dire. N'ayant pas de texte préparé mais simplement quelques notes qu'il avait jetées sur papier apparemment à la dernière minute, le Ministre a parlé d'abondance; il a voulu en quarante minutes couvrir tout le territoire et se vider le coeur, pour ainsi dire, de mésaventures à caractère purement local, et ceci devant un auditoire d'au-delà de 400 convives composé d'architectes de toutes les parties du Canada, d'ingénieurs, d'urbanistes, de constructeurs et d'hommes d'affaires. Il semble que le commentateur d'hier ait repris le dessus pour un moment. Rapportant des faits particuliers qu'il a vécus durant ses neuf mois aux Travaux publics et encore sons l'influence des gens bien ou mal intentionnés qui l'avisaient durant cette période, il s'est permis entre autres de fustiger l'architecture canadienne et les architectes-politiciens, et d'affirmer sans qualification que le 20e est le siècle de l'ingénieur et que la mécanique représente parfois jusqu'à 90% du coût des bâtisses, comme si le cas se présentait fréquemment. Quand on invite un conférencier, on prend toujours certains risques. Ou bien on choisit un ami qui nous flatte et on ne retire aucun profit de son discours, ou bien on demande à un "moins ami" de nous dire ce qu'il pense et alors on doit être prêt à encaisser les critiques les plus caustiques.

Même si on ne partage pas toutes les opinions émises par le Ministre, comme le lui a fait remarquer si justement le président de l'AAPQ en le remerciant, il faut admettre que M. Lévesque a le courage de ses idées. Par contre, qu'il puisse se prononcer de façon catégorique sur la portée exacte et le rôle véritable de l'architecte et de l'ingénieur dans la construction des édifices, après un séjour d'un peu moins d'un an dans un Ministère qui est loin de ne s'occuper que de bâtisses, il nous est permis d'en douter. Les remarques du conférencier démontrent une fois de plus que beaucoup d'hommes publics ont des notions plutôt vagues de l'architecture et de l'architecte. Nos relations extérieures auraient peut-être failli à la tâche en ce domaine?

La dernière allocution prononcée au dîner annuel par le président et gérant général de Radio-Canada, M. J. Alphonse Ouimet, a clôturé le congrès sur un ton amical et humoristique. Pas de controverses, point d'attaques, sa causerie portait sur la difficulté de présenter des programmes aptes à plaire à dix-huit millions d'experts. La comparaison se prêtait fort bien entre le rôle de la télévision d'Etat et celui de l'architecte qui se doit de répondre aux goûts et désirs du client tout en n'offensant pas ceux des voisins. Parsemée d'historiettes amusantes sur les critiques les plus fantaisistes que doit subir Radio-Canada tous les jours, la causerie de M. Ouimet a été fort prisée des convives et a laissé une note de gaieté dans l'air de cette assemblée qui avait quelque peu perdu sa sérénité la veille.

A l'enseigne des divertissements, une Assemblée qui se tient à Québec ne doit pas manquer, il nous semble, de donner à ses activités un caractère typiquement français. De par sa situation géographique et son aménagement unique sur le continent, la Cité de Québec offre au visiteur un coup d'oeil qu'il ne retrouve nulle part ailleurs. Le tour du vieux et du nouveau Québec organisé pour le vendredi après-midi a eu l'heur de plaire à tous ceux qui ont pu s'en prévaloir. Toutefois, on ne peut malheureusement en dire autant du "French Canada Night" du vendredi soir au Château du Lac Beauport. A l'instar de la soirée de Montréal au Reine Elizabeth en juin 1958, soirée qui devait remplacer l'Andrew Cobb Dinner et qui, on s'en souvient encore, n'était drôle que par la retraite graduelle de l'assistance vers le bar à l'arrière de la salle, la visite au Lac Beauport a dû grandement impressionner les architectes des autres provinces et leur donner à la fois une fort juste idée des soirées de chez nous: quelques consommations à l'arrivée (très canadien), comme met principal . . . du saumon (probablement de la Colombie) ou du steak (boeuf de l'Ouest sans doute), encore d'autres consommations et puis de la danse au son d'un orchestre de cabaret (américain ou canadien, personne n'aurait pu dire la différence). Une chance qu'un groupe de danseurs de l'Ordre de Bon Temps s'est amené sur la scène, autrement c'en était fait de la soirée canadienne-française et une fois de plus on se trouvait en face d'un autre Andrew Cobb. Si franchement c'est tout ce qui nous reste pour caractériser notre milieu, on pourrait s'en dispenser facilement et épargner ces quelques dollars. Encore une fois, on aura lissé échapper une occasion idéale de montrer aux confrères d'en dehors que le Québec a des us et coutumes qui lui sont bien propres. Le souper, l'atmosphère, le divertissement auraient pu être conçus dans ce sens. Espérons qu'on y verra à la prochaine réunion dans dix ans.

Heureusement que la veille, on avait eu la brillante idée d'organiser des réceptions dans les résidences privées d'architectes québecois. Les Germain Chabot, Paul Cauchon, Paul Samson, Lucien Mainguy, Maurice Bouchard, Jacques De Blois, Louis Carrier, Fred Walker, Jean-Marie Roy, Gérard Venne, Edouard Fiset (je m'excuse, si j'en passe) ont fait les frais du dîner et de la soirée. Ces réceptions ont contribué largement à établir des liens de compréhension entre architectes de différentes régions du Canada. C'était là une magnifique initiative qui a sûrement valu son pesant d'or.

Le lendemain après-midi à trois heures avait lieu la traditionnelle et impressionnante cérémonie des "fellowships". Convertie en enceinte à la fois sobre et austère pour l'occasion, la salle à dîner principale de l'Hôtel se prêtait fort bien à cette réunion de grande classe. En plus des fellowships réguliers, on a créé fellows honoraires, MM. Tony Adamson, urbaniste de Toronto et Stewart Bates, président de la Société Centrale d'hypothèque et de logement. L'AAPQ a vu quatre de ses membres recevoir le titre de FRAIC: Colin H. Copeman de Montréal, Léonce Desgagné de Chicoutimi, John Fish de Montréal et Denis Tremblay de Sherbrooke. Des félicitations s'adressent aux nouveaux "compagnons" (traduction à la Trépanier) pour les services appréciables qu'ils ont rendus à la profession.

Il va sans dire que la mise en opération d'un congrès annuel de l'Institut représente de nombreuses heures de dévouement bénévole de la part de l'Association provinciale que l'organise et plus particulièrement de la Société régionale qui voit sur place aux détails du programme. Sous la présidence dévouée de Gérard Venne, et avec l'appui des Fernand Caron, Germain Chabot, Fred Walker, André Tessier, Gabriel Desmeules, Roland Dupéré, Paul Samson, Léopold Fontaine et Gilles Côté, les architectes de Québec ont été à la hauteur de la situation et se sont mérité à juste titre la gratitude de tous leurs collègues pour une assemblée très agréable et magnifiquement réussie.

Tel qu'annoncé à l'issue du congrès de Québec, c'est à Victoria que se tiendra la 55e Assemblée, début juin 1962.

The Architect and the Building Community

By Philip Will Jr, FAIA, Hon FRAIC

J'ai beaucoup d'amis canadiens et je suis venu souvent au Canada, mais c'est la première fois que je me trouve à Quebec. A vant mon départ, j'espère pouvoir visiter votre charmante ville, si pleine de souvenirs historiques.

C'est aussi la première fois que j'ai l'honneur de prendre la parole devant un public si distingué et bilingue. Je m'efforcerai de mériter cet honneur mais je crains que mes talents linguistiques ne soient unsuffisants. Comme je ne parle bien ni le francis ni l'anglais, j'espère que vous me pardonnerez si je poursuis en "americain yankee."

Having demonstrated my linguistic shortcomings, I must ask your further indulgence. Though no stranger to Canada, I cannot be as familiar with the problems of the Building Community here as with those at home. My remarks must, therefore, be based on United States history and projections. Let us hope that either you are skilled in extrapolation or our problems of the whole North American continent are sufficiently parallel so that what I have to offer today will be meaningful and useful.

Our purpose today is to consider the future. What does (or should) a nation expect of its Building Community? What goals should we set for ourselves? What are (or should be) the responsibilities and inter-relationships of the community. These are the questions we would like to explore but which are far too comprehensive for one speaker, however brash, to do more than list. May I be forgiven, therefore, if my remarks deal primarily, though not exclusively, with the architectural profession. At this conference, others who are better qualified will relate the other community components.

To guess what may lie ahead, I find it not only helpful but positively startling to take a quick look backwards. We become so accustomed to the kind of world in which we live that we forget (if we ever really knew) how quickly that world is changing, how different it was a few short years ago, and how different it must inevitably become.

We take the telephone for granted. Yet only 82 years ago (possibly within the lifetime of someone present here today) there were only 252 telephone subscribers in the whole city of New York (and the service was terrible). At that time (1879) trains and carriages were horse-drawn with an extra horse needed going over the hills. Kerosene and gas supplied what illumination there was. Offices, stores and residences (since there were no furnaces) kept warm with big round stoves called "Base Burners."

Moving ahead a few years to the '80's, author Charles C. Baldwin has this to say of the practice of architecture: *". . . with few exceptions American architects were dilettantes, taking things easy, seldom trusted, always curbed, often reprimanded. They occasionally supplied drawings for plans suggested by the client; but, for the most part, they occupied a position analogous to that of superintendent of construction. They knew and were supposed to know nothing about building laws, real estate values or mortgage financing. There were no typewriters and one hundred page specifications had to be laboriously copied by hand. There were no well-equipped schools, no professional draughtsmen, no architectural journals . . . Blue prints were commercially impossible and photostats unheard of."*

Does this make you hunger for the Good Old Days?

In such a context one must be amazed with the accomplishment of a Chicagoan, William LeBaron Jenney, who in 1883 was commissioned to design the Home Insurance Building, which became the first steel skeleton frame skyscraper.

Speaking of structure, how many of you are aware that less than sixty years ago there were no formulae for the design of reinforced concrete? Or (to the best of my knowledge) less than 50 years ago there was no such person as a consulting mechanical engineer. Forty-five years ago, in fact, magazines rarely mentioned the mechanical trades. Architectural services were still pretty simple. No wiring diagrams, no air conditioning, no science of acoustics. Architects did very little programming, research or economc analysis. I doubt that feasibility studies had even been heard of.

Today the demands upon the design professions are almost beyond bearing and the technological tools at our command amaze us and appear too fast for our immediate comprehension. How long will our clients continue to be satisfied with the gross inefficiencies of "cut and try" handbook engineering when the electronic computer is at our disposal.

Have you heard, for example, of electronic aerial surveying? From the air, it is now possible to determine not

L'Architect et la Collectivité du bâtiment

par M. Philip Will fils, FAIA, Hon FIRAC

I have many Canadian friends and I have been in Canada often, but this is my first trip to Quebec City. Before leaving, I hope to be able to visit your beautiful city, so full of historical mementoes.

This is also the first time I have the honour of speaking to such a distinguished and bilingual public. I shall try to deserve this honour, but I am afraid my linguistic talents will prove inadequate. As I cannot speak neither French nor English correctly, I hope you will excuse me if I continue my talk in "American Yankee".

Après vous avoir démontré mes imperfections linguistiques, je dois implorer votre indulgence de nouveau. Bien que n'étant pas étranger au Canada, je ne peux pas être aussi familier avec les problèmes de la Collectivité du bâtiment ici qu'avec ceux qui nous confrontent aux Etats-Unis. Mes remarques sont donc fondées sur l'histoire et les conceptions américaines. Espérons que vous êtes forts en extrapolation ou que nos problèmes sur tout le continent nord-américains se ressemblent suffisamment pour que mes propos signifient quelque chose et vous soient utiles.

Notre dessein aujourd'hui est de songer à l'avenir. Qu'est-ce qu'un pays attend (ou devrait attendre) de la collectivité du bâtiment? Que devraient être nos buts? Quelles sont (ou que devraient être) les responsabilités et les relations mutuelles de la collectivité? Ce sont là les questions que j'aimerais aborder, mais elles sont trop vastes pour qu'un orateur, quelle que soit son impétuosité, puisse faire plus que les énumérer. Vous m'excuserez donc si mes remarques traitent surtout, bien que non exclusivement, de la profession d'architecte. Au cours de la présente conférence, d'autres orateurs mieux qualifiés que moi vous parleront des autres parties constituantes de la collectivité.

Afin de deviner ce que nous réserve l'avenir, je trouve qu'il est non seulement utile mais sûrement saisissant de jeter un regard rapide sur le passé. Nous sommes devenus tellement habitués au genre de monde dans lequel nous vivons que nous oublions (tout comme si nous l'avions jamais su) combien ce monde change rapidement, combien différent il était il y a quelques années seulement et combien différent il doit devenir inévitablement.

Nous considérons le téléphone comme chose établie. Toutefois, il n'y a 82 ans (peut-être du vivant de l'un de vous présent ici) on ne comptait que 252 abonnés au téléphone dans toute la ville de New York (et le service était terrible). A cette époque (1879) les trains et les voitures étaient tirés par des chevaux, et quand il fallait monter des côtes un cheval supplémentaire était attelé. Le pétrole lampant et le gaz servaient au peu d'éclairage qu'il y avait. Les bureaux, magasins et maisons d'habitation (étant donné qu'il n'y avait pas de fournaises) étaient chauffés au moyen de gros poêles ronds qu'on appelait "brûleurs de base" (base burners).

Quelques années plus tard, au cours des années quatre-vingt, l'auteur Charles C. Baldwin disait, à propos de l'exercice de l'architecture: "*. . . sauf quelques exceptions, les architectes américains étaient des dilettantes qui prenaient les choses aisément, auxquels on ne pouvait se fier que rarement, qui étaient toujours réprimés et souvent réprimandés. Ils fournissaient de temps en temps des dessins pour les plans proposés par le client, mais le plupart du temps, ils occupaient un poste semblable à celui d'un surintendant de construction. Ils ne connaissaient rien et étaient censés ne rien connaître au sujet des lois du bâtiment, des valeurs immobilières ou du financement hypothécaire. Il n'y a avait pas de machines à écrire et un devis descriptif de 100 pages devait être copié à la main laborieusement. Il n'y avait pas d'écoles bien aménagées, pas de dessinateurs professionnels, pas de journaux d'architecture . . . L'impression de photo-copies bleues était impossible commercialement et ou n'avait jamais entendu parler de photostats.*"

Est-ce que cela vous fait désirer les bon vieux temps ardemment?

Dans un tel contexte, on doit être stupéfait de l'effort réalisé par M. William LeBaron Jenney, de Chicago, qui était chargé, en 1883, de dresser les plans de l'édifice de la Home Insurance, édifice qui fut le premier gratteciel à charpente en acier.

En parlant d'édifices, combien parmi vous êtes au courant du fait qu'il y a moins de soixante ans, on ne connaissait pas de formule pour le calcul de béton armé? Ou (autant que je sache) il y a moins de 50 ans, on ne connaissait pas ce qu'un ingénieur conseil en mécanique était. De fait, il y a 45 ans les revues faisaient rarement mention des corps de métier de la mécanique. Les services d'architectes étaient alors assez simples. Aucun diagramme de filerie, aucune climatisation, aucune science de l'acoustique. Les architectes faisaient peu de réalisation de programmes, de recherches ou d'analyse économique. Je doute qu'on ait jamais entendu parler d'études sur les possibilités à cette époque.

Aujourd'hui, les demandes imposées aux professions chargées d'établir les plans sont presque impossibles à supporter et les outils technologiques à notre disposition nous stupéfient et semblent trop rapides pour que nous les comprenions immédiatement. Pendant combien de temps nos clients continueront-ils d'être satisfaits de l'inefficacité flagrante du manuel de génie "tout fait" quand nous avons une machine à calculer électronique à notre dispositions?

Avez-vous déjà entendu parler, par exemple, d'un levé aérien électronique? En s'élevant dans les airs, il est maintenant possible d'établir non seulement les contours mais l'état du sous-sol et la géologie aussi bien. Au moyen de cartes poinçonnées et de machines à calculer, la coupe et le remplissage sont fixés et l'évaluation du coût est préparée. Les voyages à pied d'oeuvre ne sont nécessaires que pour établir les points de vérification, et la chose la plus prestigieuse est que l'exactitude est possible dans l'ordre de quatre pouces dans vingt-cinq milles.

Ce que je veux souligner n'est *pas* que le changement même est étonnant, mais que sa *rapidité l'est*. Chaque jour nous affrontons un nouveau monde avec de nouveaux problèmes et de nouvelles techniques à notre dis-

only contours but subsoil conditions and geology as well. Using punch cards and computers, cut and fill is determined and cost estimates are prepared. Field trips are necessary to establish check points only; and most amazing of all, accuracy is possible on the order of four inches in twenty-five miles.

My point is *not* that change itself is surprising but that the *velocity* of change *is*. Every day we face a new world with new problems and new techniques at our disposal with which to solve them. Not only are yesterday's projects obsolete but the professional manner in which we accomplished them. And the rate of change itself is accelerating.

So, what of the future? Perhaps it will again be helpful to step back into history. Suppose in 1932 someone had asked you to guess some of the changes to come in the next 25 years (through 1957). How many would you have predicted? (Taken from the Kiplinger Magazine) – Splitting the atom, commercial television, drive-in movies, big-screen movies, regular transatlantic and transpacific air service, helicopter flight, modern shopping centers, discount houses, parking meters, professional league night baseball, nylon, Acrilan, Dacron and other synthetic fibers, streptomycin, aureomycin and other wonder drugs, Salk vaccine, heart surgery, tranquilizing drugs, anti-t.b. drugs, 30-year amortized mortgages, electronic calculators, jet airplanes, freezer-food plans. And we have not even reached the current list of wonders such as salt water conversion, progress in the harnessing of solar and atomic energy and the exploration of space. Prophesying the future is a fun game at which any number may play and nobody loses.

Now that industrial research has been proven profitable, it is, ipso facto, respectable. At an ever faster rate, new products and services are born, many of them actually useful and some with promise of major impact on our way of life.

In summary effect, human labor is being taken over by the machine and drudgery eliminated. Now that motors and push buttons have all but eliminated household servants, will housewives soon become obsolete? The prospect of millions of frustrated women with time on their hands may well appall the most devoted of husbands.

In such technically advanced nations as Canada and the United States, we can certainly anticipate that human productivity will double in twenty-five years. In fact, to satisfy our expanding expectations for well-being, we may be in a race between productivity and re-productivity, in both of which activities, I trust, women will continue to play a major role.

With the high productivity well within our ability to achieve, energy – the ultimate multiplier of the human brain – may some day be so plentiful and so cheap as to be distributed for a monthly fee without metering. The already evident consequence of infinite sources of energy is the downgrading of human muscle power. *There can be no place for the untrained and the unskilled.* Stupidity may one day be regarded as a disability as avoidable or curable as mental disease.

One may go further with technical speculations. In our disappearing air space what will be the impact of travel speeds of Mach 3 and 4? And will someone think effectively of the less dramatic problems of local mass transit at the less exciting speeds of 25 to 50 miles an hour? Will that little monster, the private automobile, be tamed and properly domesticated? Will we expand our control of environment, now limited to individual buildings, to larger enclosures of real estate . . . or even to the weather?

Of the future we may ask many technical questions, all of which time will answer. Nor need we hasten to anticipate. Except for automobiles and other weapons of destruction, the human race has demonstrated its ability to adapt itself reasonably well to technological change.

Unhappily, our record in dealing with social problems, with human problems is quite unmarred by success. Certainly our collective ability to anticipate needs in an effective way is notably deficient. Progress is typically measured by the correction of past errors and the digging away of messes we have allowed to accumulate.

Traditionally, architecture has been regarded by the public and even by most of its practitioners as a technical art. Like the engineer, we are supposed to deal with the structural enclosure of space logically allocated in the service of human purposes. Under the police power of the State the law holds us responsible for health, welfare and safety. So also does it hold the engineer.

Unlike the engineer, however, we are concerned with aesthetics, with beauty, with human emotional response to those elements of design which comprise the architect's basic palette: space, form, light, color, texture, odor and sound. To the logic of engineering necessity we have added art as the special province of the architect. But with the rapid development of the behavioural sciences even environmental design is becoming technical and objective. Less and less can our aesthetic failures be attributed to personal and subjective insensitivity. More and more must success be based upon tested knowledge in the special and related fields of psychology, sociology, biology and others.

The late, great architect, Dwight Heald Perkins (my partner's father) once said: "Sticks and stones are the materials of building; ideas and ideals are the materials of architecture." Such a definition suggests a total reorientation and reappraisal of the practice of architecture.

If ideas and ideals are the materials of architecture, then architecture becomes a social art. If architecture is a social art, we must accept a commensurate expansion of our professional goals and responsibilities. The techniques of planning, engineering and aesthetic design remain important skills but become tributary to the highest over-riding skill of all: the determination of social purpose.

Here lies the great frontier for the architectural profession. New frontier? Yes, yet also partly old. Certainly an understanding of the needs of people in terms of their physical environment has always been a fundamental goal of architects. With the achievement of such understanding we must ask ourselves to what purpose should we apply it? What are the boundaries of our concern or, in stronger language, of our responsibility?

If, as I believe, architecture is a social art, then it follows that we must be concerned with the purposes toward which our technical skills are directed. Are we

position pour les résoudre. Non seulement les projets d'hier sont désuets, mais il en est ainsi de la façon professionnelle avec laquelle nous les accomplissons. De plus, la vitesse des changements va toujours en accélérant.

Que nous réserve l'avenir? Il serait peut-être utile de revenir encore à l'histoire. Supposons qu'on vous ait demandé en 1932 de deviner quelques-uns des changements à venir au cours des 25 prochaines années (soit jusqu'en 1957). Combien d'entre vous aurait pu les prédire? (Ce passage est tiré de la revue Kiplinger.) – La fission de l'atome, la télévision commerciale, les théâtres en plein air, les films sur grands écrans, les services aériens transatlantiques et transpacifiques réguliers, les envolées en hélicoptères, les centres d'achat modernes, les maisons d'escompte, les compteurs de stationnement, les joutes de baseball professionnelles le soir, le nylon, les fibres synthétiques Acrilan, Dacron et autres, la streptomycine, l'auréomycine et autres drogues merveilleuses, le vaccin Salk, la chirurgie cardiaque, les drogues tranquilisantes, les drogues antituberculeuses, les hypothèques de 30 ans, les machines à calculer électroniques, les avions à réaction, les plans d'aliments congelés. Et nous n'avons pas encore touché à la liste courante des merveilles telles que la transformation de l'eau salée, les progrès du harnachement de l'énergie solaire et atomique et l'exploration de l'espace. Prophétiser l'avenir est un jeu amusant auquel bon nombre peut prendre part et il n'y a pas de perdant.

Maintenant que les recherches industrielles se sont avérées avantageuses, elles sont dignes de respect par le fait même. De nouveaux produits et services sont crées à une allure toujours plus rapide, plusieurs d'entre eux étant réellement utiles et quelques-uns promettant d'avoir une percussion importante sur notre mode de vie.

L'effet sommaire est que la main-d'oeuvre humaine est remplacée par la machine et le travail pénible éliminé. Maintenant que les moteurs et les boutons-poussoirs ont presque supprimé les domestiques, les maîtresses de maison deviendront-elles désuètes dans un avenir rapproché? La perspective de millions de femmes frustrées, ne sachant que faire de leur temps, peut très bien épouvanter les plus dévoués des maris.

Dans des pays aussi avancés techniquement que le Canada et les Etats-Unis, nous pouvons sûrement prévoir que la productivité humaine doublera dans vingt-cinq ans. De fait, afin de répondre à nos prévisions de bienêtre grandissantes, il peut y avoir une course entre la productivité et la reproductivité, et je compte bien que dans les deux cas les femmes continueront de jouer un rôle important.

Avec la forte productivité que nous pouvons très bien atteindre, l'énergie – le multiplicateur définitif du cerveau humain – peut devenir un jour si abondante et si bon marché qu'on pourra la distribuer à raison d'une somme mensuelle sans compteur. La conséquence déjà évidente des sources infinies de l'énergie est le déclin de l'énergie musculaire de l'homme. *Il ne peut y avoir de place pour les hommes n'ayant ni formation ni expérience.* La stupidité peut être considérée un jour comme une incapacité aussi inévitable ou incurable que la maladie mentale.

Je pourrais m'étendre davantage sur les spéculations techniques. Dans notre espace aérien qui disparaît, quelle sera la percussion des vitesses des voyages des 3 et 4 mars. Quelqu'un pourra-t-il songer effectivement aux problèmes moins dramatiques du transport local en masse à des vitesses moins passionnantes de 25 à 50 milles à l'heure? Est-ce que ce petit monstre qu'est l'automobile particulière sera apprivoisée et domestiquée convenablement? Allons-nous étendre notre maîtrise de l'environnement, maintenant limitée aux édifices individuels, jusqu'aux plus grandes enceintes des propriétés immobilières . . . ou même jusqu'à la température?

On peut demander à l'avenir un grand nombre de questions techniques auxquelles seul le temps répondra. Il n'est pas nécessaire que nous anticipions. Sauf pour les automobiles et les autres armes de destruction, la race humaine a démontré son habileté à s'adapter raisonnablement bien aux changements technologiques.

Malheureusement, la façon dont nous avons fait face aux problèmes sociaux et humains dans le passé est loin l'être gâtée par le succès. Certainement notre habileté collective pour prévoir nos besoins de façon efficace est remarquablement insuffisante. Le progrès est typiquement mesuré par la correction de nos erreurs passées et la disparition des gâchis que nous avons laissé accumuler.

Traditionnellement, l'architecture a été considérée par le public et même par la plupart de ceux qui l'exercent comme un art technique. Comme l'ingénieur, nous sommes supposés traiter de l'enceinte structurale de locaux logiquement destinés au service des fins humaines. Aux termes du pouvoir policier de l'Etat, la loi nous tient responsable de la santé, du bien-être et de la sécurité. Il tient également l'ingénieur responsable.

Toutefois, contrairement à l'ingénieur, nous nous occupons de l'esthétique, de la beauté, de la réponse émotive humaine à ces éléments de composition que comprend la palette fondamentale de l'architecte: espace, forme, lumière, couleur, texture, odeur et son. A la logique de la nécessité du génie, nous avons ajouté l'art comme étant le domaine particulier de l'architecte, mais avec l'expansion rapide des sciences de comportement, même la composition du milieu devient technique et objective. Nos manquements esthétiques peuvent être attribuées de moins en moins à l'insensibilité personnelle et subjective. Nos succès doivent, de plus en plus, être fondés sur des connaissances éprouvées des domaines spéciaux et connexes de la psychologie, de la sociologie, de la biologie et autres domaines.

Le grand architecte, feu Dwight Heald Perkins (l'associé de mon père) dit un jour: "Les bâtons et les pierres sont les matériaux du bâtiment; les idées et les idéals sont les matériaux de l'architecture." Une telle définition suggère une réorientation et une réévaluation totales de l'exercice de l'architecture.

Si les idées et les idéals sont les matériaux de l'architecture, celle-ci devient alors un art social. Si l'architecture est un art social, nous devons accepter une expansion proportionnée à nos buts et responsibilités professionnels. Les techniques de la planification, du génie et de la composition esthétique demeurent des talents importants mais deviennent tributaires du plus grand talent de tous: la détermination de la fin sociale.

Ici se situe la grande frontière de la profession d'architecte. Nouvelle frontière? Oui, tout en étant vieille en

hirelings and mindless tools to be employed by others or do we have a normal responsibility to shape the purposes for which we build? Who is our client? The one who pays for our services or the voiceless public which also suffers or benefits from what we do?

The answer, of course, is both. Without responsibility to both, architecture ceases to be a profession. For without moral responsibility a profession becomes no more than a learned trade of little consequence or status. Conversely, as a profession assumes responsibility for that aspect of public welfare for which it qualifies by reason of education, training and commitment, it wins honor, respect and the rewards of accomplishment for its practitioner.

What is the responsibility of architecture?

I hold that the mission of the profession of architecture is to assume responsibility for nothing less than a nation's man-made physical environment, an environment in harmony with the aspirations of man.

An overwhelming challenge? Yes, of course, but what lesser challenge would be equal to a great and honored tradition.

Let us recognize, however, that a vacuum exists, that there is today a void in leadership. The question is not *whether* the void will be filled but . . . by whom. Someone will slip in. Will he be the banker – the realtor – the developer – the politician? Rightfully, none of these. For physical environment is the product of design and design is the province of the architect.

And the time is now.

According to the Gordon Commission, Canada will rebuild itself within the next forty years. The population flood is already upon us. While noble steps have already been taken such as the report of the "RAIC Committee of Inquiry into the Design of the Residential Environment," much, I'm sure, remains to be done to establish national goals.

My own country is only now beginning to realize the enormous problems of urban growth with which we must contend. Two-thirds of our nation is now concentrated in less than 200 metropolitan areas. Population is growing at a rate of 3 to 4 million per year and rural land is being gobbled up by our cities at the rate of a million acres a year. Frightening as these statistics are, they are not nearly as appalling as the actual and visible debauchery of our fair land.

The great metropolitan explosion keeps tearing up woods and green spaces, polluting air and water and spoiling human habitation in general. We foul our own nests and spawn new slums faster than we tear down old ones.

It is revealing that our federal government spends more money on fish breeding and wild life sanctuaries than on conserving human beings through slum clearance.

I wish that I could say that we know what we are going to do about it. Steps are being taken both nationally and locally. But I fear it is the simple truth to say that we have yet to decide how we would like to live. There is no consensus on what kind of communities or cities we should build. Yet we have already lost our lead time. With little purpose, other than quantity, we are forced to build now.

Hopefully, you in Canada will do better. In such developments as Don Mills at Toronto, you have fine examples of good planning. From my own observation I also know that you have outstanding architects, engineers, producers and builders. In short, you are blessed with a strong Building Community.

And while I have said that leadership in planning should rest with the architect, the responsibility for getting the job done bears upon the *entire* Building Community.

Whether or not we agree upon the technological nature of the brave new world which confronts us, perhaps we can agree upon two of its characteristics:

One: The scale of construction will be enormous, and

Two: Building must be accomplished within time spans far more brief than in the past.

In other words, and omitting the whole vast subject of national objectives, we must build more and faster to accommodate the dammed up needs of a surge of population multiplied by accelerating technical and social obsolescence.

Is the Building Community geared to such national necessities?

While you will each answer this question for yourselves, I will postulate that the answer is 'not yet.'

I recognize, of course, that in a free society economic necessity will force answers. The needed building will be accomplished. The question which really concerns this meeting here in Quebec is, therefore, not whether but how.

Are the traditional relations between the design professions, the producers, the builders, the sources of money and the brokers of land adequate to the scale of need in scope and in time? Are you organized and tooled up to design, build, rebuild, preserve and restore whole communities, cities and regions? And if *you* are not, is someone else?

I know of no law which says that our traditional ways must be followed; that private architects or engineers must survive; that private combines of vast capital resources cannot hire the salaried hands and package the entire job; or even that government cannot create more bureaus to provide whatever services and products an impatient public may demand. Make no mistake about it. The Building Community is about to be tested as never before.

In this new world of technological and social change, it is no time for inter-professional jurisdictional squabbles. The work to be done is so overwhelming that all existing skills will be tested to their limits and new disciplines, not heretofore involved, will be needed. New design teams will be formed which may well add to architecture and engineering such specialists as geographers, demographers, human ecologists, land economists, statisticians, psychologists, artists and even poets.

Who will lead such teams? I can hope but not prophesy that they will be architects. But whatever the category, the leaders will be men of vision, determination and prepared comprehensive competence.

As a result of these meetings here this week, may you find new ways to unity, new strength and new vision to design and build a second and new, greater Canada.

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partie. Une compréhension des besoins du peuple selon leur environnement physqieu a certainement toujours été le but fondamental des architectes. Si nous en arrivons à cette compréhension nous devons nous demander à quelle fin devrions-nous l'appliquer? Quelles sont les limites de notre souci ou, en langage plus fort, de notre responsabilité?

Si l'architecture est, comme je le crois, un art social, il s'ensuit alors que nous devions nous soucier des fins vers lesquelles notre habilleté technique est dirigée. Sommes nous des mercenaires et des outils sans esprit devant être utilisés par les autres ou avons-nous une responsabilité morale de façonner les fins pour lesquelles nous construisons? Qui est notre client? Celui qui paie nos services ou le public muet qui souffre ou bénéficie également de ce que nous faisons?

La réponse, cela va de soi, est les deux. Sans responsabilité à l'égard des deux, l'architecture cesse d'être une profession, car sans responsabilité morale, une profession ne devient qu'un métier appris de peut d'importance ou de statut. Réciproquement, à mesure qu'une profession assume la responsabilité de cet aspect du bien-être public pour lequel elle se qualifie en raison de son instruction, de sa formation et de ses engagements, elle acquiert l'honneur, le respect et les récompenses que comportent les oeuvres de celui qui l'exerce.

Quelle est la responsabilité de l'architecture?

Je soutiens que la mission de la profession d'architecture est d'assumer la responsabilité pour rien de moins que l'environnement physique d'une nation bâtie de mains d'hommes, un environnement qui est en rapport avec les aspirations de l'homme.

Un défi accablant? Oui, naturellement, mais quel défi moins atterrant serait égal à une tradition grande et honorée.

Reconnaissons, toutefois, qu'il existe un vacuum et qu'il y un vide dans la direction. La question n'est pas de savoir si ce vide sera comblé mais . . . par qui? Quelqu'un se glissera à la direction. Sera-t-il un banquier, un agent d'immeubles, un constructeur ou un politicien? Aucun d'eux à juste titre, car l'environnement physique est le produit de la conception et la conception est le domaine de l'architecte.

Et le temps est arrivé.

D'après la Commission Gordon, le Canada se reconstruire au cours des quarante prochaines années. Il y a débordement de population. Bien que d'admirables mesures aient déjà été prises, telles que le rapport du Comité d'enquête sur le Plan de l'environnement résidentiel, je suis sûr qu'il reste beaucoup à faire en vue détablir des buts nationaux.

Mon propre pays ne fait que commencer maintenant à se rendre compte des problèmes énormes de croissance urbaine auxquels nous avons à faire face. Les deux tiers des Etats-Unis sont concentrés actuellement dans moins de 200 régions métropolitaines. La population augmente au rythme de 3 à 4 millions par année et la campagne est engloutie par nos villes à raison d'un million d'acres annuellement. Quelque effrayantes que soient ces statistiques, elles ne sont pas aussi épouvantables que l'endommagement réel et visible de notre beau pays.

La grande explosion métropolitaine continue de mettre en pièces nos forêts et nos espaces verts, de polluer l'air et l'eau et de gâter l'habitation humaine en général. Nous souillons nos propres nids et multiplions de nouveaux taudis plus rapidement que nous démolissons les anciens.

C'est une révélation que de voir notre gouvernement fédéral dépenser plus d'argent pour la reproduction du poisson et les refuges d'animaux sauvages que pour la protection des êtres humains en éliminant les taudis.

J'aimerais pouvoir dire que nous savons ce que nous allons faire à ce sujet. Des mesures sont prises tant au point de vue national que local, mais je crains bien que le vérité pure et simple est que nous n'avons pas encore décidé comment nous aimerions vivre. Il n'existe pas d'unanimité quant au genre de collectivités ou de villes nous devrions bâtir. Bien plus, nous avons déjà perdu l'avance que nous avions prise. A peu de fins, autres que la quantité, nous sommes forcés de construire maintenant.

J'ai bon espoir que vous ferez mieux que nous au Canada. Dans des projets tels que Don Mills à Toronto, vous avez un magnifique exemple d'une bonne planification. D'après ce que j'ai pu observer, je sais aussi que vous avez des architectes, ingénieurs, fabricants et constructeurs éminents. En un mot, vous jouissez d'une forte collectivité du bâtiment.

Bien que j'aie dit que la direction de la planification devrait relever de l'architecte, la responsabilité de faire exécuter les travaux repose sur *toute* la collectivité du bâtiment.

Que nous soyons d'accord ou non sur la nature technologique de ce bon nouveau monde qui nous confronte, nous pouvons peut-être nous entendre sur deux de ses particularités:

Premièrement: Le rythme de construction sera énorme, et

Deuxièmement: La construction doit être effectuée au cours d'une période de temps beaucoup plus courte que par le passé.

En d'autres mots, et en omettant tout le vaste sujet des objectifs nationaux, nous devons construire de plus en plus rapidement afin de répondre aux besoins endigués d'un débordement de population multiplié par un vieillissement technique et social grandissant.

Le collectivité du bâtiment est-elle engrenée pour répondre à une telle nécessité nationale?

Pendant que vous répondrez à cette question pour vous-mêmes, je postulerai que la réponse est "pas encore".

Je reconnais, naturellement, que dans une société libre, la nécessité économique exigera des réponses. L'édifice dont on a besoin sera édifié. La question qui intéresse notre réunion actuelle à Québec n'est donc pas si mais comment.

Les relations traditionnelles entre les professions qui dressent les plans, les fabricants, les constructeurs, les sources monétaires et les courtiers en immeubles sont-elles appropriées à l'échelle du besoin quant à la portée et au temps? Etes-vous organizé et outillé pour dresser des plans, construire, reconstruire, protéger et rétablir des collectivités, villes et régions entières? Si vous ne l'êtes pas, d'autres le sont-ils?

Je ne connais pas de loi qui exige que nos moyens traditionnels soient suivis, que des architectes ou ingé-

nieurs particuliers doivent survivre, que des cartels privés possédant de vastes ressources en capitaux ne puissent engager des salariés et englober toute l'entreprise, ni même de gouvernement qui ne puisse pas établir plus de bureaux pour assurer tous les services et produits qu'un public impatient puisse demander. Que l'on ne s'y trompe pas, la collectivité du bâtiment est sur le point d'être mise à l'épreuve comme elle ne l'a jamais été auparavant.

Dans ce nouveau monde de changements technologiques et sociaux, il n'y a pas de temps pour des querelles interprofessionnelles juridictionnelles. Le travail à exécuter est tellement considérable que tous les talents actuels seront éprouvés à leurs limites et de nouvelles disciplines jamais en cause jusqu'ici seront nécessaires. Nous formerons pour l'établissement des plans de nouvelles équipes qui pourraient fort bien ajouter beaucoup à l'architecture et au génie, ces équipes étant composées de spécialistes tels que géographes, démographes, experts en oecologie humaine, économistes agraires, statisticiens, psychologues, artistes et mêmes des poètes.

Qui dirigera ces équipes? Je peux espérer sans prophétiser que ce sera des architectes, mais quelle que soit leur profession, les chefs seront des hommes de vision, de détermination ayant une compétence compréhensive bien préparée.

Par suite des réunions tenues ici cette semaine, pouvez-vous trouver de nouveaux moyens pour atteindre l'unité, une nouvelle force et une nouvelle vision pour projeter et bâtir un nouveau second Canada plus grand qu'auparavant.

Programming for Eighteen Million Experts

The 54th Assembly Annual Dinner Address

By Alphonse Ouimet, President of the Canadian Broadcasting Corporation

Quebec is so full of Gallic charm and tradition that I know you expect me to say a few words in French in homage to our hosts.

Radio-Canada célèbre cette année 25 ans d'architecture. En effet, il y a 25 ans que nos réseaux radiophoniques de langue anglaise et de langue française contribuent puissamment et sans relâche à former une entité canadienne et à édifier une nation dont les éléments soient fortement unis d'un océan à l'autre. Depuis bientôt dix ans, nos réseaux de télévision accomplissent le même travail, mais avec plus d'intensité encore.

Donc, à titre de président d'une société nationale d'architectes, et en ma qualité d'ingénieur, je me sens tout à fait à l'aise en votre compagnie, que la présence de vos charmantes épouses rend encore plus agréable.

Je me propose de vous parler des matériaux que nous fabriquons – et qui sont nos programmes – dans l'espoir que vous voudrez bien vous y intéresser. Et comme vous êtes en grande majorité de langue anglaise, vous me permettrez bien de m'addresser à vous dans cette langue.

Don't worry, it is not as a "humble" engineer that I have the audacity to call you "colleagues". I do so as

a member of the broadcasting profession – a profession which, like yours, must continually reconcile any preconceived ideas it may have about aesthetics and economics with the tastes and wants of those we serve.

With such feminine charm to delight our eyes this evening, it is easy to see that architects are "men of taste" – of "excellent taste", I would say.

Speaking of taste, a subject about which I will have quite a bit to say this evening, I recently read a very interesting article by Victor Ratner, entitled "Freedom of Taste". Ratner starts his essay with a fable: *"Two dogs who had been fighting over a bone, without advantage to either, referred their dispute to a sheep: the sheep patiently heard their statements, then flung the bone into a pond.*

"Why did you do that?" asked the dogs. "Because," said the sheep, "I am a vegetarian!"

The author then takes the view that each individual has a divine right to his individual tastes and preferences, whether good or bad, as seen by the elite. In effect, he elevates "freedom of taste" to the same level as "freedom of speech", "freedom of religion" and the other classical freedoms.

I do not propose to argue the validity of this approach on a philosophical basis. I have the feeling however that most architects would recognize its merits in actual practice.

There are certainly times in your professional life when, with all necessary discretion but with great conviction, you must echo the sentiment of the great Scottish journalist of a few generations ago, Andrew Lang, when he wrote: *"The eye of each man sees but what it has the power of seeing."*

In any case, I am sure you represent one profession in Canada which needs no further persuasion to accept the theory that no two individuals have completely identical tastes – and yet the individual, and only the individual, can be the final judge of what he likes or dislikes, whether it be in the field of architecture, literature, comedy, drama, food, music, radio or TV entertainment. Whether we like it or not, when it comes to taste, the individual is the "expert".

This is why the title I chose for my remarks to you this evening is "Programming for 18,000,000 Experts". This is the number of people, approximately, to whom the CBC is answerable, day in and day out. They are, in a very real sense, shareholders in our publicly-owned broadcasting system. They are extremely conscientious shareholders. On an average, they spend about three hours a day examining our products as they come off the production lines– at the rate of one hundred thousand a year. When they perceive anything with which they do not agree, they are quick to let us know about it.

They let us know about it by writing us tens of thousands of letters a year, by making some seven hundred thousand telephone calls, and by engaging our staff in discussions about programs and about broadcasting generally, from one end of the country to the other, at all hours of the day and night. So you see, if we are not running the Canadian Broadcasting Corporation properly, it is certainly not for not knowing what people want. Our difficulty is that too often everyone seems to want something different at the same time.

(Non, chers téléspectateurs, je vous assure que les Canadiens ne sont pas des moutons en matière de goût, même si on prétend quelquefois que le mouton soit un de nos emblèmes nationaux.)

I imagine that when someone asks you to build him a house, or an office building, you are confronted with the same situation. Everyone who is going to live in that house, or work in that office building, is automatically an expert. I think this would even extend to the people who are going to visit the building, or live next door to it, or across the street.

When you sit down to design a house for a family, the ideal at which you aim is a structure which will somehow meet the wishes and needs of all its members, as individuals and as a family group. Ideally, the finished design will do not only all these things – a tall order in itself – but will give that family something else as well – something it will appreciate and cherish all the more because it is a quality the family did not know it wanted or needed. If this ideal is accomplished, the finished product is a work of art. It is architecture in its highest sense.

There are parallels here when it comes to designing a broadcasting service. Our experts are pretty hard to classify. Their wants and needs don't sort out by age or sex, or what sort of work they do, or their education or religion, or what part of the country they live in, or how they were brought up, or what language they speak.

We are continually finding out things about people's tastes in broadcasting which knock any ready-made calculations into a cocked hat: that the man who listens to CBC Wednesday Night likes Huckleberry Hound; that many jazz fans are keen followers of our news commentaries and educational programs; that a large percentage of our sports fans are women, and that a surprising number of grandmothers are avid followers of wrestling. Viewers and listeners just cannot be classified into categories such as highbrow, lowbrow or middlebrow. I think it is a great mistake to try.

There are some broadcasting systems which are founded on the assumption that this problem can best be solved by applying the rule of numbers. According to this system, the test of a program's worth is the size of its audience. You simply measure the size of the audience, by means of ratings, and if the figure isn't high enough, out goes the program.

This isn't a solution to the problem. It is simply a decision to ignore it. What we have been trying to do in Canadian broadcasting is to acknowledge the fact that viewers and listeners cannot be grouped. That they are individuals, and should not be degraded into "types". For this reason, the program spectrum of CBC is made as broad as possible in order that tastes already formed may

be sustained and new ones encouraged.

CBC cannot at any one time provde a range of programs wide enough for all listeners and viewers to find their choice immediately. But it can and does provide such a range during the course of the day, the week or the month. Within its resources CBC has made the democratic compromise of trying to serve all of the people some of the time rather than some of the people all of the time. The great variety of its programs is what makes the CBC's strength as well as its vulnerability to criticism.

One thing which follows logically from trying to *please* all of the people some of the time is that in doing so, we are also bound to *displease* all of the people some of the time. Furthermore, in broadcasting as in architecture, perfection does not come too often. And in both fields, there are inevitable limitations – the amount of time available for study and planning, the availability of materials, and the size of the budget. I think the important thing is that we set our sights high and keep trying.

When we broadcast the Grey Cup from coast to coast, we have an audience of seven million people, who would be furious if our communications broke down even for one minute. This is about as large an audience as we ever get, with the possible exception of a Royal Visit. But it means that, while the broadcast is going on, there are about 11 million people who aren't watching or listening. Many of these are unable to follow the game, many don't want to. And always, there are many complaints and well considered letters from people who don't like football and think it is a waste of time and money and that CBC should be carrying something else instead.

We may put on a full-length opera, beautifully produced and performed, with the sure knowledge that CBC switchboards from Vancouver to St. John's, Newfoundland, will light up with hundreds of calls from indignant viewers wanting to know what happened to "Have Gun, Will Travel".

The strong feelings aroused by television can be explained only by the fact that it is a highly personal and immediate medium. It enters into our living rooms. It confronts us with all manner of things in the presence of our families and our friends. It clamors for our attention. No wonder we react strongly to it, and literally behave as if it were ours and ours alone.

Of course, it is always possible to turn off your set, or, if you live in Quebec City, throw it off a cliff. I remember the case of one man, infuriated by a political speech, who solved his problem effectively by blazing away at his television screen with a double-barrelled shotgun.

Yet television, whether we like it or not, is a fact of modern life. About 84 per cent of Canadian homes have television, and the average family, or some member of it, watches TV about four hours a day – so that what goes out over the networks is important to us and to the nation, whether we have a television set or not.

The author I referred to earlier has pointed out that culturally speaking, we now live on a public highway. Other people's programs come to us automatically following a program we like, or while we're searching for a program we like. In this way, many an intellectual has for the first time been directly exposed to mass tastes – and found them disturbing, or interesting. In the same way, a great many people are being exposed to higher tastes for the first time. Through television, a great play, for example, is seen by many more Canadians than if it had run to packed houses in Montreal and Toronto for six months. More important, it is seen by many people in many parts of the country who would not have been able to see it at all.

But I do not believe that broadcasting something for everyone is, or should be, the whole story. There is the absolutely vital question of all *your* rights as listeners and viewers. Because you do have other rights in broadcasting. And it is up to the 18,000,000 shareholders to see that these rights are protected, for they do not exist for many of the world's peoples. I think you have a basic right to receive from broadcasting a freedom of choice, whether this comes from the CBC, any single station, or a combination of stations. I am interested in maintaining on the CBC your freedom of choice. I am interested as an individual and as a member of the CBC Board of Directors, each of whom shares this interest in freedom and each of whom is, in essence, a trustee for your interests.

And I am interested in the freedom of broadcasting as well as your freedom of choice. I think they are very much the same thing in some respects, and I should like to explain what I mean by broadcasting freedom. It is something to which more and more attention is being given around the world. I believe freedom in broadcasting means the basic right of the individual to receive all significant news, factually, without comment, and without bias or distortion. It means the basic right of the individual to hear a variety of viewpoints about topics of current interest, to have the main points of view presented fairly, by a system or a service which is completely independent of control by any one element of our society.

I believe freedom in broadcasting also means that if a subject is of concern to a significant section of the population, then broadcasting should provide a platform for discussion of that subject, whether the subject is controversial or not, whether it pleases some and displeases others.

In other words, within the limits of good taste, and cognizant of the responsibilities of the broadcaster, there should be no taboos, no sacred cows, no areas of discussion which are automatically blanked out as "things we just don't talk about."

With this freedom in broadcasting goes a tremendous responsibility for the broadcaster. We must not overlook it. Freedom does not mean licence. The broadcaster must be continuously aware that he has a responsibility in terms of time and method of presentation, as well as in program content. These responsibilities are not incompatible with broadcasting freedom –they just make the broadcaster's life more difficult.

It may be argued that the sort of broadcasting I'm talking about constantly gets CBC into trouble with individuals or special interest groups. Of course it does. We are constantly hearing from people who do not agree with the views which other people have expressed on our networks. But as long as these programs provide a fair

balance for expression of opinion, as long as CBC maintains its integrity and remains unbiased, and as long as CBC maintains its program independence and responsibility, then I do not think we are very far off the right track. If there should come a day when CBC programing of this kind does not raise differences of opinion, then something will have gone very wrong – either with the system or with human nature.

These freedoms and rights begin to disappear the moment you try to classify members of your audience and begin to program on the basis of ratings. A great deal of nonsense is talked these days about giving the public what it wants. The people who say this usually mean finding out what programs are the most popular and providing nothing else. This would certainly be an easy way to stay out of trouble.

Whenever Canadians get together, the CBC is always a good basis for an argument. Someone has described this as our favourite national sport. If so, I think it is a very healthy one. But I wonder how long this would be so if we decided to try a "safe" formula for broadcasting? Suppose, of example, we sat down and re-wrote our principles into this form:

1. Canadians like whodunits and adventure stories, situation comedy, hockey, football, cartoons, western music and news. Provide these.
2. Canadians dislike opera, serious plays, modern music, political debates, talks, commentary and ballet. Do not provide these.
3. Canadians like old, familiar and well-known programs. Stick to the tried and true forms. Do not experiment. Do not take chances on new talent and new ideas.
4. All programs should be understood by an appeal to the entire family group – to children and adults of all age levels. Keep to the lowest common denominator at all times.
5. Avoid all controversy. Why take a chance with ideas, stick to westerns.

Such a set of principles would certainly keep us out of a lot of trouble. But I do not really believe that this mental sedation would give Canadians what they want.

I would like to go back, if I may, to the comparison I made earlier between broadcasting and architecture. I said that, ideally, the architect's finished dwelling will be something more than, individually or collectively, the family thought it wanted or needed. It may be a happy inspiration in the design which evokes a sense of unity and wholeness, which can change and enrich the life of that family. This is where the element of creativity enters the picture. This element is perhaps the most precious in the world – one that is well worth seeking. In broadcasting, as in architecture, it is or should be a fundamental aim. What I am saying, I suppose, is that most people simply do not know what they want until they see it. I include myself in this statement.

An excellent example of what I mean is provided in the 1957 report of the Royal Commission on Broadcasting, which took a cautious view of polls and ratings. It cited the play "Hamlet" as a hypothetical case:

"If Shakespeare had never lived", the report said, *"can we imagine that audience members would tell a pollster that they would like to see a drama about a neurotic prince who kills most of his relatives after holding conversations with a ghost in a fog?* Of course not."

This suggests that there is another part to broadcasting which involves a basic freedom important to all of us. I would call it the freedom to create. Without it I doubt very much if there would be a CBC or very much Canadian television at all. This is the artistic freedom which prevails within our national broadcasting service. It has been responsible for greatly enriching our national life. It has brought international recognition to Canadian writers and artists, and to the CBC and its creative people.

It is a prime function of the CBC to encourage this creativity through providing opportunities for its expression. I believe we are providing these opportunities by maintaining a creative atmosphere in which talent can develop and mature.

All over the world, there is much in television which is mediocre. This is perhaps inevitable in a medium which demands new creative material for many hours of every day of the year. Some of our own programs have turned out badly, and these mistakes have received much attention, as most mistakes do. But I believe that every season our broadcasting gets better. Today we are producing many top quality programs with a great deal of top quality talent which is Canadian. I believe we still have a great talent potential in this country. All it needs is the opportunity to develop. If broadcasting does not provide these opportunities, who will?

In less than nine years of Canadian television, we have developed not only mature artists in the performing, production and writing fields, but also experts in graphics, stage design, costuming, camera artistry, and the many talents which go into a television production. We have done this not only in one language, but in two. And this, in the eyes of the world, is a remarkable achievement. We have every reason and every right to be proud of our broadcasting, whether in English or in French. It has enriched our two main cultures.

And yet, despite these achievements, I believe the true dawn of Canadian television – of *mature* Canadian television – is just beginning to break. Why? Because of the surges of truly excellent programming – programs of substance – which are appearing with increasing frequency.

Television is still relatively in its infancy. We have come far in eight and a half years. We have far to go. And in getting there, we expect, and need, and welcome, the views, advice and constructive criticism of our 18,000,000 "experts".

It has been my privilege to speak to a large group of these "experts" this evening and I am most grateful for your attention. However, I am counting on more than that. By training and vocation, you are more than any other group in a position to help us achieve those standards of artistic excellence and intellectual integrity which our respective professions demand. Don't let us down.

CONVOCATION OF THE COLLEGE OF FELLOWS, ROYAL ARCHITECTURAL INSTITUTE OF CANADA, QUEBEC, MAY 20TH, 1961

Newly invested Fellows and Honorary Fellows of the Royal Architectural Institute of Canada photographed with Officers of the College of Fellows following the 1961 Convocation of the College held during the 1961 Annual Assembly at Quebec City, May 17-20. Seated, left to right: Anthony Adamson, MTPIC, Port Credit and Toronto; Philip Will, Jr, FAIA, Chicago, President of the American Institute of Architects, Honorary Fellow; Officers of the College: J. Y. McCarter, Vancouver, Dean; T. Galt Durnford, Montreal, Chancellor; and Dr F. Bruce Brown, Toronto, Registrar; Stewart Bates, Ottawa, President of Central Mortgage and Housing Corporation, Honorary Fellow; and Harland Steele, Hon FAIA, Toronto, President of the Royal Architectural Institute of Canada. Standing, left to right: W. G. Leithead, Vancouver; Howard L. Bouey, Edmonton; Ian Maclennan, Ottawa; Colin Copeman, OBE, Montreal; Lynden Y. McIntosh, Fort William; Charles D. Davison, Halifax; W. G. Raymore, Toronto; Léonce Desgagné, Chicoutimi; James A. Murray, Toronto; Ambrose G. Elton, Toronto; K. C. Stanley, Edmonton; John Fish, Montreal; Eric Thrift, Ottawa; and Denis Trembley, Sherbrooke. (Not shown Keith B. Davidson, Vancouver). *CPR Photo.*

CANADIAN
BUILDING DIGEST

DIVISION OF BUILDING RESEARCH • NATIONAL RESEARCH COUNCIL CANADA

STRENGTH OF SMALL ROOFS

by W. R. Schriever and H. J. Thorburn

UDC 69.024

Roofs are required to perform many different functions such as shedding precipitation, limiting heat and vapour flow and resisting loads. The main loads they must resist are snow, wind and dead loads. Sometimes rain and earthquake loads and incidental loads such as those due to workmen or construction equipment also have to be considered. In general, building codes or other standards specify the design values for these loads which the designer is obligated to use. None the less it is important to understand some of the background to the selection of design loads in building codes in order to gain an appreciation of the over-all problem of the strength of roofs.

Snow Loads

Since for many roofs in Canada the snow load is the greatest load that has to be sustained, its design value takes on great importance with regard to the safety and economy of these structures. Climatic variations across Canada are reflected by the corresponding variations in design snow loads, such as those used in the National Building Code of Canada which vary from 30 to 60 psf in the more populated areas. Even greater loads are required in other areas. The snow loads for parts of Northern Quebec for example reach 90 psf, and loads of up to 100 and 200 psf are found in some of the mountain areas of British Columbia.

In the past, design snow loads were generally based on snow depths on the ground measured at meteorological stations and assumed to be applicable to roofs as a uniformly distributed load. Snow depths on roofs, however, frequently differ from those on the ground through modification by wind, heat loss through the roof and solar radiation. Usually the over-all effect is a reduction of the average load. Certain parts of the roof, however, such as porch roofs and canopies, often accumulate higher than average loads. To investigate this subject a country-wide survey of snow loads on roofs is being undertaken by the Division of Building Research to provide comparisons between average ground loads and loads on different types of roofs varying from ordinary residential roofs to large flat and curved industrial roofs. On the basis of the preliminary results of these observations some improvements have been made in the 1960 edition of the National Building Code of Canada. A small reduction from the ground load was considered justified for the basic roof load, coupled with a provision for a load increase of 50 per cent for roof areas where drifting is likely to lead to snow concentrations. The possibility that snow might slide from one roof onto another or that unsymmetrical loading might develop on curved or pitched roofs is also taken into account.

Wind Loads

Wind can exert large forces on roofs. The greatest forces will be due to suctions rather than pressures. On steep roof slopes facing the wind, pressures are developed, but on most other surfaces, such as roof slopes parallel to the wind, leeward slopes as well as flat and moderately pitched roofs, suctions are developed. Maximum suctions are developed at points of greatest turbulence, such as above leading edges of roofs and near corners where roof coverings may be torn off because of inadequate fastening. Frequently, however, the over-all average wind forces on small roofs are not critical, so that in many cases they are neglected in the design.

Strength of Structures

Structural design is essentially a statistical problem. Neither the strength of a structure nor the maximum load to which it will be subjected is predictable with certainty. A small probability of failure is potentially present in all structures and thus it is not possible to achieve absolute safety. All that codes can do is set strength values and design loads in such a way as to reduce the probability of failure to an acceptably low level. It is obvious that the magnitude of the design load has significant bearing on the reserve of strength built into our structures. The second statistical "variable" is the design strength or load-carrying capacity of structures; this will now be considered for small roofs.

Strength of Roofs

Although it may be possible in theory to design roofs in such a way as to "shed" the loads, this is usually not practical, and roofs must therefore be constructed to resist them. This resistance can be achieved from several different actions. On the one hand, a roof built from various elements may act as a complete unit and this unit or "shell" action may contribute substantially to the resistance. In most cases, however, particularly that of small wooden roofs, the greater part of the resistance is provided by the elements acting independently.

Consider first the action of the roof as a unit. The ability of the roof to provide shell or folded plate action is governed primarily by its shape and to some extent its size. For example, a hip or cottage roof represents a potentially stronger shape than a flat or shed roof. The true contribution of shell action is very much dependent on construction details, for if the components which make up the shape are loosely constructed and tied together then any significant contribution of shell action might not appear before some of the elements of the roof approach or reach failure. In other words, the closer the construction can approach a monolithic condition the more likely it is to act as a unit. Nailed, wooden roofs achieve this to a small degree only; the greater portion of the resistance of such a roof to loads is therefore derived from the action of the individual elements.

The most important structural elements in a roof are the frames, of which there are four types in common use today: conventional rafter and joist frames, light wooden trusses, ridge support systems and flat roof joist systems. For sloped roofs the conventional rafter and joist system, consisting of a simple triangle of members (Fig. 1), is the most widely used.

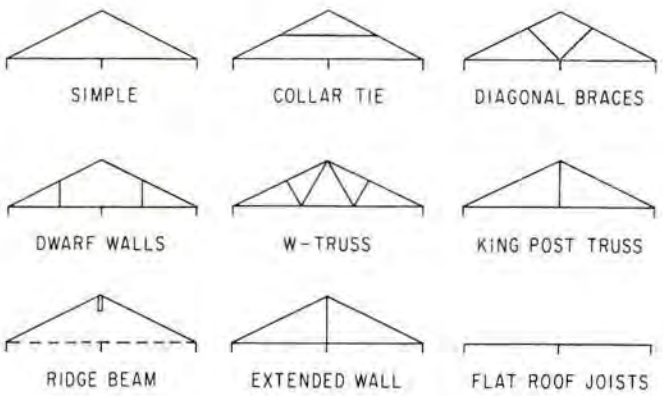

FIGURE 1 COMMON ROOF FRAMES

Variations of this include the simple frame augmented by either a collar tie, diagonal braces or dwarf walls. For any sizable span these frames are supported at three points, the third being required to support the joist splice. All these frames work through a basic truss action that is most readily apparent in the simple frame. This action involves a thrust, produced at the heels by the loaded rafters, which must be resisted by the tying action of the ceiling joists. The most important joints are therefore the heel joints and the ceiling joist splices. The bending resistance of the rafter is also a significant part of the frame strength. The secondary members (in variations of the simple frame) are used as intermediate supports to reduce the spans which determine the required rafter sizes. They also have a varying but important effect on the thrust. Member sizes for these frames are normally based on the design load, the span of the frames, the spacing at which the frames are to be used and the species and grade of lumber used. In many building codes these factors are combined in a table which allows a rapid determination of member sizes.

Although this relatively high degree of rationality exists for determining member sizes, the same cannot be said for the nailed connections. Usually the nailing is done according to the customary practice of the carpenter, although there are nailing schedules which specify the number and size of nails

required at any particular joint. At the present time neither of these methods is entirely rational. For example, a carpenter, according to custom or the nailing schedule, might use three through nails (driven perpendicularly through the rafter into the joist, as opposed to toe nailing) at the heel joint regardless of the design load, the span and slope of the frame, the spacing of the frames, and the species of lumber. This ignores the obvious fact that there is an increase of thrust with an increase of design load, span and spacing of roof frames and with a decrease of slope (Fig. 2).

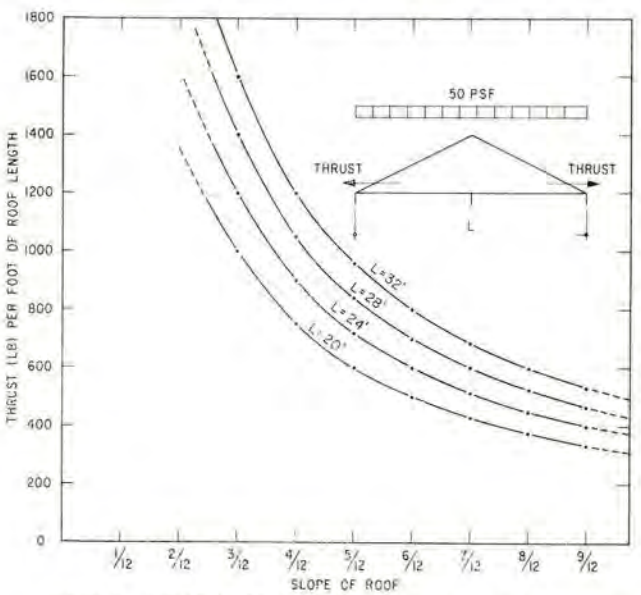

FIGURE 2 VARIATION OF HORIZONTAL THRUST FOR A SIMPLE FRAME OF VARIOUS SPANS UNDER A LOAD OF 50 PSF

The nailing at the joints must therefore vary according to these factors. Some building codes have recognized this fact and have expanded their nailing schedules to allow for some of these variables.

There are several other points which require attention. In the variations of the simple frame the nailing of the secondary members should be adequate to prevent slippage at the joints of these intermediate supports. Another point is that collar ties and diagonal braces, when under high load, have a tendency to buckle because they are in compression and unsupported in their weakest direction. This can be prevented either by providing lateral support for the member or by providing a member size whose critical load will not be exceeded.

Trusses

Another type of roof frame which has developed considerably in recent years is the light-weight wooden truss. Trusses, which are usually of either the W- or King Post-type, have three distinct advantages: they give complete freedom to the location of partitions; they allow the builder to enclose the structure more rapidly; they lend themselves to prefabrication.

The design of trusses has evolved on a much more rational basis than that of conventional roof framing. In some cases forces are calculated by normal engineering methods and members and joints are determined on the basis of allowable stresses and loads. In other cases a proof testing system is used in which the truss is designed in part on the basis of calculations and is then load tested to determine whether its performance is acceptable. There are numerous standard designs available, covering many combinations of spans and slopes*. Builders therefore frequently use these rather than develop their own. The methods of constructing trusses can be quite varied and depend to a large extent on the number to be built. Small numbers are usually built in a simple jig laid out on a convenient surface while larger numbers are mass produced by means of assembly line cutting, jigging and pressing. Connections are made by means of gusset plates or by mechanical connectors such as split-rings and toothed plate devices. When trusses first became widely used gussets were made primarily of plywood, either nailed or glue-nailed to the members. More recently, there has been a trend towards using metal gusset plates, particularly when the trusses are mass produced.

No-Thrust Systems

Both conventional roof frames and wooden trusses have limitations which lead in part to the use of the third common method of roof framing, the ridge support system. At roof slopes of less than 4 in 12 the thrust which is produced by the rafters of conventional frames becomes so great that it is not practical to provide the number of nails required to resist it. Even if this number were provided, deflections might be excessive. Similarly for low-slope trusses, the strength and stiffness required at the joints is difficult to obtain economically. Nailed and glued plywood gussets provide a solution for this, but the need for careful control of gluing and the difficulties

*See for example Central Mortgage and Housing Corporation "Builders' Bulletin", No. 109, January 1960.

of inspection limit its application. It is here, therefore, that the ridge support system has its place.

The basic principle of the ridge support system is the elimination of thrust by providing a support along the ridge. The roof rafters bear at one end on this support and at the other on the exterior wall, the bearing surfaces being horizontal. Thus the rafters are resisting the load by simply beam action and there is no thrust produced at the heel. The support at the ridge normally takes the form of a beam which may span any distance up to the full length of the roof depending on the available beam support locations. Another method involves the upwards extension of a centre bearing wall to a position where the rafters can bear directly on its top plate. The member sizes required for the ridge support system can be determined from the same considerations as for conventional framing. Since there is no thrust in the ridge support system, the nailing required at the joints is lighter, the main consideration being that of anchorage against the uplift force of the wind.

The flat roof joist system can be considered a variation of the ridge support system and is generally designed on the same basis.

There are other less frequently used methods of framing small roofs, one of which is the post and beam system. As the name implies the system consists of posts or columns supporting beams which in turn support covering materials. The essential difference from other wood framing systems is that the member size and thus the member spacing and spans are considerably larger. Unlike wood-frame construction, post and beam systems are based to a large extent on engineering analysis rather than on convention.

In summary it can be said that the strength required of small roofs depends on the loads to be resisted and the degree of safety desired, and that the provision of this strength depends primarily on the adequacy of the elements. This adequacy depends not only on the strength of the members but equally on the strength of the connections. The design of house roofs is under active investigation by the Division of Building Research, in association with the Forest Products Research Branch of the Department of Forestry.

Need for Additional Revenues to Support Increased RAIC Activities Discussed by Council at Assembly

A wide range of Institute affairs was discussed at the two Council meetings held, as customary, during the 54th Annual Assembly at Quebec City. Two new appointments were made to the Executive Committee, James Searle of Winnipeg and C. A. E. Fowler (F) of Halifax, replacing Howard L. Bouey (F) of Edmonton and Neil M. Stewart (F) of Fredericton.

The Institute officers remain unchanged from last year. One of the most important matters dealt with concerned the need to provide additional revenue to support the expanding programme of Institute activities. Suggestions for possible sources of additional revenue proposed by Council members included:

(i) An annual assessment of principals or proprietors on the basis of volume of work, such as 10¢ per $100,000.

(ii) An increase in provincial association dues.

(iii) The creation of an RAIC seal of approval for endorsement of construction materials for a fee.

(iv) The establishment of a distinct and separate RAIC membership at a higher fee level than current per capita dues, but paid on a voluntary basis.

John L. Davies (F), Vancouver, Vice President, RAIC, and Chairman of the Council's Representation Sub-Committee, reported that the Sub-Committee felt that the present size of the Executive Committee was considered satisfactory and no change was recommended. With respect to the Council, it was felt that a membership of 47 was becoming unwieldy, and the Sub-Committee suggested the number be reduced and the Council be re-organised on a proportional basis, with the number of members being fixed and permanent.

A proposal to hold an additional mid-year meeting of Council was approved, subject to the finding of a satisfactory means of financing the meeting. The President pointed out that it would cost approximately

The Roving Photographer at the 54th Annual Assembly

Left to right: Harland Steele (F), Toronto, President of the Institute; Peter Thornton (F), Vancouver; Fred Walker, Quebec, and Robbins L. Elliott, RAIC Executive Director.

Left to right: Richard Bolton (F), Montreal, President of the Province of Quebec Association of Architects, and Mrs Bolton; Philip Will, Jr, FAIA, Hon FRAIC, Chicago, President of the American Institute of Architects, and Mrs Will; and James Lawrence, FAIA, Boston, Mass.

French Canada Night at Chateau Lac Beauport. Following dinner a program of French Canadian dances in typical costume was presented by a local entertainment group, "Au Bon Vieux Temps", appearing under the direction of the Department of the Archives and Folklore of Laval University.

$8,000 to bring all the Council members together, an expense the Institute could not meet. A motion was adopted that a Council meeting be held before the 1962 Annual Assembly, and that means of financing be referred to provincial associations with the suggestion that costs be borne by the component societies on a proportional basis in ratio to representation on Council.

E. D. Fox reported briefly to Council on the RAIC-sponsored conference of national organisations on May 2 in Toronto on implementation of the Report of the RAIC Committee of Enquiry into the Design of the Residential Environment. Mr Fox also noted that the best response thus far from service clubs in requesting speakers from the RAIC membership to give talks on the Report has come from Ontario and New Brunswick.

Massey Medals Jury Examines 366 Entries in Preliminary Judging

The jury for the 1961 Massey Medals for Architecture, Pietro Belluschi, FAIA, Boston; John Bland (F), Montreal, and Peter Thornton (F), Vancouver, met at RAIC Headquarters, Ottawa, on June 19-20 to select 100 buildings for final judging and for inclusion in the 1961 exhibition.

A total of 366 entries were reviewed – 60 from British Columbia; 13 from Alberta; 16 from Saskatchewan; 40 from Manitoba; 174 from Ontario; 50 from Quebec; 10 from Nova Scotia and 3 from Newfoundland. New Brunswick was the only provincial association not represented.

Prior to the preliminary judging, the entries were reviewed to ensure that they complied with the regulations by a committee of non-competing members resident in Ottawa, Arthur Davison, Director of Engineering, Accommodation and Transport, Department of Veteran Affairs; Orvil Bush, Department of National Defence and Alex Ramsay, Chief Architect of the Department of Transport.

Architects of the 100 buildings selected have been notified to prepare exhibition panels for the final judging to select the medal winner, which takes place in Ottawa, October 2 and 3. Entries not chosen for the final judging are being returned.

The presentation of medals and the opening of the 1961 exhibition will take place at the National Gallery in Ottawa on November 2.

French Canada Night at Chatean Lac Beauport. Following dinner and an exhibition of French Canadian folk dancing, delegates and their wives joined the entertainers in a somewhat slower paced version.

Alberta members and their wives. Left to right, with their wives seated in front of them, T. A. Groves, President of the Alberta Association of Architects; George W. Lord; K. C. Stanley (F); and Howard L. Bouey (F), all of Edmonton.

Left to right: E. A. Gardner (F) (with back to camera); Mrs Adamson; Anthony Adamson (F); Walter Bowker, Journal Managing Editor; Mrs Thrift; Eric W. Thrift (F); Mrs Gardner; and Stewart Bates (Hon F), President of Central Mortgage & Housing Corporation, Ottawa.

Photographed prior to the Annual Dinner. Left to right: R. F. Legget (Hon F), Director, Division of Building Research, NRC; Mrs Sullivan and A. G. Sullivan, President, Canadian Construction Association.

Left to right: John L. Davies (F), Vancouver, Vice President of the RAIC; R. W. Siddall, Victoria, Vice President of the AIBC; and Mrs Davies.

LETTERS TO THE EDITOR

Editor, RAIC *Journal:*

The *Journal* and the contributors to the article "Time for Stock-taking" are to be commended for the views expressed in the March issue.

In a time when building has slowed to a crawl and the word "progress" has all but lost its meaning, it is vitally encouraging to see and read an article dedicated to a healthy questioning of our values.

If "balance-sheet architecture" (my own term) is the present order of things, let us have the courage and the energy to design it on the basis of the broader convictions of our profession. And if we are to emerge from subservience to the "balance-sheet", the thanks may well go to the likes of the student contributors of this article.

John Roberts MRAIC, Vancouver

Editor, RAIC *Journal:*

I am writing to say how much I appreciated the honor bestowed on me in being asked to represent the consulting engineers at the Building Community Seminar at the RAIC Annual Assembly. What we as panel speakers said, or the questions that were raised from the floor, are of little consequence and no doubt have already passed into oblivion. The lasting impression that I have is that we were each representing a segment of the complex team, now so necessary in the building community. The fact that you would take the trouble to set up such a seminar for your annual convention is sufficient to indicate the importance you place on our problems. Mr Will indicated in his keynote address, that, with the fast changing pace of present day life, their appears to be a lack of leadership in the building community, and that he hoped this would be filled by the architect. In my opinion, whether it be architect or engineer, it is of little significance as long as he is a "true professional" and not a "money grabbing entrepreneur".

After listening to the noon speaker in the person of the Honorable Rene Levesque, Minister of Natural Resources, and formerly of Public Works, Province of Quebec, I could not, being a true engineer, help feeling an inward glow as I listened, perhaps with a smug look on my face. He appeared to be so familiar with the architect-engineer misunderstandings. On sober reflection this is not good. All the more serious is the fact that a politician would be so well informed.

Whereas I would be niave to think that all is well between our two associations, I am confident, as we strive for professionalism in the conduct of our members, these problems will disappear. It is disconcerting to hear politicians make these remarks because it is obvious that they will fan this small flame for their own political purposes. All the more likely when it is realized that in this Dominion of ours there are some 40,000 registered professional engineers, not to mention those who are not registered, as compared to perhaps some 2,500 architects. We are satisfied that in the coming years our two associations will co-operate and get closer together. We must if we are to survive, but, more important, if we are to fulfill our obligations to society.

I have made two vows since returning. One that I will return fairly shortly to Quebec with my family as tourists, but only after we have refreshed ourselves in the history of Canada; and secondly that we will be able to fluently express ourselves in our Canadian mother tongue.

I would like to thank you and members of your Institute for the hospitality you extended to me at your assembly.

P. M. Butler, PEng,
Angus, Butler Engineering Ltd, Edmonton

INSTITUTE NEWS

National Competition Announced for Fathers of Confederation Memorial Centre in Charlottetown

A national competition is being arranged for the design of a cultural centre in Charlottetown, PEI, in commemoration of the first meeting of the Fathers of Confederation. The centre, which will comprise a library, museum, art gallery and theatre, is being undertaken by the Fathers of Confederation Memorial Foundation, and will be named the Fathers of Confederation Memorial Building. Anticipated cost is between four and six million dollars. Eric R. Arthur (F), Toronto, will be professional adviser for the competition. The jury, conditions and other information will be announced later. A grant of $30,000 has been given by the Canada Foundation for the conducting of the competition.

Civic Design Seminar at Stratford

A seminar on civic design will be held at the Festival Theatre, Stratford, Ontario, July 23-26. While Stratford will not be used as a case study, its development in recent years provides a useful basis for examination and discussion in relation to other Ontario communities of a similar size and nature. The major object of the seminar is to bring together the elected or appointed and citizen groups, representing the political element, and the professional groups — the architects, planners, engineers, etc. — to discuss desirable future urban development in the light of present day needs and opportunities.

The seminar is a joint undertaking on the part of the Ontario Association of Architects, the Ontario Association of Professional Engineers, the Canadian Society of Landscape Architects, the Town Planning Institute of Canada (Central Ontario Chapter and Ottawa Chapter), and the Urban Development Institute (Ontario Division). Assisting in an advisory capacity are the Community Planning Branch of the Ontario Department of Municipal Affairs, the Community Programs Branch of the Department of Education, the City of Stratford and the Stratford Festival Foundation.

The chairman of the seminar is Anthony Adamson (F), and the members of the committee are: R. V. Anderson, E. R. Cumming, F. H. Deeks, A. K. Dixon, Robert C. Fairfield, M. L. Hancock, H. Lemon, P. A. Monaghan, James A. Murray (F), J. O. E. Pearson, A. J. Scott, Miss M. Seymour, T. W. Thompson and C. A. Weir.

Applications for registration should be addressed to Seminars on Civic Design, Festival Theatre, Stratford, Ontario. The registration fee is $10.00.

Le Corbusier on receiving the AIA Gold Medal

Remarks by Le Corbusier on the occasion of the presentation to him of the 1961 Gold Medal of Honor of the American Institute of Architects:

Dear friends, there is no "wing of victory" in this room. There is no "wing of victory" in life.

Great things are made out of a multitude of little things, and those little things are daily, successive, without end from morning to night. Daily life is made of perseverance, courage, modesty, and difficulties.

I am a little like St Thomas, minus the Saint. My whole life has led me to "put my finger on it". I feel a little like a railroad ticket collector: I only believe what I have seen; and to see everything in architecture is a dog's life.

The Queen of England has already given me a gold medal – and it was a very thick one.

I have had very beautiful speeches. I was asked to answer. I had nothing prepared. I had a little paper in my pocket which contained all the defeats in my life, and it was the greatest part of my activity. If you will excuse me, I am going to become very vulgar. One day in my studio in rue de Sevres, where I've been for the last forty years, I told my collaborators, "It is Le Corbusier who cleans the toilets of the 35 rue de Sevres, and that's why I am the boss".

Today's problems remain in front of us – the world explodes – not only technology changes everyday.

I am going to make my definitive confession: I am living in the skin of a student. Thank you.

34 Canadians Studying Architecture in US

Statistics recently made available by the Economics and Research Branch of the Department of Labor show that 34 Canadians were studying architecture in the United States during the academic year 1959-1960. Of this number 28 were under-graduates, four are listed as graduates, and two as specialists.

The Department of Labor Bulletin, based on data supplied by the Institute of International Education, lists a total of 5,648 Canadians who were studying in United States universities and colleges as under-graduates or graduates in all academic fields during the 1959-1960 academic year. Of this number 932 were studying engineering, 471 education, and 480 medicine.

RIBA Overseas Subscriptions Standardized

The RIBA Council has announced that, effective January 1st, 1962, the overseas subscription rates have been standardized at 8 guineas for Fellows and 6 guineas for Associates and Licentiates, payable in sterling in London clear of exchange deductions. Students' contributions remain at 2 guineas. The Council is now studying the payment of refunds to overseas allied societies. Consideration has been given to find a means of financing expenses of delegates from all Commonwealth countries to periodic architectural conferences. It has been decided to inaugurate a Commonwealth liaison fund by annual payments amounting to the value of grants previously paid out to allied societies.

COMING EVENTS

August 30-September 2, 1961
Conference on Shell Structures
Civil Engineering Dept,
Technical University,
Delft, Netherlands

September 25-28, 1961
1961 Industrial Building Exposition
New York Coliseum, New York

Nov. 2-3, 1961
Interdenominational Conference
on Church Architecture
Diocesan Centre
Anglican Church of Canada
Church and Adelaide Streets
Toronto

POSITIONS VACANT

Applications are invited for the post of Assistant Professor in Town and Regional Planning. Applications should reach Dr T. Howarth, Director, School of Architecture, University of Toronto, Toronto 5, Ont., not later than 15th of July, 1961.

1961 Pilkington Scholarship

Bruno B. Freschi, University of British Columbia, has been awarded the Pilkington Travelling Scholarship in Architecture for 1961. His entry was the design for a village for the rehabilitation of the mentally ill.

Gordon F. Gourlay of the University of Toronto was second, with a housing study, and Maurice K. Henriques, University of Manitoba was third, with the design for a municipal art gallery for Kingston, Jamaica.

Judging of the entries, two from each of the five schools of architecture, took place at the Annual Assembly of the RAIC at Quebec City in May. The Jury was composed of Paul O. Trepanier, Grandby, P.Q., chairman; Gordon Edwards, Montreal; Gerard Venne (F), Quebec; Robert C. Fairfield, Toronto; Dennis H. Carter, Winnipeg; and Peter Thornton (F), Vancouver.

The Report of the Jury and the winning entries will be published in a later issue of the *Journal.*

PROVINCIAL NEWS

British Columbia

Other associations may be interested in the fact that the AIBC, together with the Association of Professional En-

IN PRECAST CONCRETE – ACCURATE INTERPRETATIONS
OF ARCHITECTS' DESIGNS ARE ENSURED BY TORONTO CAST STONE'S
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gineers of BC, has achieved considerable success in resolving certain problems affecting the practice of each profession. Two bulletins issued recently, together with one issued about a year ago to the membership of both professions, are the climax of several years of work by a hard-working committee consisting of members of both professions: the Joint Board of Ethics. These bulletins deal generally with certain infringements of both Acts, with professional ethics, with proper use of seals, with matters of payment for professional services, and with an attempt to locate boundaries to the legitimate area of practice, in terms of building types, for each profession. A bulletin dealing with the latter has had a particularly interesting history, as might be expected, considering the delicacy of the problem. In essence this bulletin specifies in fairly broad terms the building types which are considered to be of a primarily architectural nature or an engineering nature plus a middle ground in which the engineer or the architect could function as the primary consultant. A listing of numerous "building types" is included to indicate the scope of work falling within the jurisdiction of each profession and also stating where the other profession should or need not be retained for consulting services. As is common with attempts of this sort to specify the proper domain of practice of two closely related professions, the contentious cases are liable to be numerous, and although the bulletin received the approval of both Councils, the Annual Meeting of the Professional Engineers last December voted by a narrow majority to rescind the bulletin. But the issue was anything but dead. Some months ago the Council of the Engineers decided to put the issue to a postal ballot and the result upheld the original affirmative decision by a substantial majority. Accordingly, the bulletin is to be reissued shortly and will at least clarify, if not legally bind, the membership of each profession to their proper fields of practice.

It is perhaps fair to say that this result, taken together with matters contained in other joint bulletins referred to above, is an achievement in professional relations with little if any precedent outside BC.

On April 11th the Third Annual General Meeting of the Architectural Materials Centre Association was held. This precocious offspring of the AIBC public relations program three years ago continues to be a most successful operation and the envy of other associations in Canada and elsewhere. A highlight of the meeting was Warnett Kennedy's (Director of the Centre) report of a questionnaire survey of all BC Architects (with an 85% response), the results of which fully endorsed the services provided by the Centre. A new feature of the Centre's operation is the Plan Service inaugurated recently by the Architectural Centre and the Journal of Commerce Weekly. Eighty-two percent of the replies indicate that the majority of BC architects actively support this service. *C. A. Tiers*

Manitoba

Donald R. Wall, of Winnipeg has been awarded a Canada Council Predoctor's Degree Partial Fellowship to study Philosophy of Architecture at the Catholic University of America, Washington, DC. Mr Wall graduated from the University of Manitoba School of Architecture in 1958, then received his Master's Degree from Cornell University in 1959. A major part of Mr Wall's post graduate research program at Cornell University involved investigation of intuitive form as a mode of explaining aesthetics. His thesis title was "Form in Thirteenth Century Aesthetics". Mr Wall hopes to extend this historical study of the life of forms as realized in architecture.

Mr Wall was born in 1935. For the past two years he has worked for the Winnipeg firm of Zunic and Sobkowich. His two year program of studies will begin on September 25th, just three weeks after he is to be married.

Henry D. Kalen

Nova Scotia

The Nova Scotia Association of Architects presented films and a panel discussion on May 25th before a meeting of the Nova Scotia Association of Urban and Municipal School Boards. Halifax architect Frank Harrington was chairman of the architectural presentation and members of the panel were three other Halifax architects, Douglas A. Webber, Allan Duffus and Lester J. Page. The relationship between school boards and the architect, and the duties and responsibilities of the architect to the client were subjects of considerable discussion.

It was suggested that architects might make a check list of requirements for classroom construction as a means by which a local school board could judge whether it had complete plans and specifications. It was mentioned that the Nova Scotia Department of Education has now instituted a program by which a check can be performed on this phase, but the NSAA did not have the facilities to do this type of research. It was also suggested that such a check list should contain comparative costs of different types of construction, but it was pointed out that to be comprehensive, the manual would have to cover the entire province, and costs vary greatly throughout Nova Scotia.

Lester J. Page

INDUSTRY

Stelco Reinforcing Bars

Stelco High Yield Strength Concrete Reinforcing Bars in two new grades have now been made available to the Canadian construction industry.

One specification, which conforms to ASTM designation A431-58T, has a minimum yield point of 75,000 P.S.I. and a minimum tensile strength of 100,000 P.S.I. This specification is intended for use in concrete structures designed to require steel reinforcement with a very high yield point. Special identification markings are used to avoid the possibility of confusion with other grades.

The second specification, which conforms to ASTM designation A432-59T, has a minimum yield point of 60,000 P.S.I. and a minimum tensile strength of 90,000 P.S.I.

Further details may be secured from The Steel Company of Canada, Limited, Hamilton and Montreal or any district sales office.

◇

Design of Welded Structural Connections

The James F. Lincoln Arc Welding Foundation has announced the publication of a new manual, DESIGN OF WELDED STRUCTURAL CONNECTIONS, by Omer W. Blodgett, Design Consultant, and Dr John Scalzi, Associate Professor of Structural Engineering, Case Institute of Technology. This manual will give an engineer, designer, architect, or fabricator a summary of the fundamentals and the best current practice to enable him to design efficient welded connections for all types of structures once the forces and moments are known. The manual is also intended to serve as a reference text on welded connections for students of structural steel design.

The contents will acquaint the reader briefly with the arc welding process, the weldability of steels, distortion, erection, and inspection. It covers thoroughly the design of connections for buildings and bridges using the elastic or plastic theories.

Published as a service to industry and education, the book is available from Lincoln Electric Company of Canada Limited, Leaside, Ontario.

◇

"Fabrilite" Wall Coverings

A new vinyl wall covering with a distinctive dull finish which has the appearance of fine suede, has been introduced by the "Fabrikoid" division of Canadian Industries Limited.

Known as the "Suedeline", the new material comes in "Fabrilite" 3026, a vinyl coating on strong fabric which provides dimensional stability against stretching or shrinking. The wall covering possesses high resistance to scratching, scuffing, and cracking. It is flame retardant and is easily cleaned with a damp cloth and mild detergent.

Suedeline is available in 54-inch widths and 15 permanent light-fast stock colors. The Suedeline can also be custom-made in 40 optional embossings with this combination of colors and grains.

Further information about the new Suedeline wall covering, with samples, can be obtained from: "Fabrikoid" Division, Canadian Industries Limited, New Toronto, Ontario.

New Architectural Films

Two new 16 mm color films on the architectural use of stainless steel are now available. "Stainless Steel in Architecture" has been produced by Union Carbide Canada Limited and is available upon request from the Public Relations Department at 123 Eglinton Avenue East, Toronto 12. "Shaping Tomorrow's Landmarks" has been produced by Atlas Steels Limited and the International Nickel Company of Canada Limited and is available on request from these firms or from International Nickel Research and Technical Services Limited, 1200 West Pender Street, Vancouver. Both films were shown at the Annual Meeting of the Nova Scotia Association of Architects in Halifax in February.

◇

New Telephone Outlet Box

To accommodate the new Bell Telephone two amphenol jack coupling for 4 and 6 key telephone sets, the 196 outlet box may be used with the Conduflor Underfloor Distribution System or used in conjunction with other recognized systems.

Engineered to provide easy connections between the male and female jacks, the low profile of 2⅛" permits use under low office furniture and eliminates unsightly box arrangements. It is available in aluminum, polished nickel, polished chrome or brushed chrome finish.

Technical bulletin available from Conduflor Canada Ltd, 130 Queen's Quay East, Toronto 2.

◇

Du Pont "Sclairpipe"

The first polyethylene pipe made in Canada to new, precise engineering standards established by Du Pont of Canada is manufactured by Page-Hersey Tubes Limited. Known as "Sclairpipe" polyethylene pipe, it is made under licence that guarantees its quality. A special material, quality-control inspection and absolute adherence to specification help build a life-expectancy of 30 years for this new polyethylene pipe. Also achieved are the lowest prices yet published by a manufacture for polyethylene pipe in Canada. The pipe comes in sizes from one-half inch to six inches.

◇

Copper Drainage Display

Persons visiting The Provincial Institute of Trades in Toronto, at their Open House on April 5th and 6th, 1961, no doubt noticed a display showing copper drainage tube with solder fittings. The display consisted of two typical soil stack installations, one demonstrating individual venting and the other stack venting. The work was carried out by 5th year Plumbing Apprentices attending The Provincial Institute of Trades, and under the direction of Mr Fred Weston, Head of the Plumbing Department. All materials involved were donated by Member Companies of the Canadian Copper & Brass Development Association.

At the Open House, Mr C. C. Muir, Director of Sales and Comptroller, Noranda Mines, Limited and Senior Vice-President of the Canadian Copper & Brass Development Association, expressed the Association's sincere appreciation of being able to co-operate with Mr Weston and the Institute in the copper drainage project.

◇

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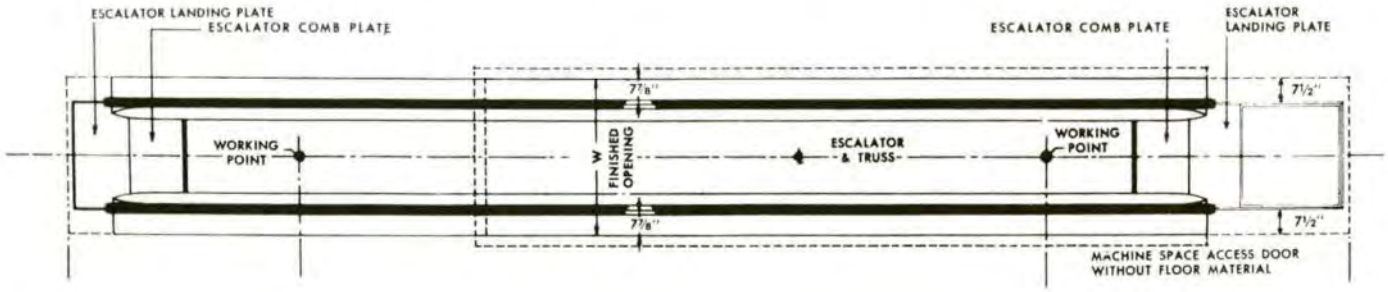
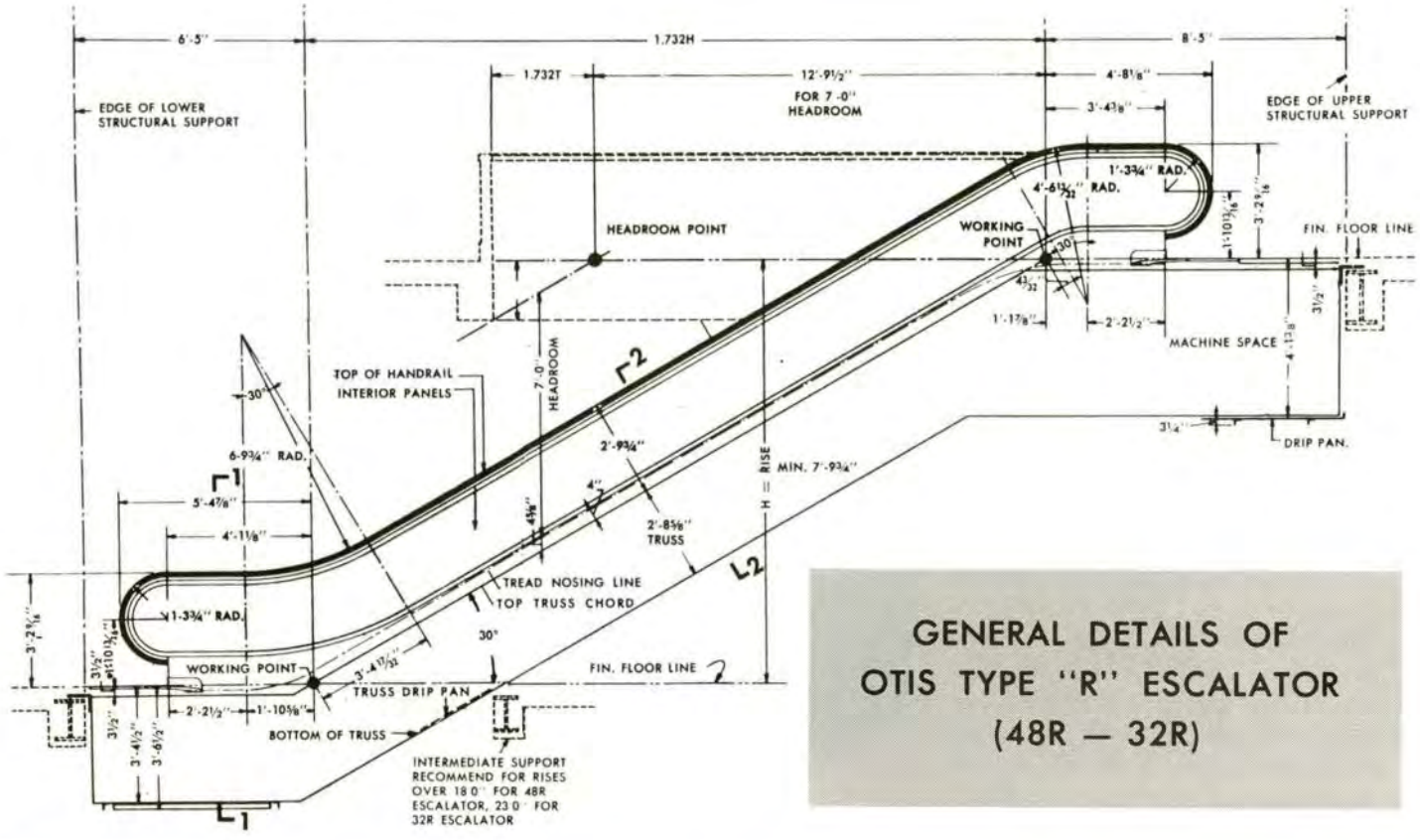
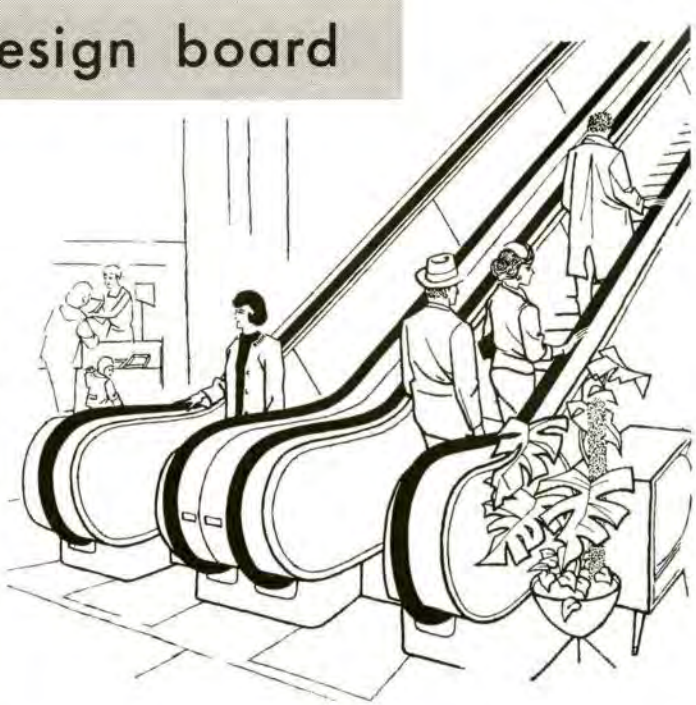
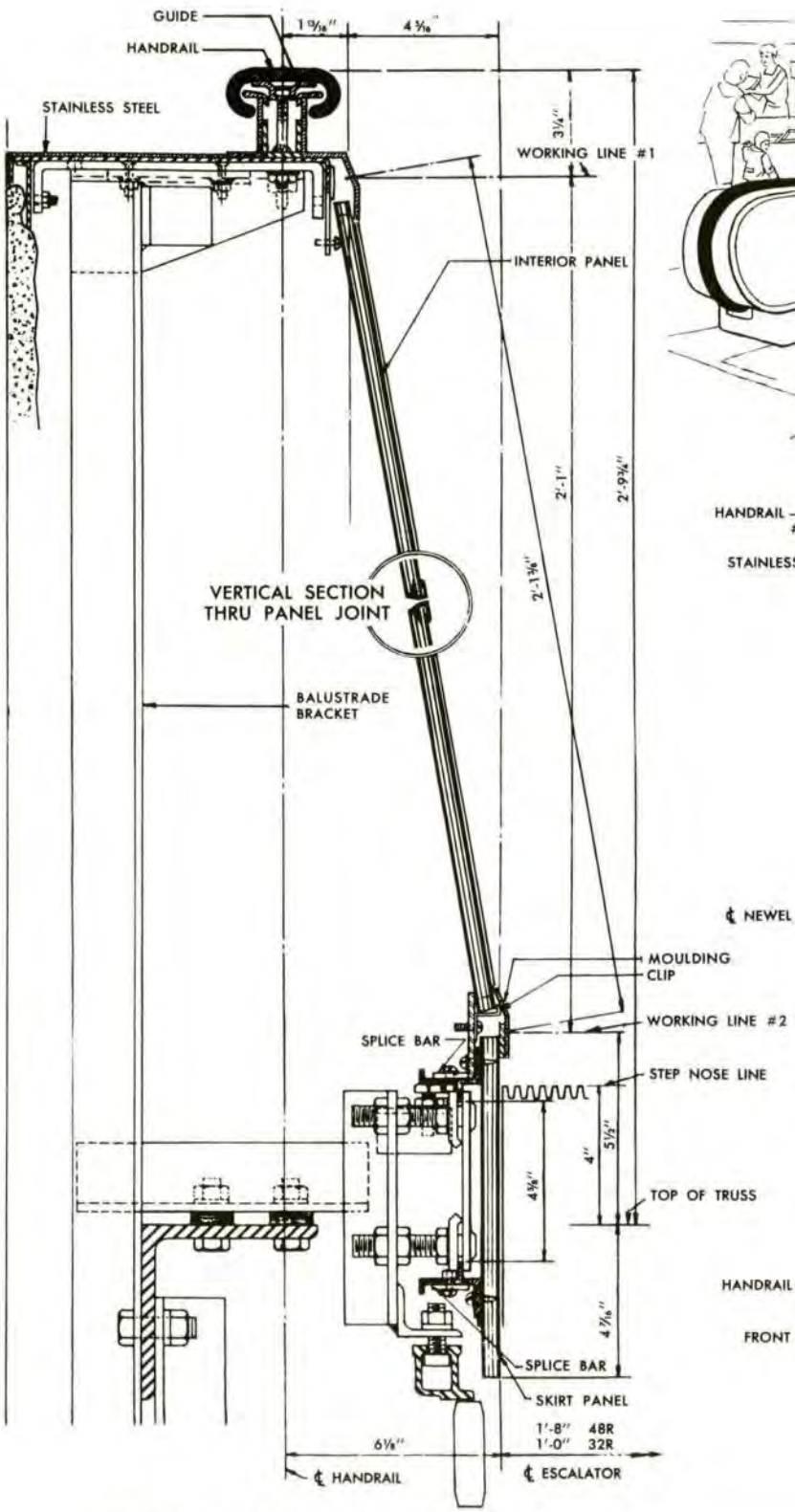




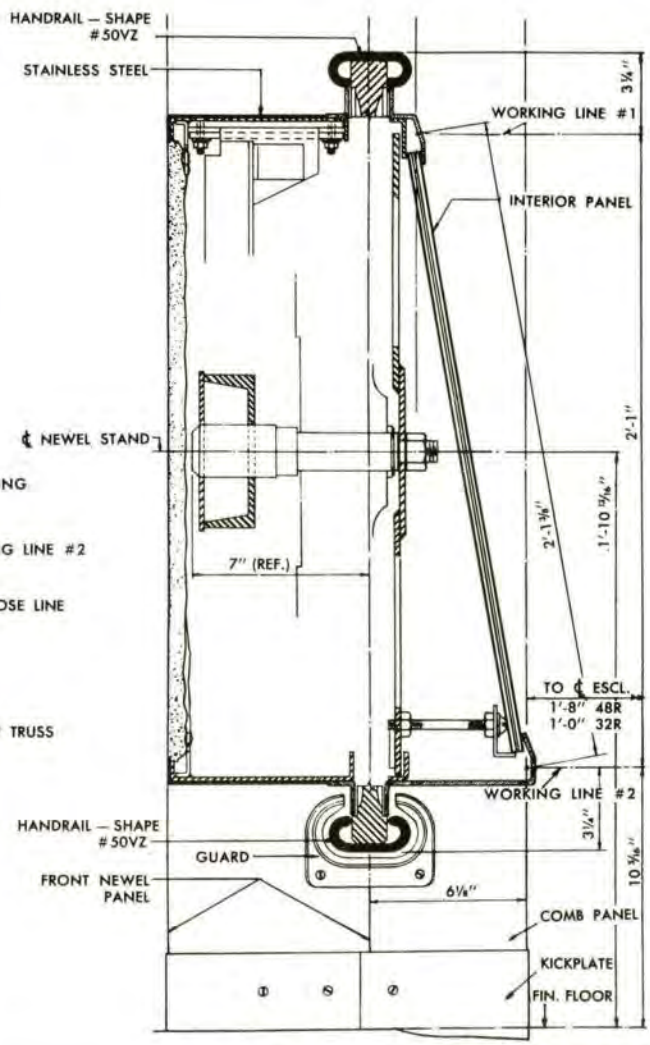
GENERAL DETAILS OF OTIS TYPE "R" ESCALATOR (48R — 32R)

from a specialist's design board



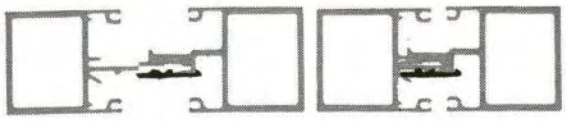


VERTICAL SECTION THRU INCLINE



VERTICAL SECTION THRU NEWEL

OTIS ELEVATOR COMPANY LIMITED
Hamilton, Ontario



The components **are joined like this.**

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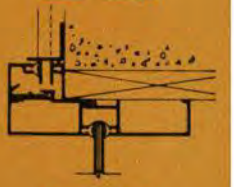
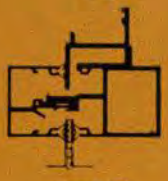


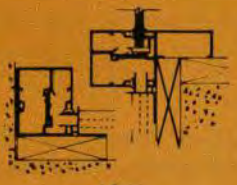
3 Standard terminator facilitates stop without detail problems.

4 Simple adapter integrates Kawneer Sealair windows into system.

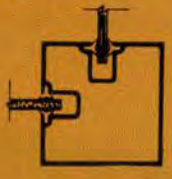


5 Special components accept insulating glass and 1" insulating panels. Adapter allows combinations of 1" panels and ¼" glass.

6 Head and sill adapters and jamb adapters integrate Zourite and other facing materials into store front.



7 Easily integrated Narrow Line members enable you to make right angles easily.



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Core presents a unified front. A front that looks *"of one piece"* instead of a combination of completely separate parts.

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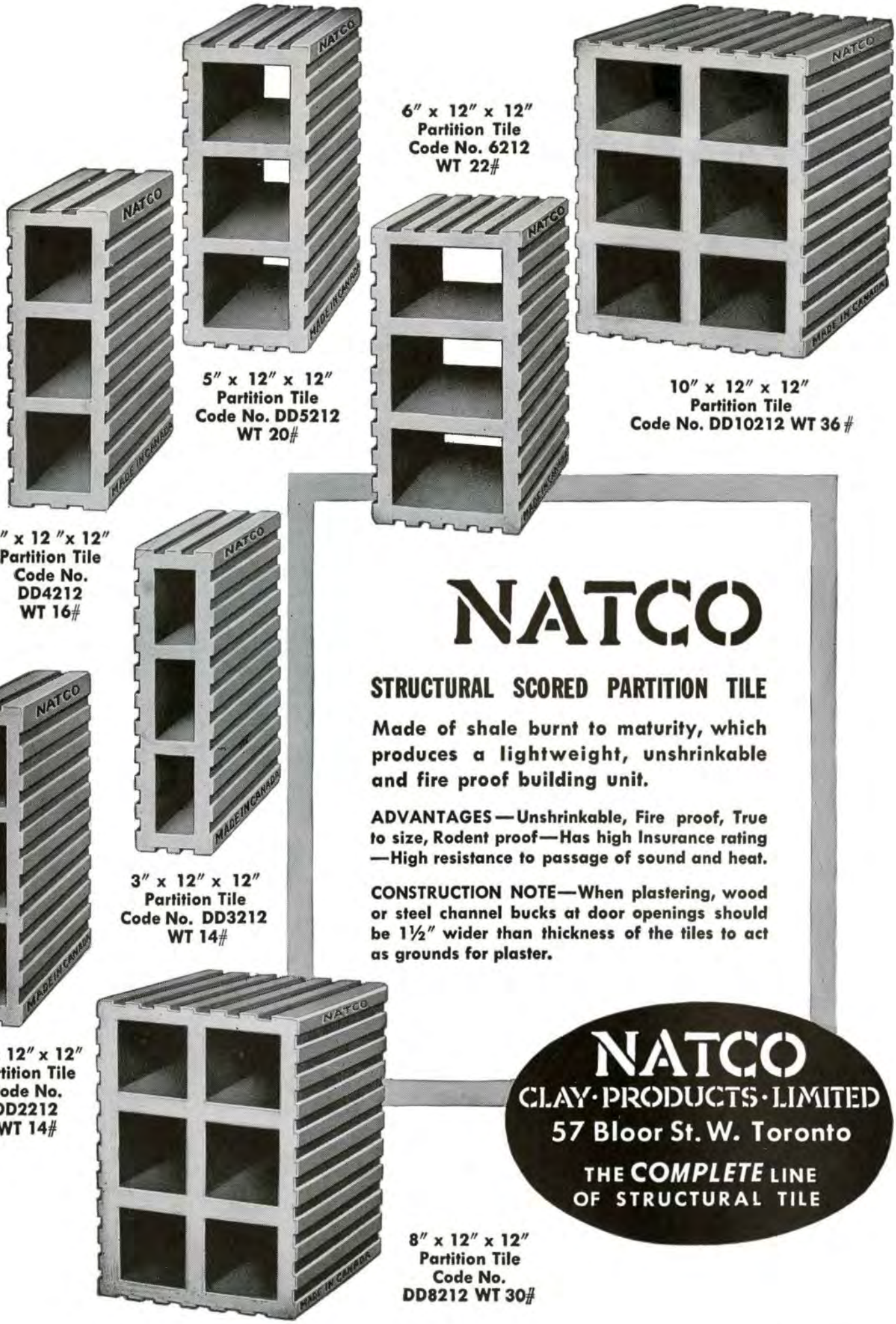

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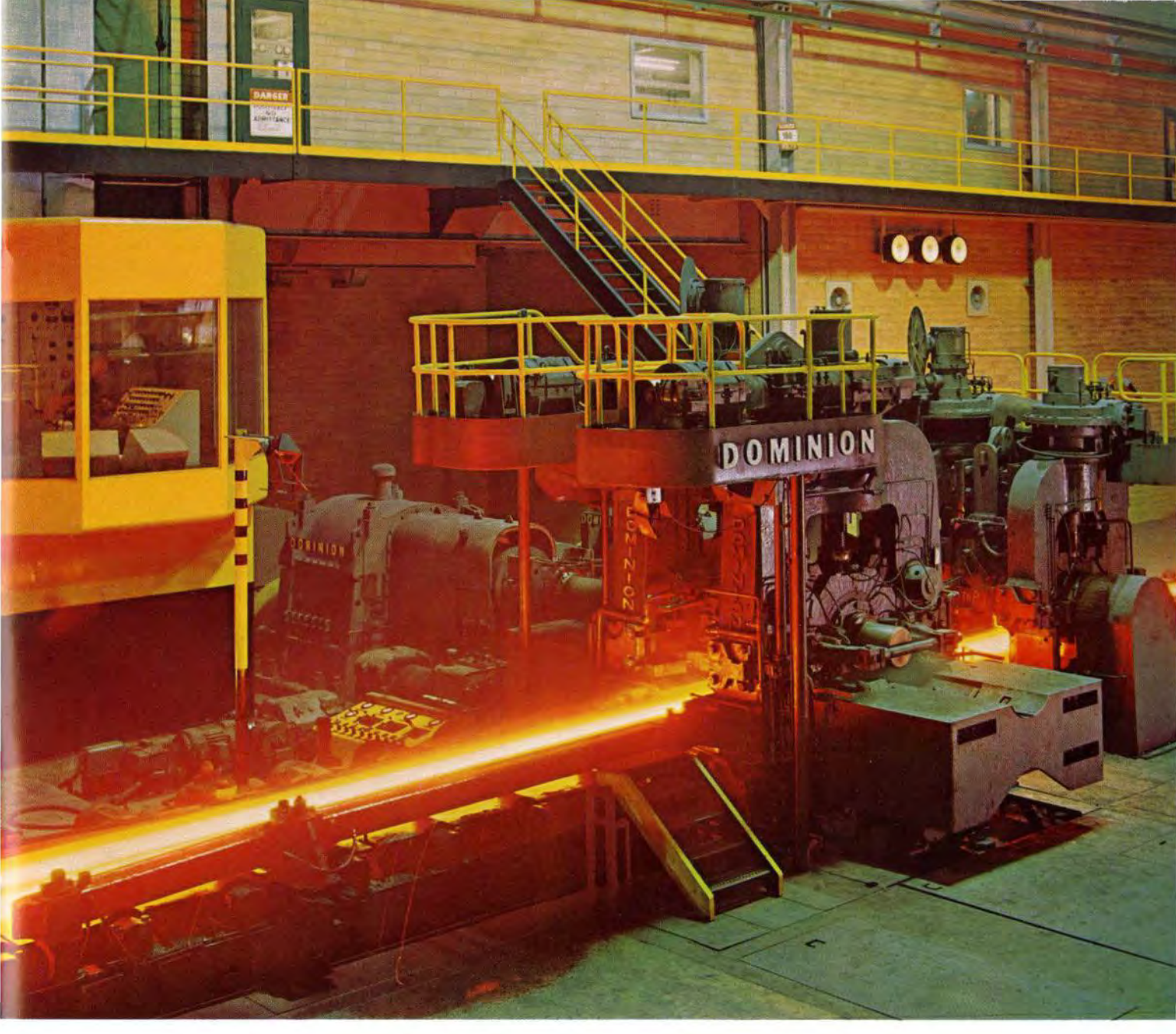

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QUAD ERAT DEMONSTRANDUM

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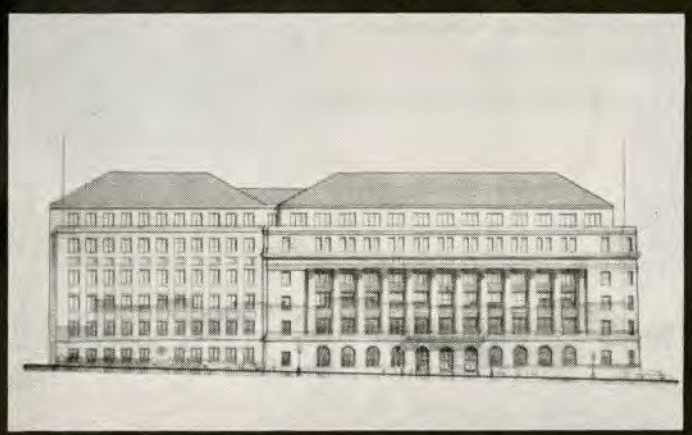
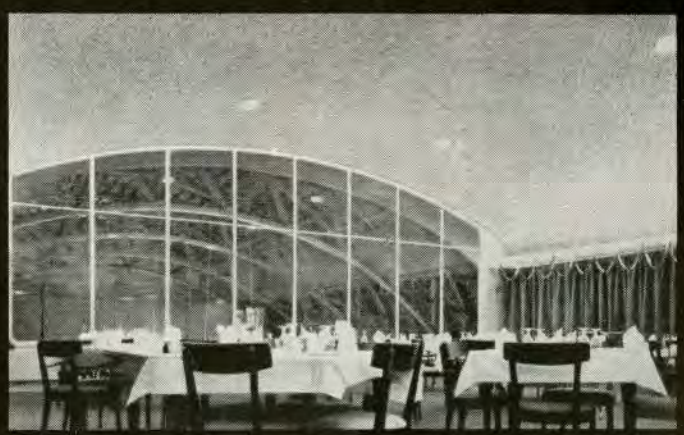
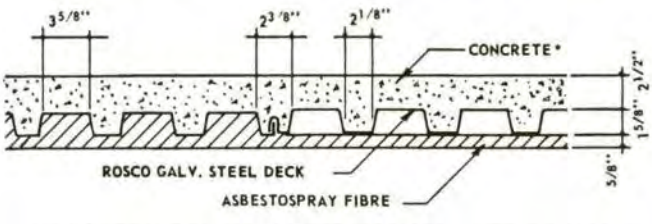


Metropolitan Life's new Head Office in Ottawa uses Asbestospray for fire-proofing.
Architect: Marani Morris & Allan, Toronto.
General Contractor: Angus Robertson Ltd. Ottawa
Asbestospray by: David McFarlane & Assoc. Ltd. Toronto.



The dining room of a Toronto gentlemen's Club has an Asbestospray ceiling for acoustical correction.
Architect: Basil G. Ludlow, Toronto
General Contractor: W. B. Sullivan Construction Ltd. Toronto
Asbestospray by: David McFarlane & Assoc. Ltd. Toronto.



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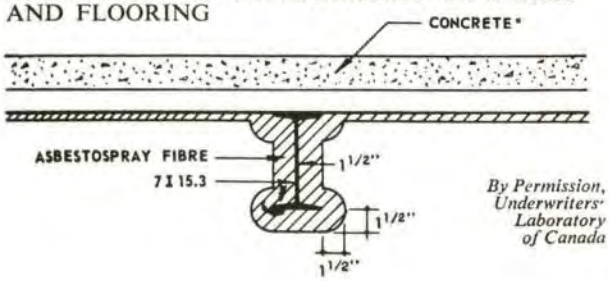

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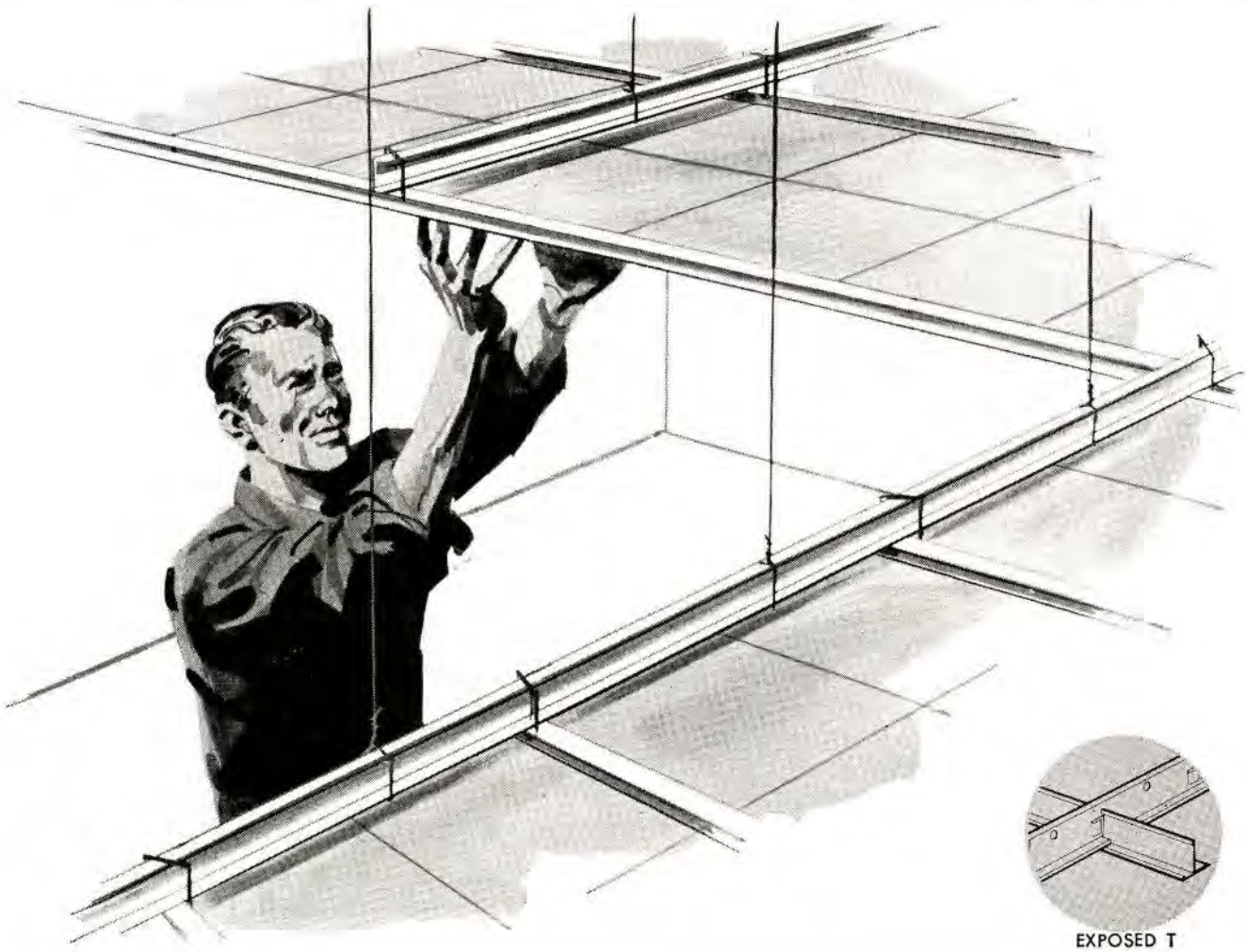

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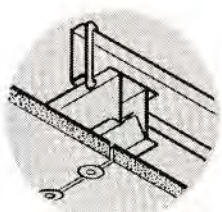
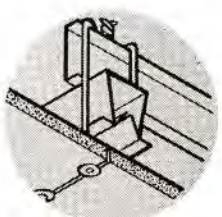
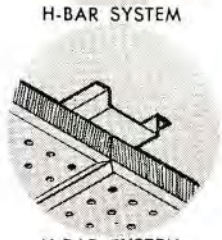


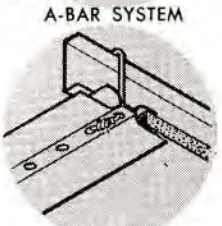
H-BAR SYSTEM



A-BAR SYSTEM



U-BAR SYSTEM



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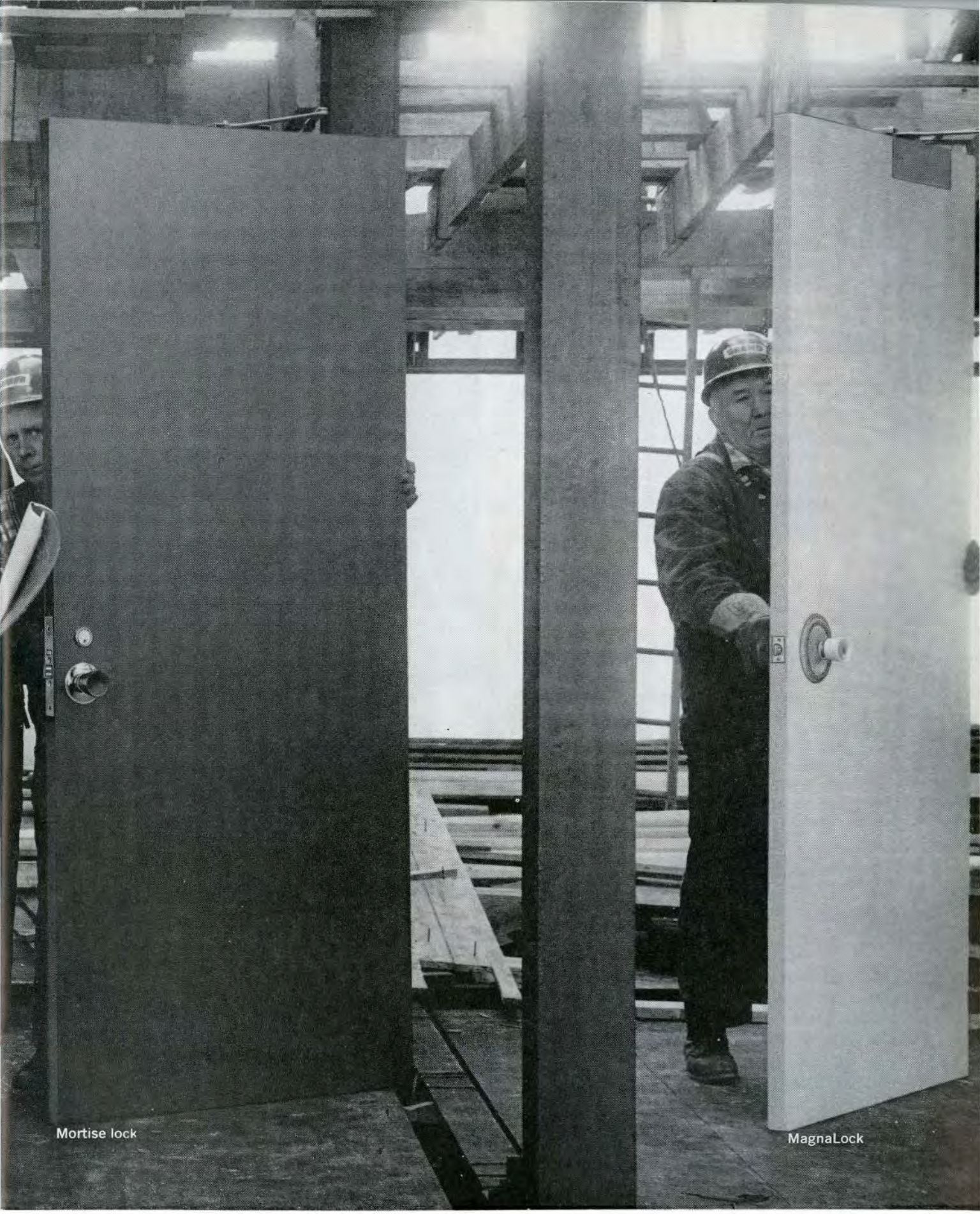

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SUBJECT CRYSTALITE EXTERIOR STUCCO

BULLETIN ES-5

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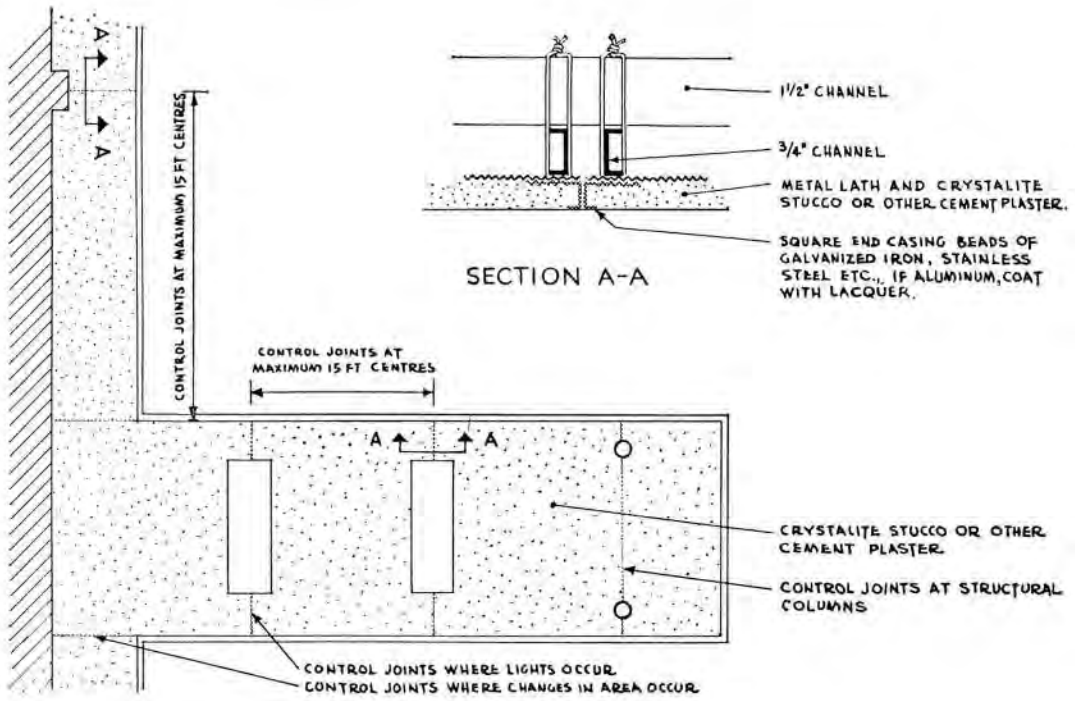

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This is the store-room □ That's by the snack bar □ That's one of the rooms that Royal built!

This is the office □ That's near the store-room □ That's by the snack bar □ That's one of the rooms that Royal built! □

This is a room where the patients sleep □ That's smart and sleek □ That's over the office □ That's near the store-room □ That's by the snack bar □ That's one of the rooms □ that Royal built! □

This is the Royal Hi-Lo Bed □ That power adjusts at the foot or head □ That's in the room where the patients sleep □ That's smart and sleek □ That's over the office □ That's near the store-room □ That's by the snack bar □ That's one of the rooms that Royal built!

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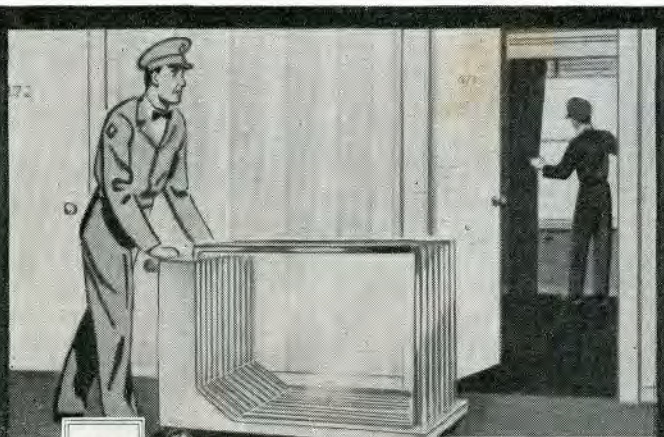
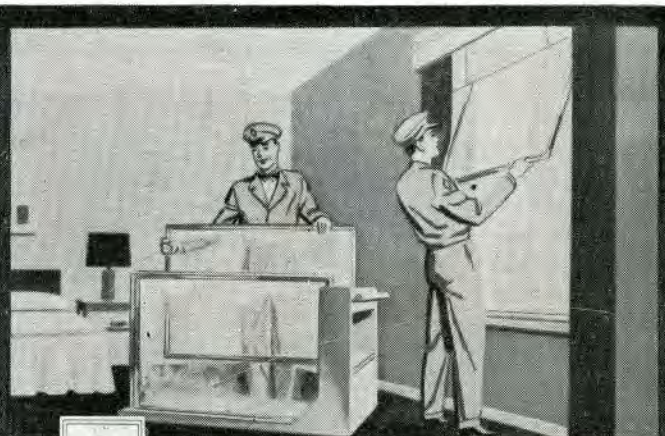


1 Carts with clean spares are left in the halls while the staff man replaces dirty glass sections in mere seconds.



2 Dirty inserts are placed in the cart for easy, safe cleaning in the hall or a remote maintenance area, keeping the mess out of the rooms.

3 Patients in hospital and institution rooms, or guests in hotels are not disturbed or inconvenienced for more than a few moments.

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