

ROYAL ARCHITECTURAL INSTITUTE OF CANADA JOURNAL



AUGUST 1962

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

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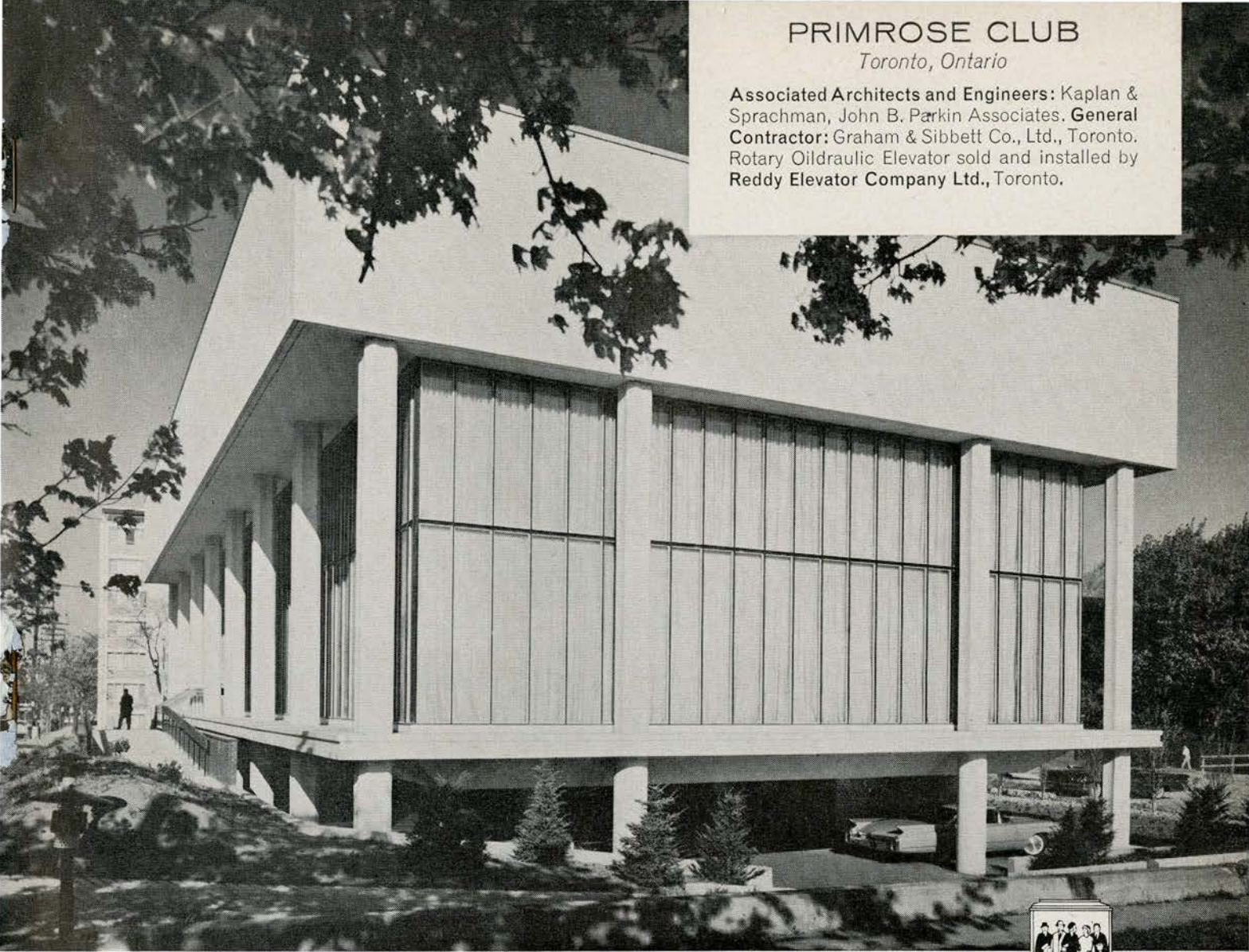
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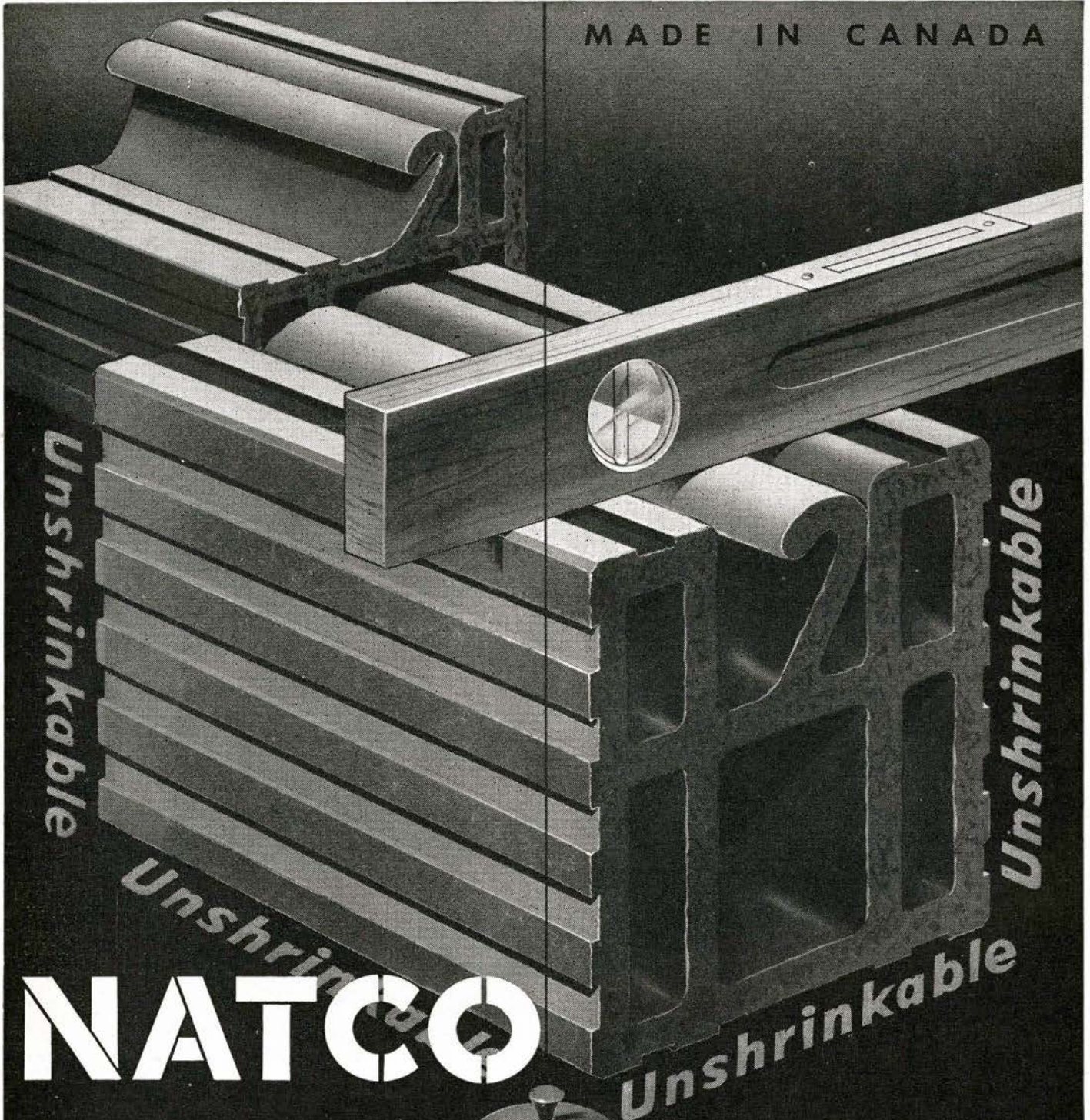
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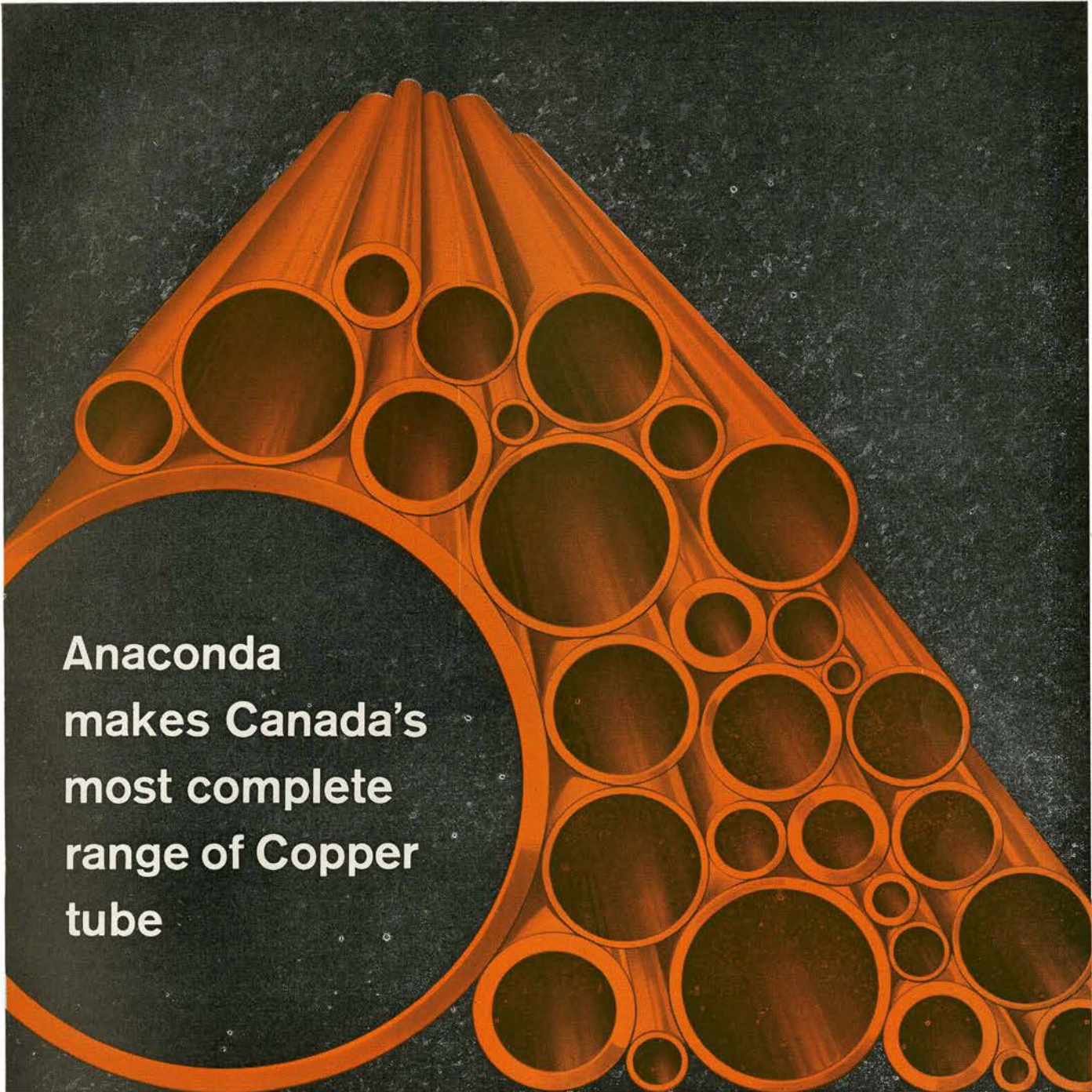
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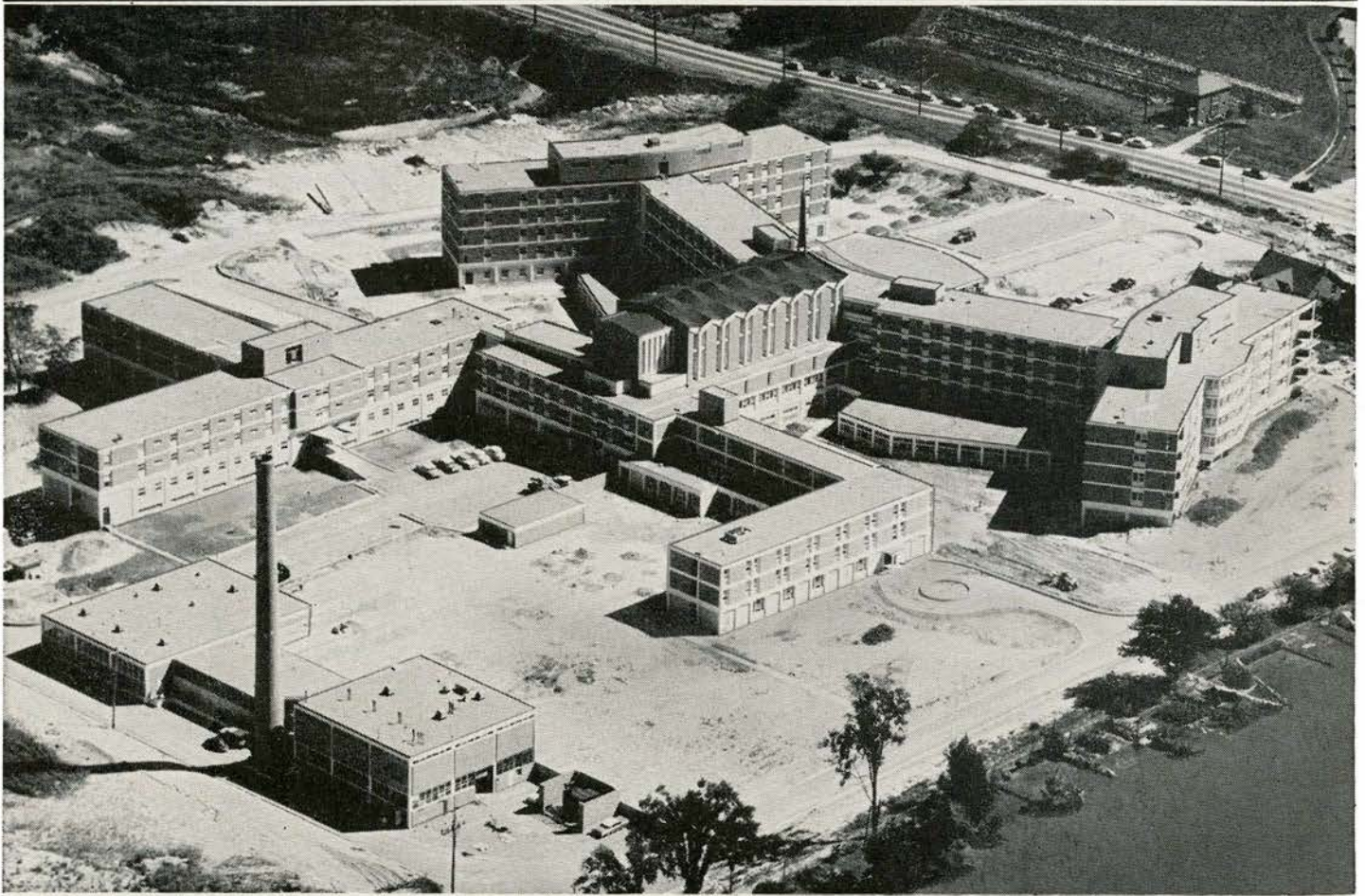
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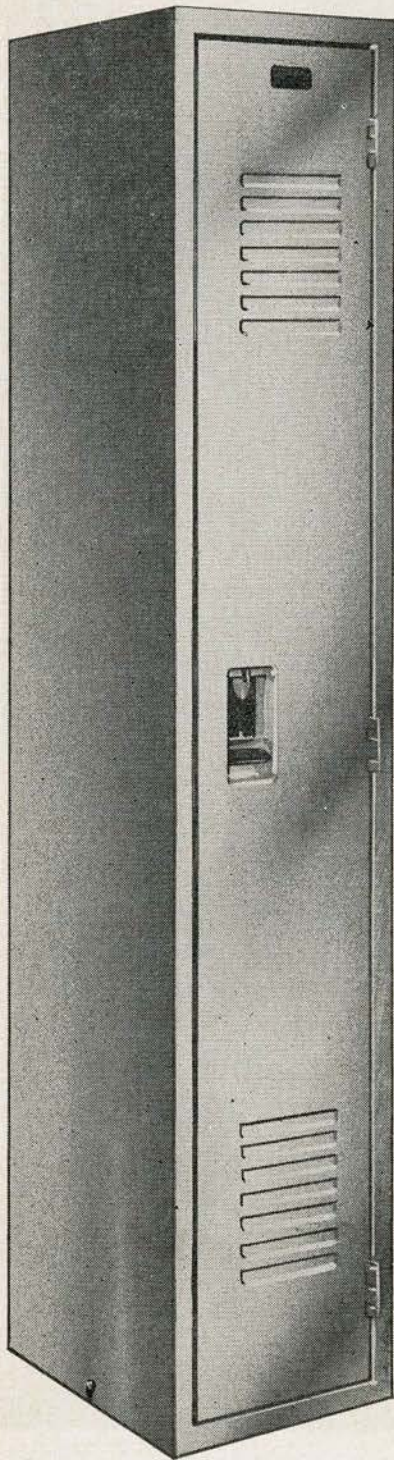
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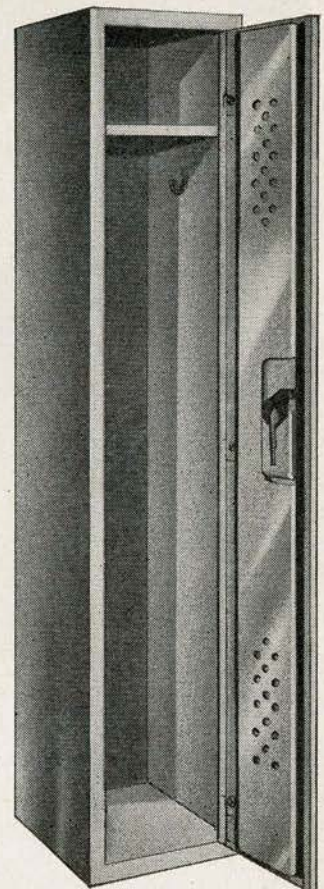


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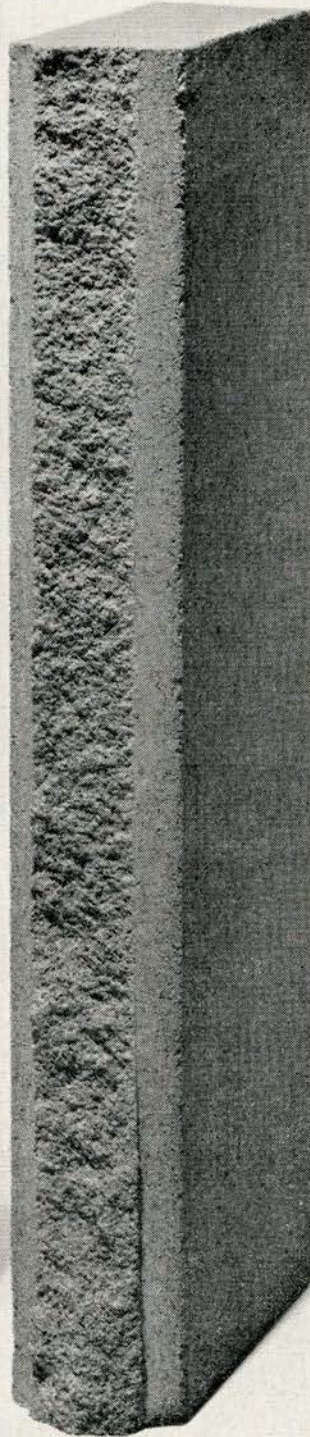
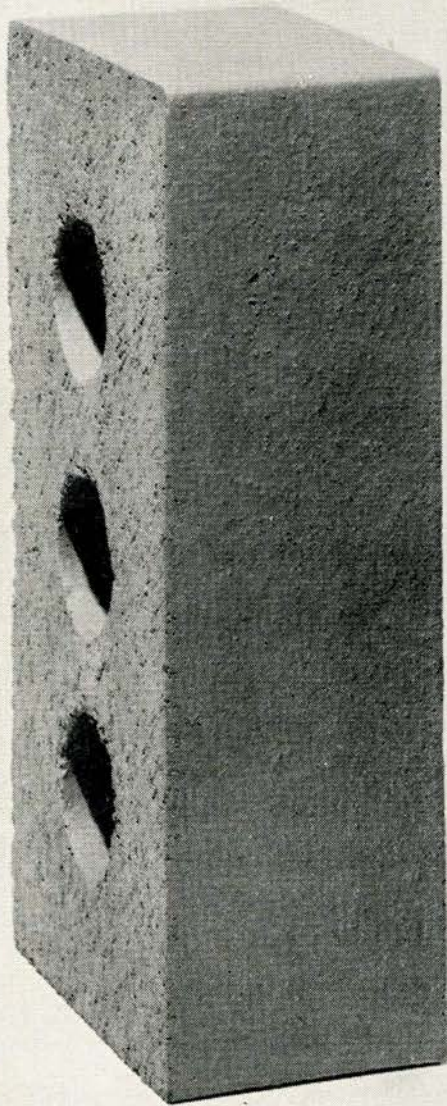
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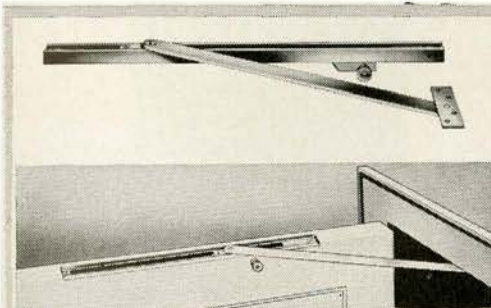
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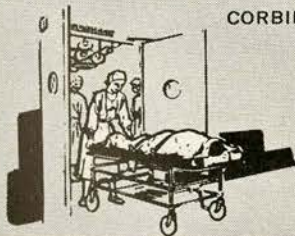
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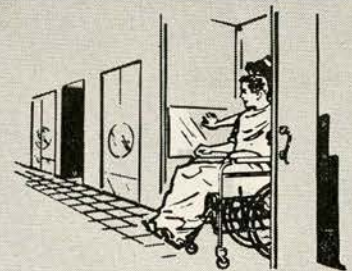


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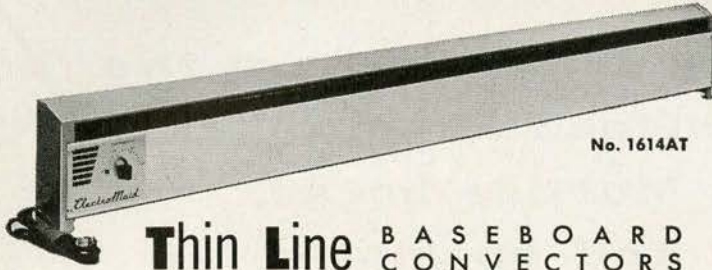
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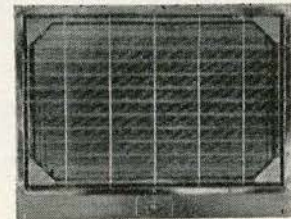
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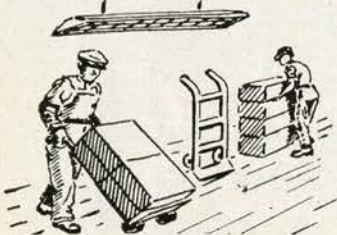


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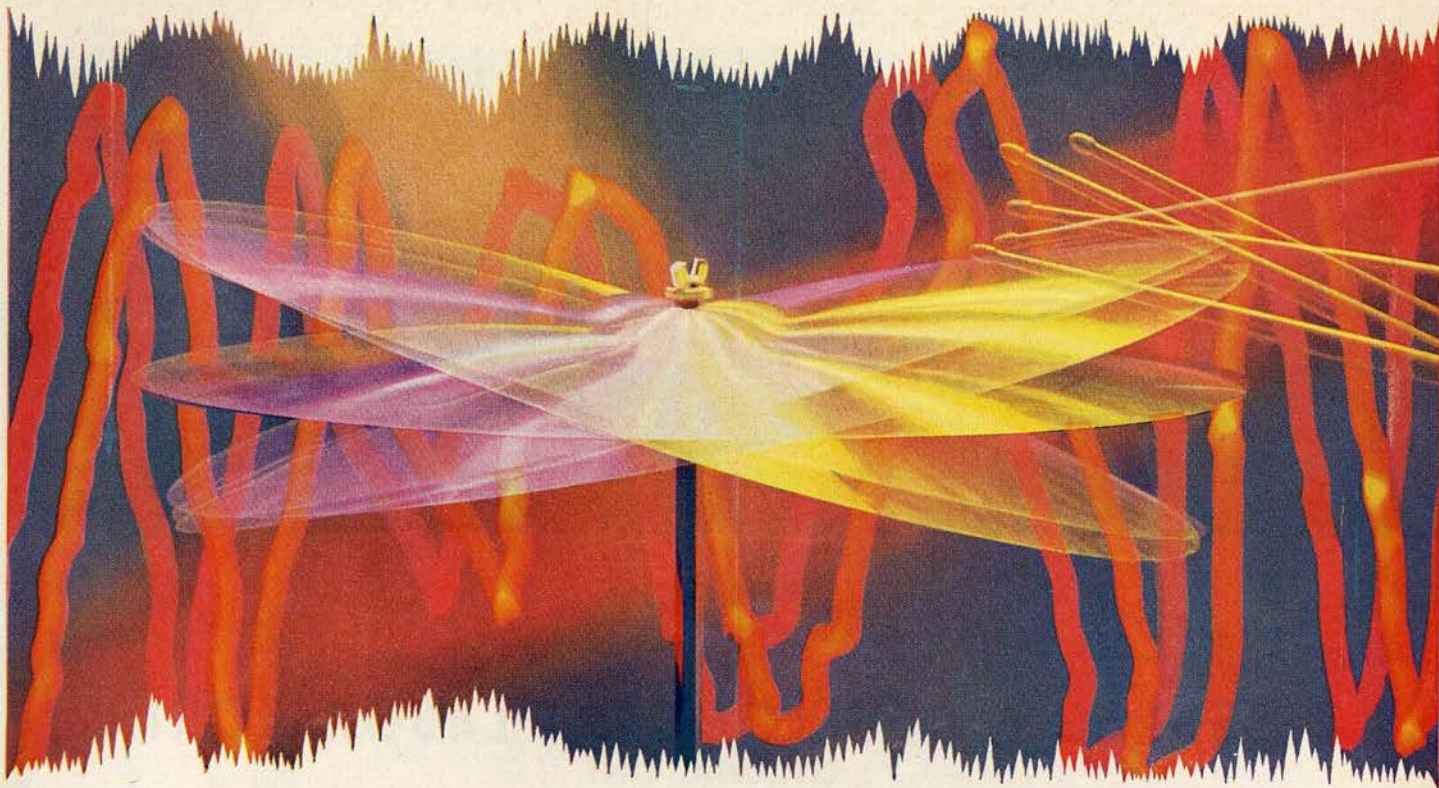


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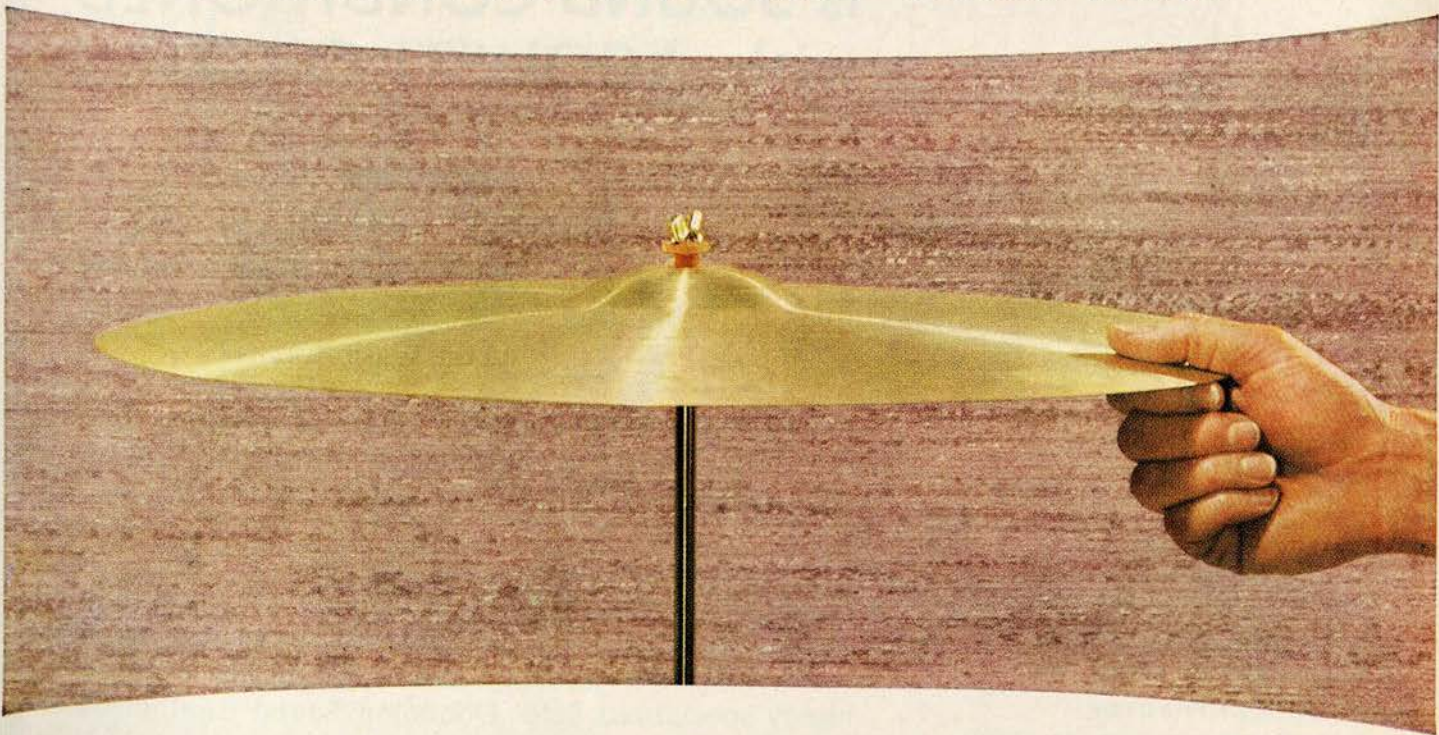
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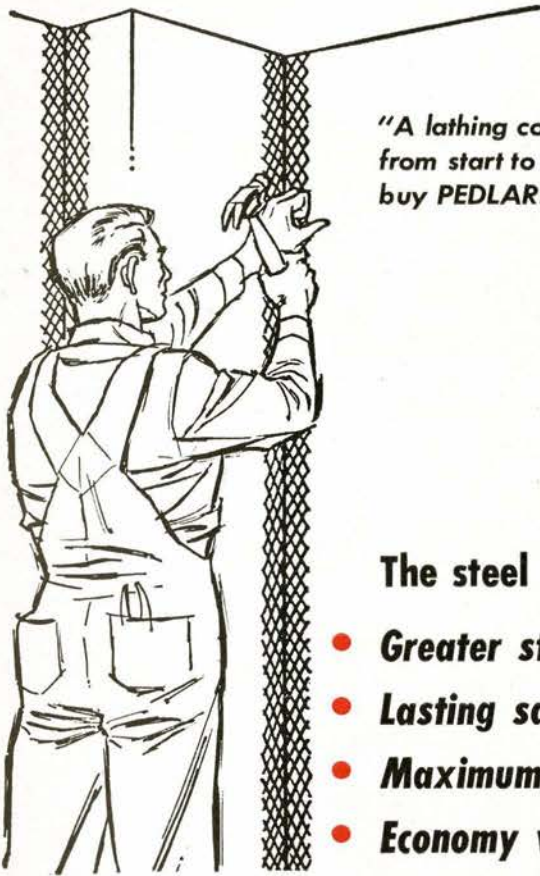
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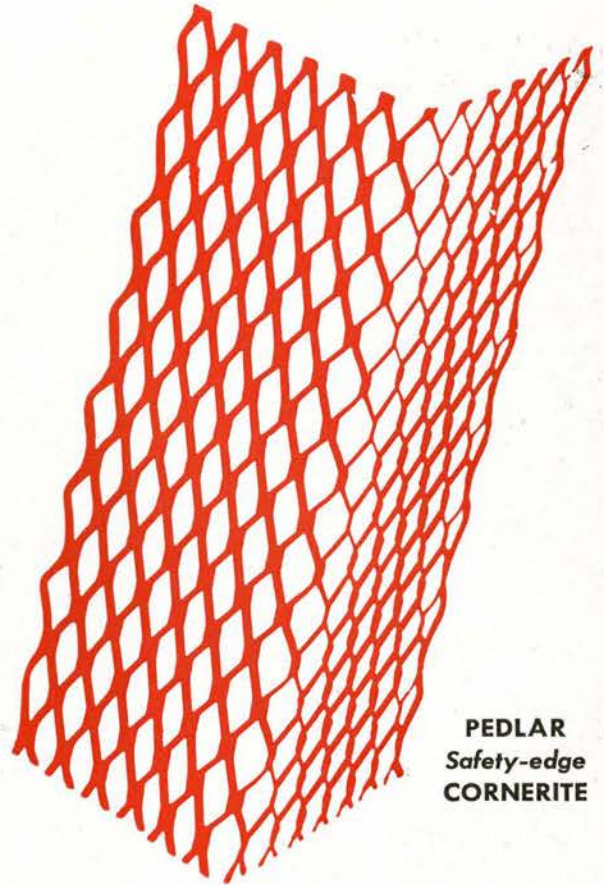
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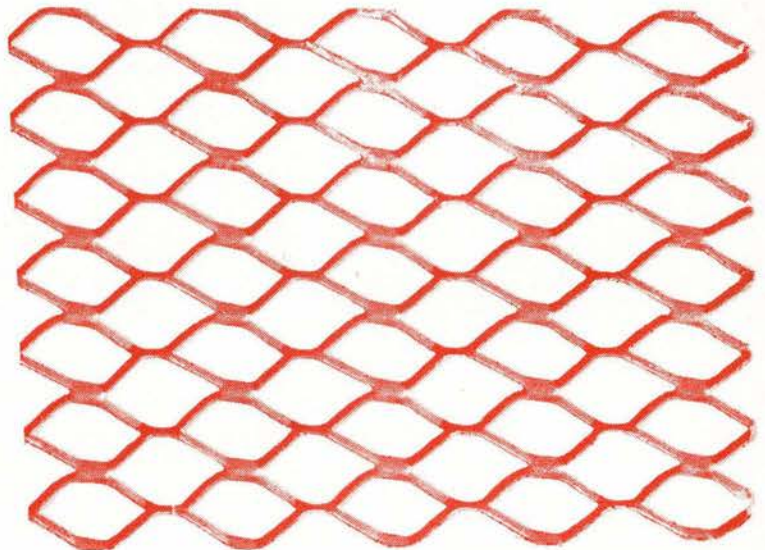
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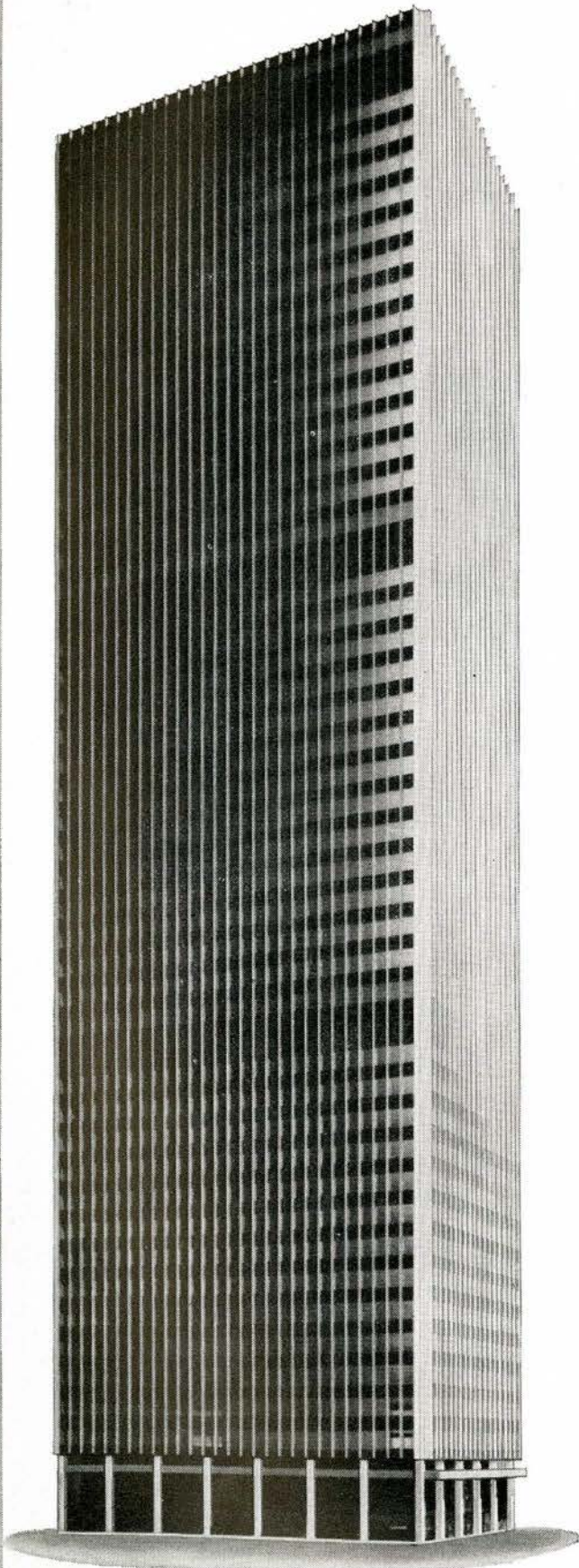


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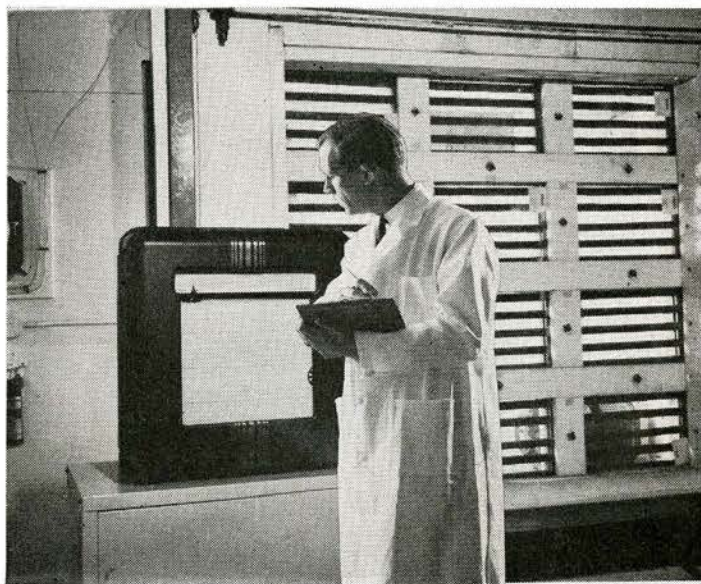
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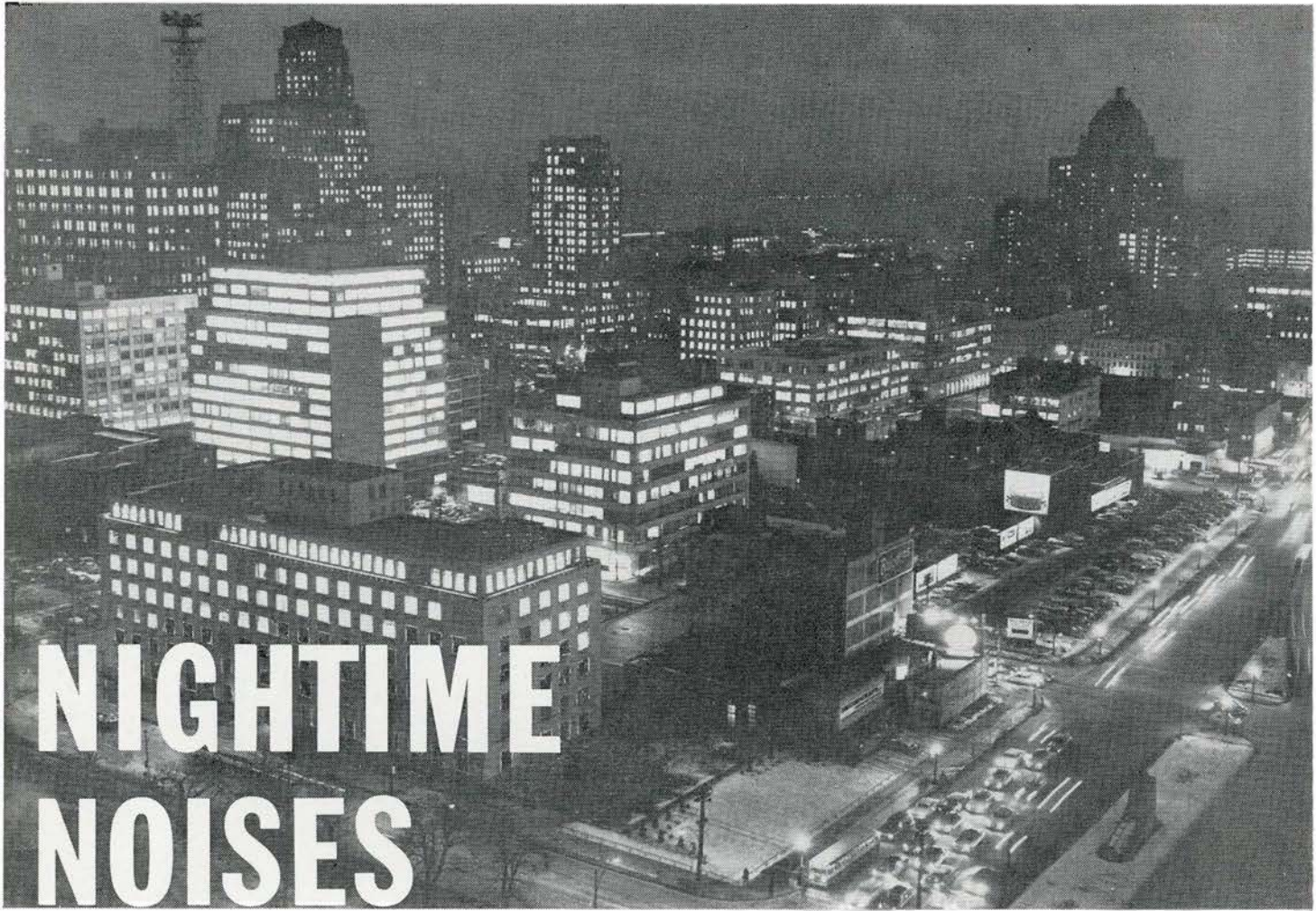


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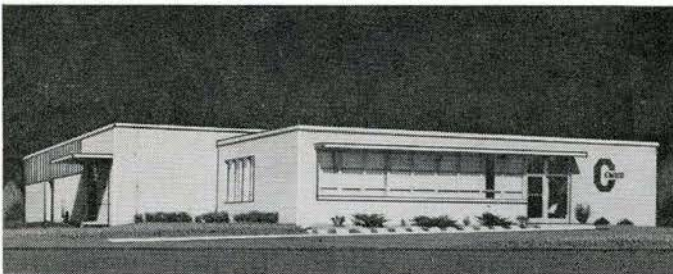
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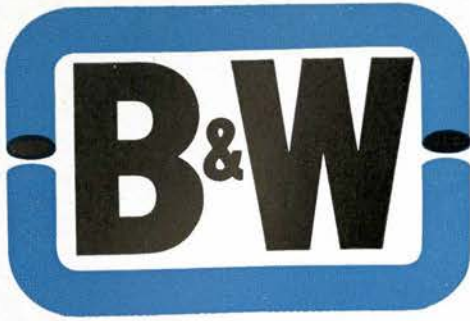
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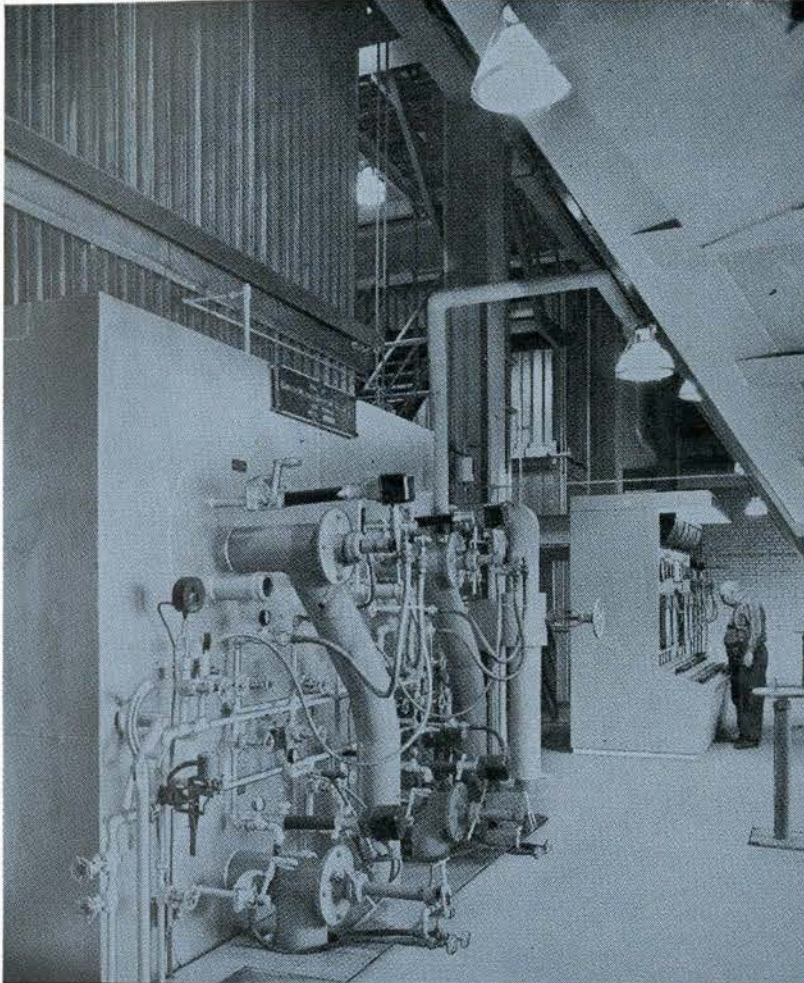
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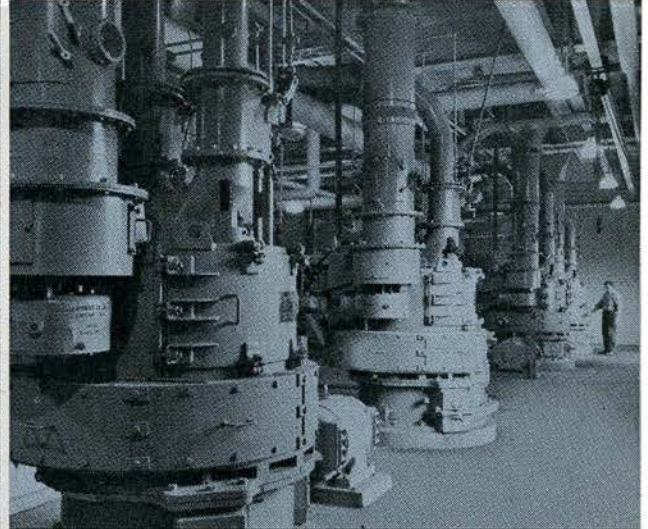
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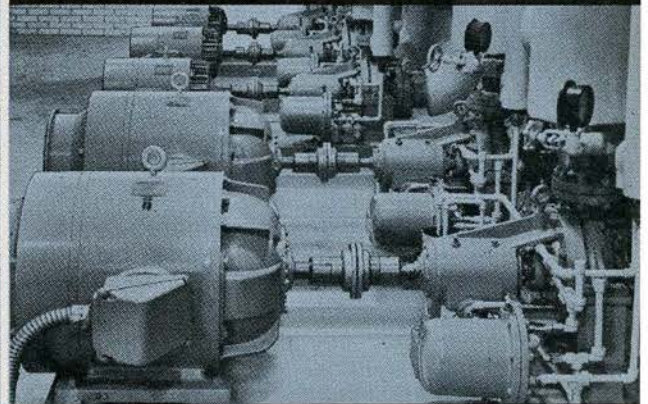
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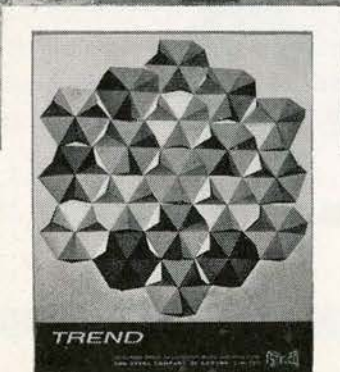
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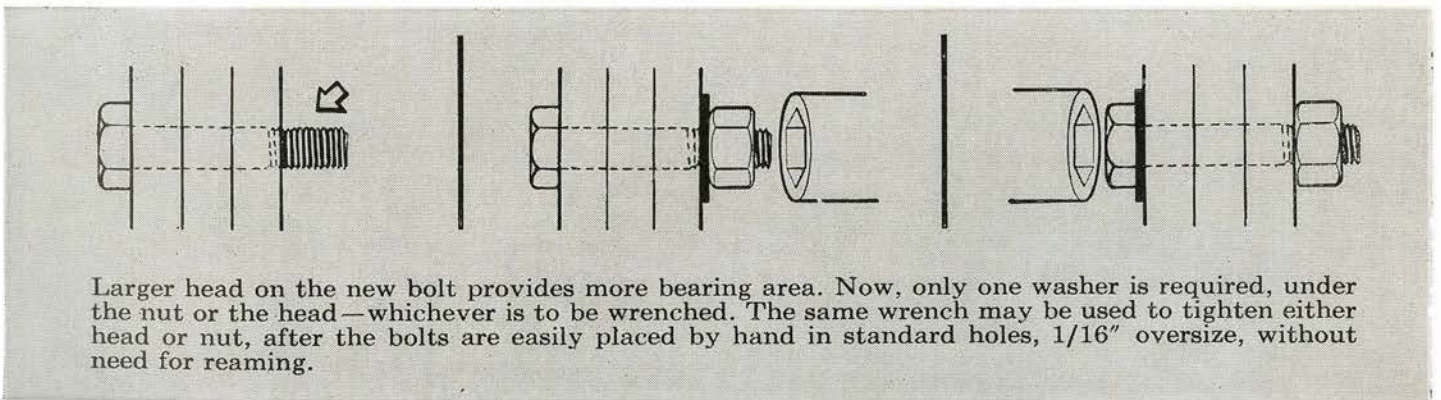


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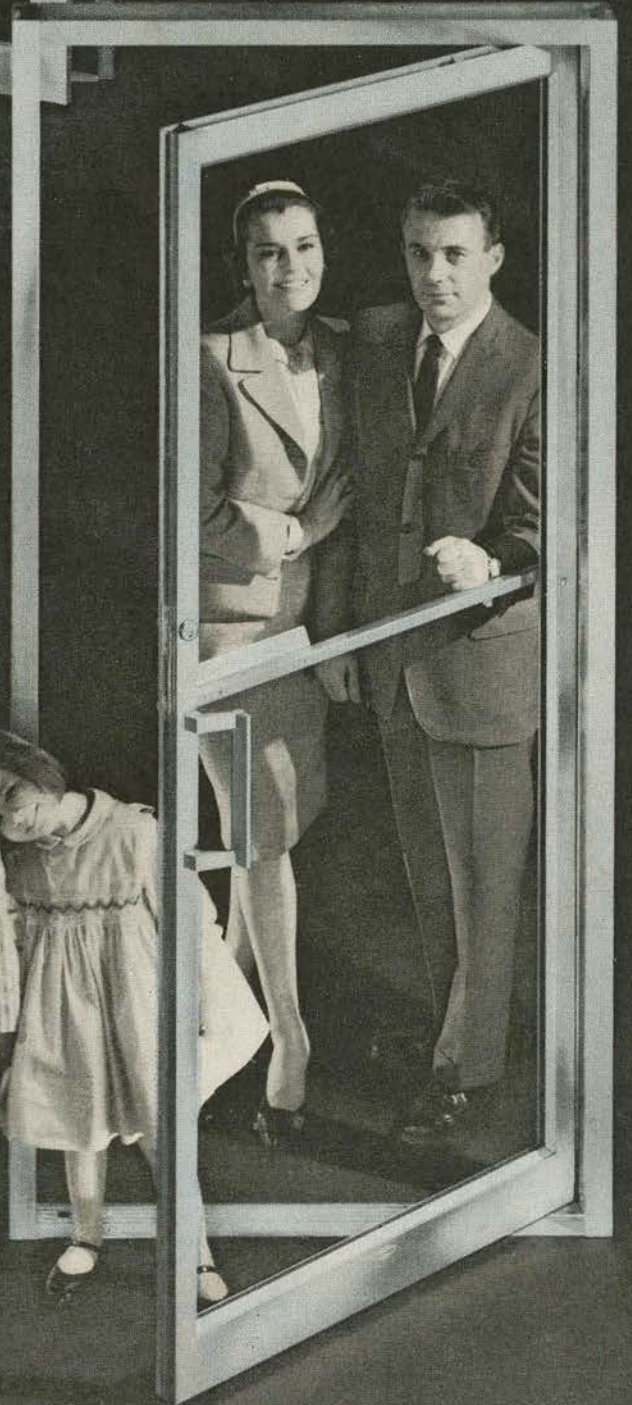
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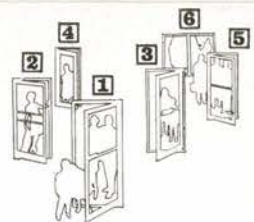
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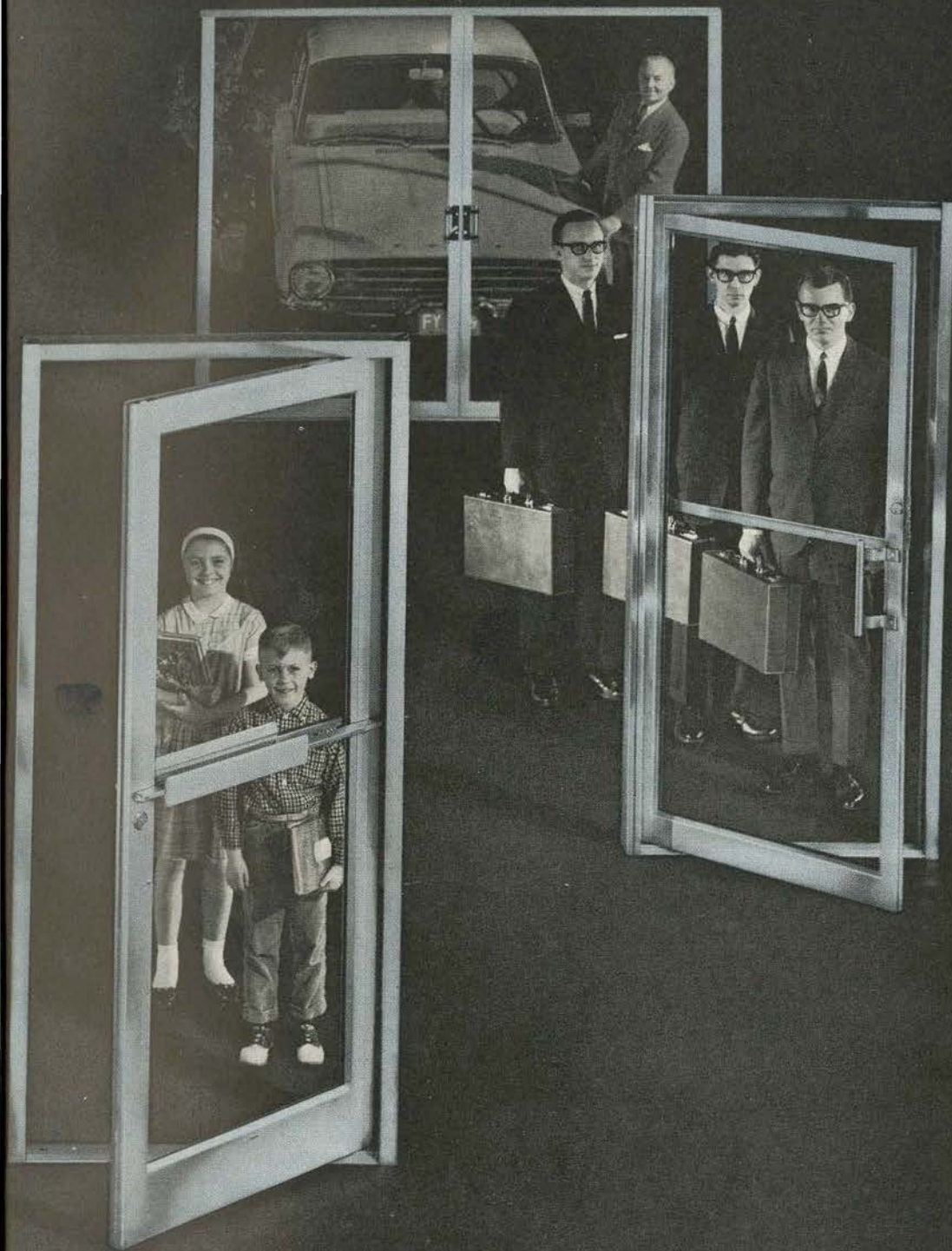
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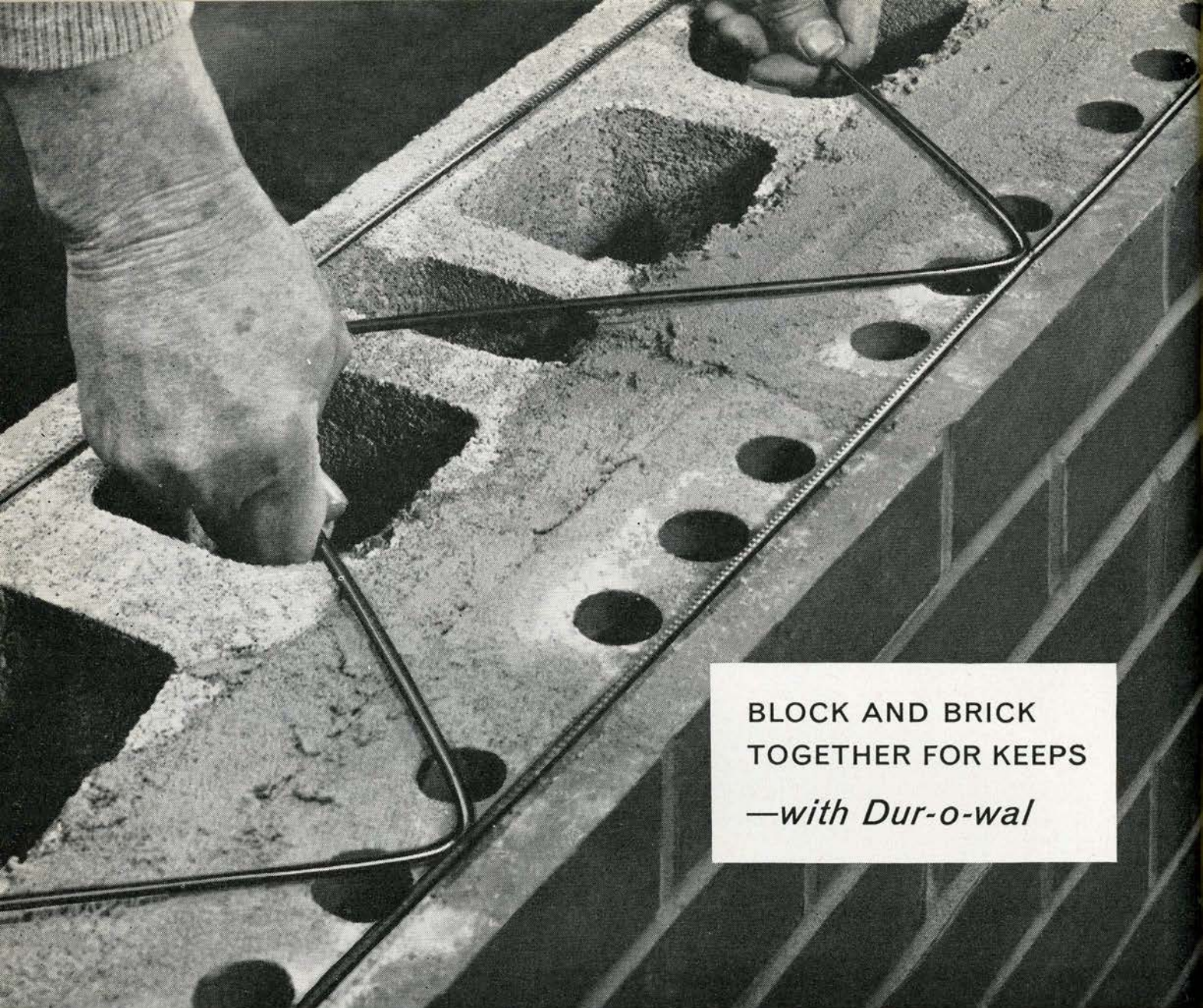
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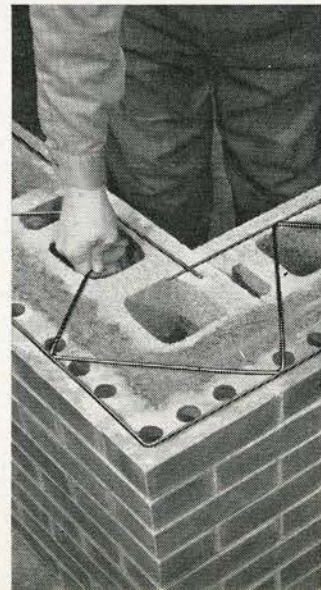
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IT IS A MISTAKE to think of a Home for the Aged as a place where the older generation sleep and eat. A Home for the Aged is better described as a community — a self contained miniature community. It not only provides for sleeping and eating but, to fulfil its function completely, it should provide for almost every activity that younger generations enjoy. Since this is so, there should be facilities for useful occupation; there ought to be facilities for entertainment and there should be a chapel for spiritual meditation.

The lot on which the building is set should have enough land to allow for outdoor exercise. And for those in the Home who are fond of gardening this extra land gives them an opportunity to do a bit of landscaping.

It has been found that a Home for the Aged should not provide for more than 225 residents. This size of Home is about as much as management can handle successfully. But, and this is the important point, one large Home in a large county can be difficult for relatives to reach as often as they might wish. For that reason, if the need arises and more accommodation is needed that one Home provides, another should be built in a position to serve the remoter end of the county. It can be argued that this is expensive; but the extra is not enough to condemn the idea.

The closer a Home for the Aged can approach an everyday family house the better. The lively activity of family life is probably what the older people miss most. An aquarium for gold fish, the song bird in its cage or a running fountain are never-failing sources of interest, and there are many more. In one Home a resident, formerly a newspaper man, is publishing, by himself, a weekly news sheet. It tells of things that are to happen in the Home, gives the names of new arrivals, and, I have been told, the whole Home looks forward to the day of publication.

To provide all this at a reasonable cost is a challenge to the architect. His planning should be meticulous. Not a foot of floor space can be wasted if he intends to keep his costs at the lowest. He must bear in mind that his unit cost must be in accord with the provincial level. The day of the poorhouse is past: the community has not yet accepted that fact totally; in time it will. Then this type of building will be accepted as a legitimate part of the social structure, the same way as schools are accepted today. While economy is the watchword there is no need for the building to look bleak and forbidding. The reverse is true and desirable. This point can't be stressed too much and every architect commissioned to build a Home will be contributing his important share if he designs the building with taste and charm.

It has been found that dull decorating can be avoided, for bright coloring is accepted everywhere today. Every bedroom can have its own color scheme, but the place where thoughtful decorating is needed most is in the corridors. Older people, who have difficulty in walking, dread a long corridor, and much more so if the corridor is monotonous. Color in the floor, ceiling and walls, in short lengths and great variety, can make the corridors appear shorter, with good effect. For the same reason electric lighting on the centre line, equally spaced, should be avoided.

I would advise every architect to design the building as a complete 225 bed undertaking even if only 50 to 75 beds are to be built in the first instance. Where future extensions are to go, future structural needs provided for should be known from the start.

When an addition is to be made to an old building it is better to plan the new construction around the old, connecting both by means of a temporary corridor. Until new accommodation is provided an old building must continue to function. As a rule, too, the main floor of old buildings is about 5 ft above grade, whereas a modern home has the main floor on grade for ease of entrance and exit, particularly for wheel chairs.

Since the government is contributing a major percentage to the construction and maintenance of these buildings it is essential that the cost, per bed, must be the same, or nearly so, everywhere in the province. This can be achieved only if close contact between the architect and the government starts when preliminary sketches are being prepared, when changes can be made readily, before working drawings are commenced.

There is never any attempt to restrict the appointed architect; rather he is given every encouragement to produce a building that is original and personal in character.

Mr Ralston has been consulting architect to the Homes for the Aged Branch of the Ontario Department of Public Welfare in Toronto for the past ten years.

The Journal is indebted to Mr James S. Band, Deputy Minister of the Ontario Department of Public Welfare and his staff for assistance in the preparation of this issue.

“HOMES FOR THE AGED”—the expression is probably one which every reader could define in his own terms. And the definitions would in all likelihood be as varied as the type of ‘homes’ now built or being planned across Canada. It is not my purpose to give a definitive answer to any question as to what a home for the aged is, or ought to be. One could, of course, remark that it is not—at least not in the accepted sense—a hospital. Nor is it an ordinary residential home, a recreation centre, or a hotel; yet it may have some of the attributes of all of these. Rather the purpose of this article is to deal briefly with the people who will live in homes for the aged, and with the way in which we, as people, think about living and aging in general.

To the members of a profession which moulds and manipulates space by architectural forms, the social science concept of *life-space* should be meaningful. The final design of a building depends first, on the limitations imposed by the natural environment, and second, on the architect’s disposition of exterior masses and interior spaces, at which stage both his personal design approach as well as current trends play a part. Similarly, the life-space of an individual is shaped by biological or genetic traits by the social milieu in which the individual lives, and by the idiosyncratic life-style which the individual adopts.

Aging, which is an ongoing process rather than a static condition, is inseparable from any concept of life-space. Biologically, aging is both enigma and explanation of our human life-cycle; socially, age determines many of the roles and statuses which our culture assigns us; individually, age in its most subjective sense governs our attitudes and self-awareness.

If we cannot describe in detail what little is presently known of aging, we can perhaps hint at the manner in which the behavioral and biological sciences are coming to terms with aging as process and as idea. Old age has always been the subject of folklore; Cicero (106-43 B.C.) in his *De Senectute*, was able to comment on the oldster’s responsibilities:

With whatever span is allotted us we should be content. There is no need for an actor to perform the whole play to give his audience satisfaction; enough to play his own role well. Nor need the wise man continue to the last curtain.

Shakespeare long ago compressed life’s stages into a few moments before an audience.¹ And no psychologist could have written so feelingly of the plight of the oldster forced into an unwelcome retirement as James Hilton in his *Good-Bye Mr. Chips*.

But the objective analysis of age, the placing into perspective of generational differences, as suggested by Ortega y Gasset—these are new. From the ancient Greeks we have borrowed the names of two of the youngest scientific disciplines: *geriatrics* and *gerontology*. And one current challenge to their practitioners is to determine wherein successful aging consists. In gradual disengagement from the hurly-burly of middle life? In the maintenance of activities and attitudes akin to those of middle life? Or in the selective acceptance of some attributes of both?

Whatever viewpoint we accept regarding the purpose and place of a home for the aged in the community, how we ourselves define aging, how we conceive of life-space—these will influence the final design as surely as the enclosure of an area by walls and ceilings, windows and floors.

Before continuing with this account of who will live in what type of home, we might briefly examine why our society has come to think about aging *per se*. For not only is the study of aging new, but also—perhaps as a prerequisite, the increased number and proportion of older persons in our midst is novel. We may not have altered the life-span of the human race, but we have, through advances in public health, working conditions, et cetera, brought about a dramatic extension of the average life-expectancy at birth. Longevity was once the prerogative of a few; today it is a matter-of-fact event for more and more Canadians.

Those of us who must plan, construct, equip, staff and serve homes for the aged have to bear the above in mind, for this reason especially: the rise in the number and proportion of older people, if it has not created problems, has certainly accentuated some old ones. Problems of financial support in the retirement

Comment
by
Lawrence Crawford.
Social
Gerontologist.
Ontario
Department
of
Public
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years, problems of accommodation in a period in which family and geographic mobility is commonplace, problems of poor health of a near-chronic nature, problems posed by personal values in a time and economy which is work-centred.

From the straight point of view of the size of modern homes, the three-generation household is virtually an impossibility: irrespective of whether or not a young couple wishes to care for an aged parent, they often have not the facilities to do so.

The people who will seek shelter in homes for the aged may have all of these and other problems to contend with, although not all of the older people with such problems will reside in homes, and not all who reside in the homes will have any one of these problems.

The ensuing examples in this issue of your *RAIC Journal* illustrate ways and means of dealing with space. But behind the bricks and mortar of every home for the aged, there must be a spatial environment at once part of the larger life-space common to mankind and able to blend with the smaller distinctive life-space which is each individual's.

The key word in the preceding paragraph is 'individual'. I am not blandly advocating planned homes for the aged with a physical layout that can be expected automatically to produce a 'happy' group; the planning must only be such as to allow the individual residents to find satisfaction in their own way; negatively, it must not hinder them in their search for self-realisation.² It was Judge Learned Hand, I believe, who wrote:

The Nirvana of the individual is too high a price to pay for a collective Paradise.

It is significant that at a recent conference on environmental planning for the elderly,³ a group made up largely of architects gave 'physical security' first place in a list of basic needs of older persons, but followed it with 'affection and response, recognition as persons, and the quest for new experience,'—highly individualized aspects of self-realization. The importance of this, to me, resides in the fact that while the three latter needs cannot simply be taken care of architecturally, their neglect can nullify the best-made plans.

We do not have to turn back too far in the pages of Canadian history before we realize that only yesterday the county poor farms and houses of refuge placed all the emphasis on the first attribute: physical security. Their design was plain; economic factors and public attitudes forbade 'ornamentation'; functional requirements could be modelled on those of a jail, warehouse, or pestilent hospital. And perhaps a few homes in Canada are still today attempting to take into account those other individual attributes we listed, in buildings better suited to a bygone day.

The writer hesitates to describe what other provinces have done in the immediate post-war years and are doing today. Ontario with 14,700 beds in its various homes (9,800 of them in 58 public homes) may perhaps serve as an illustration. From houses of refuge to congregate care homes, and semi-specialized to specialized care homes, the Province has moved along a clearly-marked path. With the passage of "The Homes for the Aged Act" in 1949, and through its subsequent amendments, every county and municipality has been enabled to develop a home suited to its own conditions. Private charitable groups may also be aided under separate legislation.

In the specialized care type of home, there are three sections: 'normal' care; bed or partial-bed care; special care (usually for elderly persons who are confused or 'senile'). The emphasis should be placed on the word *care*; financial problems are not the chief requirement for admission to a home for the aged, but rather the need for care in some form, however minimal. Medical facilities are included but not of a treatment nature, such as would be found in a hospital. Because of their financial backing by all levels of government, Ontario's public homes, and many of the private ones, have been able to develop a variety of facilities and services without, in the words of one critic of U.S. homes, 'dissipating much of their potential'.

The Ontario Department of Public Welfare has issued two publications which

better describe in detail the homes: "*Homes for the Aged—A Guide for Architects*", July 1961; and *People, Places, Programs*, August, 1962.

There is no attempt to standardize the types of homes. The Department's Consultant Architect advises his colleagues submitting preliminary sketches, and the Homes for the Aged Branch insists that certain minimum specifications and sanitary and safety features be included. The architect may therefore express himself freely and plan a home suited to the local terrain and community.

Instead of the older massive piles of masonry which squatted forbiddingly in the middle of bare grounds, homes are relatively smaller, brighter, and one- or at most two-storeys. Landscaped gardens and walks are in evidence. Instead of a flight of steps, there is a driveway entrance at ground level. One finds—but I am poaching on the readers' preserves, architects know all about such features. What of the human aspects? Of life-space?

The boards of management of homes in Ontario allow representative community leaders to participate. Women's auxiliaries ensure a definite involvement with the social life of the larger community, especially for residents who have outlived their own life-long friends and whose other associates are few in number or living far away. Staffing arrangements are such as to encourage career administrators and trained personnel with a growing awareness of the viewpoint outlined above. Government and private agencies are offering consultative services to promote hobby crafts, entertainment, rehabilitation, and participation in community affairs.⁴ In short, the fact that homes for the aged are not viewed as 'terminal accommodation' but as 'highly specialized, technical geriatric facilities' is leading to the development of a specific social life in these homes.

I am not trying to evade questions of value when I remark that it is of less importance whether this life is 'good' or 'bad'. Journalistic accounts can, with some justification in a few instances, write off the life in a home as stultifying. And official pamphlets can, again with some justification in certain cases, write up the life in a home as eminently satisfying. Of more significance sociologically is the extent to which a home, otherwise 'isolated', approximates all the necessary community facilities to be itself a self-contained community and thus makes possible a 'healthy' social life. Residents of a home who are assured a part and a place are hardly going to find what we have chosen to call their life-space, constrictive.⁵

Architects have much to contribute to any homes for the aged program. In the area of design, technical improvements, and aesthetic appeal, this is a truism. Over and above this, however, I consider that architects have a responsibility to take an active part in broad community and program planning, in study groups and research activities.⁶ And the architect's role embraces not merely homes for the aged, vital though these may be for every community, but the total Canadian program of housing for the elderly. Much of this housing is almost indistinguishable from that which persons of any age might require, other forms are only in the 'idea stage'. For all types there will be an increasing demand by our 2,680,600 men and women over 55 years of age, more than nine hundred thousand of them, or 5 per cent of the country's population, having celebrated their 70th birthdays.

1. The 'Seven Ages of Man' scene in *As You Like It* which Sir John Gielgud has so masterfully presented in recent years.

2. While not agreeing with his entire thesis, I strongly recommend two chapters of William H. White, Jr.'s, book, *The Organization Man*. Chapter 25, "The Web of Friendship"; Chapter 26, "The Outgoing Life".

3. The University of Illinois' eighth Planning Conference for Architects, as reported by Clark Tibbitts in *Geriatrics* 17: 396, June, 1962. The Canadian Welfare Council's Committee on Aging (55 Parkdale Avenue, Ottawa) issues valuable reports of national interest along these lines.

4. The special boarding homes or foster home programs which a number of homes operate for their residents, are particularly useful in this regard. And they bring the community closer to the home.

5. I have used 'life-space' loosely throughout and must apologize to any reader who might rightly object to this extension of Lewin's term. The question of active involvement in any small 'community' which mirrors its prototype, is admirably treated by Prof. I. Roscow in his, "Retirement Housing and Social Integration". *The Gerontologist* 1:85, June, 1961.

6. The University of Montreal, Quebec, this year announced the first Canadian Institute in Gerontology. In 1961 McMaster University, Hamilton, held a conference on the role of the university in the field of aging. And in every province there are community chest, church, government and other groups debating the issues in housing for the elderly.

There are no federal grants for construction of Homes for the Aged, and in the ten provinces there is a variety of approaches and combinations. Some provinces build and operate their own homes; others aid municipal and private groups, usually of a religious, fraternal or charitable nature, in construction and maintenance. In one or two provinces most accommodation is in homes of a purely private and, quite often, proprietary nature.

PROVINCIAL SUMMARY

Newfoundland has a combination of provincial and private homes, with construction grants to the latter amounting to 20 per cent of cost. Homes in Prince Edward Island are financed by the province. In Nova Scotia and New Brunswick the responsibility is a municipal one, with no provincial aid for construction. In Quebec most of the homes are of a private, particularly religious nature. There are legislative measures to aid construction, but there does not appear to be, at the present time, a fixed financial formula, the grants apparently varying from home to home.

Ontario has 58 municipal homes and 66 operated under religious, fraternal or charitable auspices. Provincial construction grants amount to 50 per cent of cost for municipal homes and the lesser of 50 per cent, or \$2,500 per bed, for private homes. The Manitoba system is similar, with provincial grants amounting to the lesser of 33 $\frac{1}{3}$ per cent or \$1,200 per bed. Saskatchewan has provincial, local government and private homes, and provides construction grants amounting to 20 per cent of costs for all approved homes. In Alberta the municipalities provide the land and the province meets construction costs. In nearly every case the homes are of the same type and fairly standardized. In British Columbia provincial construction grants of up to 33 $\frac{1}{3}$ per cent of cost may be made.

Standards and specifications for homes in the various provinces are set forth in general terms in the Federal Department of National Health and Welfare publication, "Legislative Measures affecting Living and Accommodation for Elderly Persons in Canada".

The Salvation Army Matson Lodge

Victoria, B.C.

Architects:

Wade, Stockdill & Armour

Victoria & Vancouver



Consulting Structural Engineers:

Read Jones Christoffersen Ltd

Consulting Electrical Engineers:

R. Lennox Mackenzie

Consulting Mechanical Engineers:

F. T. Gardiner

General Contractor:

Farmer Construction Ltd

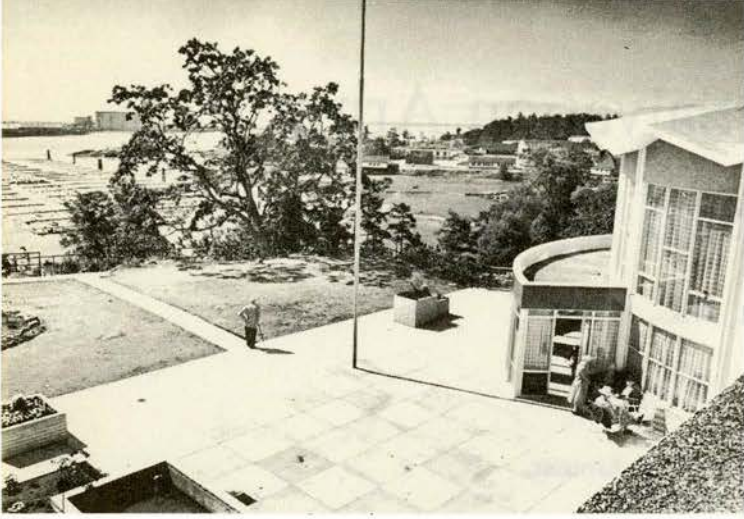
THIS PROPERTY was left to the Army by Mrs Ada Matson and commands a magnificent view across Victoria Harbour to the Olympic Mountains. The terraces, public rooms and two thirds of the sleeping rooms take advantage of this aspect, whilst the remaining rooms are turned to look into a large quiet garden with fine trees.

There is accommodation for one hundred and twenty single guests, in single rooms, and ten married couples in suites of bedroom and sitting room.

Resident staff are housed on the lower floor looking out on a private lower gardened terrace.

Guest rooms radiate on two levels in fingers from a utility hub and corridors crossing this hub have been offset to avoid compounding their length visually.

The main connection between the two levels is by means of a circular ramp around one of the two main lounges. The journeys up and down the ramp are made less tiresome by a changing view of the harbour and mountains and of the occupants of the lounge. This has proved a most popular feature of the lodge.

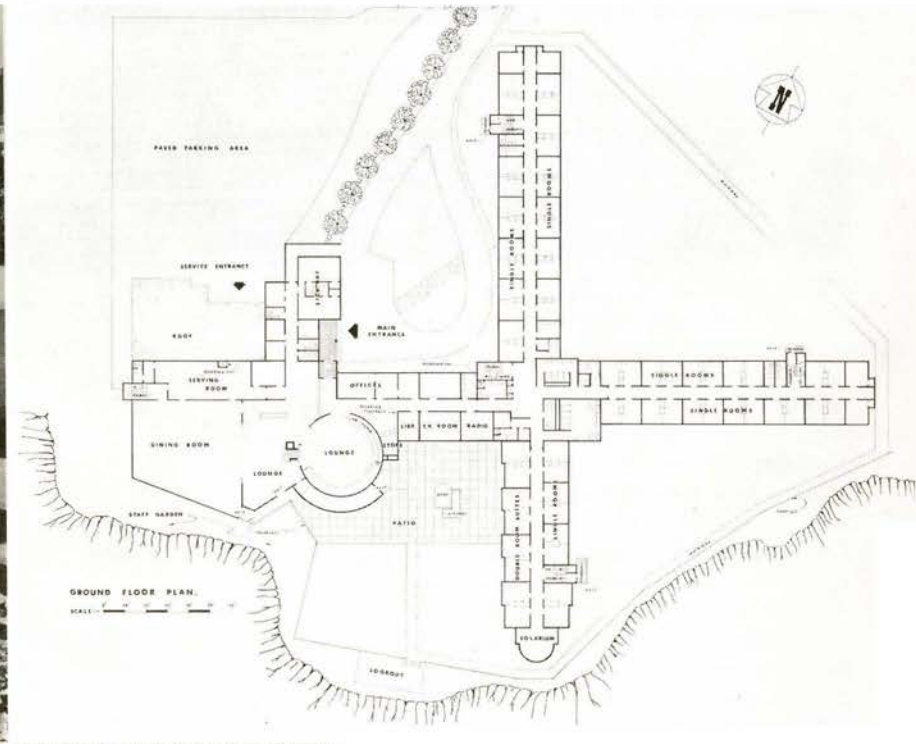


The structure is reinforced concrete with footings to rock. External and internal walls are of Saturnalite lightweight aggregate concrete blocks. Interior walls are plaster, ceilings acoustic plaster. Floor coverings are vinyl asbestos tile with rubber base and terrazzo in areas of heavy wear and service. Carpet in lounges. The large windows in the lounges are double glazed with tinted glass.

Generally all finishes are very simple. The building cost under \$11.50 per sq. ft. All furniture was specified and selected by Impex Designers and The Salvation Army.

THE SALVATION ARMY MATSON LODGE





PRINCIPAL SUB-TRADES AND SUPPLIERS: W. R. Menzies & Co. Ltd. — *Plumbing and heating*; Ace Fixtures & Furniture Mfg. Co. Ltd. — *Millwork*; Expanded Metal Co. of Canada Ltd. — *Toilet stalls and lockers*; Brittain Steel Fabricators Ltd. — *Laundry and garbage chutes*; B.C. Laundry Equipment Ltd. — *Laundry Equipment*; Camosun Electric Co. Ltd. — *Electrical*; Canadian Pittsburgh Industries Ltd. — *Glass and glazing*; Darlington Haskins & Co. (1942) Ltd. — *Ceramic and Quarry tile*; Dominion Bridge Co. Ltd. — *Structural Steel*; Alex Gair & Sons — *Vapour barrier*; G & R Roofing — *Insulation*; Harwood Contracting Co. Ltd. — *Sprayed asbestos fibre*; Hourigan Carpets & Linos Ltd. — *Floor coverings*; Wm. N. O'Neill Co. Ltd. — *Terrazzo*; Mills Steel Products Ltd. — *Reinforced steel mesh*; McLellan, McFeely & Prior Ltd. — *Finish hardware*; Modernfold Doors (Pacific) Ltd. — *Doors*; Otis Elevator Co. Ltd. — *Dumb waiters*; F. W. Shaw Ltd. — *Roofing and sheet metal*; Wescraft Manufacturing Ltd. — *Metal windows*.

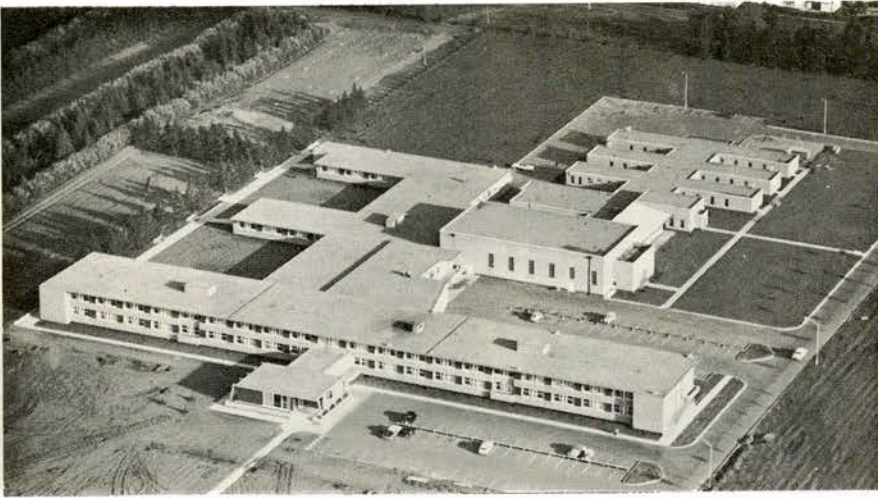


PHOTOGRAPHY BY HUBERT NORBURY



Saskatchewan Geriatric Centre

Regina



THE INSTITUTION was completed in the fiscal year 1956-57, to provide accommodation for 300 senior citizens.

The building is constructed of Estevan Ruf-Tex brick, accented by brown mortar joints and brown tile panels between windows. In the architectural design, wings spread from a central administrative, dining, kitchen and, at the rear, laundry area. Dormitories are on the outer perimeter of the wings; nursing stations, service area, toilet and bath facilities through the centre are conveniently accessible from either side. In each wing there are sitting and reading rooms, and in the building there are six solariums, one of which is equipped for billiards.

Designed to please those wanting solitude, as well as those wanting company, the 78 patient rooms are divided into 29 singles, eight two-bed rooms, 34 four-bed rooms, and seven 16-bed rooms.

Considerations which contribute to the well-being of the patients include hand rails along the halls, wide doorways to guide a wheelchair through unhindered, a shampoo room and a barber shop.

The building is planned to radiate a personal, home-like atmosphere, rather than that of an institution. It is a home where the guests may be as comfortable and contented as possible in their declining years.

Tenders were called for the foundations in September 1954, and the contract awarded for \$284,500. Tenders for Phase II, the superstructure, were called on June 10, 1955, and the contract was awarded for \$1,363,631. The building contains 105,637 square feet of gross area, and the gross volume is 1,586,292 cubic feet.

The final total costs of the structure were as follows:

Construction and Equipment - - -	\$2,145,160.64
Storm sewers, roads, etc. - - - -	104,336.99
Landscaping - - - - - - - - - -	30,531.30
Street lighting - - - - - - - - -	4,127.99
TOTAL - - - - - - - - - -	\$2,284,156.92

The costs of constructing the building (general contractor's work only) were \$15.60 per square foot and \$1.038 per cubic foot.

Architects:
Stock, Ramsey and Associates
Regina

General Contractor:
Phase I - Poole Construction Co. Ltd
Phase II - Bird Construction Co. Ltd.

Below: An interior view of the solarium.

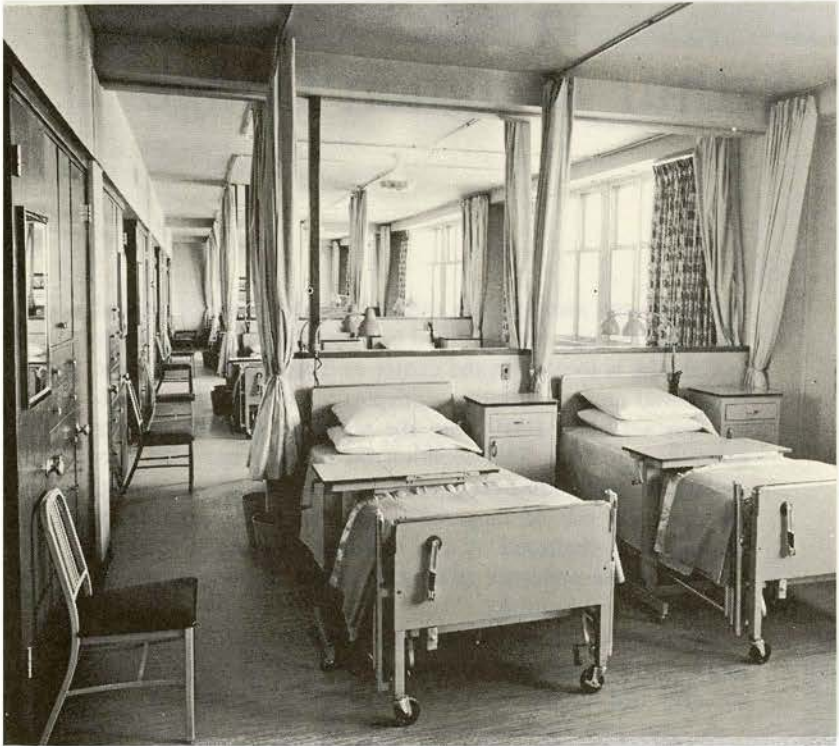




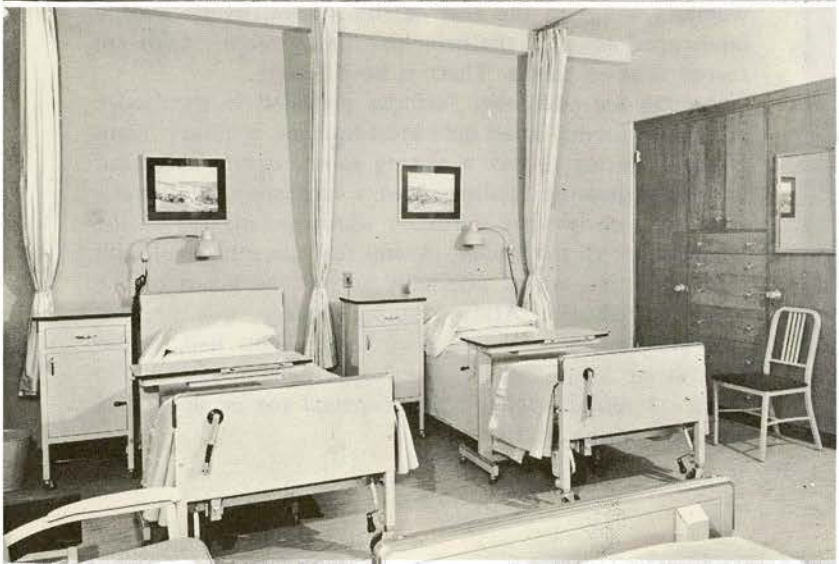
Above: A nursing station.
Below: A 'sixteen bed' ward.
Bottom: A 'four bed' room.



Above: Interior of the entrance lobby.
Below: The patients sitting room.



PRINCIPAL SUB-TRADES AND SUPPLIERS. (Phase I) Dominion Bridge Co. Ltd. — Reinforcing Steel; Manitoba Bridge and Engineering Works Ltd. — Misc. and ornamental metal; Westeel Products Ltd. — Fire doors; (Phase II) Antonini and Sons Ltd. — Tile and terrazzo; Vulcan Iron and Engineering Ltd. — Misc and ornamental metal; Dominion Bridge Co. Ltd. — Structural steel; J. H. Ashdown Hardware Co. Ltd. — Finish hardware; Regina Sash and Door — Finished Millwork; Dominion Sound Equipment Ltd. — Acoustic tile; Waterman, Waterbury Co. Ltd. — Roofing and sheet metal; Westeel Products Ltd. — Fabricated metal work; In Mill and Westeel — Glass and glazing; Otis Elevator Co. Ltd. — Elevators; North West Electric Co. Ltd. — Electrical; T. Eaton Company of Canada Ltd. — Furniture; Arnett Co. Ltd. — Kitchen and cafeteria equipment; Harrison and Crossfield (Canada) Ltd. — Laundry equipment.



PHOTOGRAPHY BY SASKATCHEWAN PHOTOGRAPHY SERVICES



PANDA

The Salvation Army Arthur Meighen Lodge

Toronto

Architects:
Marani, Morris & Allan
Toronto

Consulting Engineers:
Rybka, Smith & Ginsler Ltd
General Contractor:
Louis Donola (Ontario) Ltd

THE ISABEL AND ARTHUR MEIGHEN LODGE, one of several new Homes for the Aged built by the Salvation Army in Canada, is located in the centre of Toronto in a 5½ acre residential area on a public transportation route. The building was set back 100' from the street to provide greater quiet and privacy. This location on the site has also permitted an open landscape area in front of the building, which made use of large existing trees. This area faces south and is sheltered by the building, making it suitable for use by the residents as an alternative to the gardens in the rear of the building.

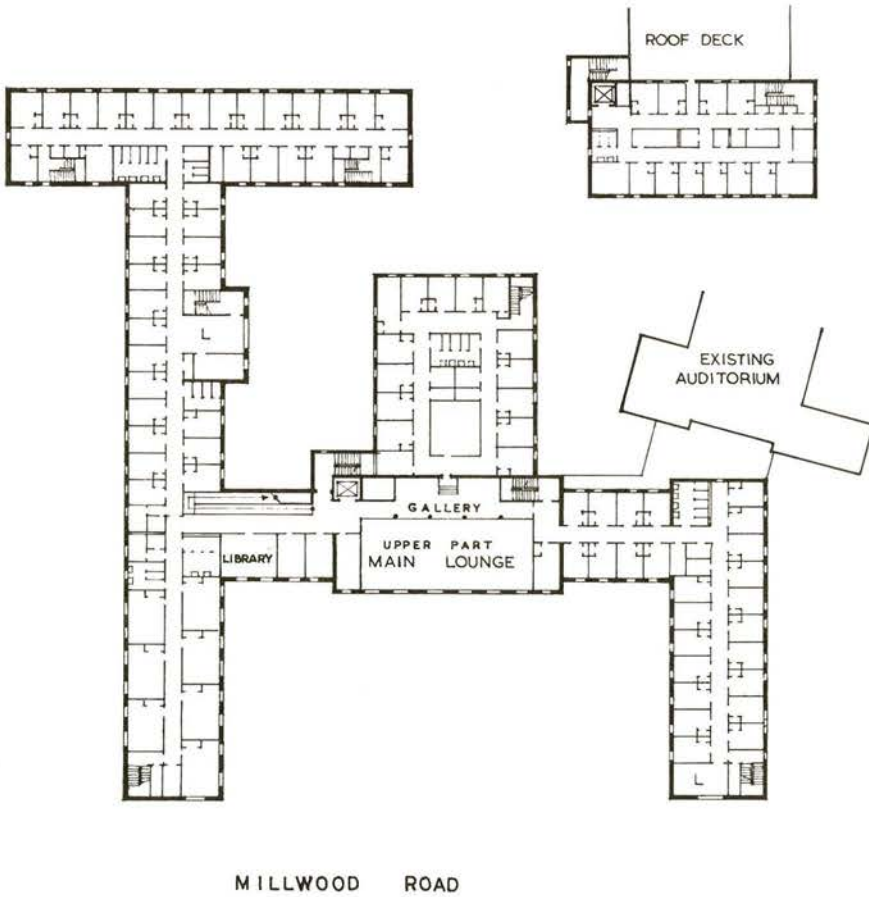
Designed to accommodate 187 persons, the Lodge features single occupancy bedrooms for both men and women, also bed sitting rooms for married couples.

A large two storey lounge links the men's wing to the women's wing. In the rear of the lounge, overlooking a landscaped court, is the principal dining room. Meals are served at small tables. There is no cafeteria.

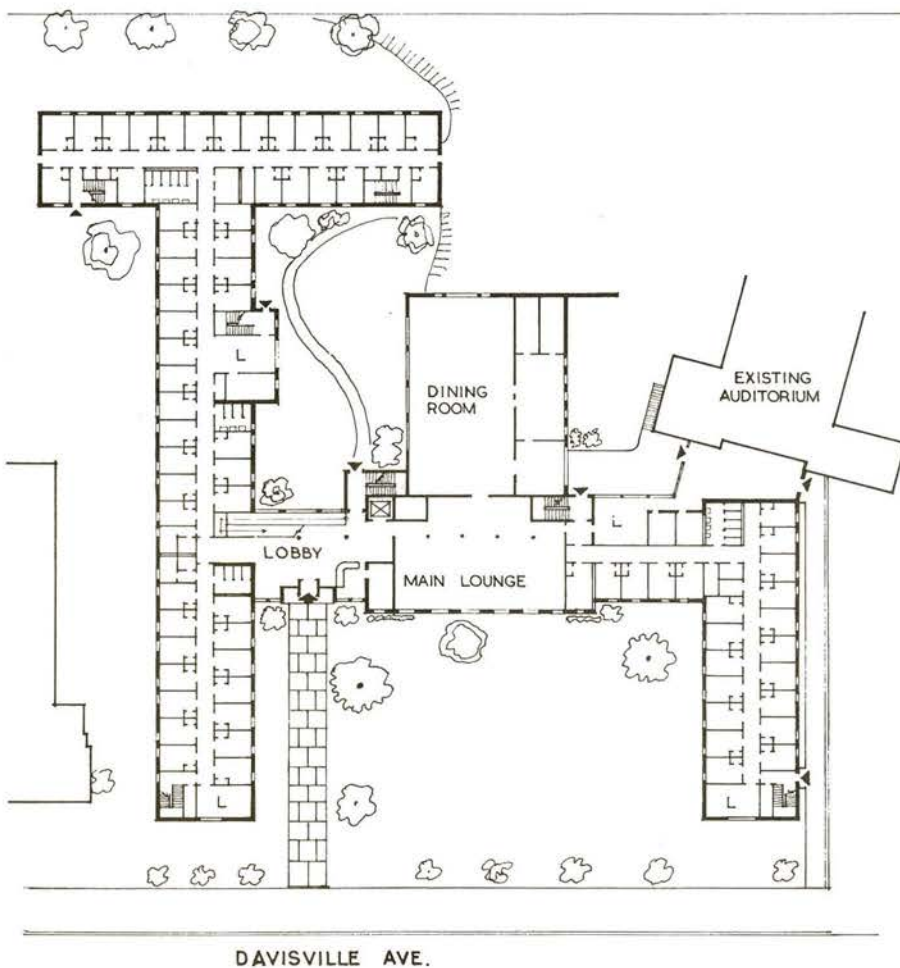
Among the additional facilities provided in the Lodge are games rooms, small individual lounges, a library, reading and writing rooms, a sewing room, barber shop and ladies hairdressing facilities, and a tuck shop. A doctor's suite and two two-bed infirmary wards are located on the second floor of the Lodge. A 400 seat assembly hall with stage facilities, which originally served the needs of the adjoining Salvation Army Training College, was modernized and linked to the present Lodge. This hall is also used as an Army Citadel. The Lodge, which was built in under 11 months was officially opened for occupancy in the early spring of 1958.

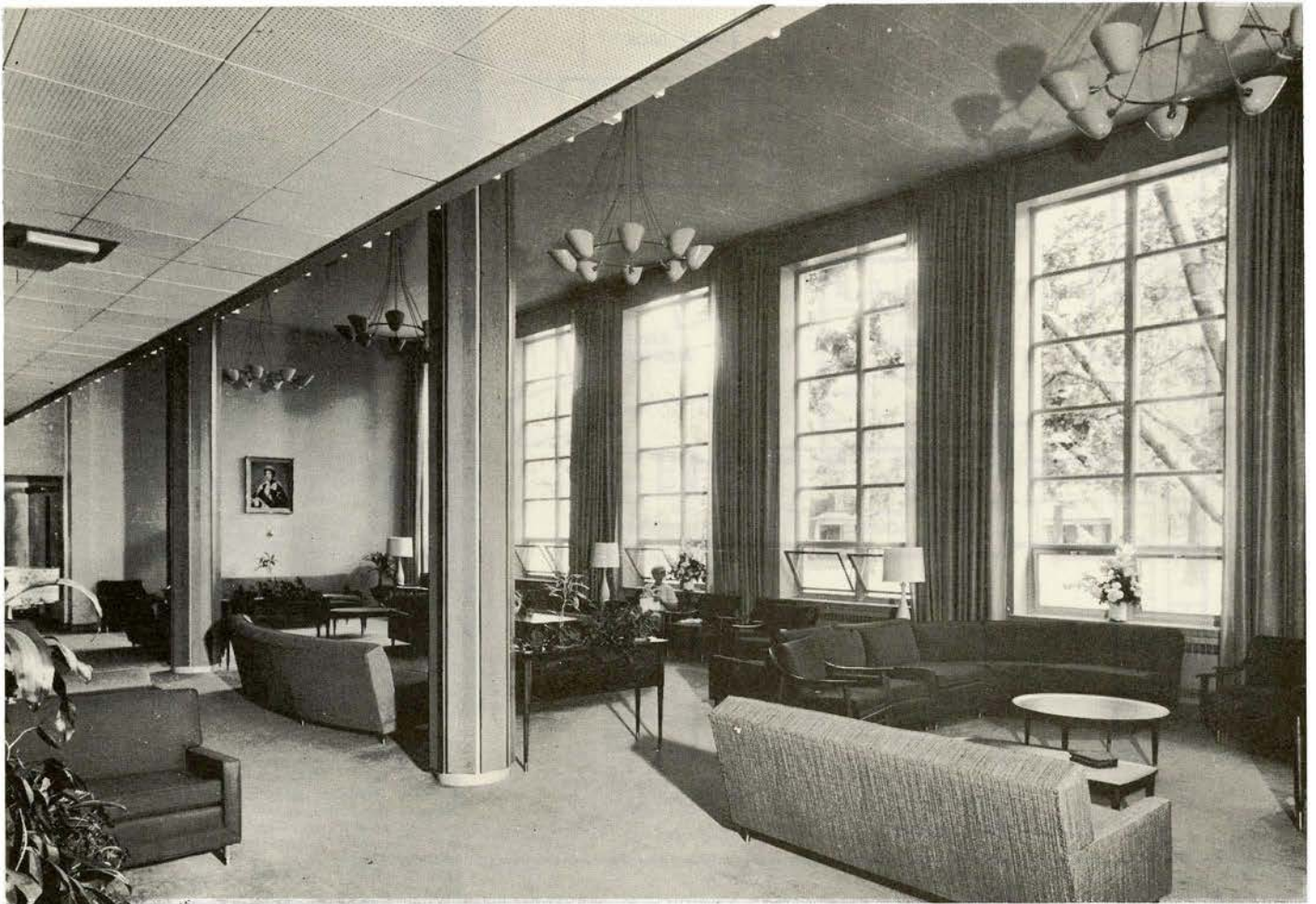
H. R. JOWETT





PRINCIPAL SUB-TRADES AND SUPPLIERS. Monarch Flooring Ltd. — *Resilient flooring*; Bramall & Co. Construction Ltd. — *Paving*; Nu-Style Gardens Ltd. — *Landscaping*; National Slag Ltd. — *Masonry control joints*; Niagara Cut Stone Ltd. — *Corner stones*; W. E. Dillon Co. — *Steel door frames*; Currie Process Bonded Roof — *Roofing*; Electro Vox Intercom Inc. — *Intercom*; Canadian Laundry Machinery Co. — *Laundry equipment*; Arthur S. Leitch — *Water softening equipment*; Canadian Johns Mansville Co. Ltd. — *Pipe insulation*; Pearce Signs — *Signs*; Hospital and Kitchen Equipment Co. — *Kitchen equipment*; Advance Glass and Mirror Co. Ltd. — *Glazing*; Armoured Floor Co. Ltd. — *Concrete floors*; Laidlaw Lumber Co. Ltd. — *Mill work*; Mundet Cork & Insulation Ltd. — *Cork and insulation*; Peerless Window Equipment Ltd. — *Windows*; Richards Wilcox Canadian Ltd. — *Overhead doors*; Shaw & Wright Ltd. — *Hardware*; Toronto Barber and Beauty Supply Ltd. — *Hairdressing equipment*; Turnbull Elevator Co. Ltd. — *Elevators*; Weston Steel Products Ltd. — *Removable metal partitions*; Wall Covering Centre of Ontario — *Vinyl wall fabrics*; Chas. J. Wilson Ltd. — *Electrical fixtures*.





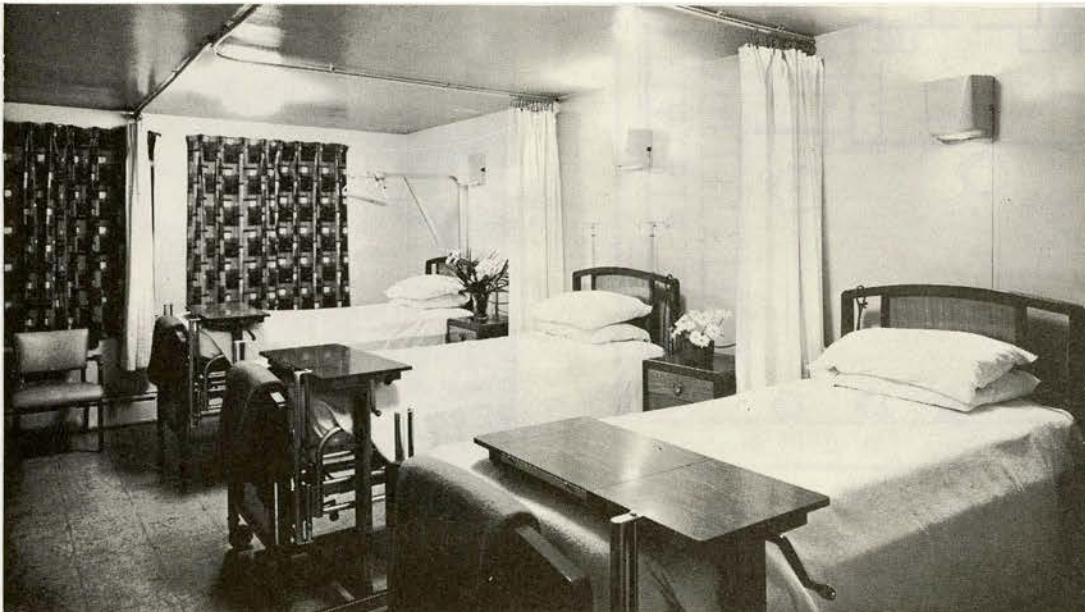
PANDA

**THE SALVATION ARMY
ARTHUR MEIGHEN LODGE**



H. R. JOWETT

PANDA



Nipponia Home for the Aged

Beamsville, Ontario

THIS HOME was designed specifically for elderly Canadians of Japanese origin. Due to the intense family pride for self sufficiency, the plan was to provide accommodation that could be maintained with only the pension allowances supplementing the Provincial Government's grant. The home was to be small and of a residential scale, easily maintained (as most of the maintenance was to be by the residents), economical to build and run, and to provide a healthy outlet for the energies of these people. The particular challenge of this project was to design a Canadian building which would provide some of the best qualities of the Japanese tradition.

The plan is divided into two wings grouped around a centre garden court landscaped in the Japanese manner, on the one side the living and service area and on the other the sleeping quarters. In addition to the usual facilities there is a Japanese communal bath. The love for gardening, and the appreciation of natural things, an inherent quality of the Japanese people, provided the basis for the design. In addition to contributing to an integral part of the aesthetics of the architecture, the gardening, itself has proven to be an excellent hobby and therapy. All landscaping was done by the owners and somewhat modified by them as the work progressed.

The plan, then, logically split itself into

- (a) the living and service area
- (b) the sleeping area,

the total revolving around the garden court. The interior character of the project with exposed beams and wood deck and the general treatment of the detailing tries to provide the basic qualities of the Japanese house.

Exterior Walls: Cedar trim on slag block (to exterior), strapping with rockwood batt insulation and 1/2" drywall (to interior). **Interior Walls:** Generally stud with 5/8" firewall. **Floors:** Generally poured reinforced concrete with vana-rug carpeting. **Roof:** Generally spruce deck with exposed beams, rigid insulation and felt and gravel roofing.

SPECIAL ITEMS 1. A Japanese style bath was included. 2. Provision was made for an additional six beds. 3. Workshop for winter activity provided for in basement. 4. Games room provided for in basement.

TOTAL CAPACITY Seven double bedrooms. Four single bedrooms. Total 16 beds.

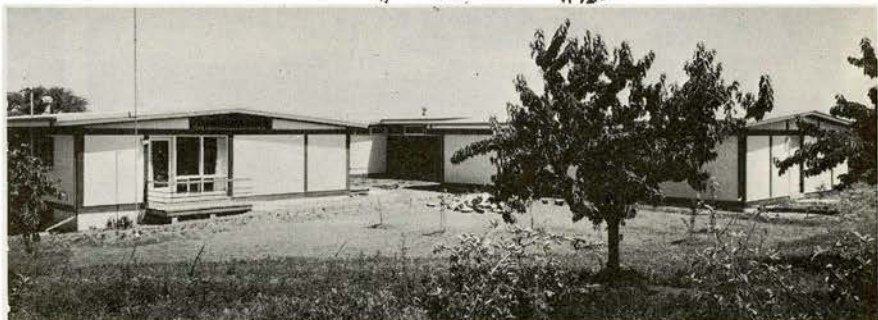
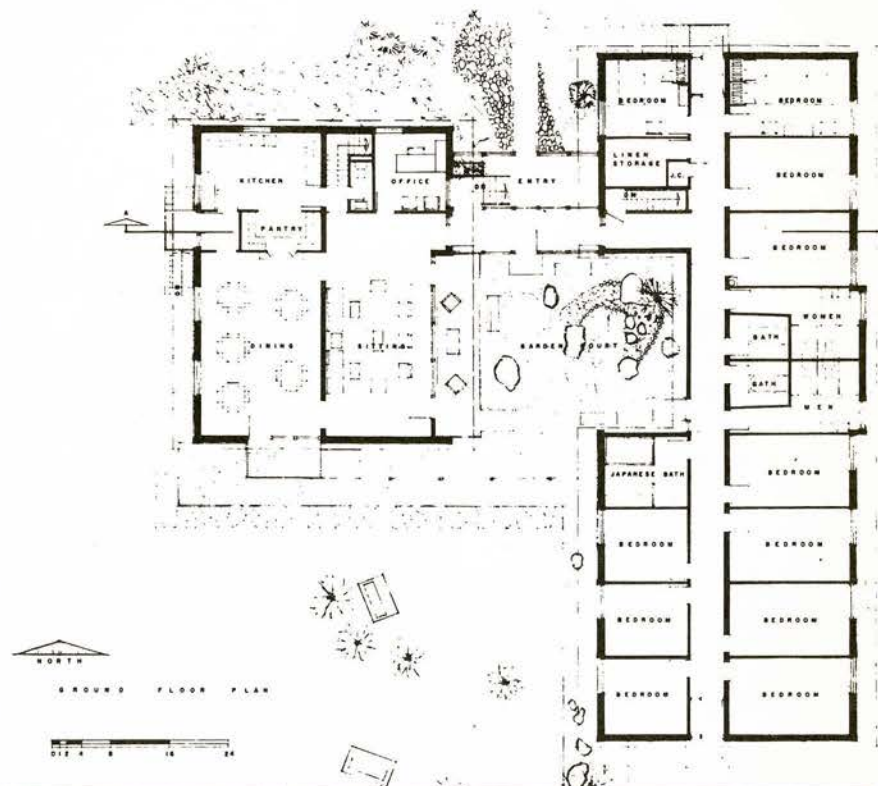


NEIL NEWTON

Associated Architects:
Henry Fliess, Yamazaki & Ridpath
Toronto Scarborough

Landscape Architect:
George Tanaka

Heating Consultant:
F. W. Taylor
Plumbing Consultant:
Frost-Granek
Structural Consultant:
Alex Tobias
General Contractor:
Stewart & Hinan Corp. Ltd

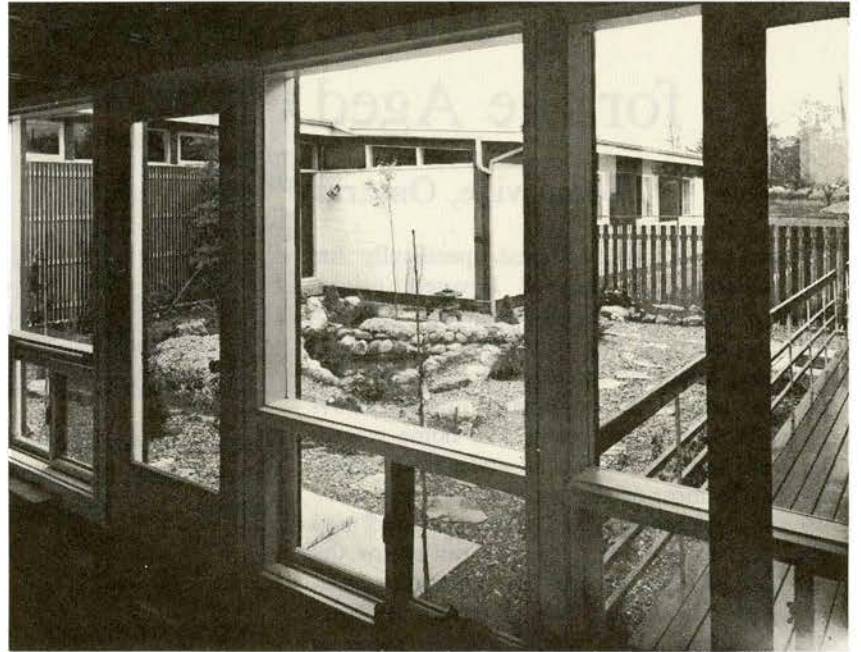


MAX FLEET

NEIL NEWTON



NEIL NEWTON



MAX FLEET

MAX FLEET



NIPPONIA HOME FOR THE AGED



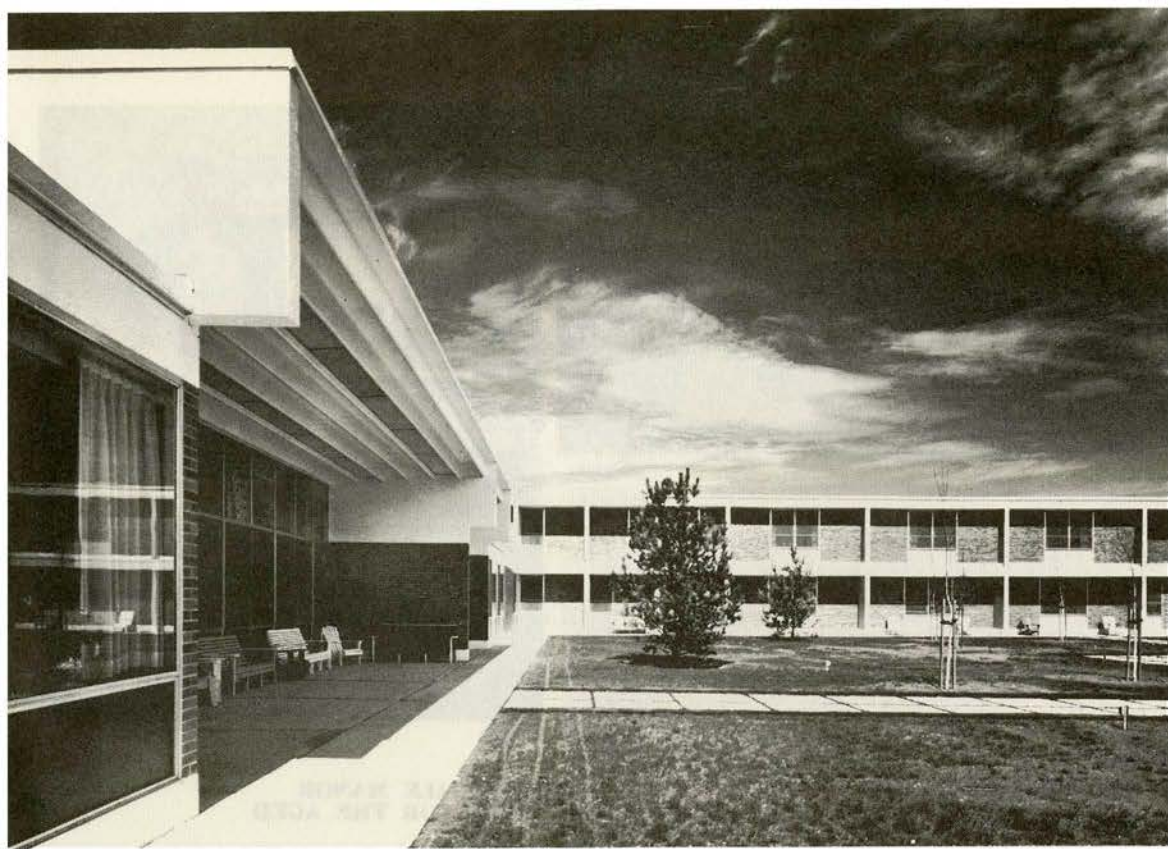
NEIL NEWTON



NEIL NEWTON



NEIL NEWTON



Architect:
John B. Parkin Associates
Toronto

General Contractor:
Wilkinson Construction Ltd

Hillsdale Manor Home for the Aged Oshawa, Ontario

SPACE IS PROVIDED on the upper floor of a 2-storey unit for 17 double bedrooms, 10 single bedrooms, 4 bedrooms for three persons and 16 bedrooms for four persons. "Special Care" and "Bed Care" are located in the west and east sections respectively. A central core containing dining rooms, examining rooms, utility rooms and other service functions provides segregation between the sexes. Two ramps at each end of this floor give direct access to grade.

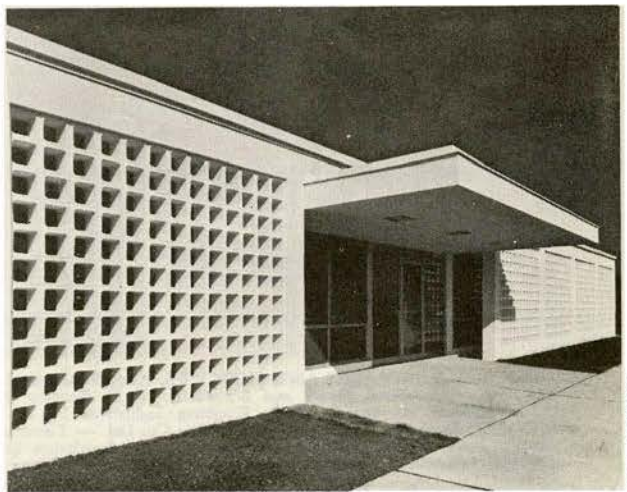
On the lower floor of this 2-storey unit are 4 single bedrooms, 20 double bedrooms and 9 rooms for four persons each. This floor is for "normal care" residents. Staff quarters are also included at this level. Segregation is achieved by a core area containing a barber shop, a beauty parlour, washrooms and other related service functions.

At the same level of the lower floor is a single storey wing containing the main entrance, offices and library, main lounge, a chapel, dining room and kitchen, an assembly room and stage, craft rooms, laundry and service rooms.

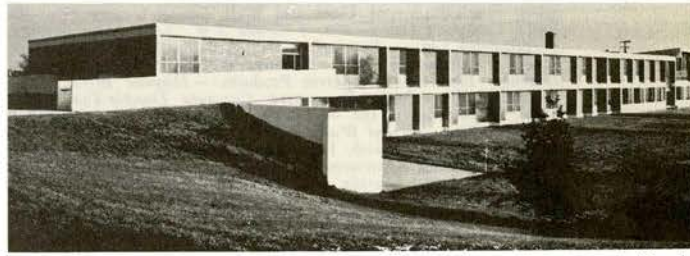
The roof structure and first floor structure of the two-storey unit consist of hollow pre-cast concrete slabs carried on lateral bearing walls of concrete block. The core is spanned directly by the pre-cast slabs. The roof over the kitchen dining area and assembly room is formed of pre-stressed, pre-cast ribbed slabs, carried on reinforced concrete beams expressed on the exterior.

Bedroom walls are painted plaster. Kitchen walls are glazed tile. Corridor walls are concrete block with a vitreous enamel finish. Wall finishes in the Dining Room, Lounge, Chapel and Assembly Hall feature exposed face brick. Ceilings are mineral acoustic tile in the latter areas, whereas bedroom ceilings are exposed structural slabs painted. Vinyl asbestos floor tile is used as a floor finish throughout the two-storey element with the exception of washrooms and utility rooms which have terrazzo floors and ceramic tile walls. The Kitchen floor is quarry tile.

Exterior finishes are painted concrete, contrasting light and dark face brick and coloured spandrel panels of glass. A sun-screen of fluetile units is used on the main elevation.



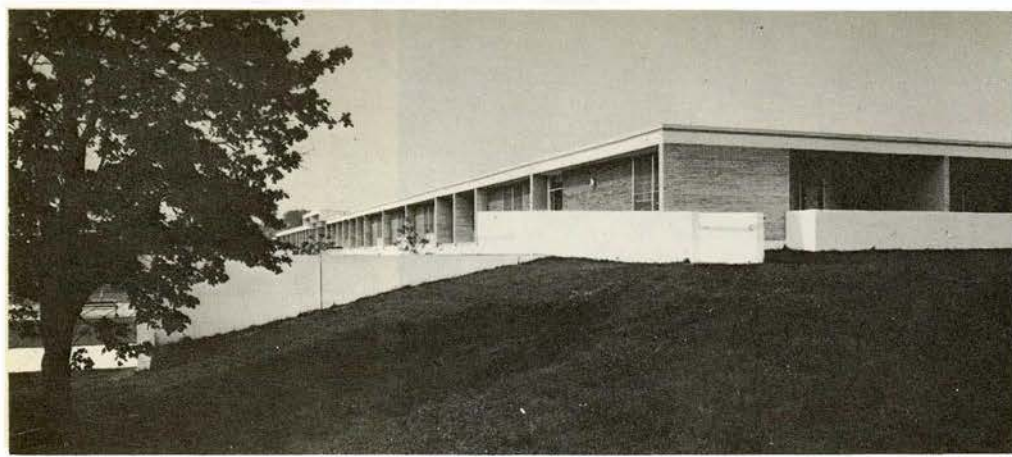
NEIL NEWTON



Panda



Panda

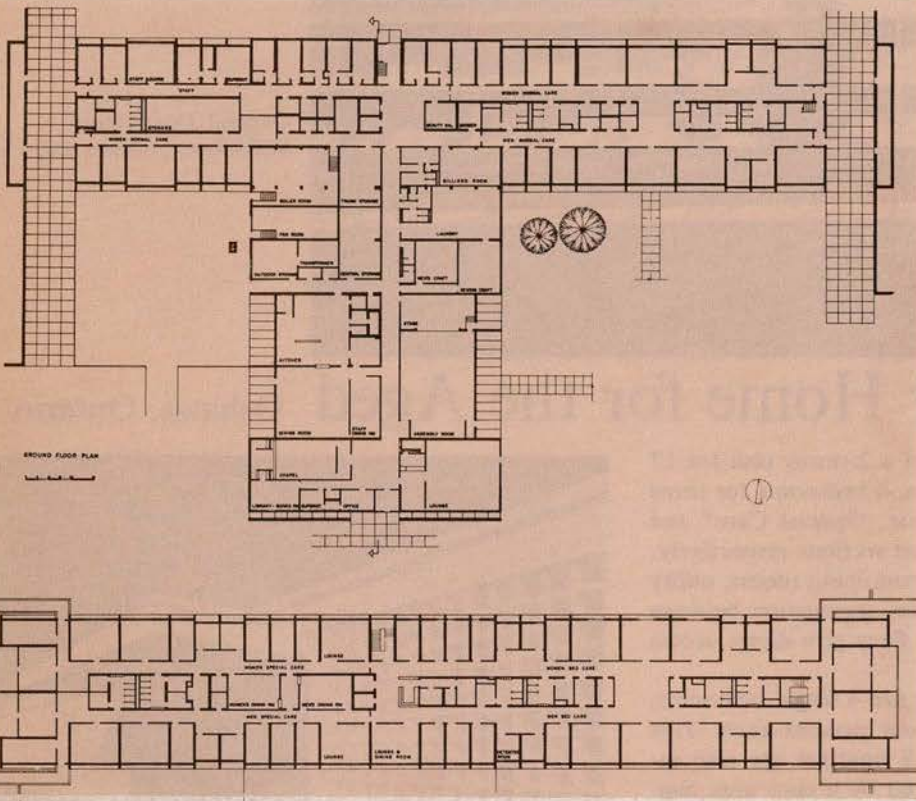


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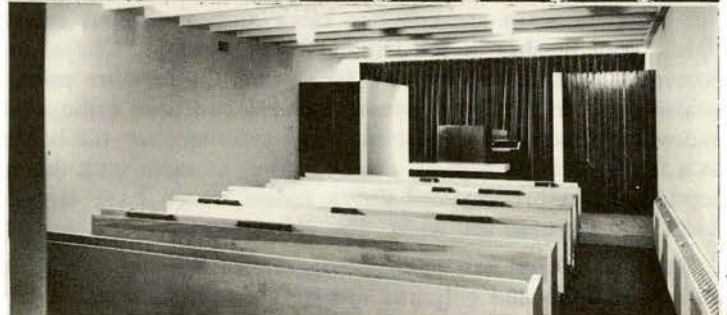
**HILLSDALE MANOR
HOME FOR THE AGED**



PRINCIPAL SUB-TRADES AND SUPPLIERS. Also Products of Canada Ltd. — *Aluminum Doors and Windows*; W. B. Bennett Paving Ltd. — *Asphalt Paving*; Canadian Pittsburg Industries Ltd. — *Glass & Glazing*; Connolly Marble, Mosaic and Tile Co. Ltd. — *Terrazzo and Marble Toilet Partitions Work*; Mundet Cork and Insulation Ltd. — *Thermal Insulation*; Northern Canada Supply Ltd. — *Hardware*; Otis Elevator Co. Ltd. — *Elevator*; Porcelain and Metal Products Ltd. — *Toilet Cubicle Doors*; S. H. Newman Company Ltd. — *Kitchen Equipment*; Sinzig-Frontenac Floor and Wall Tile — *Quarry Tile*; Harbour Brick Company Ltd. — *No. 1 Grade S.W. Sand Lime Brick*; Alnor Earthmoving Ltd. — *Excavation*; Harold R. Stark Ltd. — *Plumbing and Heating*; Current Electric — *Wiring*; Whitby Welding Works — *Stair Railings*; Henderson Concrete Products — *Haydite Block*; Schell Industries Ltd. — *Precast-Prestressed Concrete Double-Tee Type Roof Slabs*; York-ShIPLEY, Inc. — *Boilers*; Arborite — *Plastic Laminate*; C. I. L. Fabrilite — *Vinyl Wall Covering*; Pratt and Lambert "Vapex" — *Exterior Concrete Finish*; Lakeshore Landscape Assoc. — *Landscaping*; Dugald Cameron Associates Ltd. — *Commemorative Plaque*; Pratt and Lambert — *Paint*; Murray Associates Ltd. — *Precast Concrete*; Bennett Paving — *Asphalt Paving*; W. F. Bowden — *Roofing and Sheet Metal*; Gilbert Brothers — *Miscellaneous Metals*; Westeel-Fire Doors and Frames — *Overhead Door*; Golden All Metal — *Caulking and Weatherstrip*; Eastern Steel — *Hollow Metal Work*; Hauserman of Canada — *Hollow Metal Partition*; Edward Milner — *Refrigerator Doors*; David C. Orrock — *Wood Shutters*; Milburn Lath and Plaster — *Lath and Plaster*; Acoustic Tile; V. A. Armstrong — *Resilient Flooring*; Newton H. Edgar — *Painting*; American Blower — *Ventilation Unit*; Atlas Engineering and Machine Co. Ltd. — *Sump Pump*; Wilson and Cousins Co. Ltd. — *Fire Extinguisher*; Canadian Potteries Ltd. — *Lavatories, Water Closets, Drinking Fountain*; Port Hope Sanitary — *Bathtubs*; Crane — *Emergency Baths, Service Sinks, Laundry Tubs, Bathtubs*; York-ShIPLEY, Inc. — *Boiler*; Electrolier, Lightolier, Holophane, C. & M. Products, Crouse-Hinds, Amalgamated Electric, J. A. Wilson Lighting and Display, Canadian Westinghouse — *Electrical Fixtures*.



Panda



Panda

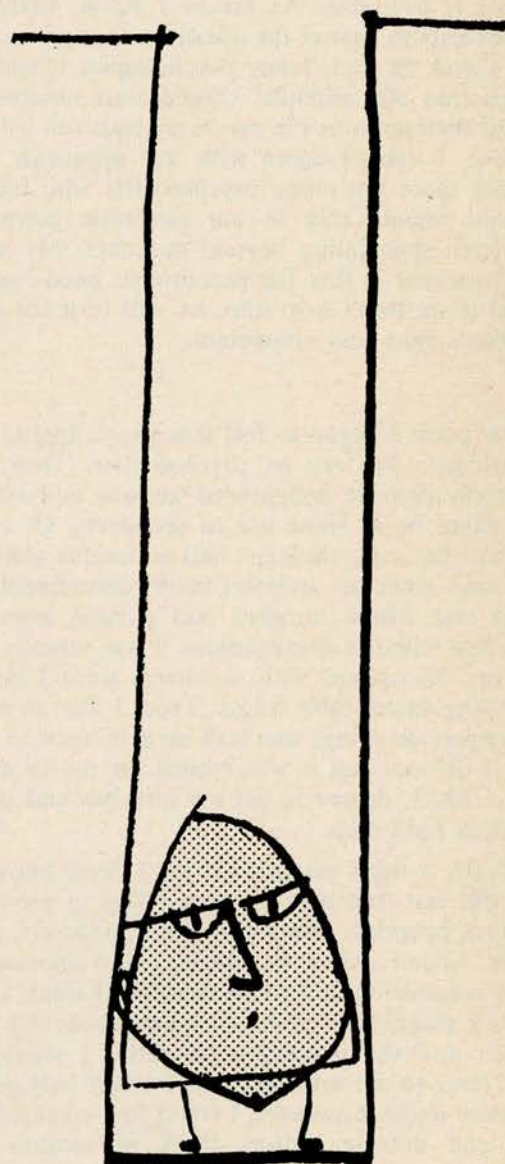
CAN A PSYCHOLOGIST be of any assistance to architects? When this question was first put to me, I took the affirmative unhesitatingly. I recited numerous high-sounding phrases like "the human dimension of building" and "the social consequences of architecture." I buttressed these platitudes with my expertise in such fields as motivation, space perception, instinct, learning etc. My reasoning led to the conclusion that a person couldn't be much of an architect without also being a psychologist. Conversely, psychological writing is rife with architectonic phrases such as "mental structures," "psychological environment," and "fantasy construction." It even seemed possible that a man couldn't be a psychologist without being an architect. My first feeling was that a psychologist could make an almost unlimited contribution to architecture. In fact, I wondered how architects had gotten along without us as well as they had all these years.

by *Robert Sommer, Ph.D.*

Like so many first reactions, my crusade for psychology in architecture was soon replaced by second thoughts and misgivings. My noble impulses remained untarnished, but I didn't know where to start. My architect friends readily supplied the answer when they solicited my help on specific problems. The questions themselves were not very startling, but they were sufficient to set me on my heels. First, I was asked about the color scheme that should be used on a hospital ward for older patients and later about ways of designing a university cafeteria so that it could be used by large groups in the daytime and small groups in the evening. When I started reading about suitable colors for hospital wards, I found a lot of intriguing ideas, compelling theories, and creative intuition, but not much else. Actually I learned that this was one of the few architectural topics covered intensively by psychological investigation since paint companies have sponsored numerous investigations into the effects of color. Still, I found nothing really specific to the problem my architect friend faced. The next step was to ask various people concerned for their ideas. I found that hospital patients picked one color scheme, nurses another, and cleaning men still a third. I also knew that such factors as price and harmony would also have to be considered. Furthermore, this approach seemed a blind alley since it assumed that the patients or the nurses or the cleaning men were competent to judge the most suitable colors for a hospital ward. Even though I had only a sketchy knowledge of color perception and interior design, I felt sure that this was an erroneous assumption. The way people react to a question about color schemes is not necessarily the way that colors will affect them on a hospital ward.

The question of the university cafeteria proved even more frustrating. I knew of no firm evidence about what room partitions would do, and, in fact, I was abysmally ignorant of the kinds of dividers that were available. The only information I could supply came from recollections of my own student days. I tried to remember the university cafeterias I had seen and then generalize about them.

Confessions of a Psychologist

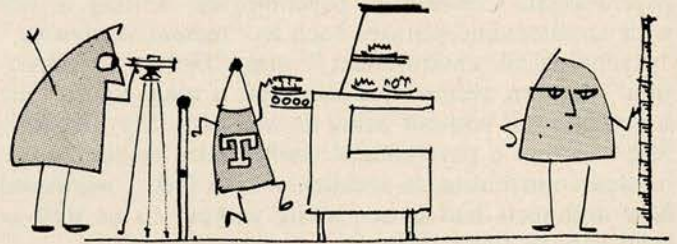


All this left me somewhat discouraged. I began to feel that psychologists could provide no more than enlightened guesses and there was already an ample number of these available. I could see little in the psychologist's training that qualified him to comment on the partitioning of a university cafeteria or the design of a hospital ward. It is true that in both cases I was able to rely on past experiences in the particular settings, and so perhaps my suggestions were as good as anyone else's. Having a Ph.D., for example, does qualify me as somewhat of an expert on universities since a doctor's degree usually means seven to ten years at a number of different schools. However, I felt my suggestions were based on my experiences as a professional student and not as a professional psychologist (a Ph.D. in geology would probably have been just as useful). Basically the problem was one of an almost complete absence of reliable data and research. If I am asked about the possible effects of a broken home on a young child, I am able to say fairly authoritatively that children from broken homes are usually more disturbed than children from stable homes. If a lawyer asks me about the effects of alcohol on reaction time, I am either able to give him the information immediately or I can refer him to various articles where the information is available. As far as I know, nothing of this kind exists to answer the questions that my architect friends asked. In fact, many psychologists would have answered that the architect should wait another fifty years and then perhaps the necessary research will have been done. I cannot agree with this approach, but I know that there are many psychologists who feel that we should remain true to our academic gowns and refrain from speculating beyond our data. My answer to this argument is that the practitioner needs answers *now* and if we don't help him, he will turn for advice to someone even less competent.

At this point I began to feel that psychologists could help architects *but not as psychologists*. They could undoubtedly provide enlightened guesses and conceivably it might be of some use to architects. Of course, this meant that a psychologist had no unique contribution to make since an architect could undoubtedly find someone else whose hunches and guesses were even more in line with his own opinions. I was vitally ready to halt my discussions with architects since I believed I was sailing under false colors. True, I was an expert, but an expert on things that had no relevance to architecture. I did not feel it was ethical for me to use the halo of a Ph.D. degree to get my hunches and guesses accepted as hard facts.

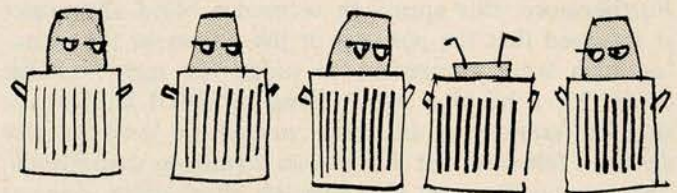
Gradually a third reaction set in. I don't know how long it will last, but it is the way I feel at present. It stems from countless discussions with architects, especially Mr Arthur Allen of Regina, and innumerable hours of rumination and soul-searching. I think I know now how I would answer the questions about the hospital wards and the university cafeteria. I would first make it clear to the architect that I could only provide *information* and not answers. I could find what patients, nurses, and outside visitors think of various color

schemes. I could also design small experiments in which patients were randomly assigned to variously colored rooms and then assess each patient's attitudes after several days in a room. I could also summarize the relevant psychological literature on the effects of color and the relationship between light and color perception. I could present the architect with a detailed analysis of how hospital patients pass their time and the way they feel about their surroundings.



Though I could do any of these analyses, I feel my training is most suitable for the last task—of making an objective and meaningful analysis of people's reactions in particular settings. An example should make this a little clearer. Assume that an architect approaches me and asks about the decor suitable for a bar. If I had ample time and funds, I would proceed to make a fairly comprehensive analysis of the actions and feelings of people in bar rooms situated in the neighborhood where the new bar is to be built. I might find, for example, that the average person spends only twenty minutes in the bar at any sitting; during this time he consumes no more than two drinks; and he goes to a bar to be *with* people rather than to get away from them.

I could gather this information in an objective and meaningful way, using both field observations and depth interviews. I could supplement my observations with those of other social scientists and perhaps even design a brief questionnaire for patrons and bartenders. Throughout the research I would be confident that I was doing something for which my training fitted me. Psychologists, if they know anything at all, are familiar with objective methods for observing and classifying human behavior. Though I may not be able to answer a question, I should know how to find the answer. My chief tool is the scientific method with its reliance on empirical observation and various checks for reliability and observer bias.



My analysis of the setting should provide the architect with a wealth of information about the particular functions that the area serves. The architect need not be bound by anything I have told him, and he would be wise to consider the limitations of each piece of data. For example, although the bartender has very definite opinions about the setting he wants, it is likely that his choice will be influenced by a desire to walk as little as possible. Some time ago when I interviewed nurses about the proper size of hospital rooms, I found they

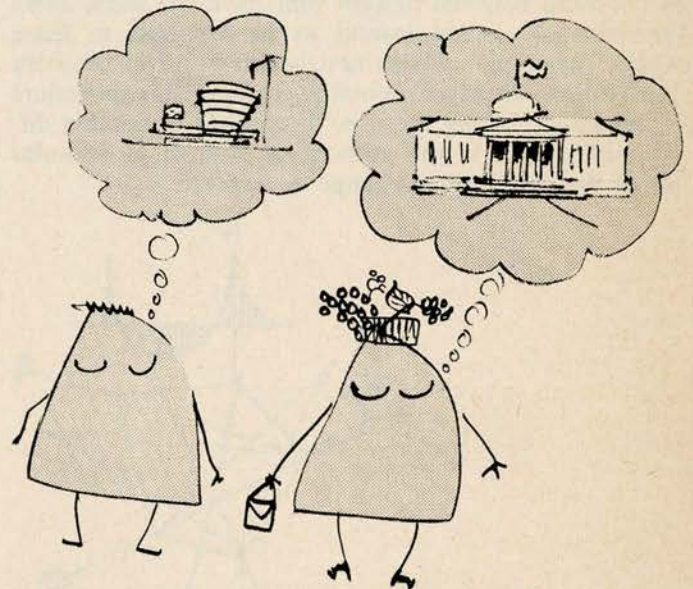
strongly disliked single rooms since it meant more work for them in answering calls and checking patients. Although the architect need not be guided by any one piece of information, it is in his interests to have as much information available as possible. Although he will not design a bar in a particular way *because* the bartender likes it that way, it will certainly help him to know the bartender's opinions about various kinds of arrangements. Making this kind of analysis should lead to a more comfortable relationship between architect and psychologist. Basically the psychologist provides the architect with information on the way people behave and feel in various settings, and then the architect designs the building.

There are several other ways in which a psychologist can help architects, and it might be useful to mention them briefly. First of all, a psychologist knows how to measure people's attitudes in fairly economical and objective ways. He is able to take into account the fact that people are sometimes reluctant to express their opinion and may not be sufficiently articulate to say what they mean in terms that are clear to another person. A related contribution lies in overcoming barriers to communication between architect and client. A psychologist knows that when people of vastly different backgrounds and training come together, all kinds of difficulties are likely to arise. Words will be used in different ways, emotional blocks will appear, and various stereotypes will hinder a fruitful interchange of opinion. This is not to say that a psychologist must give therapy to architect or client, but only that he is able to spot hidden problems, either emotional or semantic. For example, I recall one case where an architect's discussion of the "cells" in one office building offended the client who kept associating the term with prisons.

Although I've probably given the opposite impression, a psychologist does often possess factual information relevant to the architect's problems. In the field of color vision, for example, a considerable amount of basic research has been done. However, not every psychologist will be familiar with this research, and, in fact, unless the psychologist happens to have specialized in a field called psychophysicis, it is unlikely that he will be of much assistance. Less than five per cent of all psychologists possess more than a passing acquaintance with the research on color and emotion, light on color, etc. However, if the architect perseveres, he can probably locate one of the five per cent who *do* know something about color perception, and this should help in designing an effective color scheme. The same is true of acoustical problems. The vast majority of psychologists know little or nothing about acoustics, but there are a few who can give helpful and authoritative answers to the architect's questions. Perhaps as the amount of psychological research increases, more and more psychologists will become knowledgeable on matters that interest architects.

Architects may have some difficulty in accepting the idea that these questionnaire methods can help them in their work. Some will maintain that they are not particularly interested in people's opinions since most people

are not competent to judge architecture. For the most part I would go along with this view, insofar as it rejects the idea of *vox populi—vox dei*. I believe that forty million Frenchmen *can* be wrong and the fact that many New Yorkers don't like the Guggenheim Museum doesn't mean that it's poor architecture. I think the crucial variable here is that the architect should be concerned with the opinions of his customers—those people who will be working, visiting or living in the building. If every secretary in an office building complained that the light inside was so bright that it produced headaches and fatigue, I think it would be ridiculous for an architect to ignore it. Secretaries are definitely competent to say when they have headaches. A husband is also competent to say that he feels comfortable in a certain room or feels that another room is "too big." I think he has more right to say this about his own house than the man who built it has to deny it. I believe there is a tremendous difference between Mr Smith, a passerby, saying, "I don't like the Guggenheim Museum," and Mrs Brown who has visited the



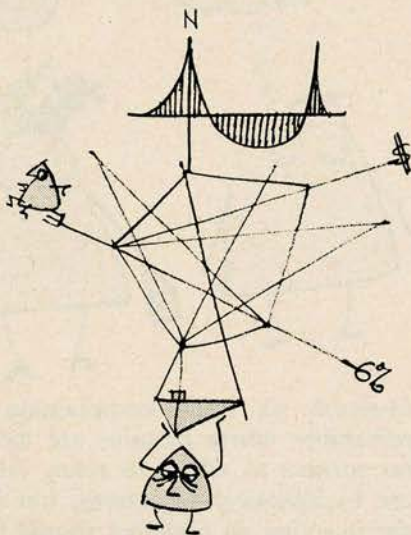
Museum six times complaining that she can never remember where pictures are located because she has no corners to which to refer. All of these, of course, are hypothetical objections, but I think they illustrate the fact that an architect should be concerned with the opinions of his customers, those people who will actually use the building. As a minimum he is responsible for finding out in some systematic fashion what his customers think of the building, regardless of whether or not he agrees with their judgment.

One factor that impedes fruitful collaboration between psychologists and architects is the almost complete absence of reliable data on the psychological effects of different kinds of architecture. For example, there is little proof that pleasing colors produce happier or more efficient workers. We can find that people say that they like some colors more than others, but it is unlikely that we can find any firm evidence that pleasing colors alone result in a significant increase in production, efficiency or morale. Another aspect of the problem was succinctly expressed by Faber Birren, the noted color consultant, who, in a discussion of the amount

of light necessary for various purposes, concluded "enough is as good as a feast." Beyond a certain minimum level of light, the amount of improvement in production or morale is minimal. Undoubtedly this also applies to other design elements. Surveys of different ceiling heights have concluded that there is no firm evidence to justify any particular recommendation. Obviously this refers only to heights above a certain minimum level, which in this case would be a height sufficient to keep a tall man wearing a hat from bumping his head on the ceiling fixtures.

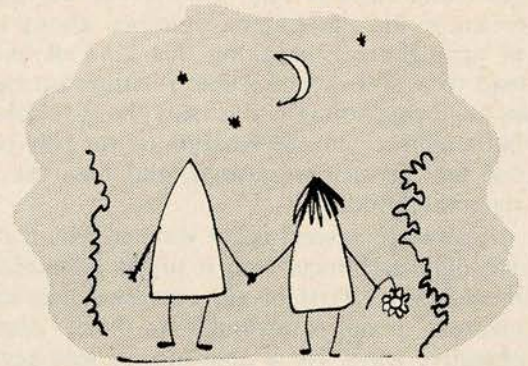
This brings to mind the famous dictum of Professor Edward L. Thorndike that *a difference that makes no difference is no difference*. This is relevant to cases where different designs will have essentially the same effects on a person's behavior, morale, or production.

This does not imply any limitation of experimental psychology or of architecture, but only that the human organism can tolerate fairly wide variations in physical and social environment without any noticeable change in behavior. A psychologist can be of little assistance in choosing between designs that have the same effect on behavior, except insofar as he attempts to learn where a change in design first begins to affect behavior and attitude. In experimental psychology this procedure is known as finding the j. n. d. or "just noticeable difference" which is the amount of change in stimulus input that produces a change in response.



My studies of the way people use space showed that the upper limits for comfortable conversation under the conditions used was 5½ feet. I have no information on whether 4 feet is better than 3 feet or two feet. All I know is that people who are given a choice won't choose distances beyond 5½ feet when they want to converse. Perhaps this is already known by intuitive interior designers (although there is little proof of this since the one textbook that mentions the limits of comfortable conversation gives 8 feet as the optimal distance). The same principle applies to color arrangements. A psychologist may not be able to find a difference between the effects of pastel green and pastel blue, but he can show that black walls will reduce production and increase absenteeism. Yet, if it is true that architects already know these upper limits, there is little need for the precise but cumbersome, expensive,

and time-consuming experimentation of psychologists. Since I have no desire to increase the number of people who already believe that psychologists spend their time proving the obvious, the possibility that there is no real need for determining the point at which differences in design affect behavior should be seriously considered.



If architects already know these limits, by all means this should be made clear to psychologists at the start and it will save a lot of needless experimentation and fruitless bickering. If architects do not tell psychologists what they want to know, they have only themselves to blame when a psychologist returns from his expedition with sparkling iron pyrites and proudly announces a rare and valuable discovery. An architect once sent me a copious document entitled "Requirement Study for an Administration Building of Smithfield Industrial Park" along with a note saying my "comments would be deeply appreciated". This is a good illustration of what I mean since, if I'm not asked specific questions, can I be expected to give relevant and meaningful answers? Although this requirement study was prepared by an intelligent client, I certainly didn't know what comments I should give. Should I examine the client's assumptions, his conclusions, or the architect's design? It seemed to me that I was expected to supply both questions and answers. Under such conditions, if my answers aren't appropriate to the architect's questions, I don't feel that I am culpable. The crux of the matter is that architects will have to begin asking specific questions if they want relevant answers. It is not sufficient to simply hand a psychologist a set of plans, photographs, or specifications and ask for comments. What are needed are specific questions which the architect would like answered.

Along these lines I should mention one important difference between most architects and most psychologists. I have been impressed by the number of architects who are extremely good visualizers. Psychologists, on the other hand, resemble other scientists in that they have very weak visual imagery. In fact, Sir Francis Galton in 1879 found many of his scientific colleagues who doubted that *anyone* possessed imagery. This suggests that many psychologists will be unable to make much sense out of a set of diagrams or plans. It would be preferable for an architect to bring the non-visualizing psychologist a scale model rather than a set of two-dimensional drawings. This difference between architects and psychologists is also reflected by the

nature of their respective professional journals. Psychologists put great reliance on tables and columns of figures while architects use drawings and photographs. I recall sending an article into an architectural magazine and having the editor change my columns of numbers into a set of intersecting curves.

In conclusion, I specifically reject the following kinds of questions as being beyond my competence as a psychologist —

- How large should a dormitory lounge be?
- What is the best color for a child's nursery?
- Should brothers have separate bedrooms?
- Should one room in a house be designated as a family room?

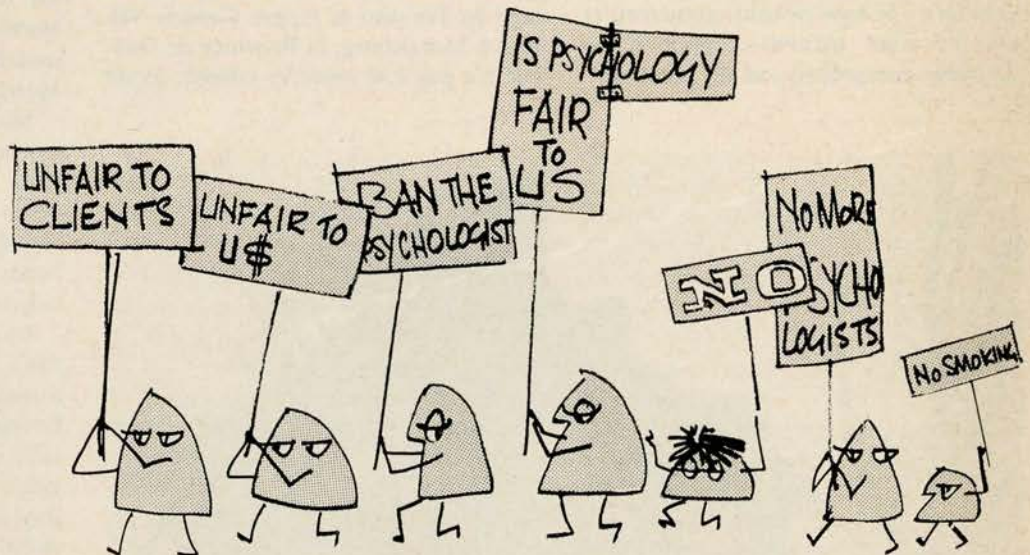
The answers to all these questions depend on a variety of factors, most of them far beyond my competence. Separate bedrooms for brothers *may* foster individuality but may also reduce co-operation—which goal does the family choose? Certainly I should not make the decision for them since both individuality and co-operation are laudable objectives. The same holds true for the size of a dormitory lounge. One set of dimensions will foster cliques, another will build community spirit, so how large it *should be* depends on the goals of the dormitory director. True if I knew the ranking or hierarchy of the director's values, I might conceivably be able to make the decision for him, but so could a calculating machine if all that was required was a simple weighting system for the advantages of each set of dimensions.

Mr. Kyo Izumi who has long been interested in the relations between architecture and the social sciences was kind enough to read an early draft of the article and his comments may clarify some of the issues that have been discussed. He agrees that questions such as "Should brothers have separate bedrooms?" are not of the genre that psychologists can handle. He suggests that what is lacking is recognition in this question that there are many different forms of privacy (visual privacy, acoustical privacy, etc.) and methods for ensuring it in addition to separate bedrooms. Psychologists do have some factual knowledge about the relationship between privacy and mental health (see for example the excellent little book by Paul Halmos, *Solitude and Privacy: A Study of Social Isolation, Its*

Causes and Therapy), but asking a psychologist whether brothers should have separate bedrooms implies a degree of architectural sophistication that few psychologists possess. For questions to be meaningful to a psychologist, they must deal with psychological rather than architectural concepts.

Izumi believes that architects and city planners would be most grateful for information about the psychological and sociological needs of different people. Such information would be especially welcome where the people are infirm, sick, dependent, or otherwise incapable of changing the environment to suit their needs. To a considerable extent healthy people are able to adjust the immediate environment to suit their needs; for example, dividing space with chairs, tables, lamps, and planters to provide a necessary measure of security and privacy, or moving to another part of the room or house to avoid unpleasant sounds, odours, or lighting. The 80 year old man in an old folks home or the bedridden patient in hospital must adjust himself to whatever surroundings are provided. In fact it seems that one important aspect of the patient-role is the acceptance of the hospital environment as given. It is true that he may complain about his room or ward; frequently he is encouraged to do this by relatives and fellow patients, but only rarely will he take it upon himself to change his surroundings. If a person is confined in an institution of any kind for an extended period, the outer world gradually recedes from the forefront of his consciousness. Events within his immediate surroundings, such as the noon meal or the colour of the wallpaper, become magnified out of all proportion. The immediate physical surroundings are of vital concern when a person must spend an extended period in a single place in one position.

This should illustrate the kinds of information that a psychologist can provide. It should not be necessary for a psychologist to become an architect before he can answer the architect's questions. I hope that the tone of this admonition does not seem unduly pessimistic. I only want to emphasize that the psychologist should be able to make his contribution as a psychologist and not as a psychologically-sophisticated but untrained architect.



SKETCHES BY STEPHEN LANGMEAD

Le Village Jacques de Chambly

Par Antoine Prévost

IL SERAIT FACILE à propos d'un projet comme celui qui anime la Corporation du Village Historique Jacques de Chambly, d'égrener la longue liste des arguments qui présidèrent à la naissance du Village Musée, mais l'évidence des raisons qui provoquèrent une telle action est telle, qu'il devient presque présomptueux de parler du chaos s'étendant à travers une Nation qui ne fait que commencer à prendre conscience d'elle-même, du désordre d'une Architecture qui voit de merveilleuses réussites voisiner les pires pastiches, du gaspillage criminel d'un héritage presque complètement abandonné, ou encore du bris quasi total avec des traditions, viables si elles sont comprises, dont l'apport possible si riche, est complètement négligé.

Aux personnes sensibles au cadre dans lequel se déroule la vie quotidienne, il semble en effet superflu d'apporter les arguments qui font regretter, qu'en parallèle à l'éveil d'une économie dont les ressources encore immenses laissent entrevoir un épanouissement presque sans limites, ne se révèle une vraie compréhension de l'esprit dans lequel les bases de cette économie furent jetées, et que celui qui aujourd'hui exprime de façon si hardie ses forces créatrices et sa confiance dans l'avenir, soit si peu soucieux de se connaître et si prêt à oublier ce qu'il était.

Un rapide coup d'oeil à l'étranger nous force à admettre que depuis plusieurs générations déjà, les peuples les plus civilisés ont réalisé que des efforts de conservation intelligente doivent être à la base de tout renouveau et que ce n'est qu'avec l'appui d'une véritable compréhension du passé qu'

on arrive aux solutions contemporaines qui auront force d'avenir.

Les pays Scandinaves, à la fine pointe des réalisations techniques les plus avancées, sont aussi ceux où l'on trouve des ensembles documentaires parfaitement restaurés, et il n'est certes pas nécessaire d'insister sur le fait que le Danemark doit la grande qualité de son artisanat contemporain à la discipline qui força le retour aux sources du passé d'une génération d'artisans.

La France, l'Italie sont des exemples aussi vifs de cette intelligence, qu'il suffit de les nommer pour que les noms d'ensembles bien conservés affluent et qu'on ne sache lequel entre autres citer.

Chez nos voisins du sud, plus jeunes sans doute que nos aînés d'Europe et nos frères jumeaux en plus d'une façon, on a compris depuis plusieurs générations déjà la valeur irremplaçable d'un héritage bien inventorié. Cet inventaire fut sans doute facilité par des conditions économiques plus favorables que celles qui ont présidé à l'épanouissement de notre histoire, mais il n'offre certainement pas plus d'intérêt que celui qui depuis si peu d'années attire l'attention des canadiens.

On a cependant compris aux Etats-Unis que patriotisme et unité nationale dépendent essentiellement d'une prise de conscience qui n'est possible qu'avec la seule conservation des témoins d'un passé glorieux sans doute mais non plus prestigieux que le nôtre.

Qu'en Ontario déjà on soit témoin de réussites telles que le Pioneer Village de Toronto et Upper Canada Village à Morrisburg, la Province de Québec n'a pas à se montrer jalouse, ayant

elle-même depuis nombre d'années déjà, consacré des budgets importants à la conservation d'un patrimoine d'une richesse et d'une diversité remarquables, mais ce que Québec pourrait peut-être regretter c'est de n'avoir pas suffisamment attiré l'attention du public tant canadien qu'étranger au travail remarquable accompli dans ce domaine par la Commission des Monuments Historiques et Sites Artistiques de la Province de Québec.

Inspirés des formules qui assuraient le succès de Williamburg, Deerfield, Sturbridge, Shellburne, etc. . . quelques uns de nos concitoyens formaient au printemps 1962 la Corporation du Village Historique Jacques de Chambly, afin de permettre à tous ceux que cette lacune de notre éducation inquiète, d'apporter leur concours à la création d'un Village Musée qui serve d'illustration à l'évolution de l'architecture et des Arts Décoratifs au Québec du Régime Français et des débuts du régime anglais.

Plus souple dans son organisation que ne saurait l'être un organisme gouvernemental, la Corporation du Village Historique Jacques de Chambly a su acquérir dès les premiers mois de son existence, en plein coeur de la vallée du Richelieu, un site d'une superficie de plus de deux cents arpents.

Au choix de ce site président plusieurs raisons dont la plus importante est l'intérêt historique de la région elle-même.

La beauté même du paysage qui entoure le site d'où s'aperçoivent le Mont-Royal, La montagne de Saint-Bruno, Saint-Hilaire et Rougemont fut aussi un facteur important et surtout le fait qu'il était possible d'acquérir assez de terrain pour isoler le Village Musée du contexte contemporain sans toutefois l'éloigner des abords de la Métropole.

Sur ces fermes abondamment boisées, pourra être recréé l'atmosphère d'un Village Québécois du 18^{ième} siècle sans avoir recours à de difficiles règlements de zonage, impossible aux bords d'une rivière et d'ailleurs encore si mal intégrés à nos habitudes.

En plus de l'acquisition du site du futur Village, et avec l'aide de la Commission des Monuments Historiques, la Corporation compte déjà à son inventaire une maison de ferme du 18^{ième} siècle qui vient s'ajouter à deux maisons qui se trouvaient déjà sur les lieux et qui datent respectivement du 18^{ième} et du début du 19^{ième} siècle.



La Maison de Saint-Hubert

par Claude Beaulieu



QUOIQUE les recherches entreprises afin de dater de façon positive la première maison reconstruite sur le site du Village, n'aient pas encore donné de résultats conclusifs, il demeure que technique et style justifient la date probable de 1775.

Telle que réérigée à Chambly la maison de Saint-Hubert présente l'aspect qu'elle avait sans doute au moment où en prirent possession les religieuses qui s'en servent depuis 1860 comme local d'enseignement; c'est à cette époque en effet que furent installées les lucarnes et la nouvelle boiserie de la porte principale. Ces deux éléments constituent d'ailleurs les seuls changements extérieurs apportés à un ensemble qui conserve encore aujourd'hui son caractère fin 18^{ième} siècle.

La restauration intérieure présentait malheureusement des problèmes plus complexes et certains compromis durent être acceptés pour permettre l'aménagement comme salle d'exposition et édifice administratif.

La démolition systématique révélait en effet la présence successive de trois intérieurs d'esprit tout à fait différent, et le parti pris de conserver les éléments les plus intéressants et les plus repré-

sentatifs de ces trois époques, tout en les liant de façon à créer un ensemble qui puisse servir de fonds à des expositions et ne pas les dominer, était sans doute le seul à prendre dans un cas où il s'avérait impossible de créer un intérieur complet d'une des trois époques, vus les remaniements successifs.

Dans la grand'salle du rez-de-chaussée, le plancher, les âtres, les fenêtres avec leurs linteaux de bois, les poutres moulurées et les armoires à même le mur, ainsi que le crépi blanchi à la chaux, sont très exactement tel qu'ils étaient au moment où la maison fut construite vers 1775.

Le plafond parallèle aux poutres est un revêtement circa 1820 du plafond 1775 qui n'était en somme que le plancher du grenier. A cette époque également furent introduites des cloisons, supprimées en 1860 et un lambris de cheminée que le parti pris de rendre à la pièce son caractère 18^{ième} siècle, forçait à éliminer, d'autant plus qu'il se raccordait à des détails de boiserie éliminés en 1860, et qui n'auraient pu être rétablies.

L'escalier entièrement reconstitué d'après les relevés Traquair de l'escalier

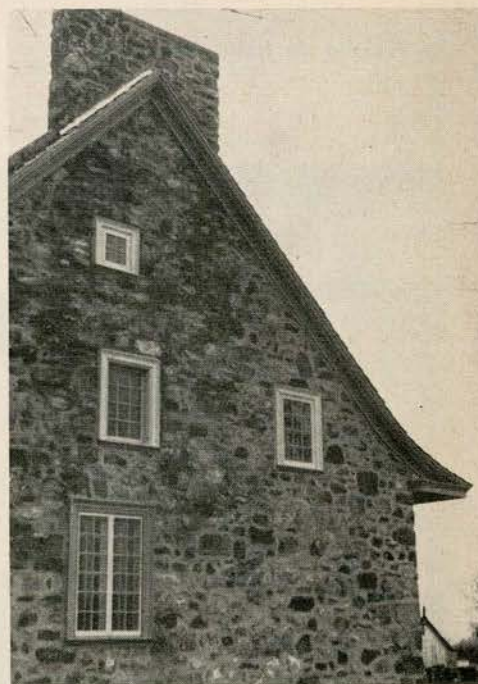
du presbytère de Batiscan représente avec la porte d'influence anglaise l'élément 1860 que forçait d'accepter la cuisine en contre-bas dont les dimensions actuelles sont aussi de 1860.

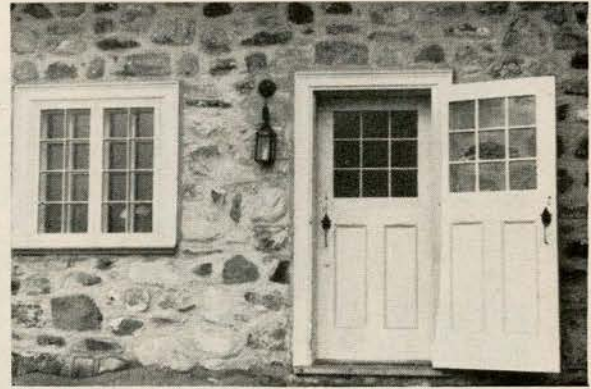
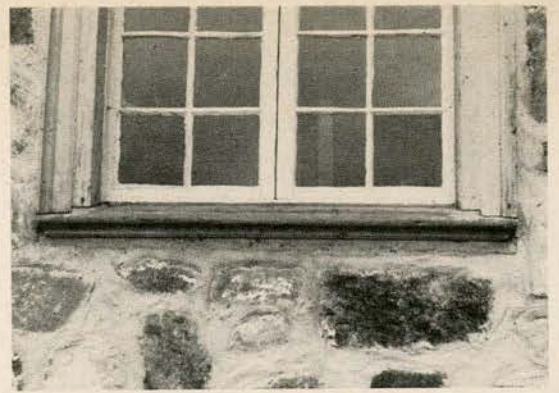
Cette cuisine en rallonge est en somme la dernière étape d'une série de transformations apportées à la laiterie 1775 d'ailleurs beaucoup plus petite, à laquelle de la grand'salle on accédait au 18^{ième} siècle par une porte surbaissée percée dans le mur que longe aujourd'hui l'escalier et qui avait en 1860 été remplacée par une armoire au mur dont la boiserie sans intérêt ne valait pas d'être conservée.

De la cuisine on accède au petit grenier par un escalier très raide qui vient aboutir à la porte qui au 18^{ième} siècle servait d'accès extérieur au grenier principal et par laquelle on hissait le grain et les fourrages, qui à l'origine y étaient entreposés. L'agrandissement 1860 de la cuisine ayant abrité cette ouverture elle sert depuis d'accès entre le petit et le grand grenier.

Des chambres aménagées sous les combles en 1860 et que venaient éclairer les deux lucarnes, tout fut supprimé afin de permettre d'exposer en son entier l'admirable charpente du toit dont les pièces sont d'origine.

La Maison de Saint-Hubert constitue donc non pas un document archéologique complet d'une époque donnée mais, à cause de considérations fonctionnelles, retrace les différentes transformations apportées au cours de deux siècles à une maison de ferme typiquement Québécoise.





La Maison de Saint Hubert





Safety from fires and explosions in hospital operating rooms

by P. J. Sereda

UDC 725.519:614.83

Amid the complexities of hospital design and construction the hazards of fire and explosion in operating rooms may too easily be treated as minor details. These hazards, however, must not be ignored. The Division of Building Research became interested in them in 1953 after receiving an inquiry from a firm of architects about the durability of static conductive flooring for operating rooms.

This article is written primarily for the use of architects and engineers, but hospital administrators also should be aware of the special nature of the equipment and facilities that can be provided. Full advantage of these facilities can be realized only if the operating room staff institute certain procedures and take certain precautions to avoid the sources of ignition of anaesthetic gases.

It may seem strange that in an activity such as surgery, which in itself has great risks attached, there is concern with fires and explosions of anaesthetic gases such as ether, cyclopropane and ethylene in combination with oxygen; these accidents occur at a statistical frequency of one in 80,000 to 100,000 anaesthetics that make use of flammable gases. Statistics, however, do not always reveal a true picture of the importance of some hazards. An accident such as an explosion in the operating room has a great psychological impact upon both the operating room staff and the public at large, the potential patients, not to speak of the liability of the physician and the hospital if such an accident is judged as negligence. The presence of a potential hazard may also add unnecessary stress to personnel already under great pressure and thus hinder their efficiency.

The Hazard in the Operating Room

The potential hazard in operating rooms is associated with the mixture of anaesthetic gases with oxygen or air. Extensive field and

laboratory investigations have been carried out, notably by the U.S. Bureau of Mines, demonstrating conclusively that mixtures of oxygen or air with anaesthetic gases normally used in operating rooms can be ignited by very low energy sources; energies in excess of this minimum are associated with spark discharges such as are produced from electrostatic charges built up on equipment and personnel in operating rooms. This constitutes the chief source of ignition, although other sources such as open flames, arcs and sparks from non-explosion-proof electrical equipment and faulty wiring, as well as incandescent lamps and endoscopes or high frequency cauteries or coagulators have added to the hazard.

How to Achieve Safety

Safety begins with understanding or awareness of a hazard. To achieve it in operating rooms one must educate the operating room personnel: demonstrate that the hazard exists, what factors contribute to it, and the action that can be taken to reduce to a minimum the chances that an accident will occur.

Safety codes are available to assist in the design and construction of equipment and facilities to eliminate or at least reduce the hazard. The National Fire Protection Association has produced such a document, and the Canadian Standards Association has a committee working on another. Only general aspects of the problem can be discussed in this Digest; the reader is urged to study the available literature.

Ignition Sources

Open flames and hot surfaces.—Open flames, lighted cigarettes, heaters and hot plates, hot cauteries, sterilizers, lamps and light fittings, hot instruments such as hot dental syringes, or any surface with a temperature above 180°C are easily recognized as ignition sources. These can be controlled or eliminated with little

effort on the part of the staff. Only vigilance and co-operation are required.

Electrical systems.—Both fixed and portable electric systems and equipment provide many sources of electric spark ignition. Even normal functioning of such equipment as the brush gear of electric motors, switch contacts, receptacles, radio-frequency cutting, coagulating, and diathermy apparatus may result in sparking. There is risk from faulty connections and short circuits on almost all electric apparatus. Sparking may even be electrically induced between objects not directly connected to electric equipment, and there is danger of random or diffuse sparking in electric apparatus and associated objects when radio frequency equipment is used. Hot surfaces can be provided by over-heated components such as cables in which some of the wire strands have broken.

To ensure safety the wiring system and design of electrical equipment should comply with the electrical codes and should be maintained through regular inspection and upkeep. The recommended wiring consists of an ungrounded system, isolated completely from other systems, that can be continuously monitored to detect the presence of faults. Such a wiring system is especially desirable when a static-conductive floor is installed, because of the increased hazard of electric shock. The fact that the system is monitored by means of a ground hazard indicator to give warning when the impedance (consisting of resistance or capacitance) of either or each side of the line to ground drops below 120,000 ohms not only ensures that no serious electric shock can be obtained but also assists in the proper maintenance of the system. Faulty electrical equipment plugged into such a system will immediately cause a warning to be given by the indicator so that the equipment can be taken out of use and repaired.

Electrostatic sparks.—Experience indicates that the most frequent source of ignition of flammable anaesthetics is the electrostatic spark discharge. Surveys of hospitals indicate that there is probably no combination of equipment and personnel activity anywhere more liable to produce casual, dangerous charges of static electricity than that found at present in the anaesthetizing areas of most hospitals.

Although little is known of the nature and mechanism of static electrification, a great store of observation and experience is available to define conditions under which this phenomenon occurs. Generally, any insulating material will exhibit the phenomenon of separation of charges when separated from another insulating or conducting surface. The higher the specific resistivity of the surface and the more intimate the contact, as occurs with very smooth surfaces or by sliding one

surface over another, the more pronounced will be the separation of charges.

A charge held by any body or part thereof is a product of its capacity and the electrostatic voltage. Capacity of most objects is small, and the potentials encountered when there is a separation of charges are measured, therefore, in thousands of volts. If the electrostatic voltage is above 350 volts, there is a definite chance of a spark discharge through the air to some body not similarly charged, provided that body is close enough and has the capacity to receive the charge, as by conduction to ground. Any object carrying a charge can induce one in another object or body in close proximity, especially if the second object is a conductor of electricity. Equalization of the charge to other objects or to ground across a small gap can result in sparks, especially if there is a charge on a conducting object such as a person.

To eliminate static electrification it is necessary to eliminate from use in operating rooms all materials that have high specific resistivity and can be classed as insulators. All items made of ordinary rubber such as sheets, casters, shoes; woolen goods such as blankets; and all items, with the exception of undergarments, made of nylon, orlon, dacron, silk, acetate; and artificial leather and sharkskin should be eliminated from the operating room and replaced by items made of metals, conductive rubber, conductive plastic or cotton. Cotton is safe only when the humidity in the room is controlled at a value in excess of 50 per cent; by virtue of its hygroscopic properties its resistance is a function of the relative humidity in the air; at values of relative humidity in excess of 50 per cent the surface conducts electrostatic charges fast enough to prevent the build-up of dangerous voltages. Cotton can be rendered non-static-producing at low humidity by treatment with anti-static agents. This procedure, however, requires regular attention.

It has been found that resistivity increases exponentially as the relative humidity is decreased to zero. It follows that electrostatic charging is at a maximum at a relative humidity of about 35 per cent, and decreases as the relative humidity is decreased below this value. Thus there is no advantage, and there may be some hazard, in providing some humidity in the operating room during very dry periods, unless it is possible to maintain an adequate humidity of at least 50 per cent.

With a relative humidity of 25 to 35 per cent clean cotton will charge to a higher voltage than synthetic fabrics such as nylon, although nylon continues to retain its charge, even at a humidity of 60 per cent at which cotton does not charge at all. It is important

that all cotton items used in operating rooms should be allowed a minimum of several hours to come to equilibrium with the high humidity before they are used.

Despite efforts to eliminate the presence of insulating materials and to maintain a high relative humidity it must be conceded that some charge may still occur and that a second line of defence is required. It has been found that the provision of a static conductive floor is the most effective safeguard against the accumulation of dangerous electrostatic charges. Each individual must wear some form of conductive footwear, however, and all objects must make effective electrical contact with the floor through static conductive casters, metal leg tips or other grounding devices. To be completely effective everyone and everything must be electrically intercoupled via a static conductive floor at all times during the use of flammable anaesthetics. This implies constant vigilance, inspection (by testing) and a high standard of "housekeeping." Wax or dirt accumulation on the floor and on grounding devices can provide high resistance and cancel the effect of static conductive flooring.

Static Conductive Flooring

The Committee on Hospital Operating Rooms of the National Fire Protection Association has given much consideration to the establishment of safe limits of resistance for a suitable static conductive floor, based on a method of test that attempts to simulate the contact between a shoe and the floor. An upper limit of resistance of 1 megohm was established to ensure the dissipation of electrostatic charges. For this purpose floors with lower resistance or a greater conducting surface are desirable. Because of the hazard of shock in the event of electrical faults in equipment, however, a lower limit of resistance of 25,000 ohms is also necessary. The safe upper limit of resistance may be much higher than 1 megohm; but at the present time a factor of safety is justifiable because the properties of static conductive floors are not too well established, nor is the phenomenon of electrification completely understood.

Common flooring materials do not usually provide sufficient conductivity under conditions of normal indoor use to ensure the dissipation of electrostatic charges. Terrazzo floors with metal gridwork may provide high conductivity near the grid, leading to the possibility of electric shock, but may provide little conductivity, elsewhere. Many other flooring materials such as wood, linoleum and asphalt act as electrical insulators. The problem, therefore, is one of finding a suitable material for the floor or floor covering that will provide an electrical path with a resistance that can be maintained within safe limits.

Ideally, a static conductive floor for use in hospital operating rooms should consist of a chemically and physically homogeneous semi-conducting material that provides resistance within desired limits under all conditions of service. Flooring materials in common use are generally not sufficiently conductive. To make them so it is necessary to mix a conductive ingredient into the non-conductive body of the flooring material. Obviously the particle size and grading of both ingredients should be as fine as possible and the dispersion very uniform to achieve satisfactory results. It is also desirable that all the ingredients are free of water-soluble salts in order that their conductivity is a function of the proportions of the conductive to the non-conductive ingredients only and is independent of such changing conditions of use as moisture content and humidity.

Acetylene carbon black is added to the ingredients of conventional flooring to make many types of static conductive flooring; terrazzo and tile, linoleum, rubber and vinyl plastic, and a variety of static conductive floor coatings such as special mastics or paint are examples. Other static conductive flooring materials rely on soluble salts for their conductivity, and some have metal or metal oxides as the conductive ingredient. All have had some measure of success.

Floor surfaces made up of an aggregation or mosaic of conductive and non-conductive elements pose a question as to the allowable size of the non-conductive element. It is desirable to limit it to ensure satisfactory electrical contact between furniture legs and casters and the floor.

A number of flooring materials of the cementitious type owe their electrical conductivity, in part or in whole, to the presence of soluble salts, oxychloride flooring being a good example. With these floors the resistance is a function of the moisture content of the floor; this is governed by humidity in the air and water added during washing. Since these factors are not normally controllable in operating rooms, the resistance will fluctuate over wide limits. In fact, the lower limit of resistance can be met only under ideal conditions; if any water is spilled on such a floor, the resistance drops to a very low value. In addition, such floors tend to lose their conductivity with time because of the washing away of soluble salts from their surface. These are serious problems that make maintenance of resistance within specified limits difficult.

The durability of most static conductive flooring materials would be improved by the use of a preservative such as wax. Most waxes, however, impair conductivity and cannot be safely used. Although the development of suitable sealers and waxes to preserve such

floors without affecting their conductivity is under study, too little is yet known about them to permit any specific recommendation.

The foregoing discussion has explored some of the practical difficulties in the development of suitable static conductive floorings only from the point of view of safety. The problem for the architect is further complicated by the attention he must give to economics, durability, comfort, and finally to the aesthetic appearance of floors. The author hesitates to put these basic criteria in any order of precedence beyond suggesting that safety, consistent with reasonable economy, should always come first.

Grounding Devices

The necessity of achieving electrical inter-coupling between all items and persons in the operating room has already been discussed. Assuming that a satisfactory static conductive flooring has been installed it remains to complete the circuit to personnel through static conducting footwear and to equipment and furniture through grounding devices such as static conductive casters, metal leg tips or drag chains.

Over the years a variety of static conductive footwear has been proposed and used. Shoes with static conductive soles are reliable but difficult to sterilize. Devices acting as grounding contacts attached to shoes are easily damaged and often do not remain conductive because of accumulation of dirt. It appears that the most satisfactory solution to the problem lies in the provision of a static conductive bootie or slip-on, which can make static conductive contact with the ankle of the wearer through a static conductive plastic or rubber strap and through the sole of the bootie with the floor. These booties can be washed or sterilized and worn over regular shoes. Whatever type of static conductive footwear is used, it should be tested each day while worn to ensure electrical conductivity in the desired range.

Devices used for grounding equipment and furniture to static conductive flooring, whether static conductive casters, metal leg tips or drag chains, must be kept clean and must be checked to see that they actually do complete the electric circuit. This can be done only by regular inspection and test. Such testing can readily be carried out by placing an electrode (type used for flooring test) on the metal part of furniture or equipment and another electrode on the static conductive flooring. In this way both the equipment and flooring may be checked in one operation. In checking an

anaesthesia machine one electrode may be placed on the face mask of the machine and the other on the floor. One ohm-meter should be used to test both flooring and footwear. Specifications for the electrodes and test meters are given in the various codes.

Safety Requirements in New and Old Hospitals

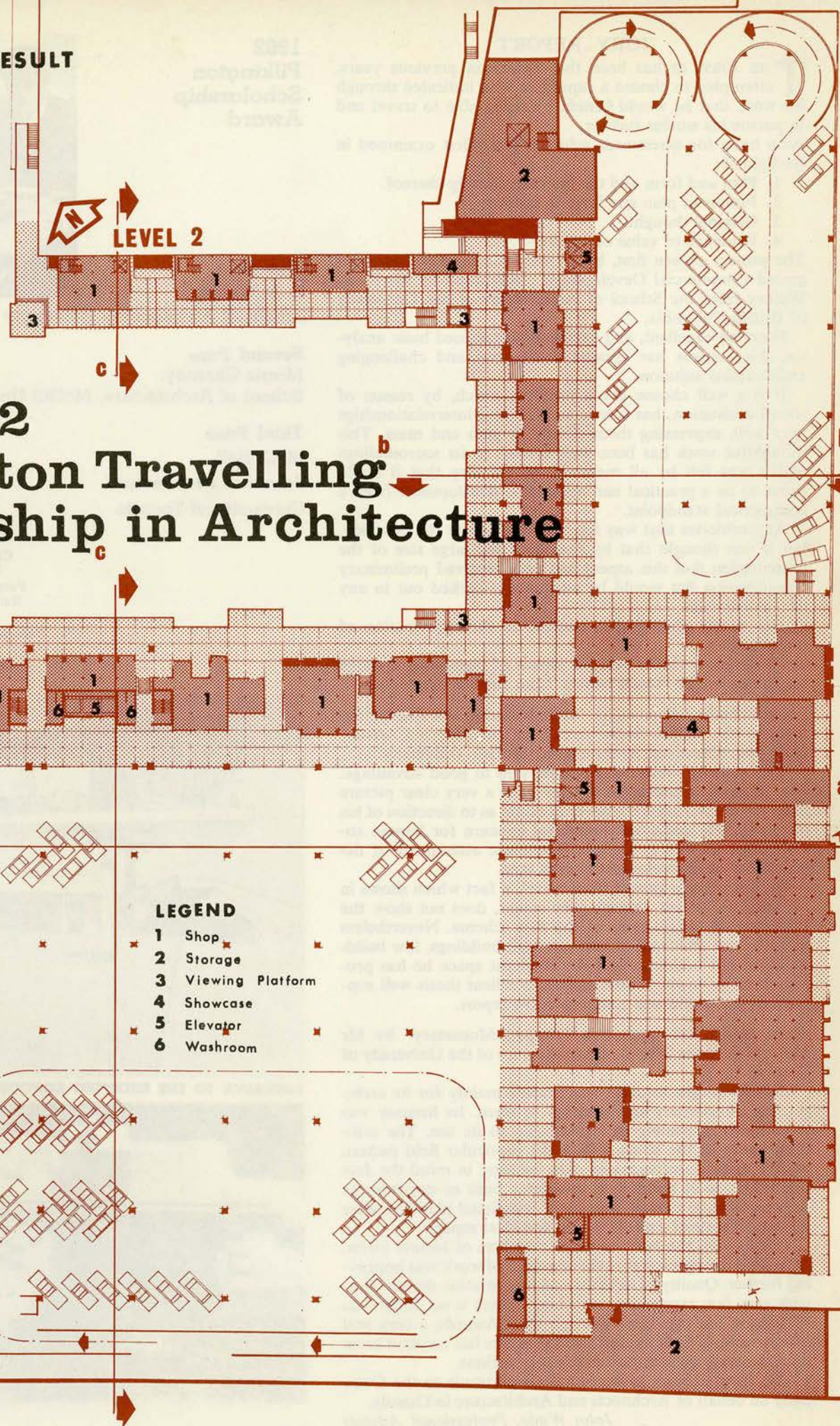
Where safety is involved there should not be two sets of standards; those for new hospitals, which must now meet the safety requirements of codes with regard to electrical wiring and equipment, humidity control and electrostatic control, and those for old hospitals, which were built before such standards were defined, must somehow agree. Now that standards have been set down clearly in the form of regulations and codes it should be the responsibility of hospital administrative staffs as well as the various levels of government — municipal, provincial and federal — to see that these standards are realized in all hospitals as soon as possible.

Humidity control.—The maintenance of high humidity in operating rooms presents design problems in the severe winter climate of Canada. Not only must the walls be insulated to prevent condensation, but adequate vapour barriers must also be provided to prevent excess moisture from accumulating in the walls and causing frost damage. Windows present the greatest problem from condensation; one solution eliminates them from operating rooms entirely. These problems can be solved during design and construction in new hospitals, but in old hospitals the solution may require considerable adaptation.

Housekeeping and equipment maintenance.—In discussing the various means for eliminating ignition hazards, the importance of a high standard of housekeeping and maintenance cannot be over-emphasized. Such standards can be maintained only through frequent inspection and testing according to a schedule. This should include checking all precautionary measures, and should be the responsibility of one person, with the administrative staff of hospitals in charge of organizing the necessary inspection and testing.

Education and training.—It should be the responsibility of the administrative staff to organize a program of instruction through posters, signs and lectures or demonstrations in the safe handling and use of anaesthetic gases and oxygen. All efforts to design and construct safe equipment and facilities can be nullified by one careless or thoughtless act. Safety is like a chain—only as strong as the weakest link.

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The 1962 Pilkington Travelling Scholarship in Architecture

- LEGEND**
- 1 Shop
 - 2 Storage
 - 3 Viewing Platform
 - 4 Showcase
 - 5 Elevator
 - 6 Washroom

JURY REPORT

THE JURY, as has been the custom in previous years, attempted to choose a candidate who indicated through his work that he would benefit by being able to travel and to pursue his studies further.

As a basis for assessment schemes were first examined in the light of:

1. Plan and form and the interrelationship thereof.
2. Fitness of plan and form to purpose.
3. Original thought.
4. Evidence of value of report.

The project chosen first, by a close margin, was "An Integrated Commercial Development", submitted by Mr R. B. Walkey from the School of Architecture of the University of British Columbia.

From an excellent, and excellently explained basic analysis, this student has created a vigorous and challenging architectural solution.

It is a well chosen thesis problem which, by reason of sound evaluation, has solved its planning interrelationships very well, expressing them clearly in plan and mass. This thoughtful work has been well related to its surroundings and it was felt by all members of the jury that it could prove to be a practical and acceptable development from a commercial standpoint.

Any criticism that was felt was directed at the detailing, but it was thought that by reason of the large size of the presentation that this aspect had only received preliminary consideration but would be adequately worked out in any final realization.

The model photographs assisted in the appreciation of the scheme.

This student shows every evidence of possessing creative originality which would benefit from further experience.

Second choice was given to: "Rehabilitation and Redevelopment in the Milton Street Area", by Mr Morris Charney, from the School of Architecture, McGill University.

This student could use a Scholarship to good advantage. His delightfully presented scheme gave a very clear picture indeed and the Jury were never in doubt as to direction of his proposals. He indicated thoughtful concern for human environment as well as a sound economic assessment of the possibility of redevelopment in the area.

He has already gained from travel, a fact which shows in his solution, which, though very sound, does not show the fundamental creativeness of the first scheme. Nevertheless his excellent relationship between high buildings, low buildings and old buildings and the resultant space he has produced, all go to the creation of an excellent thesis well supported by a sound and comprehensive report.

Third choice fell upon; "A Trapped Monastery" by Mr M. C. Hall of the School of Architecture of the University of Toronto.

This forthright solution was praised mainly for its architectural consistency and strength of form. Its honesty was particularly appealing in relationship to its use. The criticisms were of the siting within the particular field pattern and of minor confusions in plan, bearing in mind the fact that this type of building is invariably built in stages by its own occupants. Certain aspects of functional planning were missing in spite of a most concise and clear report.

Once again, the Jury, through members of former juries, expressed the opinion that the standard of work was improving further. Quality of exhibits and presentation thereof was, with very few exceptions, very high. There is no doubt that Pilkington has provided, through their Awards, a very real incentive for Thesis students and that this has resulted in an increasingly high standard in the submissions.

The Jury all wish to express their gratitude to the Company on behalf of Architects and Architecture in Canada.

John Wade, Professional Adviser

1962 Pilkington Scholarship Award



First Prize

R. B. Walkey.

School of Architecture, University of British Columbia

Second Prize

Morris Charney.

School of Architecture, McGill University

Third Prize

M. C. Hall.

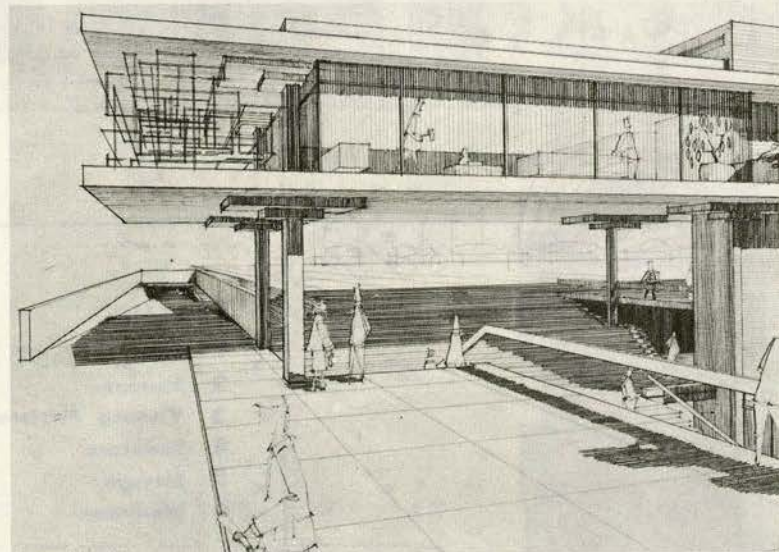
School of Architecture,
University of Toronto

The Jury

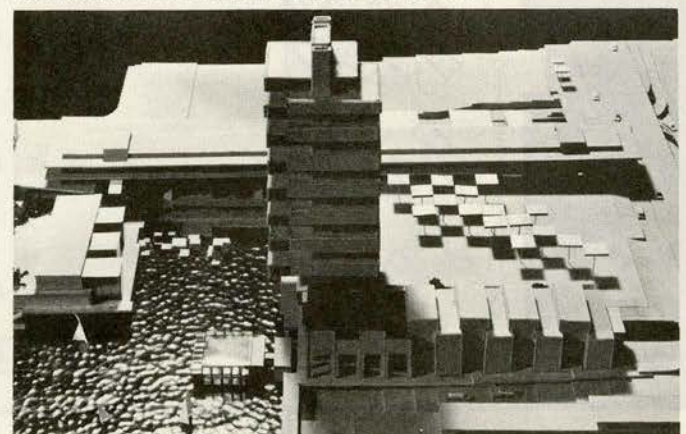
John Wade
Professional Adviser
Catherine Wisnicki
McGill University

Peter M. Thornton (F)
University of Manitoba

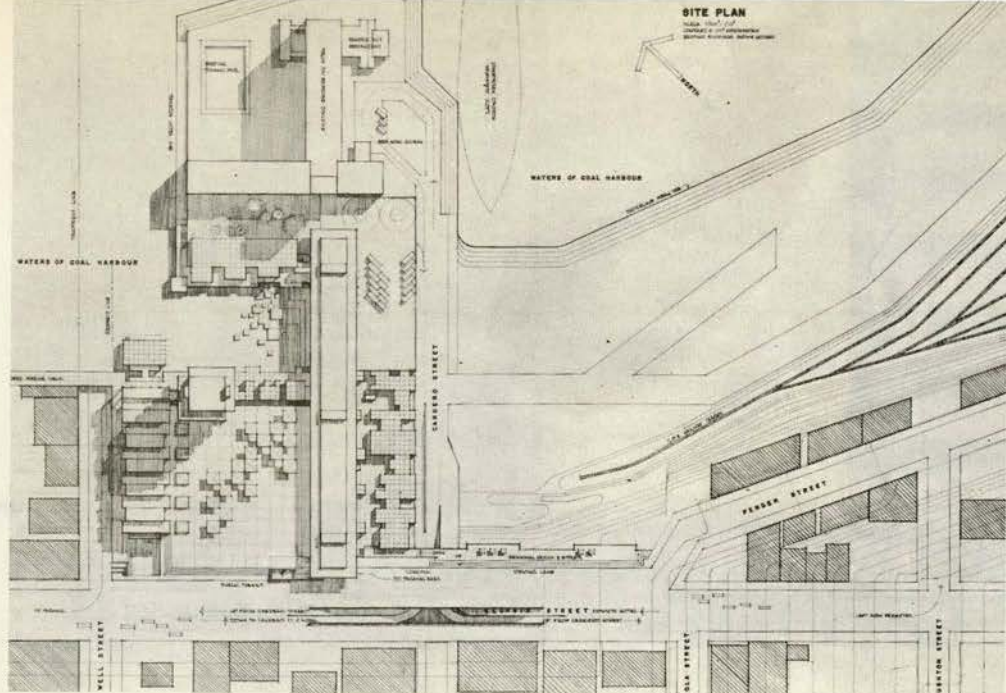
R. Affleck
University of British Columbia
C. E. Pratt
University of Toronto



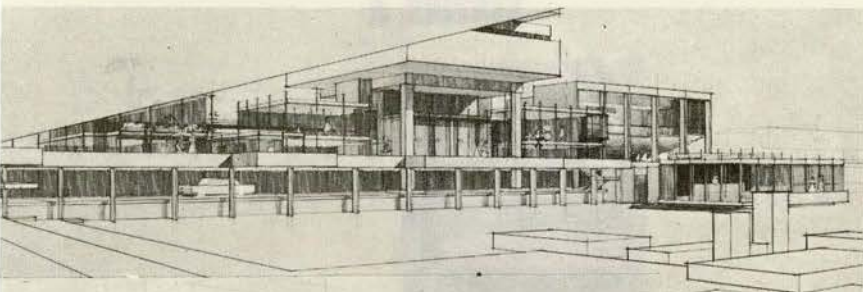
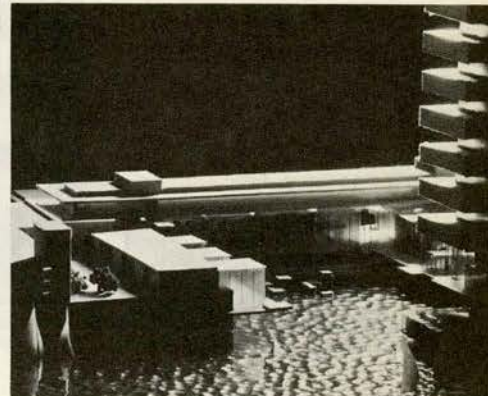
ENTRANCE TO THE SHOPPING CONCOURSE



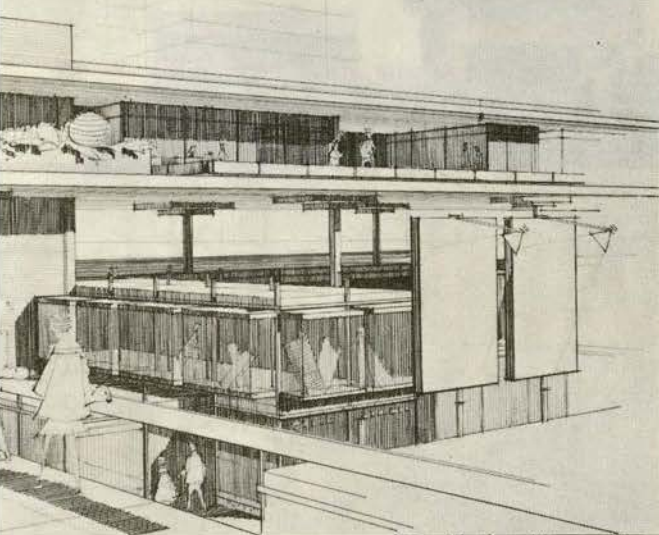
SITE PLAN



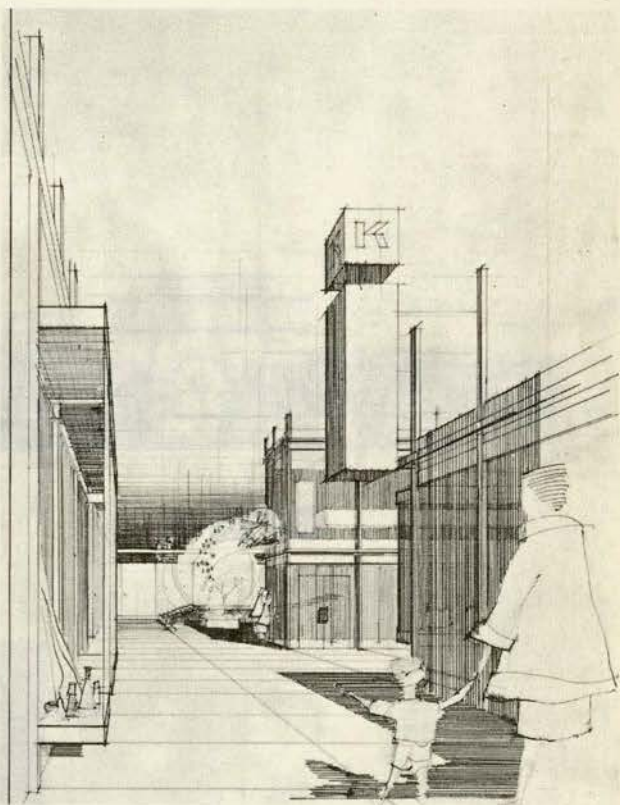
SITE PLAN



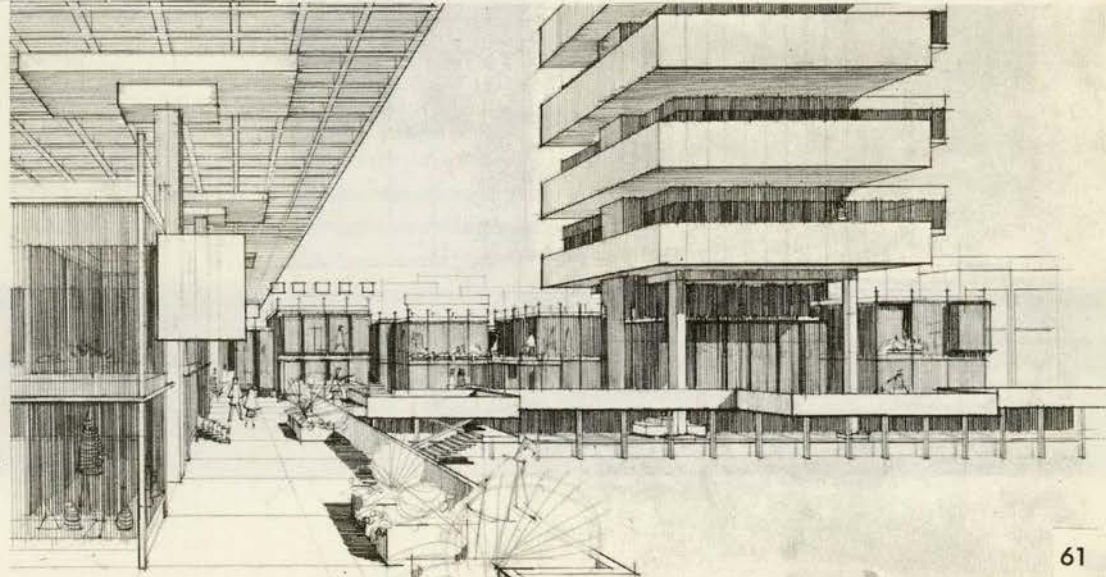
VIEW FROM THE RESTAURANT

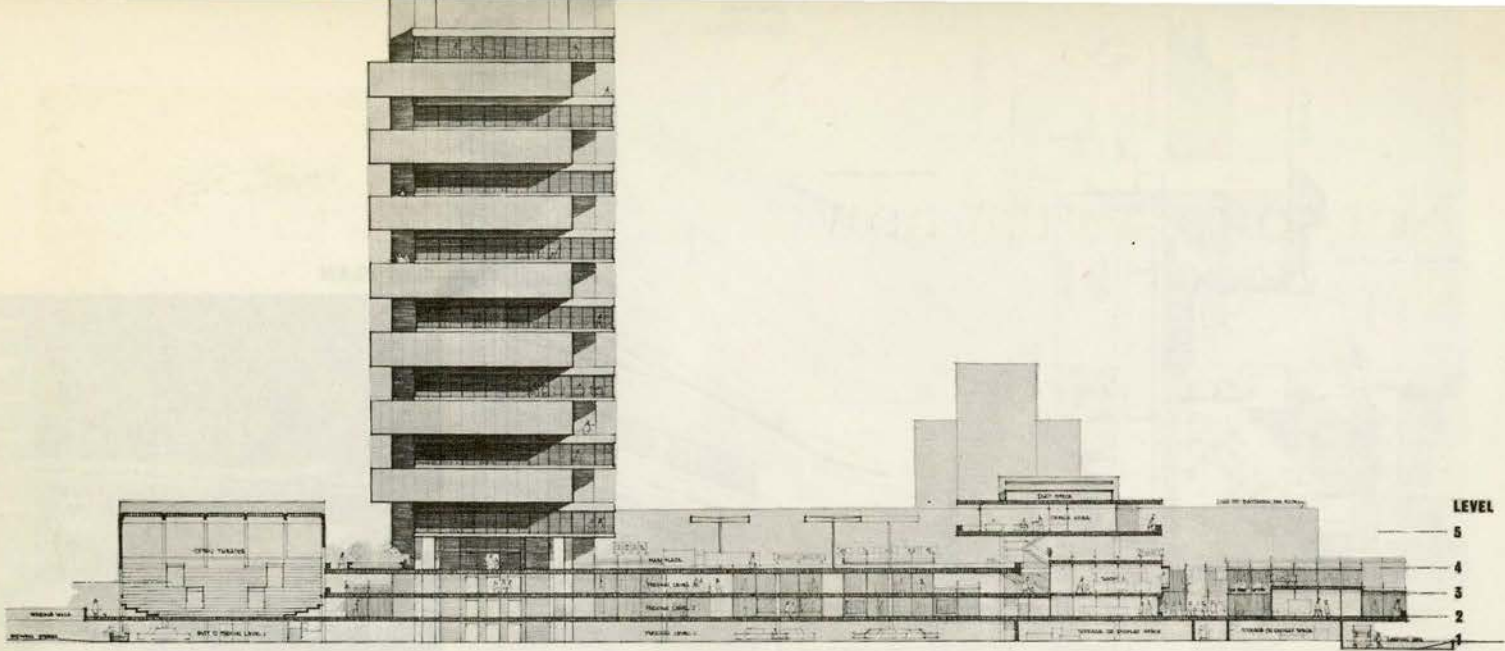


VIEW SOUTH ALONG THE SHOPPING CONCOURSE

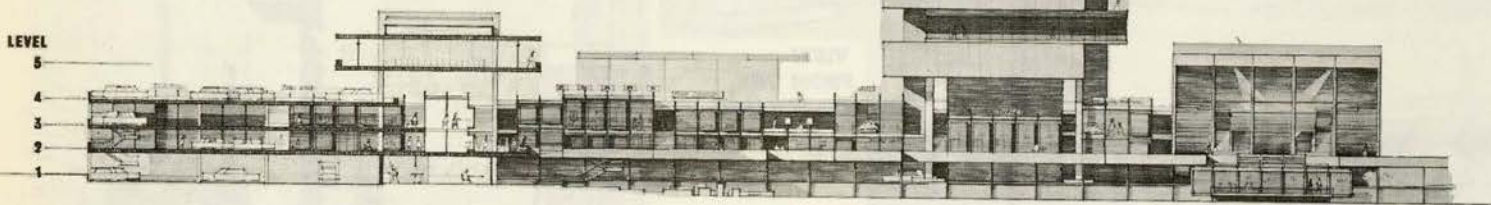


LOOKING TOWARDS THE OFFICE TOWER

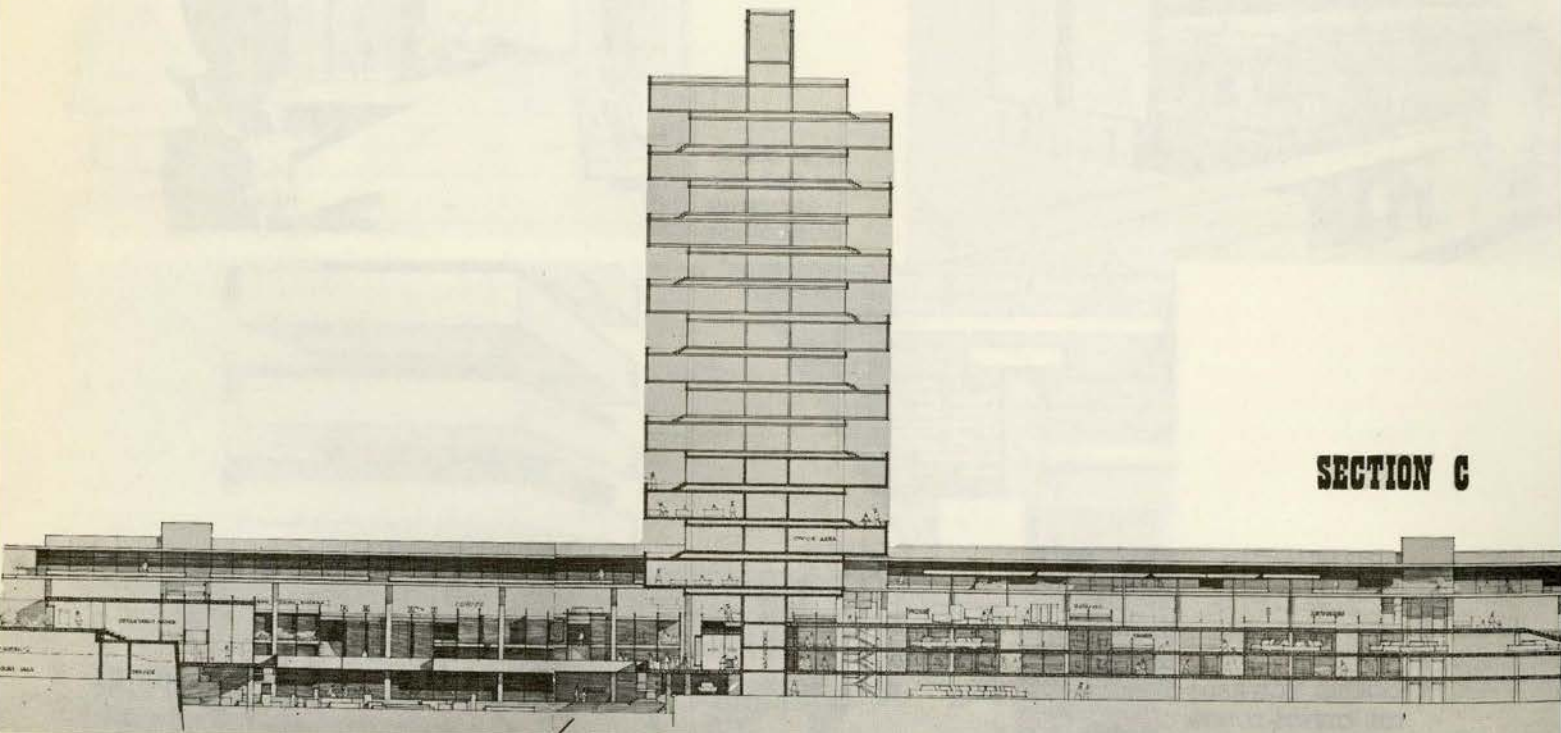




SECTION A



SECTION B



SECTION C

Not so forgotten now

BY H. T. DOUGLAS

Born in Ottawa, and a graduate in medicine of McGill University, Dr. Douglas served with the British Army as a medical officer in the First World War, and afterwards with the Canadian Pension Commission. Upon retirement he developed an interest in the history of Ottawa and its region and became a prominent member of the Ottawa Historical Society. He has done considerable research and written several articles on local history and contributed to the research program of the Information and Historical Division of the National Capital Commission.

IN THE OTTAWA *Citizen* of March 13th, 1958 an article headed "Forgotten Architects" gave the story of Stent and Laver, the pair of architects who prepared the original design for the East and West Blocks of the Parliament Buildings at Ottawa. Concerning these two men, much more information has come to light.

Thomas Stent was born in England, but previously it was not known where. It is now known that he was born in Warminster, Wiltshire, on February 1st, 1822, the son of John Stent, a builder, and his wife Youstiss Stent. From the age of 18, for four years, Thomas studied architecture in Bath. One of his completed designs is the Town Hall in Yeovil, Somerset.

In 1855 Thomas Stent, with his wife and seven children came to Canada, and seemingly went direct to London, Upper Canada. The London City Directory for 1856-1857 shows the firm of Samuel Peters and Thomas Stent, Civil Engineers and Architects. Stent's name is still present there in Lovell's Directory of 1857-1858. It appears however that in the latter part of 1858 Mrs Stent and her children were in Toronto. Stent was evidently in Ottawa, doing work with Augustus Laver as a partner. In November the firm wrote to the City Council in Ottawa about their Bird's Eye View of the city.

In March, 1859, Stent moved his family to Ottawa. In September of that year the designs of Messrs Stent and Laver were accepted for the East and West Blocks, and the firm were supervising architects for those buildings until the temporary suspension of operations at the end of 1861.

It has been said that Stent and family lived on Maria Street, at what is now 575 Laurier Avenue West, a stone house. This statement may be true. In a declaration made by Stent early in 1861, he says he is living in a stone house in Wellington Ward, but does not give the street. Later in the year the City Directory says that Stent resides on Maria Street near Percy Street. It is possible that 575 Laurier Avenue West was the Stent home of 1861.

In 1863 there was reorganization of the building arrangements for the Parliament Buildings, and Thomas Fuller, the designer of the Center Block, was placed on annual salary as a Supervising Architect, as was C. Bailargeon, for all three buildings. Then, on completion of



Thomas Stent, 1822-1912

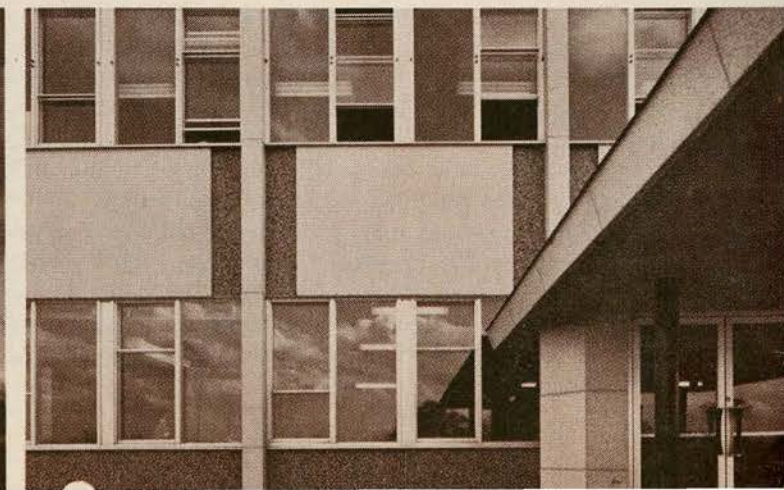
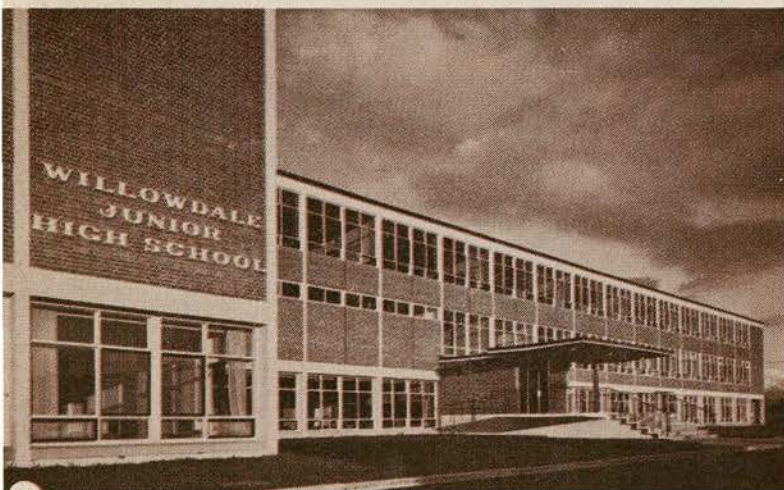
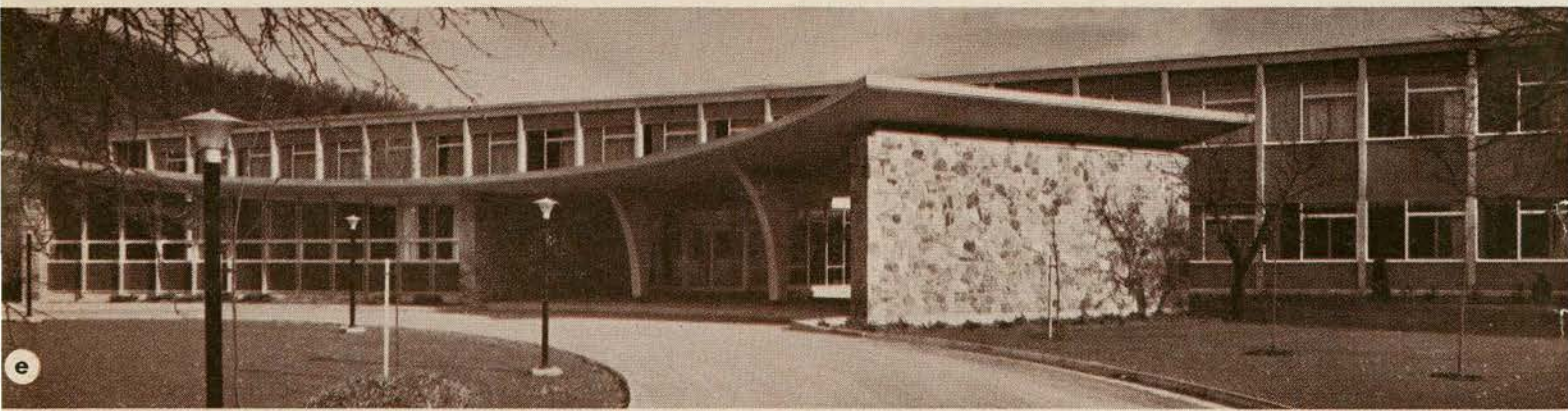
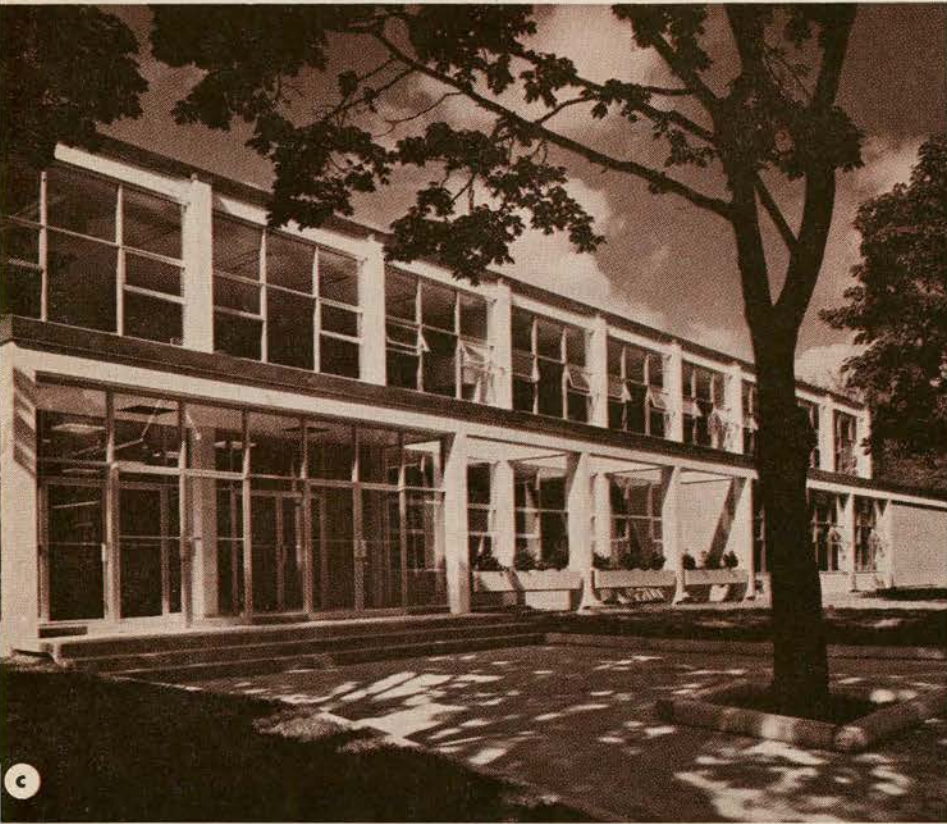
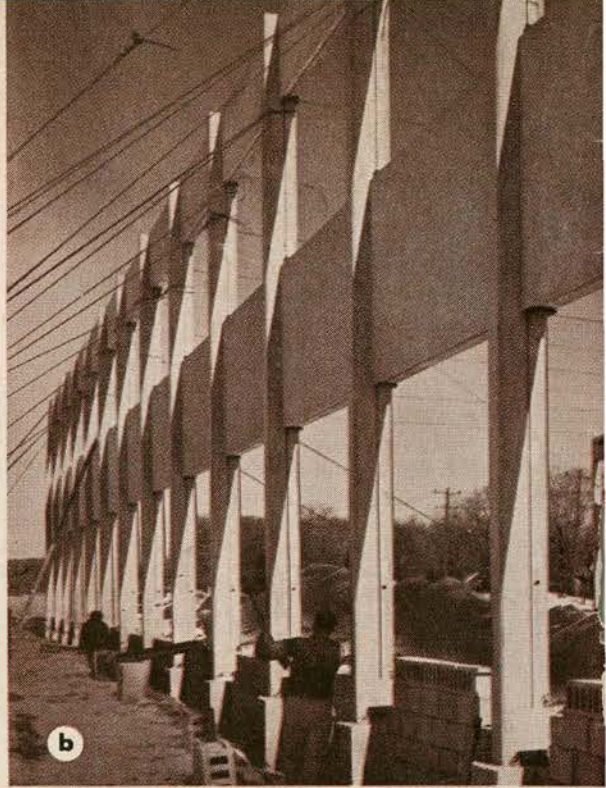
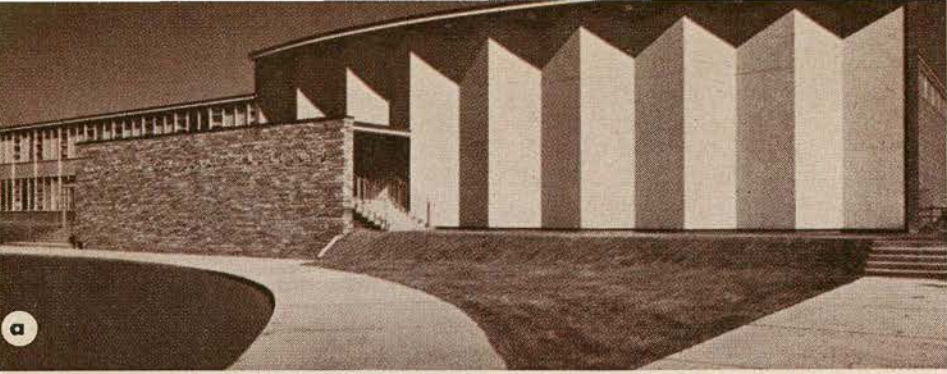
the buildings in 1865, Laver entered practice with Fuller, the firm being Fuller and Laver. There are documents to show that Stent was not idle; he may have done some work for the government at Levis. However, about September 1st 1866 he and his family moved to the New York area. He had his home in Newark, NJ, but his office was in New York. Besides his office in New York, he had a temporary office in St Louis for a time. He is said to have designed the Merchants Insurance Building in Newark. His son, Edward Stent, became a distinguished architect in his own right.

In March 1895 Thomas Stent located in Los Angeles, and seems to have done some work there. He is written up in Guinn's Historical Records of Los Angeles, 1901. Late in life he made designs for the State Capitol in Montana, winning third prize out of a field of 59. He gave his plans to the State. Thomas Stent died September 20th, 1912, in Los Angeles, and his remains were cremated there.

It has been thought by many that Augustus Laver was born in the United States. This is not the case however; — he was born in England, and probably was married there before he reached Canada. Just when he came to our country is not known, but probably not long after Thomas Stent; in any event they were together in Ottawa in the summer of 1858. In the early part of 1861 Laver and his wife were living in the Victoria Hotel, the forerunner of the present Victoria Building, at the corner of Wellington and O'Conner. The Lavers do not appear to have had children at that time, although they had children later. The 1864-1865 Directory shows the Lavers residing on Victoria Terrace, Richmond Road. It might be added that Augustus Laver was ten years younger than Thomas Stent.

As previously stated Laver joined Fuller by 1866, and not long afterwards these partners designed the State Capitol at Albany. From 1873 Laver was in practice in San Francisco. His name is last found in the San Francisco Directory in 1897.

It is proper to say that a great part of the information about Thomas Stent has come to Ottawa from Mrs Edward N. Stent, of Jenkintown, PA, whose husband is a descendant of Thomas Stent.



INSTITUTE NEWS

Product Literature Competition Award Certificates Presented

The first competition for Excellence in Building Product Literature conducted by the Canadian Joint Committee on Construction Materials was brought to a successful conclusion at Ottawa on July 5th when representatives of winning companies were presented with Certificates of Merit at a dinner given by the Committee. The joint Committee is a national organization sponsored by the Royal Architectural Institute of Canada, the Canadian Construction Association and the Association of Consulting Engineers of Canada.

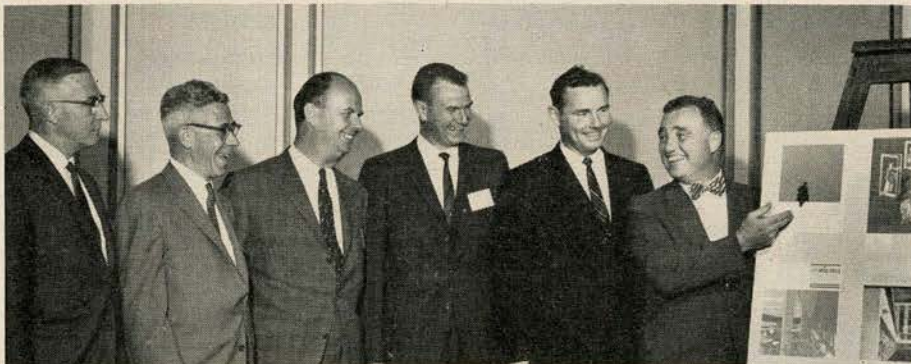
Brief addresses outlining the nature and purposes of the competition were given by John L. Davies (F), Vancouver, President of the RAIC; Hugh R. Montgomery MEIC, Montreal, President of the CCA and J. Edgar Dion P.Eng, Montreal, President of

the Association of Consulting Engineers of Canada. The presidents shared the pleasant duty of presenting certificates to the company representatives present. Ernest J. Smith, Winnipeg, Chairman of the Joint Committee, presided, and expressed the great satisfaction of the three sponsoring organizations at the success of the first competition.

P. T. M. Barott (F), Montreal, Chairman of the 1962 jury, outlined the procedures followed in establishing and conducting the competition and thanked manufacturers, advertising agencies and the three sponsoring organizations for suggestions to improve the competition future years.

The 1962 competition attracted 93 entries and resulted in the awarding of 22 certificates and ten honorable mentions. (*RAIC Journal*, May, 1962, page 73.)

It was announced that the 1963 competition would be held in the spring and that the display of entries and presentation of 1963 awards would take place at the 56th Annual Assembly of the RAIC, which will be held in Hamilton, Ontario, May 22nd - 25th.



From left to right: J. Edgar Dion, P.Eng., Montreal, President, Association of Consulting Engineers of Canada; Hugh R. Montgomery, MEIC, Montreal, President, Canadian Construction Association; John L. Davies, FRAIC, Vancouver, President, Royal Architectural Institute of Canada; R. E. Briggs, MRAIC, Toronto; E. J. Smith, MRAIC, Winnipeg, and P. T. M. Barott, FRAIC, Montreal, Jury Chairman.

Montrealer Represents RAIC at International Conference

Jean Dampousse, Montreal, a member of the PQAA Council, has been appointed by the Canadian Government to serve as a representative on a Canadian delegation attending the International Educational Building Conference, being held in London from July 25 to August 2, under the joint sponsorship of UNESCO and the British National Commission for UNESCO. The purpose of the conference is to consider problems involved in sharing among the member states of UNESCO the limited resources of professional, technical and administrative skills which are essential in developing educational building programs from

the primary stage to post graduate level. The conference will also deal with a scheme for setting up a permanent organization for international collaboration in educational building with particular reference to research and to the needs of developing countries.

CMHC Grant to RAIC for Study of Zoning for Residential Areas

The RAIC has received a grant of \$7,500 from CMHC under Part V of the National Housing Act to conduct a study of the objectives and formulation of zoning and building by-laws in residential areas. The purposes of the study is to set out logical principles which should guide municipalities in drafting their own by-laws.

Look what's happened to the little red schoolhouse!

The extensive influence of precast concrete is illustrated in these seven school buildings built in the last four years. Foremost school architects claim current designs are primarily in precast concrete and its versatility will be further exploited as experience grows. Chief advantages they list are design flexibility, durability, fast erection, minimum maintenance and competitive cost, particularly on schools over \$500,000, where fire marshal requirements increase.

- a. **Mo-Sai Wall Panels and Precast Frame** — Addn. W. A. Porter Memorial Collegiate, Scarborough — Architects: Coleman & Rankin — Engineers: C. D. Carruthers & Wallace
- b. **Precast Frame and Mo-Sai Beam Panels** — Wm. G. Miller Public School — Architect: Peter Dickinson Assoc. — Engineers: M. S. Yolles & Assoc.
- c. **Precast Structural Frame** — Pauline Ave. Public School, Toronto — Architects: Craig, Madill, Abram & Ingleson — Engineers: M. S. Yolles & Assoc.
- d. **Precast Frame, Floor and Roof (®Stresscore)** — Waterloo Arts Bldg. — Architects & Engineers: Shore & Moffatt and Partners
- e. **Precast Frame and Mo-Sai Beam Panels** — Parkside High School, Dundas — Architects: Kyles & Kyles
- f. **Precast Structural Frame** — Willowdale Junior High School — Architects: Page & Steele — Engineers: M. S. Yolles & Assoc.
- g. **Mo-Sai Wall Panels and Column Covers** — Woodroffe High School, Ottawa — Architects: Hazelgrove, Lithwick, Lambert & Sim — Engineers: J. Klassen & Associates Ltd.

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Council on Urban and Regional Research Granted Funds for Work

The recently organized Canadian Council on Urban and Regional Research, established as a result of the Report of the RAIC Committee of Inquiry into the Design of the Residential Environment, is now assured of funds over the next five years to launch studies into local and regional problems. CMHC is making \$78,000 available out of Housing Act funds between now and December, 1963, and the Ford Foundation is granting \$500,000 over a five year period. The Council, whose chairman is Peter Dobush (F), Montreal, is now advertising for an executive director and a research officer.

Divisions of Building Research Reorganized in Two Sections

A new orientation of its building materials research work has been announced by the Division of Building Research of the National Research Council. Effective 1 July 1962, this work will be carried out in two Sections of the Division, instead of in one as has been the case up to now. Buildings Materials Organic, and Building Materials Inorganic, are the titles of the new Sections. They are

in charge of E. V. Gibbons and P. J. Sereda respectively. Staff of the previous combined Section, the largest in the Division, has been split evenly between the two new groups; there are no changes necessary to the existing well equipped laboratory facilities.

Revisions to Housing Standards

The Housing Standards Canada, 1962, which now form an integral part of the National Building Code, will be reviewed annually in July. Any proposed revisions to the Standards resulting from this review will be available by mid-August. Anyone interested in obtaining copies of the proposed revisions should write to: The Secretary, Associate Committee on the National Building Code, National Research Council, Ottawa 2. Comments on the proposed revisions are invited and are to be submitted to the Secretary by 3 September, 1962.

Temperature Frequencies for Air Conditioning Design

In answer to the increasing demand for temperature and humidity data for Canadian cities, the Meteorological Branch of the Department of Transport has published a book entitled, "Percentage Frequency of Dry and

Wet Bulb Temperatures from June to September at Selected Canadian Cities" by C. C. Boughner. (Queen's Printer cat. No. T57-2/5, price 75¢). These tables will be of special interest to those engaged in air conditioning design work who want to select their own design temperatures.

Positions Vacant

Retired architectural contact man to call on architects part time or few days a week, to introduce high quality line of aluminum railings. No selling, estimating nor order taking. Compensation for each call, no commission. Can supplement social security income. Openings in most major cities. Blumcraft of Pittsburgh, 460 Melwood Street Pittsburgh 13, Pennsylvania.

Positions Wanted

Employment in Canada wanted by an Indian Architect, Graduate of School of Architecture, Birmingham, England, 1959. Three years professional experience in England and two years in India. Harbans Singh Grover, Dip. Arch. (Birm.), ARIBA, AIIA, L-38, Connaught Circus, New Delhi 1, India.

Partnership

Architect, 10 years practice Western Europe, 7 years practice Toronto area, is considering to share work with partner. This partner should have Canadian experience and business relations. Letters will be treated confidentially. Box No. 108, *Journal RAIC*.

Associate or Partner Wanted

Architect with growing practice established in 1952; located in expanding city of 60,000 persons, is seeking a registered architect as an associate or partner to assist in developing existing business. Anyone interested in such an opportunity please write Box 109, *Journal RAIC*.

Announcements

Wilfrid B. Lamb, MRAIC, announces the establishment of an architectural practise at 350 Princess Avenue, London, Ontario, and will be pleased to receive manufacturers' literature at that address.

Mr J. C. Van Huyse, B.Arch. has commenced private practice at 91 Kenhar Drive, Weston, Ontario.

Howard L. Bouey (F) and Robert F. Bouey announce the establishment of an architectural practice under the name of Howard and Robert Bouey, at 212 Windsor Building, 8631 - 109th St., Edmonton.

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REGISTRATIONS

Ontario Association of Architects

15 July 1962

Atkins, Brian Thomas Edwin, B.Arch., ARIBA. (L'pool). 52 Dunelm Street, Scarborough, Ontario. *McNamara Engineering Ltd.*

Cowan, Harvey, B.Arch., 112A Avenue Road, Apt 3, Toronto. *Gerald Robinson.*

Januszewski, Tomasz Maria, B.Arch., (Hons.), MCD., AMTPIC. 72 Madras Crescent, Scarborough, Ontario. *Ontario Department of Economics & Development-Housing Branch.*

Kapsi, Taivo, B.Arch., (Wegman Scholarship). 166 Highbourne Road, Toronto. *V. Revell & Co.*

March, Ronald John, ARIBA. Apt 403, 807B Frederick Street, Kitchener, Ontario. *Snider and Huget.*

Milne, Ronald James, B.Arch. 15 Country Club Drive, Islington, Ontario. *Gorden S. Adamson & Associates.*

Rasins, Peter, B.Arch., (OAA Second Year Scholarship, Booth Brick Prize). 84 Hillsdale Avenue East, Toronto 7. *Richard Y. Lee.*

Seligman, Seymour A. J., B.Arch., 18 Green Valley Road, Willowdale, Ontario. *Keith S. Dick.*

Stevens, G. John, B.Arch., 160 Wincott Drive, Weston, Ontario. *Architects' Partnership.*

Tameanko, Marvin, B.Arch., 28 Frankton Crescent, Downsview, Ontario. *Page & Steele.*

Williams, John Graham, Dip.Arch., 15 Oakley Blvd., Scarborough, Ontario. *Alexander B. Leman.*

1962 Graduates, Senior Awards and Scholarships

University of British Columbia

Graduates

Anzjon, Tom-Brede; Burroughs, Kenneth Rodrick George; Eskildsen, Verne Ellsworth; Fairbrother, Donald Frank; Fraser, Michael Outram de Satge; Hughes, Ralph

William; Mansfield, Robert Billett; Needham, James Samuel; Reeves, Donovan; Snow, Don Montague; Strasman, James Collin; Taylor, Ronald Wilfred; Verhagen, Cornelis Adriaan; Walkey, Ronald Brian; White, Daniel Evan; Yuen, Gorden.

Prizes and Scholarships

FIRST YEAR *British Columbia Lumber Manufacturers Association Prizes in Architecture*: N. F. Pelman (\$200). *The Schlage Company Scholarship*: A. A. Finlay (\$125).

THIRD YEAR *British Columbia Lumber Manufacturers Association Prizes in Architecture*: A. B. Green (\$200). *The Charles J. Thompson Prize*: Joe Wai (\$50). *The Architectural Institute of British Columbia Book Prize*: A. B. Fisher (\$100). *The Atlas Asbestos Company Limited Prize Award*: L. Redpath (First \$125); A. B. Fisher (Second \$75). *The Canadian Institute of Steel Construction Scholarship in Architecture*: J. R. Currie (\$250). *The McCarter, Nairne & Partners Scholarship*: F. A. Hamilton (Approx. \$400). *The British Columbia Cement Company Prize*: F. A. Hamilton (\$125).

FOURTH YEAR *The British Columbia Cement Company Prize*: R. B. Bain (\$125). *The Architectural Institute of British Columbia Book Prize*: Garry Hanson (\$100). *The British America Paint Company Limited Scholarship in Architecture*: R. B. Bain (\$500). *Northwest Plaster Bureau Scholarship*: W. G. Rolfsen (\$250). *Central Mortgage and Housing Corporation Travelling Scholarship*: N. Bawlf (\$500).

FIFTH YEAR *Royal Architectural Institute of Canada Medal*: James Collin Strasman. *Pilkington Scholarship*: Ronald B. Walkey.

University of Manitoba

Graduates (Masters of Architecture)

Sachdev, Jagdish Chandra

Graduates (Bachelor of Architecture)

Allison, Alphonse Tony; Benjamin, Stanley Nathen; Bogdan, Joseph Anthony; Chang, Ke-Liang; de Lint, Willem Berthus Clemens; Dies, Ronald Edward; Gitt, Manfred Willy; Hancock, Noel David; Holden, John Edward; Johnson, Magnus Earl; Klassen, Edward William; Kwan, Min-Shing; Lee, Yuk-Cheung; Li, Daniel Chang-Yin; Li, Henry Hin-Lee; Lussier, Denis Lionel; Maurice, Claude Howard; Robertson, Donald Charles; Rogers, Brian Jason; Rogers, George Wayne; St. Denis, Jean Jacques; Stephens, James Barrie; Sturdy, Winifred Yvonne; Wawruch, Arnold Orest Frederick.

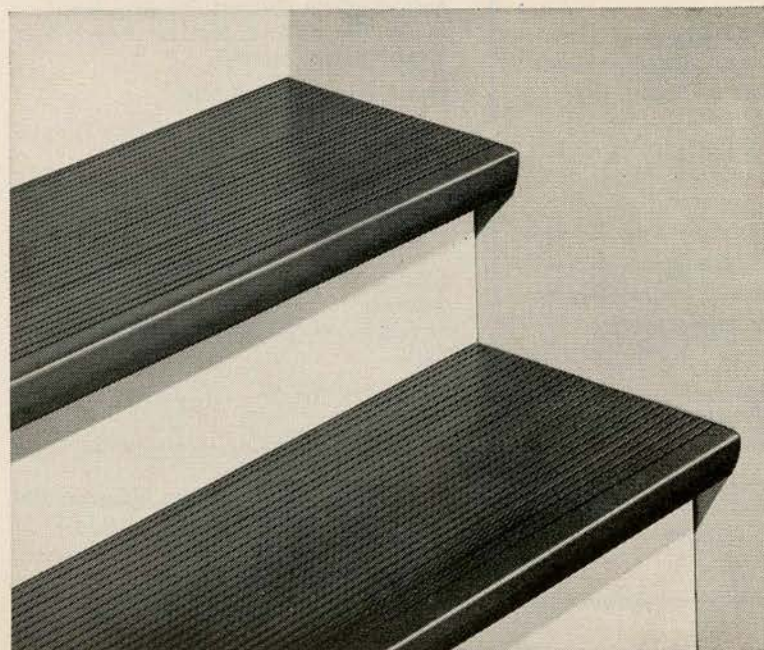
Medals and Prizes (Graduates)

The University Gold Medal in Architecture: Anthony Arnold Kennedy. *Royal Architectural Institute of Canada Medal*: Joseph Anthony Bogdan. *Alpha Rho Chi Medal*: Claud Howard Maurice. *Bachelor of Architecture Thesis Prize*: Willem B. C. de Lint. *Skidmore, Owings and Merrill Prize*: Yuk-Chung Lee. *Manitoba Association of Architects Book Prizes*: Willem B. C. de Lint; Stanley Nathan Benjamin; Daniel Chang-Yin Li; Claude Howard Maurice.

Scholarships, Bursaries and Prizes

FIRST YEAR *The T. Eaton Co. Ltd. Scholarship*: David K. Mesbur. *Alsip Brick, Tile and Lumber Co. Ltd. Scholarship*: Wayne A. Cybulski. *Donald Spurgeon MacLean Memorial Bursary*: Clive L. Russell. *Victor Boyd Memorial Bursary*: Harry E. Nolan. *David Lacey Cowan Memorial Bursary*: Brian T. Hogan. *Sidney Alexander Adams Memorial Bursary*: John D. MacPherson.

SECOND YEAR *Isbister Scholarship in Architecture*: Joseph C. V. Hruda. *W. G. McMahon Ltd. Scholarship*: Joseph C. V. Hruda. *Saskatchewan Association of Architects Scholarship*: William A. Johnston. *Manitoba Architects Wives' Association Scholarship*: S. Walter Wright. *Manitoba Association of Architects Book Prizes*: Robert T. Grossman; Albert F. Olive; Brian E. Woods. *J. G. Fraser Ltd. Summer Sketch Prize*: G. B. Thorkelsson.



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Summer Essay Prize: Maureen G. Loneragan. *Manitoba Urban School Trustees Prize:* Brian E. Woods. *W. J. Dick & Company Bursary:* Robert T. Grossman. *J. M. Gilchrist Bursary:* Leslie Nemeth.

THIRD YEAR *Green Blankstein Russell Scholarship:* Richard G. Henriquez. *Manitoba Association of Architects Scholarships:* Karl H. Stevens. *Atlas Asbestos Co. Ltd. Scholarships:* Phillip H. Carter. *Manitoba Association of Architects Book Prizes:* Philip V. Esnouf; Karl H. Stevens; Juris V. Bergins. *J. G. Frazer Ltd. Summer Sketch Prize:* J. V. Bergins (Special Book Prize); John W. Keith; Anthony G. Logothetis; Gerald W. J. Maki. *Neil K. Brown Memorial Bursary:* Richard D. Purdy. *John A. Russell Alumni Bursary:* Robert I. A. McDougall.

FOURTH YEAR *Isbister Scholarships in Architecture:* Larrie R. Taylor; John Hodges. *Manitoba Association of Architects Scholarships:* Larrie R. Taylor. *Canadian Pittsburgh Industries Ltd. Scholarships:* Larrie R. Taylor; Ilmar Wallner. *W. Allan McKay Memorial Scholarship:* John Hodges. *Lighting Materials Ltd. Scholarship:* Larrie R. Taylor. *Central Mortgage & Housing Corporation Travelling Scholarship:* Weldon D. Pries. *Mani-*

toba Association of Architects Book Prizes: Norbert Hamy; John Hodges; Weldon D. Pries; Larrie R. Taylor; Ilmar Wallner. *Illuminating Engineering Society Prizes:* John Hodges; Larrie R. Taylor. *Summer Construction Report Prize:* Douglas V. Lintula; Ilmar Wallner.

McGill University

Graduates.

Alexander, Boak; Berkes, Thomas; Chan, Vincent; Charney, Morris; Cook, Robert; Coyle, Mary Anne; Donaldson, James; Drummond, Derek; Flinn, Robert; Javosky, Rudolph; Lau, Arthur; Lo, Ting-Wa; McCloskey, Brian; Pope, Douglas; Pressman, Norman; Scott, Gavin; Thomas, Max; Tobin, Richard; Wellan, Morton; Werleman, Michael.

Prizes and Scholarships

Lieutenant-Governor's Gold Medal: Morris Charney. *Lieutenant-Governor's Silver Medal:* Boak Alexander. *Royal Architectural Institute of Canada Medal:* Morris Charney. *Hugh McLennan Memorial Travelling Scholarship:* Morris Charney. *A. F. Dunlop Travelling Scholarship:* Boak Alexander. *Louis Robertson Prize for Design:* Morris Charney. *McGill Delta Upsilon Memorial Scholarship:* Morris Charney. *Canadian Pittsburg Industries*

Scholarship: Glen Convey. *Central Mortgage and Housing Corporation Travelling Scholarship:* Pierre Guertin. *Interior Decorators' Society of Quebec Prizes:* E. A. Macdonald; Lada Patricia Falta; Harold Katzin; Max Ferro. *Atlas Asbestos Company Limited Prize:* R. F. Williams. *Anglin-Norcross Prize (4th year):* Ross Hayes; R. F. Williams. *Phillip J. Turner Prize:* Neil Downey. *Anglin-Norcross Prize (2nd year):* Richard Rabnett. *Turnbull Elevator Company Limited Prizes:* Morris Charney; Sheldon Chandler; James deWolf; David Caulfield. *University Scholars:* Irwin Rodier; Andrejs Skaburskis; Robert Skanes; Lada Patricia Falta.

McConnell Scholars: Harold Katzin; Douglas Steen; R. F. Williams; E. A. Macdonald.

University of Toronto

Graduates

Baird, G. P.; Barnard, P. M.; Brown, T. E.; Buntin, E. A.; Fraser, B. H.; Gardonyi, J.; Fusco, J. T. M.; Grass, D. R.; Gates, B. G.; Hall, M.C.; Hawke, J. W. E.; Harkness, J. J.; Janecka, J. F.; Kachmarryk, W.; Kalhok, J. I.; Katz, Milton; Katz, Morton; Kobayashi, D. K.; Messer, H. W.; Nichol, D. J.; Okashimo, L. K. (Miss); Okun, H. B.; Randall, K. J.; Roze, A. E.; Sherriff, A. G.; Taber, G. R.; Teshima, T. F.; Weldon, P. S.; Westren, J. H.; Wilson, D. N.

Prizes and Scholarships

FIFTH YEAR *Royal Architectural Institute of Canada Medal:* B. G. Gates. *Toronto Architectural Guild Medal:* P. M. Barnard. *Anaconda American Brass Limited Scholarship:* M. C. Hall; J. Gardonyi. *The Jules F. Wegman Fellowship:* B. G. Bates. *Murray Associates Scholarship:* J. Gardonyi.

Ecole d'Architecture de Montréal

Graduates

Bégin, Michel; Bélanger, Marc; Bernard, Yves; Bigue, Michel; Bisson, Claude; Blais, André; Carreau, Serge; Cayouette, Simon; Comeau, Germain; Dumontier, Jean; Forcier, Jean-Jacques; Guindon, Jean; Labelle, Hubert; Legace, Georges; Losier, Fernando-P; Mercier, André; Roy, Yves; Trahan, Maurice.

Prizes and Scholarships

FIRST YEAR *1st Prize:* Michel G. Lincourt.

SECOND YEAR *1st Prize:* Guy Lafleur. *Prix Fernand Prefontaine:* Claude Gagnon.

THIRD YEAR *1st Prize:* Gilles Lavigneur. *Atlas-Asbestos Prize:* Marie-Louis Fortin.

FOURTH YEAR *1st Prize:* Germain Casavant. *CMHC Travelling Scholarship:* Jean-Pierre Lapointe. *American-Standard Travelling Scholarship:* Mario Saia.

FIFTH YEAR *The RAIC Medal:* Georges-Edouard Lagace.

The Canadian Council on Urban and Regional Research

APPLICATIONS ARE INVITED FOR THE POSITIONS OF

- (a) Executive Director
- (b) Research Officer

These will be the first appointments made in the establishment of the Council as a National body for the promotion and support of research into the problems of the rapidly expanding urban centres and regions of Canada. The work of the Council will be supported by both public and private funds.

THE EXECUTIVE DIRECTOR

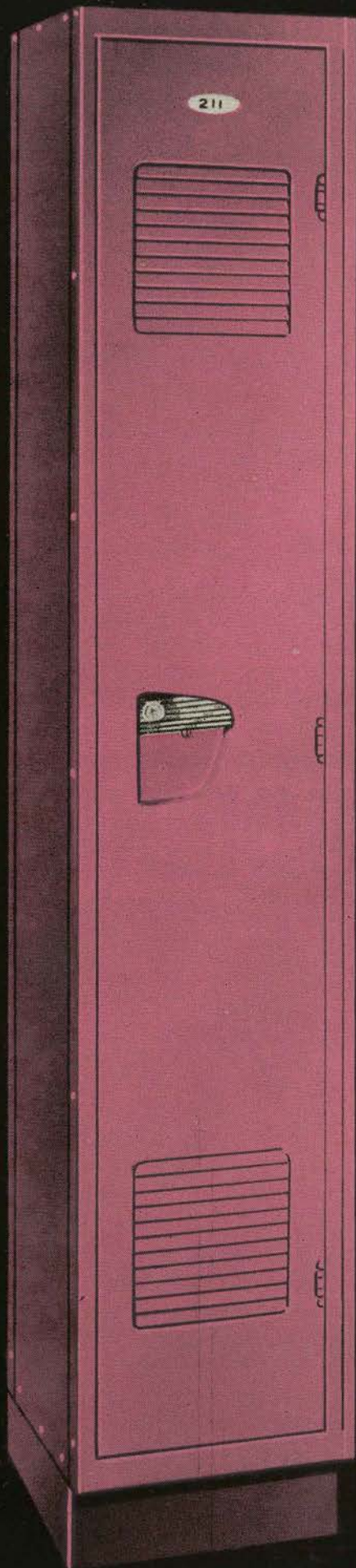
Will be the chief staff officer responsible to the Council's Board of Directors. He will conduct a program of grants to Universities and other research groups and will manage the Council's central functions including the co-ordination and dissemination of research information.

THE RESEARCH OFFICER

Will be responsible for assembling, analysing, evaluating and issuing research material and will act in liaison with research leaders and committees as technical advisor. Qualifications should include experience in research methods and background in economics and social sciences

These two appointments call for persons of high calibre and proven competence in the field of urban and regional affairs. Salaries will be commensurate with their qualifications and experience.

Prospective applicants are invited to write in the first instance informally and in confidence to the Chairman, Mr Peter Dobush, the Canadian Council on Urban and Regional Research, 56 Sparks Street, Ottawa.



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- D. Name of last or present employer.
- E. Three names for reference purposes.
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A condensed catalog of specification grade electrical wiring devices for indoor and outdoor uses. The 8 Page 2 color catalog includes listings and illustrations of items representative of the full Bell line. **Bell Electric Co., 5735 S. Claremont Avenue, Chicago 36, Illinois.**

Report No. 925, "Design Procedure For The Sound Absorption of Resonant Plywood Panels", compiled by Bolt, Beranek, and Newman Inc., Acoustical Consultants. The design procedure (although tentative) is intended largely to eliminate the guesswork in selecting plywood panels to fulfill acoustical absorption requirements in a room. **Hardwood Plywood Institute, P.O. Box 6246, Arlington 6, Virginia.**

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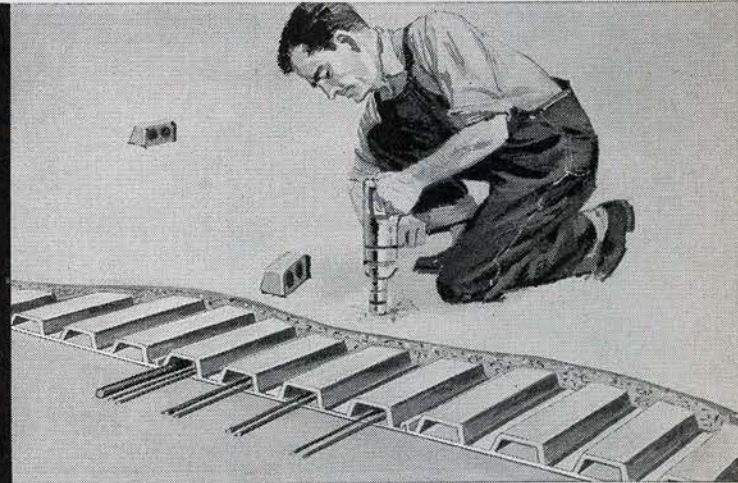
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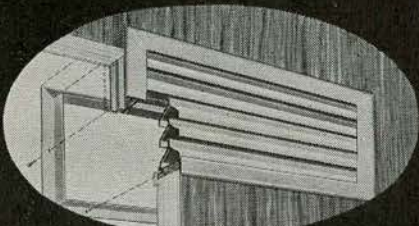


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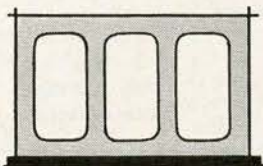
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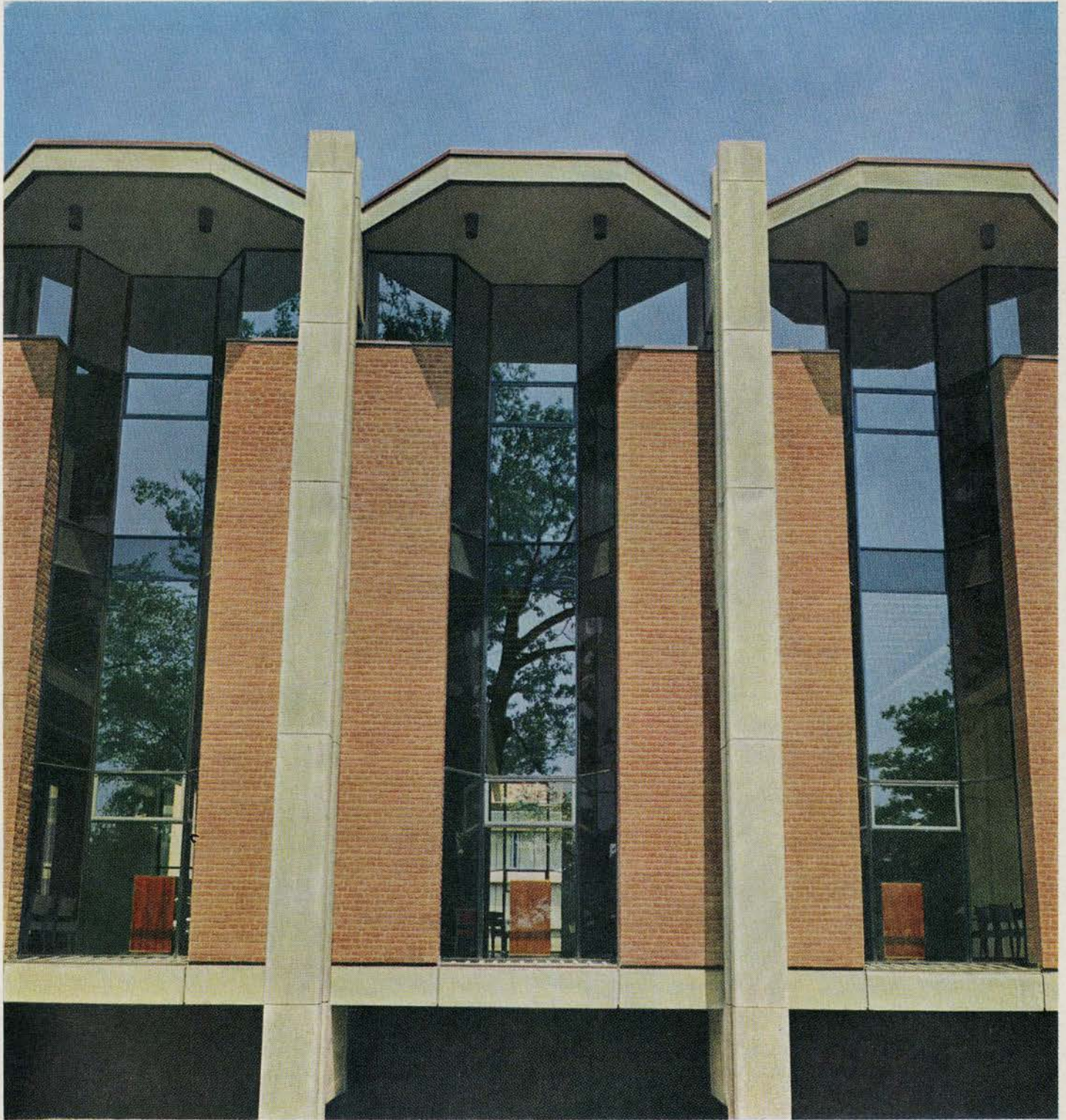
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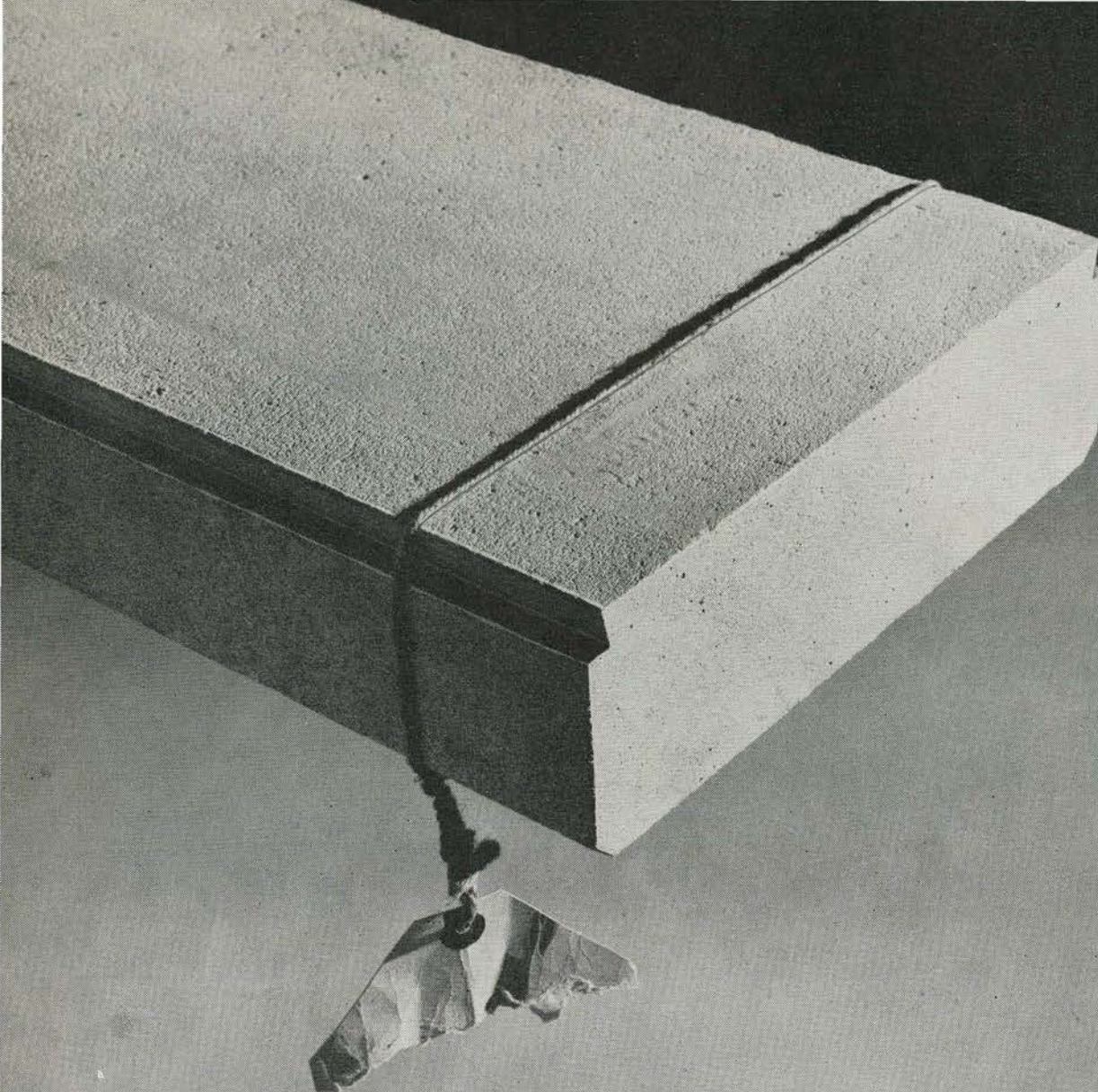


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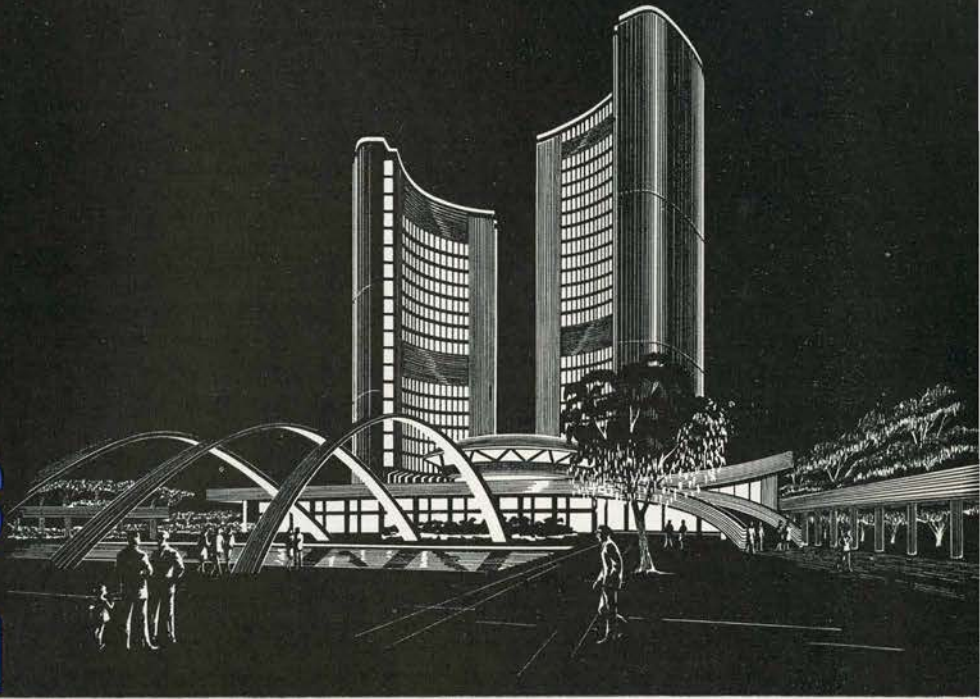
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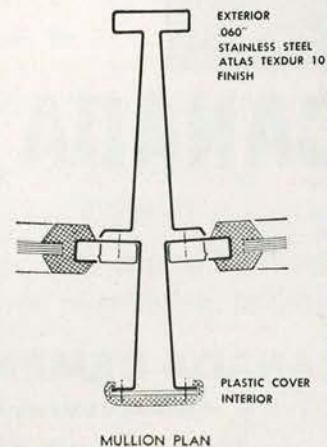


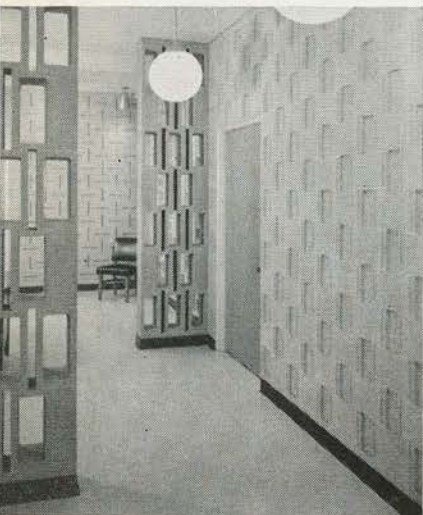
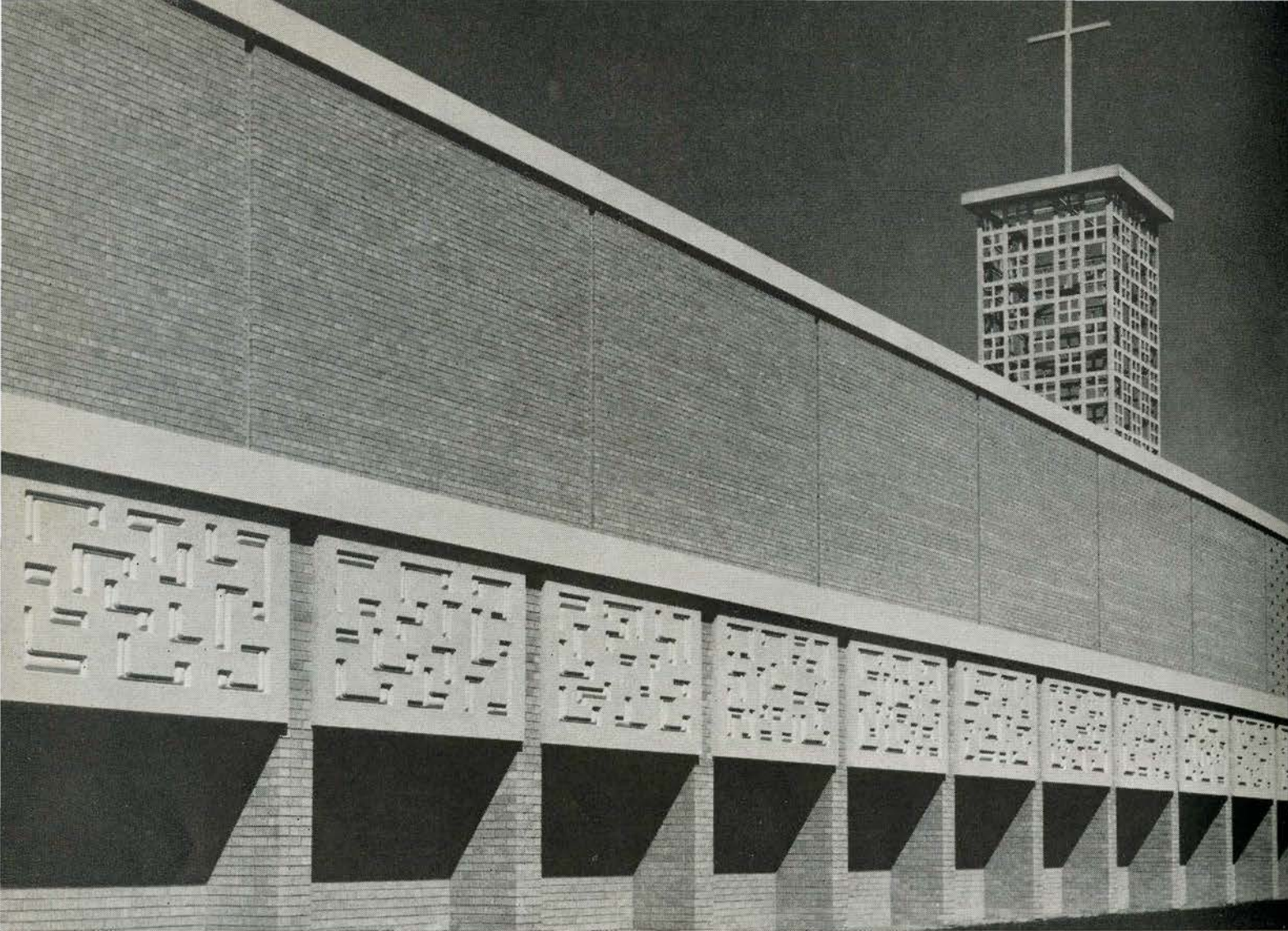
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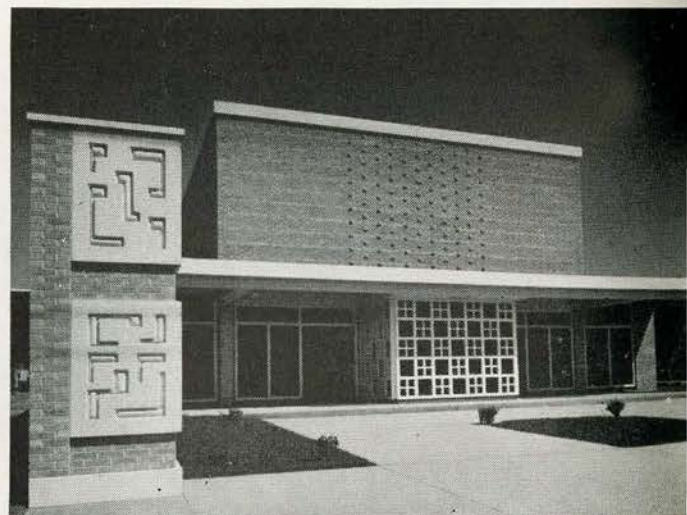
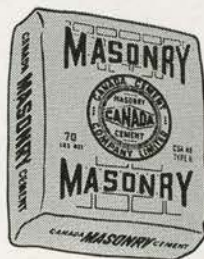
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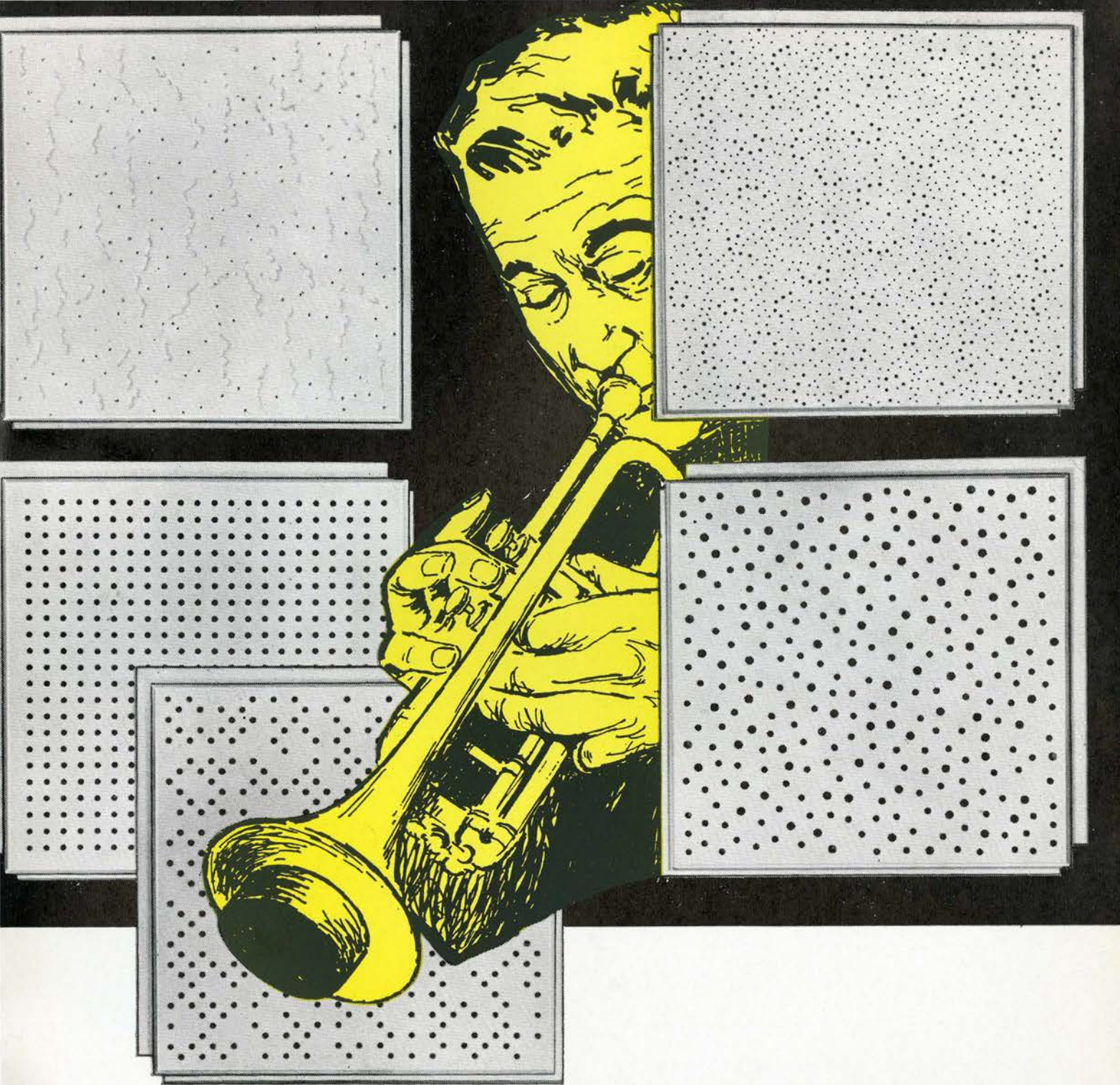
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Upper and lower right: St. Mary's Church, Regina, Sask. *Architects:* McCudden & Goldie, Regina. *General Contractor:* Poole Construction Co. Ltd.

Lower left: Business Office in Canada Cement Bldg., Montreal. *Architect:* Paul H. Lapointe and Associates. *Masonry Contractor:* Laurent Monoli Associates Inc.



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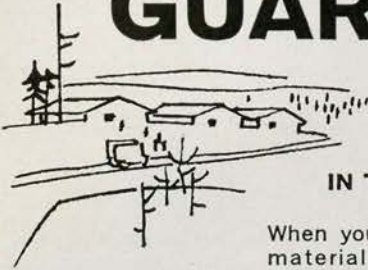
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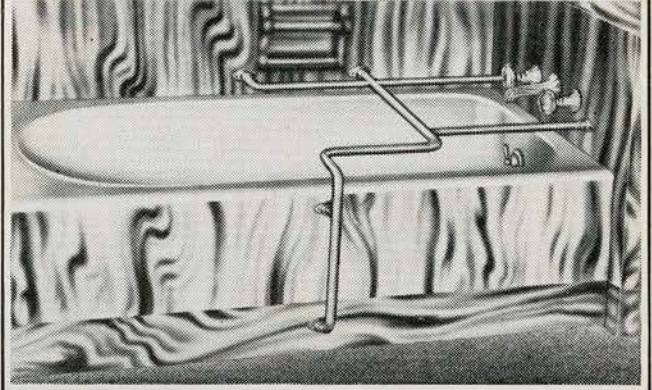
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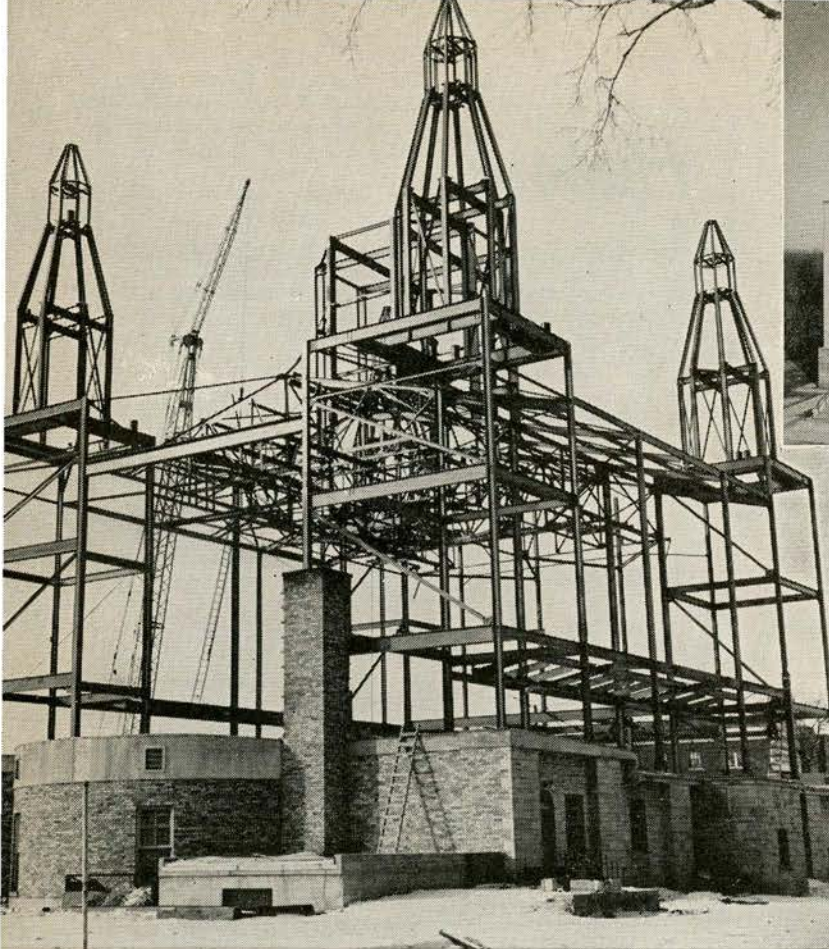
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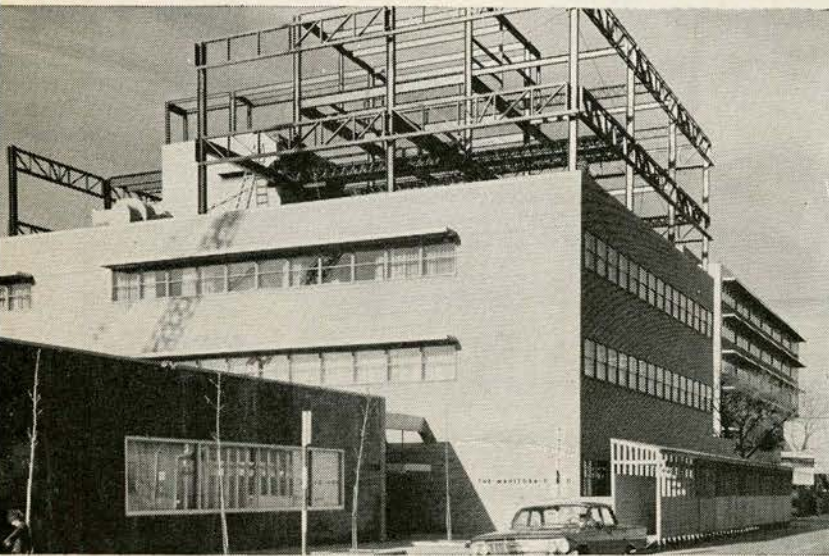
- The entrances and revolving doors
- The large window on ground floor and second floor
- The balcony and plaza railings
- The flag poles



Steel is versatile

Structural steel can be used to build complex design shapes. This steel frame is for the Greek Orthodox Holy Trinity Cathedral in Winnipeg and inset is the finished building.

Architects: Green, Blankstein, Russell & Associates.



Additions are easy with steel

When this building was first constructed two extra floors at a later date were a possibility. Last year they became a reality. The tops of the main support columns of the original steel frame had been left exposed and the new steel was added quickly and economically.

Architects: Smith, Carter, Searle & Associates.



Castellated steel beams reduce weight

The use of castellated beams in the C.N.E. Home Furnishing Building in Toronto resulted in roof purlins that were about 75% of the weight of an equally strong rolled beam and about 60% of the weight of an equally rigid rolled beam. Beams are castellated by cutting the web zigzag fashion, offsetting the halves one notch and rewelding peak to peak. Castellated beams can free the designer from the restrictions of excessive deflections when using the new high strength steels.

Architects: Marani, Morris & Allan.

Consulting Structural Engineer: W. Sefton & Associates, Limited.



Steel gives design freedom

Y-shaped with clear spans. This is the Saskatchewan Power Corporation's head office building in Regina. There are no columns inside the wings of the building and each floor is a wide open space 43 ft. x 270 ft. You can build this way with steel—it simplifies interior partitioning and makes future changes easy.

Architects: Joseph Pettick, M.R.A.I.C.

Consultants: C.C. Parker, Whittaker & Co. Ltd.

Steel shows some of its qualities

Some of the basic qualities of steel as a building material are illustrated in this round-up of recent projects from across the country. Steel produces light, flexible structures and its inherent qualities offer great scope to the imaginative architect.

When evaluating structural framing materials it is worth considering all the advantages offered by steel. Steel goes up fast to give an early return on invested capital and reduces interest charges on construction loans.

Lightweight framing keeps foundation costs down and the strength of the material permits large column free areas for better rentable floor space. Later alterations or additions are also easily effected and more economical to undertake when steel is used.

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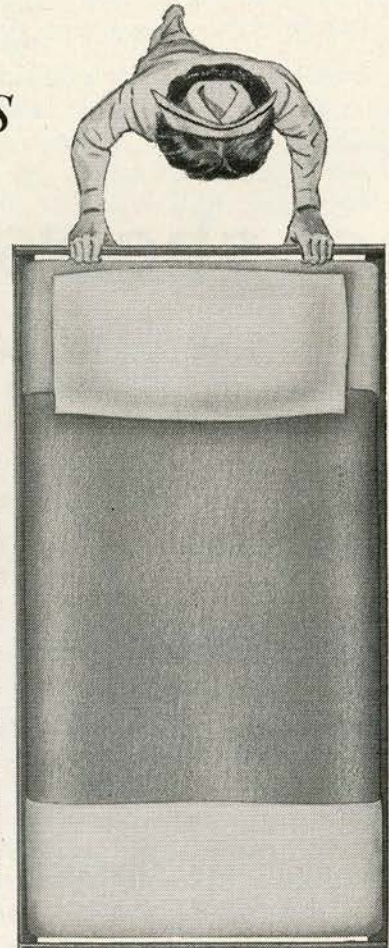
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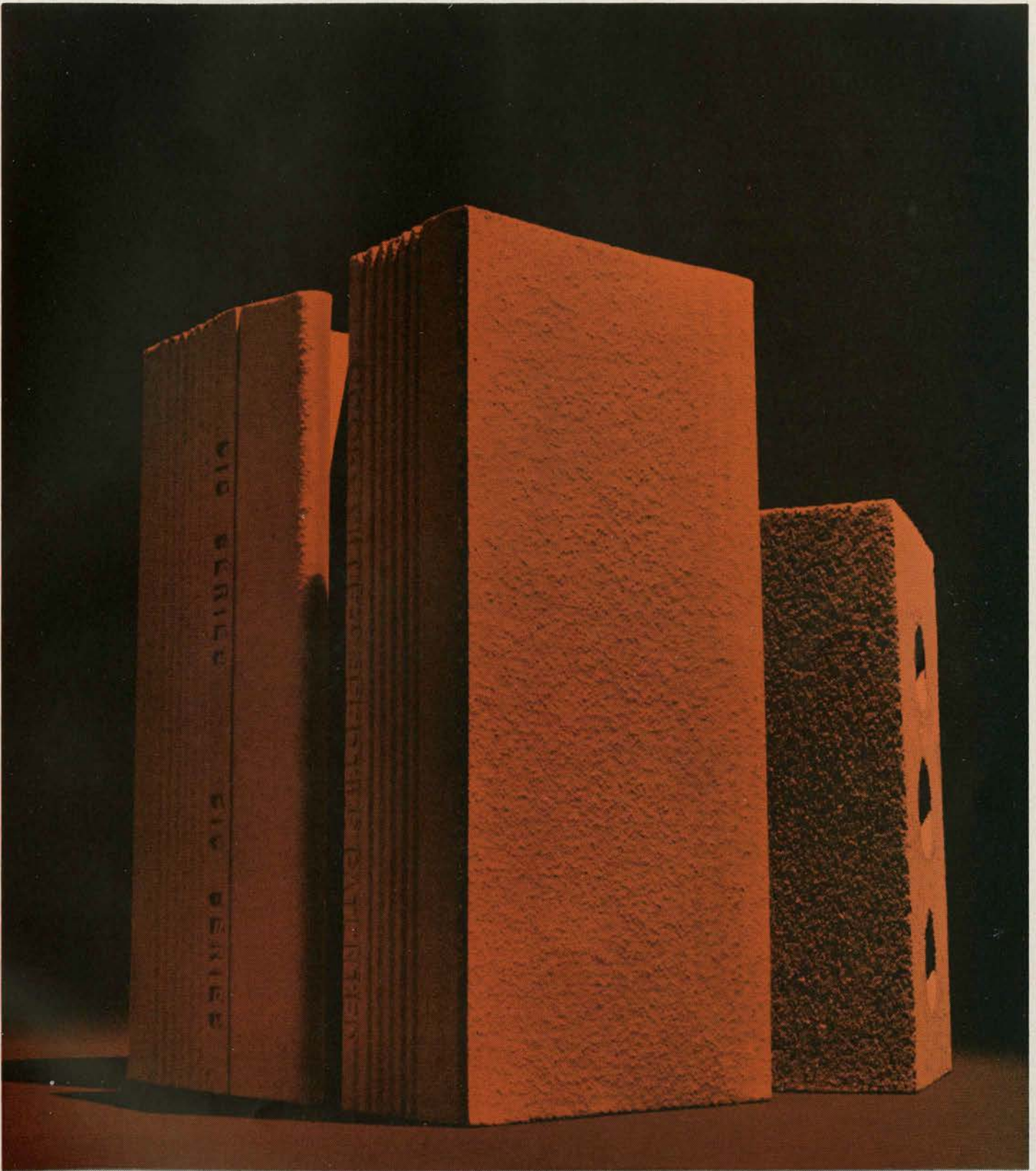
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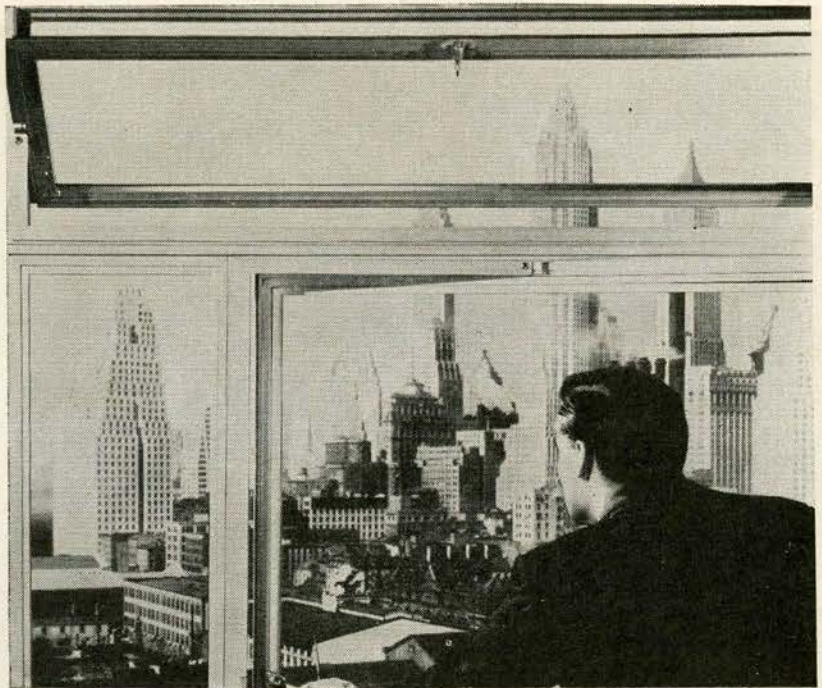
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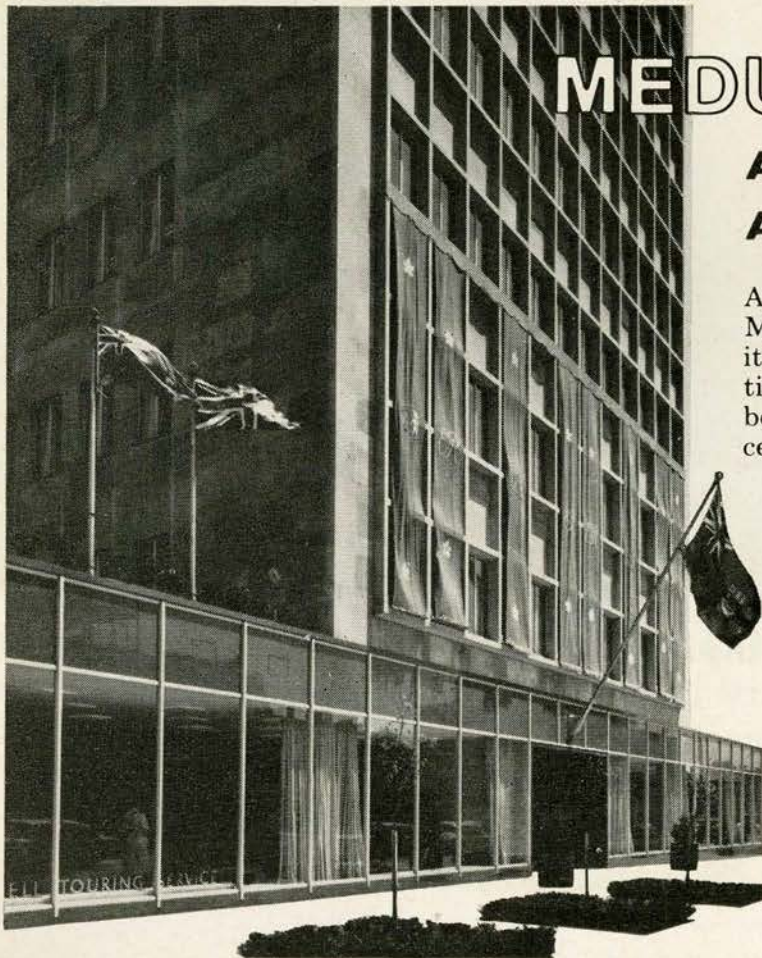
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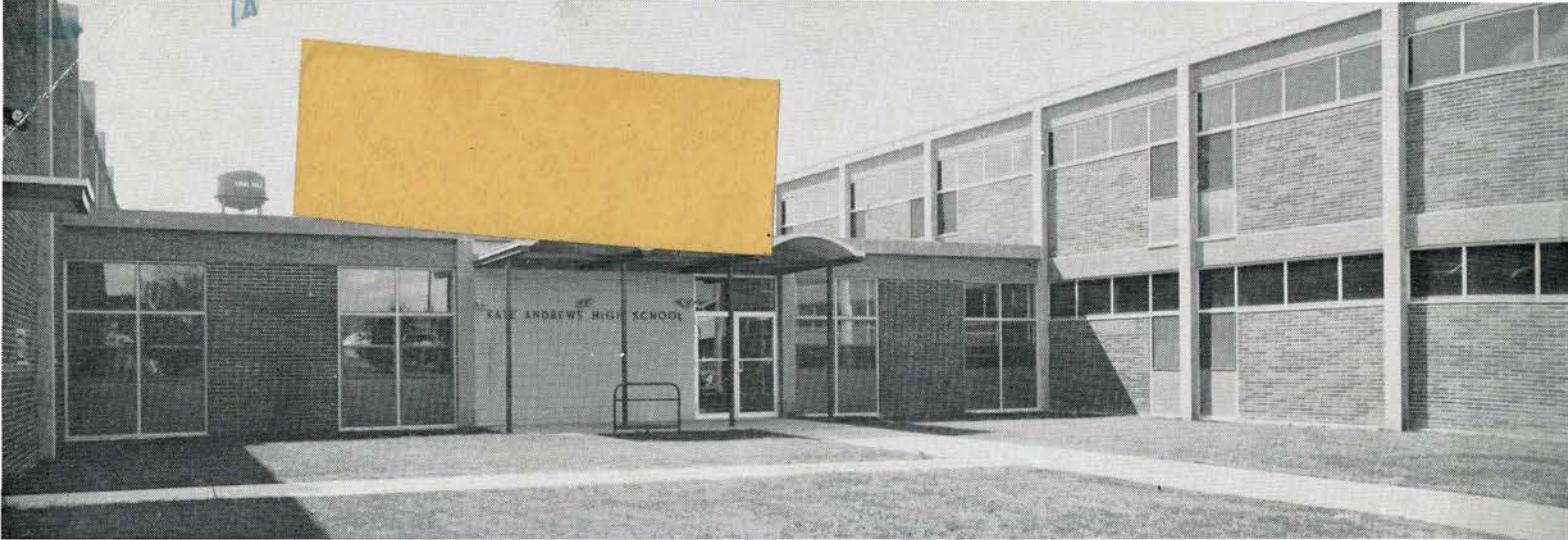
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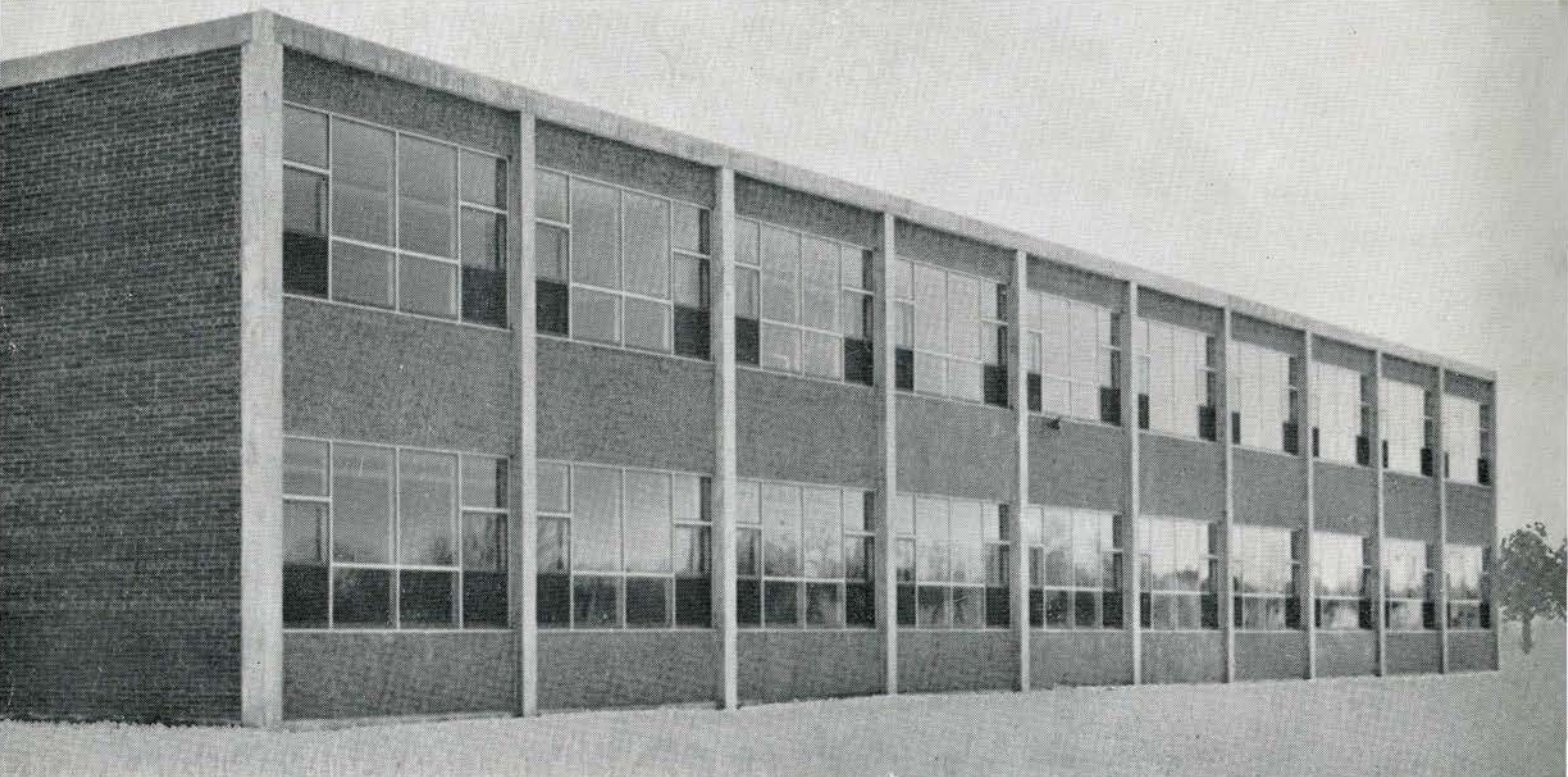
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Coaldale, Alberta

Architect: Meech, Mitchell Robins & Associates
Lethbridge, Alberta

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