

JOURNAL

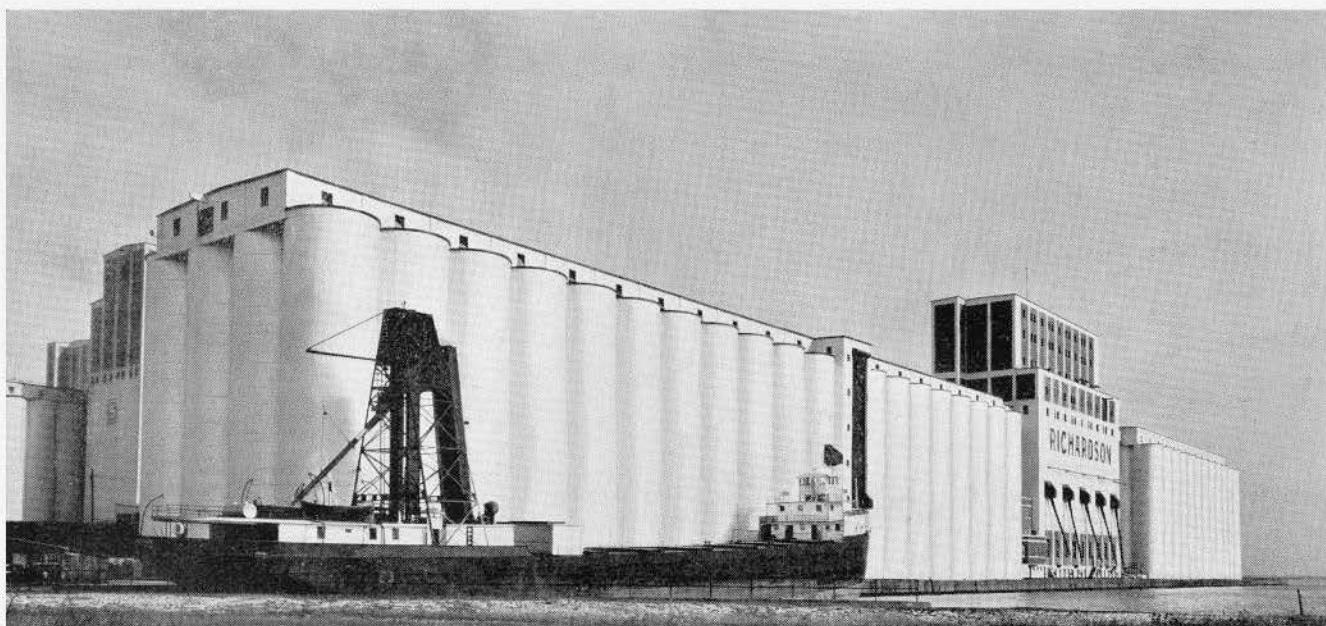
ROYAL ARCHITECTURAL
INSTITUTE OF CANADA



VOL. 14

NOVEMBER, 1937

NO. 11



ALUMINUM PAINTED TO REFLECT HEAT RESIST MOISTURE

"*Alpaste*"
for
**ALUMINUM
PAINT**

The best Aluminum Paint consists of "Alpaste" and a vehicle suitable for the surface to be painted. Buy it from paint manufacturers, their jobbers and dealers.

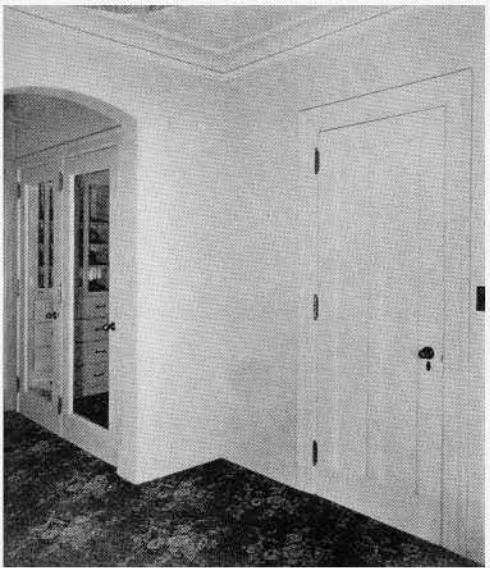
The huge structure of Eastern Terminal Elevators Limited, at Port Arthur, Ontario, is protected against moisture and heat by "Alpaste".

"Alpaste" Aluminum Paint with glyptol vehicle, supplied by the Canadian General Electric Co., was used throughout.

Losses from moisture getting into the grain, have proved a costly lesson to elevator operators. "Alpaste" Aluminum Paint solved this problem, as it has solved many paint problems in industry. Used as a primer, or as a top coat on wood or metal, it proves its economy and efficiency.

*Write the Company at Toronto
or Montreal for particulars.*

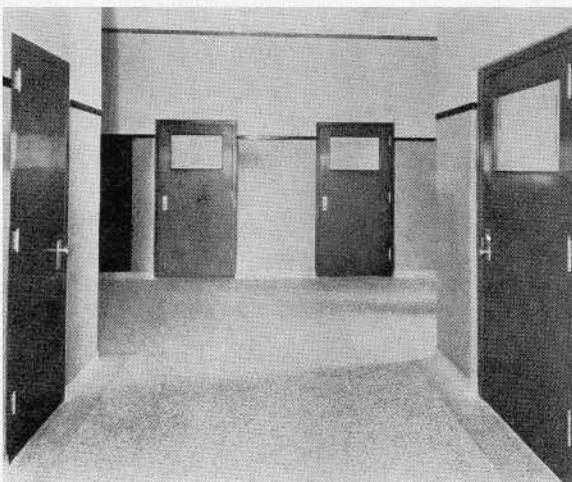
ALUMINUM COMPANY OF CANADA LIMITED
TORONTO MONTREAL



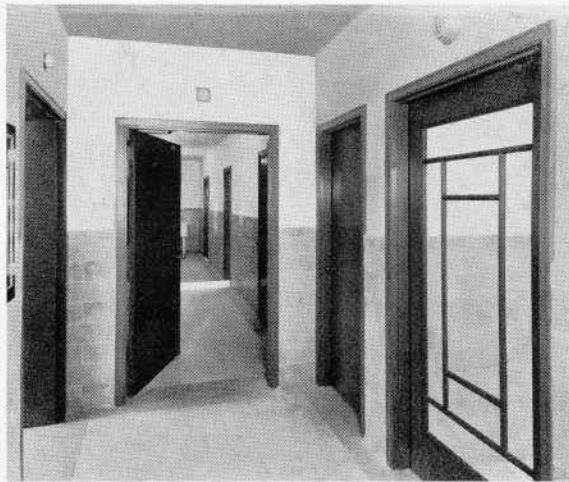
RESIDENCES

HOLLOW METAL DOORS AND FRAMES

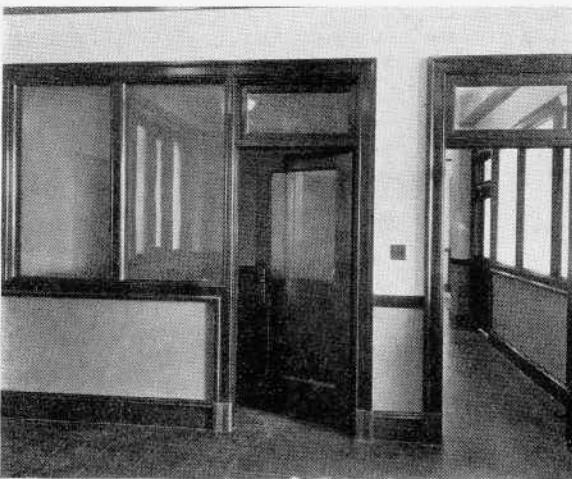
FOR MODERN BUILDINGS



SCHOOLS



HOSPITALS



OFFICE BUILDINGS



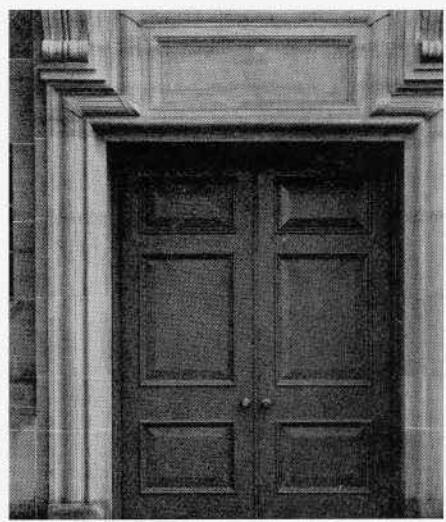
THEATRES

MANUFACTURED BY

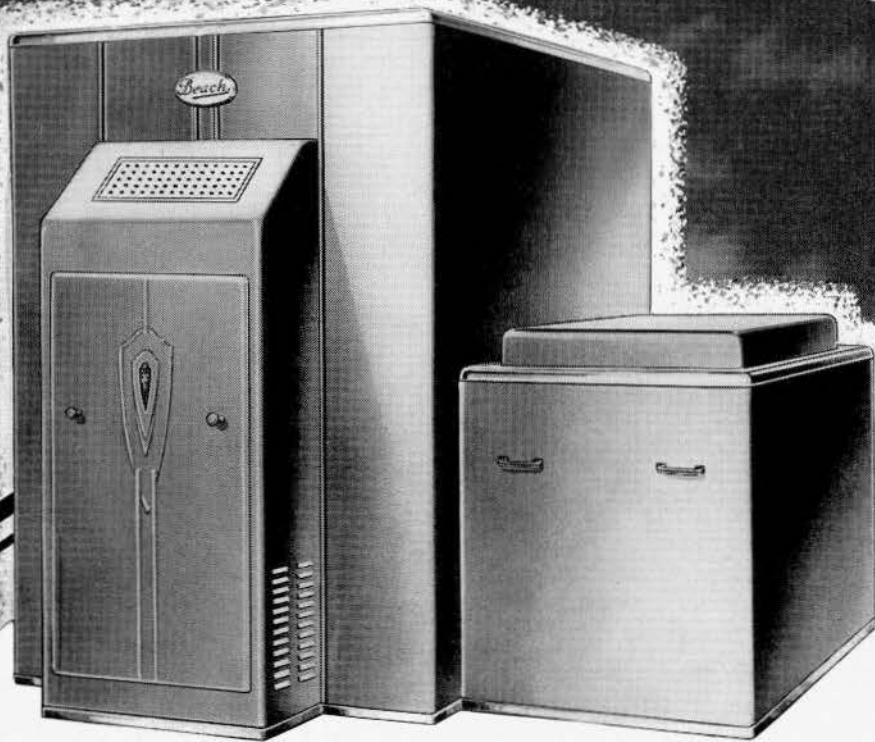
OTIS-FENSON ELEVATOR COMPANY, LIMITED

HEAD OFFICE AND WORKS: HAMILTON, ONT.

BRANCHES IN ALL THE PRINCIPAL CANADIAN CITIES



EASILY UNDERSTOOD



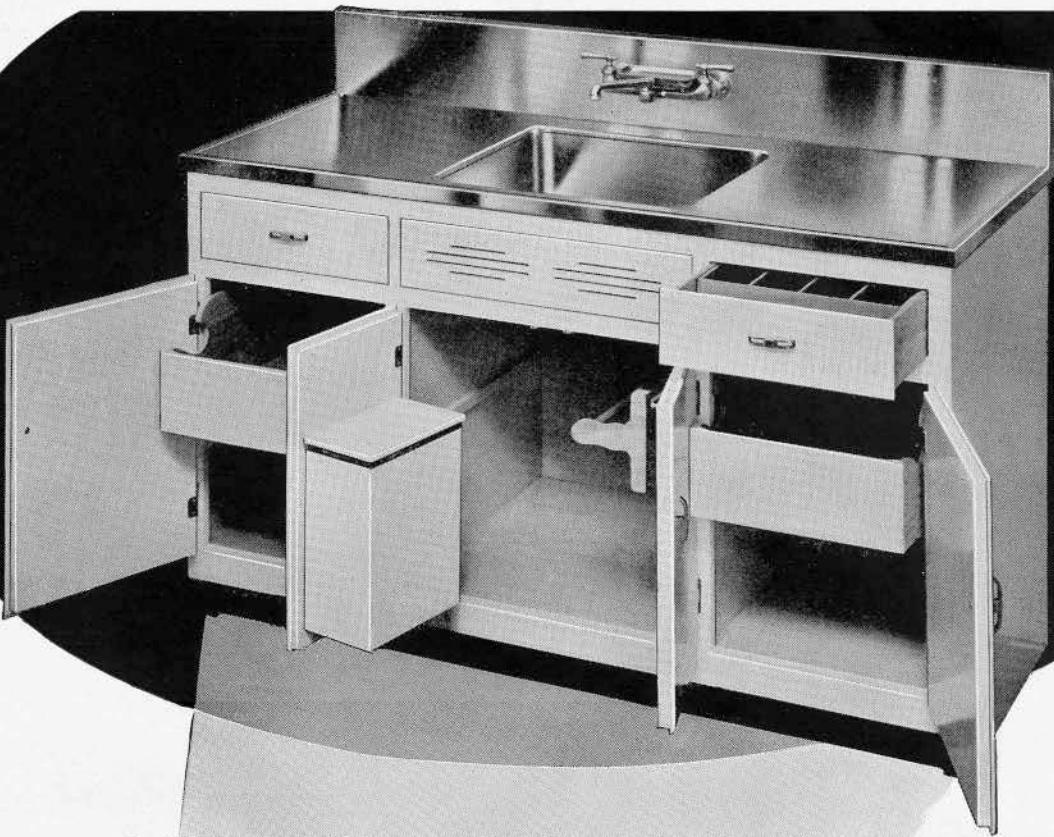
Your modern Home Builder is definitely Air Conditioning minded. At the same time he is perhaps a little puzzled by the many confusing and conflicting details as he tries to steer his judgment sanely between the claims of "Special Features", "Performance" and "Value".

Beach heating Engineers believe that the right kind of Air Conditioning is simple and easily understandable. They believe that each "Feature" must contribute importantly to general efficiency or be disregarded as sales talk. They believe that true value must prove itself in service rendered in the home—or be valueless.

Following these precepts of home Air Conditioning Beach Engineers have several hundred successful installations in Canada which speak for themselves in efficiency and owner satisfaction. Beach Engineers co-operate closely with home owners, architects and building contractors and they invite you to write for their latest book on Home Air Conditioning Equipment.

BEACH

HOME AIR CONDITIONING



A REAL CONVENIENCE TO THE ARCHITECT

FACTORY-BUILT

"*Monel*" CABINET-SINKS AND CABINETS

*priced for
low budgets!*

● These distinctive new kitchen units will prove a real boon to architects in designing their kitchens. Beautiful, silvery, rust-proof "MONEL" Sinks are now built into completely equipped cabinets. Other "MONEL"-topped cabinets are available to butt up against the sink units and form a complete planned kitchen with a continuous "MONEL" surface. Various models are available for different price requirements.

Cabinets are constructed by furniture craftsmen. Doors are of Warproof construction to resist warping and cracking. In workmanship and finish these cabinets are built up to the standard of the beautiful, durable "MONEL" sinks themselves.

Information and prices will be gladly supplied on request.

CANADIAN NICKEL PRODUCTS LIMITED
25 King Street West, Toronto

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THE INTERNATIONAL NICKEL COMPANY OF CANADA LIMITED



Fine Craftsmanship in hand-made Panellings

OFTEN TENDS TO CREATE AN
ATMOSPHERE OF DIGNITY
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IN ACHIEVING panelling, lighting or decorating results you will find Our Interior Decorating Bureau ever ready to co-operate with the architect—such matters as interior designs, colour schemes and quotations according to the architect's specifications.

We invite you to inspect the authentic Period panelled rooms, both antique and reproduction, on our Fifth Floor.

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H. G. DUERR, Architect

Creed's Storage Vaults Limited, Toronto,
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WE WANT TO SERVE YOU

The problems that confront you in respect to insulation are so widely diversified that the experience of others is necessary to obtain a solution.

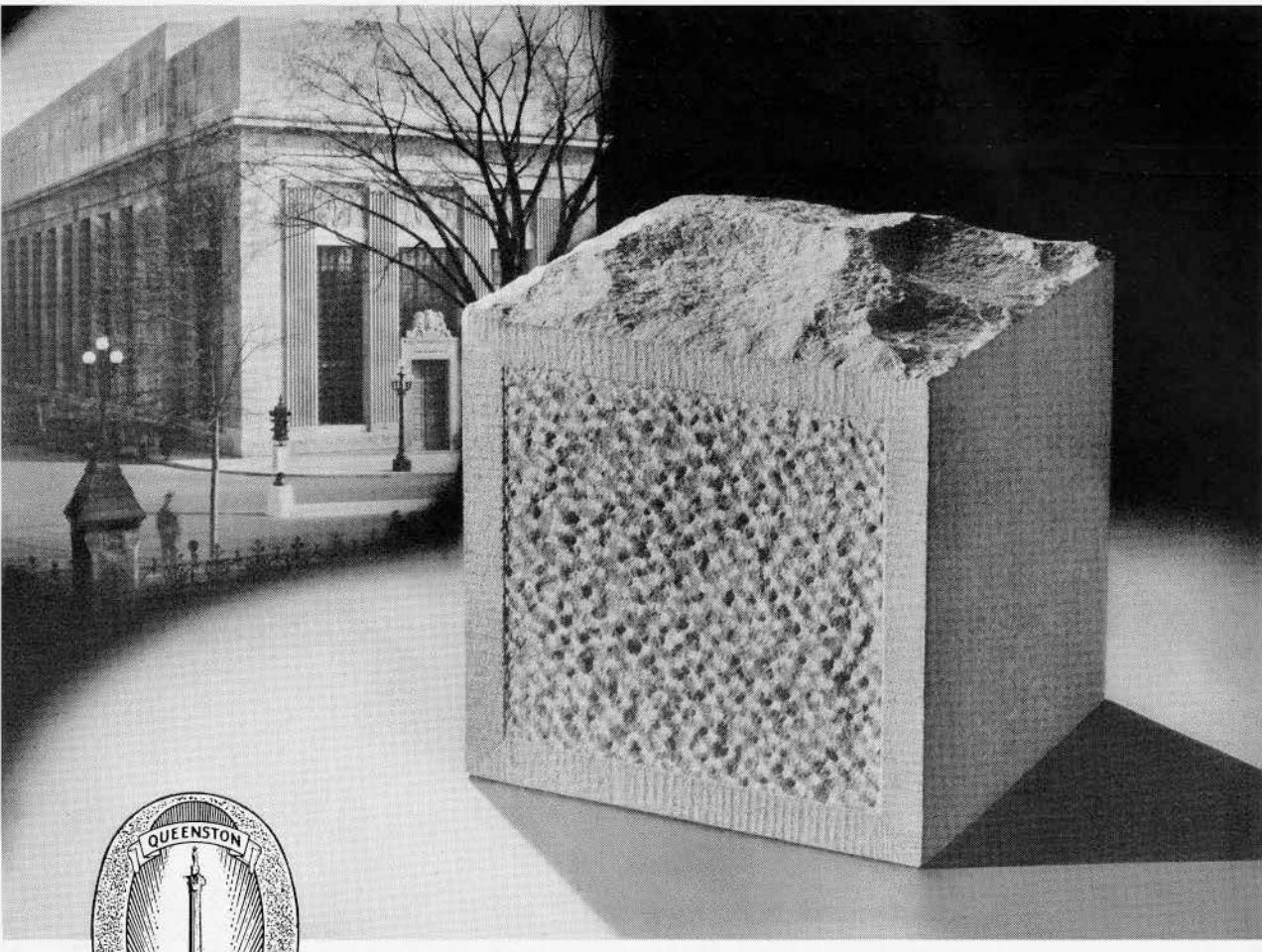
We feel that after serving the trade in Canada for the past fifteen years we have gathered data that will be of value to you.

Your problems are our problems. May we serve you as we have served others?

"Jointite" Corkboard, a product manufactured by us in Portugal, offered to the trade in Canada—of a standard of quality equal in every respect to similar material.

**MUNDET CORK & INSULATION
LIMITED**

OFFICES: TORONTO - MONTREAL



High Merit... *High Reward*

**“Build with
Queenston
Limestone”**

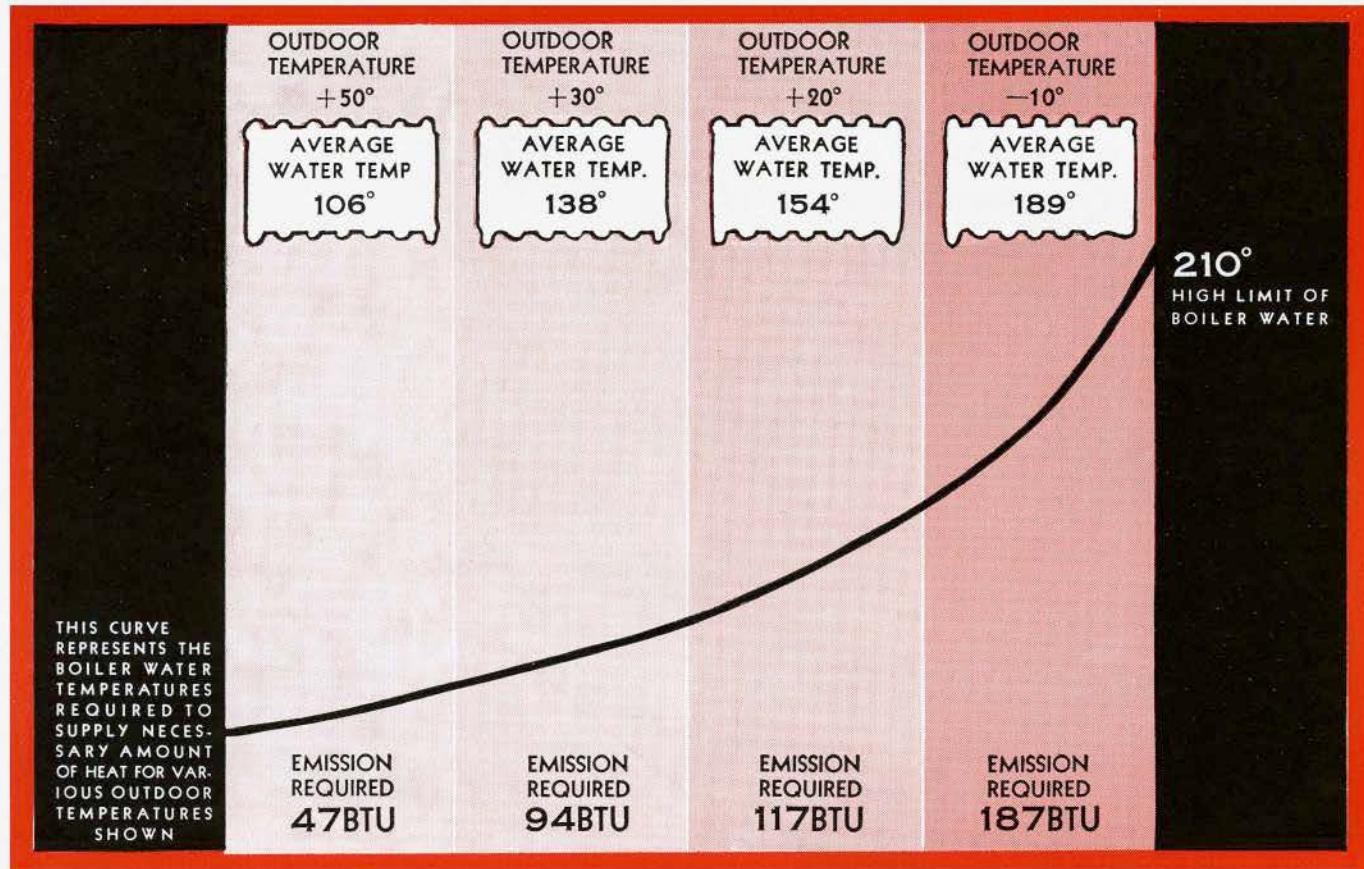
HOWEVER noble the conception of the architect, the selection of materials may make or mar his building. This Bank of Montreal at Ottawa has won the highest award which architects can bestow.

To build with Queenston Limestone is truly to “Build for the Ages”.

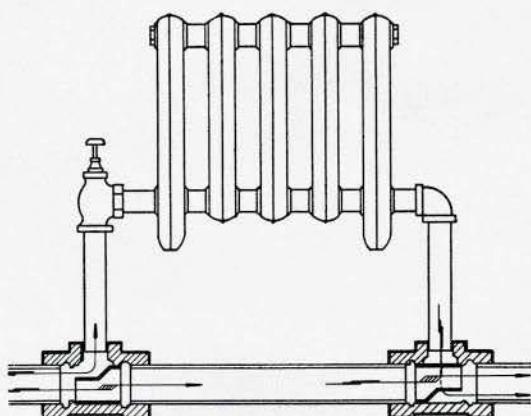
**QUEENSTON
QUARRIES *Limited***

CANADA CRUSHED STONE CORPORATION
HAMILTON LIMITED TORONTO

MODULATED RADIATOR HEAT BEST OBTAINED WITH RECO TRIPLE DUTY MONO-FLO WARM WATER HEATING SYSTEM



The above diagram illustrates how smoothly a RECO TRIPLE DUTY MONO-FLO SYSTEM adjusts the heat supply to the weather . . . Both under-heating and over-heating are eliminated.



Mono-Flo Fittings are installed in place of the usual tee at each Radiator's supply and return connections to a Single Main.

BIG ADVANTAGES OBTAINED WITH TRIPLE DUTY MONO-FLO SYSTEM:

- Controlled Mechanical Circulation of boiler water.
- Instant and Equally Distributed Heat wherever needed, regardless of level of Radiators.
- Positive Control System — Maintains a uniform room temperature — Circulation cut off promptly when the desired room temperature is reached.
- Domestic Water indirectly heated—both Summer and Winter—with the same boiler that heats the house—Radiator and pipe sizes reduced.
- Single Main only required in the Basement.
- Air Conditioning may be provided with an auxiliary unit operated independent of the Heating System.

Write for Bulletin No. 311 for further information.



A "RECO PRODUCT" is a guarantee of quality and advanced engineering.

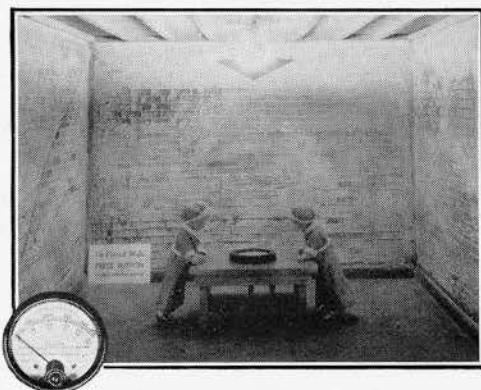
S. A. ARMSTRONG LIMITED, 720-4 Bathurst Street, TORONTO, CANADA

Upon Reflection...

*The startling effect of wall and ceiling finishes
on interior illumination and lighting economy.*

FEW industrialists today are ignorant of the vital importance of an adequate lighting system. There are still many, however, who do not realize that even the finest lighting systems cannot operate efficiently without assistance from reflecting surfaces.

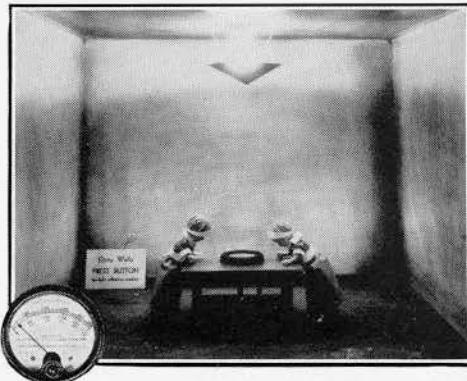
Efficient illumination is only one-fifth part direct light, the balance consists of reflected light from walls, ceilings and other flat surfaces. For example, in a room completely painted black, the lighting would give only one-fifth of the illumination it is capable of delivering. The result is obviously either poor lighting conditions or excessive light costs. This is graphically brought out in the three illustrations.



UNPAINTED ROOM: Due to the low reflection value of the walls and ceiling, the Sight-Meter registered only 1 foot-candle.

It was with this scientific fact in mind that Sherwin-Williams' technical research department developed Save-Lite, an interior wall enamel of spectacular efficiency.

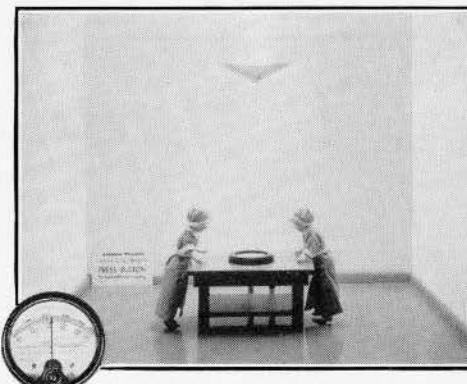
Save-Lite has a reflection value of over 89%, an amazingly high rating for a commercial finish. It forms a tight, porcelain-like surface which prevents glare and distributes a pleasantly diffused light throughout the interior. It can be washed again and again without injury.



THE DIRTY ROOM: Painted at one time, these surfaces became so soiled they reflected but little light. The reading was but 4 foot-candles.

Moreover, Save-Lite does not yellow with the years; it remains brilliantly white, saving its cost many times over in reduced light bills and improved production.

Write for free copy of valuable engineering booklet on lighting values to Industrial Sales Division, The Sherwin-Williams Co. at your nearest branch—Halifax, Montreal, Toronto, Winnipeg, Saskatoon or Vancouver.



THE WHITE ROOM: Painted white for maximum light reflection. Same room and same light, but the meter jumped to 22½ foot-candles.

FOR ENDURING WHITENESS
SAVE-LITE
INTERIOR WALL ENAMEL



*A Fortune Awaits...

**the genius who invents an alloy which in practical application can equal the enduring, non-corrosive qualities of GENUINE Wrought Iron*

● Through generations Genuine Wrought Iron Pipe has defied—Corrosion, Vibration, Strain and Electrolysis. Time, too, has baffled the inventive skill of those who have sought an alloy to match the durable, anti-corrosive properties of Genuine Wrought Iron and still keep within practical bounds.

● Note that we say "GENUINE Wrought Iron". Costly errors result when this term is confused with others. Do not use the term "wrought iron", "black iron" or just "iron pipe" when you want the

"genuine" quality of wrought iron pipe as made 100 years ago. Since the introduction of alloy pipes, the term "Genuine" was added to the original "Wrought Iron Pipe" to protect the identification.

● GENUINE Wrought Iron Pipe costs more . . . but the extra investment is small compared to the extra life and long service obtained. Where active corrosive agents are present, Page-Hersey GENUINE Wrought Iron Pipe is essential to lowest cost per service year.

GENUINE WROUGHT IRON PIPE A PAGE-HERSEY PIPE PRODUCT

● The composition of Genuine Wrought Iron is almost pure iron mixed with about 6% by volume of slag (silicate of iron). These slag fibres are finely distributed throughout the iron and while each individual fibre is infinitesimal, the total exceeds 250,000 to the square inch. These non-corrodible slag fibres create an almost impenetrable barrier against attacks of corrosion. The long fibrous structure make it highly resistant to shock and vibration.

● Genuine Wrought Iron proves its superiority for damp places, cellars, underground work, acid waters or where alkali, arsenical or salt solutions are conveyed. It is highly resistant to electrolysis. The long fibrous structure makes the metal uniform, and of excellent welding quality. It is known for its great ductility in bending, smooth, soft cutting and easy threading.

We Recommend—LAPWELD process for sizes 2" and over.

BUTTWELD $\frac{1}{8}$ " to 3". LAPWELD 1" to 12".

Specify PAGE-HERSEY GENUINE WROUGHT IRON PIPE through your jobber . . . The Aristocrat of the Page-Hersey family . . . Made in Canada.

T37-PH6

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REGULAR STEEL PIPE • COPPER CONTENT STEEL PIPE • STEEL-CLAD COPPER PIPE • GENUINE
WROUGHT IRON PIPE • WATER, GAS, AND OIL WELL CASING • FURNISHED IN BLACK OR GALVANIZED

Medal Winning

AIR CONDITIONED PLANT

EQUIPPED WITH STURTEVANT APPARATUS



New Canada Packers Plant at Edmonton which won the Gold Medal of the Royal Architectural Institute of Canada and the Gold Medal of the Toronto Chapter at the 6th Biennial Exhibition at the Art Gallery, Toronto, in February, 1937. E. R. Arthur, Architect; R. J. McLaren (Chicago), Technical Consultant; Gordon Wallace, Structural Engineer; Bird Construction Company, Limited, General Contractors.

IN THE medal-winning Canada Packers Plant, Edmonton, Alta., Canada, Sturtevant Equipment provides air conditioning for general and private offices.

This system provides an abundant supply of fresh air to these rooms at uniform temperature and humidity. In the summertime the air is cooled and dehumidified. In the wintertime, it is heated to the proper temperature and humidified.

Sturtevant-supplied Equipment consists of fan, motor, humidifier, steam heating coils, brine

coils, and Shell cooler. Refrigeration is received from the main plant refrigeration compressor.

Sturtevant

PUTS AIR TO WORK

THE B. F. STURTEVANT COMPANY OF CANADA, LIMITED

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BRANCH—553 New Birk Building, MONTREAL, Que.

FACTORY—Galt, Ont.

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Fans, Blowers, Air Washers, Air Conditioning, Heating, Vacuum Cleaning, Drying, Mechanical Draft Equipment

IN CANADA'S FINEST NEW BUILDINGS YOU FIND . . .

Electrical Equipment by Amalgamated Electric

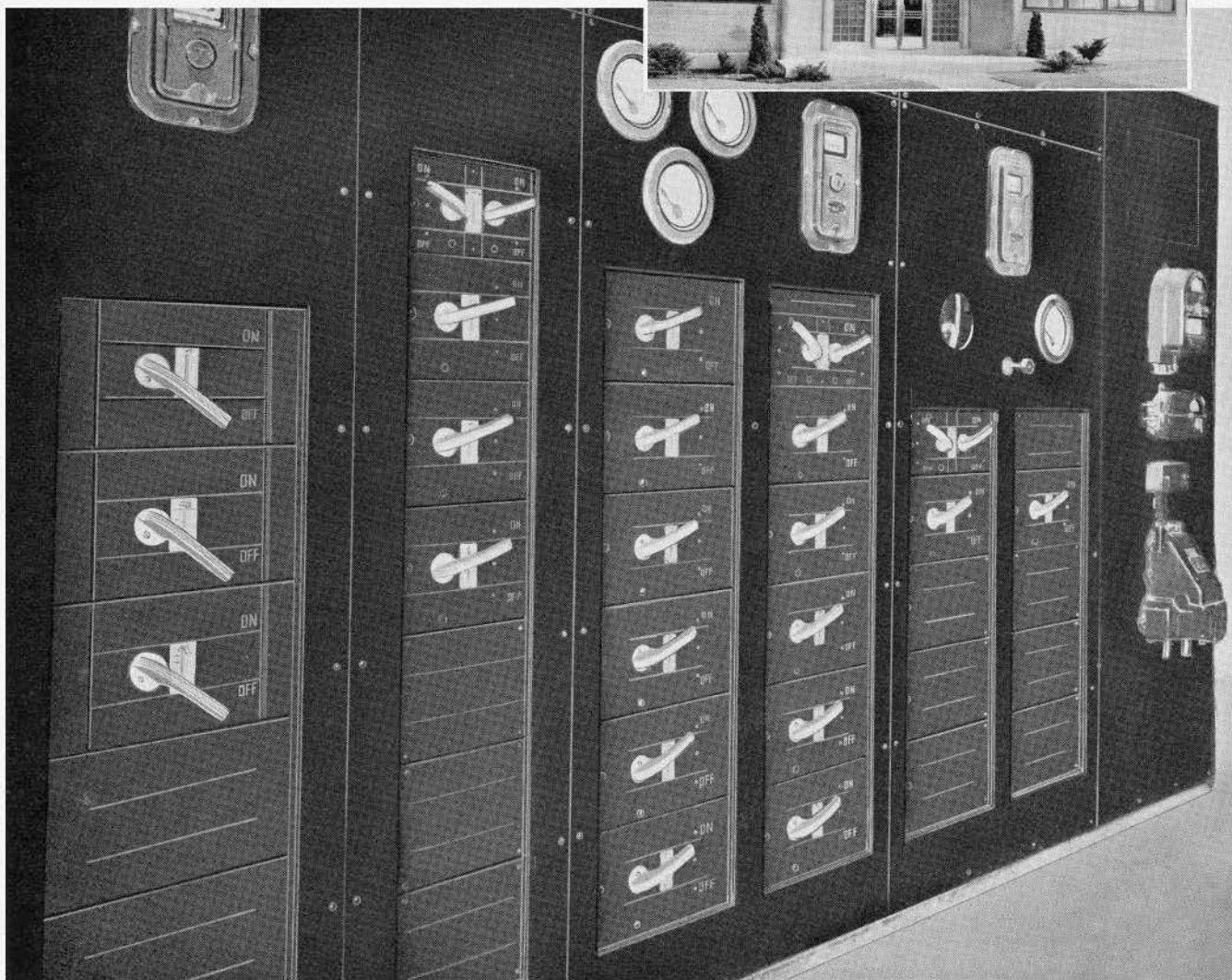
WE take pride in the fact that more and more of Canada's fine modern industrial buildings every year include Amalgamated Electric products. For example, in the modern new plant of Staunton's Limited at Leaside, Ontario, power and light is controlled by an Amalgamated dead front NOFUZ switch board. The complete safety and dependability of the NOFUZ board . . . its ample provision for future as well as present needs . . . are among the reasons why it was selected. We shall be pleased to demonstrate its advantages to you . . . and to co-operate in every way in the planning of modern electrical installations . . . no matter how large or how small.

AMALGAMATED ELECTRIC CORPORATION, LIMITED

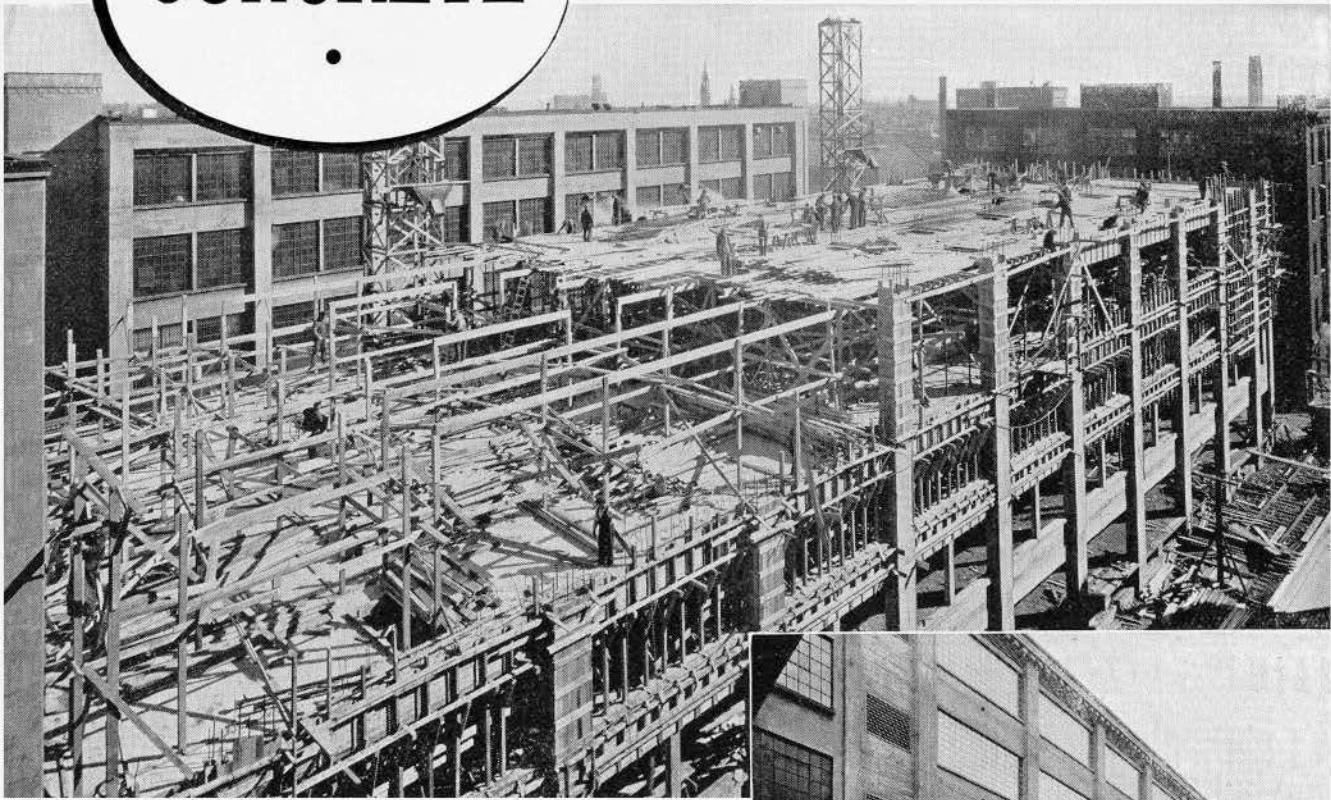
TORONTO - MONTREAL

Langley Electric Manufacturing Co. Ltd. - Winnipeg, Man.
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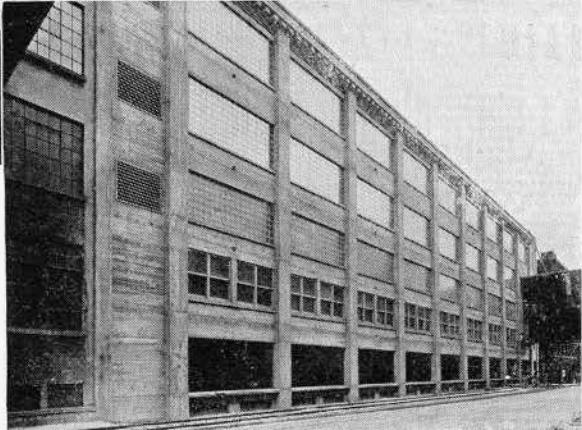
THE NEW HOME OF STAUNTON'S LIMITED (inset)
at Leaside, Ontario. Architects: Mathers and Haldenby.
Structural Engineer: Gordon Wallace. Contractors: Carters-Halls-Aldinger Co. Limited. Electrical Contractors: Canada Electric Company Limited. (Below) Dead front NOFUZ Switchboard.



CONCRETE and MODERNIZATION



New Imperial Tobacco Building - Montreal



Imperial Tobacco Company of Canada, Limited, has just completed "Building K", the newest unit in their group of factory buildings in Montreal. It includes every recent development that will add to the comfort, health and well-being of their employees as well as providing the newest and best manufacturing facilities known. They once again made concrete the back-bone of the structure as they have done many times previously in their construction throughout Canada. Our congratulations to them and to their contractors, Anglin-Norcross Limited.

CANADA CEMENT COMPANY LIMITED

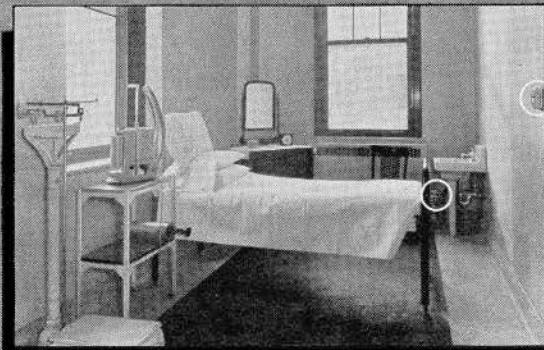
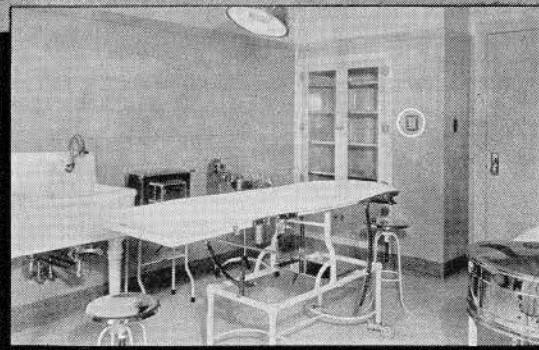
Canada Cement Company Building - Phillips Square, Montreal

Sales Offices at: MONTREAL

TORONTO

WINNIPEG

CALGARY



235 DUAL ROOM "STATS"
328 RADIATOR VALVES
JOHNSON

SAINT ELIZABETH'S HOSPITAL GIVES ADDED AID TO RECOVERY WITH CORRECTLY CONTROLLED ROOM TEMPERATURES

JOHNSON automatic temperature and humidity control systems are engineered for perfect correlation. The devices, themselves, are of finest quality . . . their application intelligent, and their installation careful. No haphazard arrangement of control devices can attain desired efficiency. Johnson "service" is first class and specialized. When Johnson is specified, the control problem remains as the responsibility of Johnson personnel, exclusively, from the preliminary engineering study, through the actual manufacture and installation, and onward to periodic inspection and service. It is all in the Johnson contract. Johnson engineers and mechanics . . . all specialists . . . operate from more than thirty direct branch offices in the United States and Canada. Johnson Temperature Regulating Co. of Canada, Ltd., Toronto, Montreal, Winnipeg, Calgary, Vancouver.

Saint Elizabeth's Hospital, Chicago, Ill.; Hermann J. Gaul & Son, Architect; Glennon-Bielke Co., Heating Contractors.

JOHNSON

AUTOMATIC TEMPERATURE AND HUMIDITY CONTROL

For Heating - Cooling - Ventilating & Air Conditioning Systems

GOOD HABITS FOR GOOD BUILDINGS

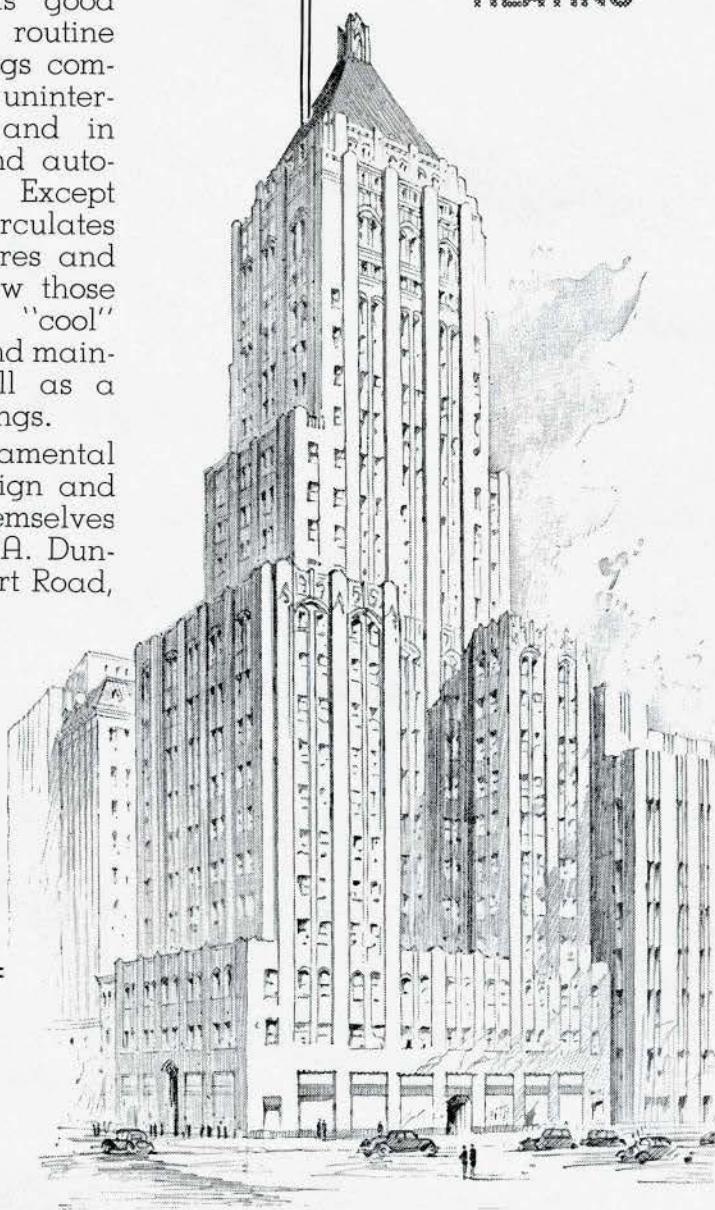
Habit liberates the human mind. By taking over the routine processes of living, it frees the higher faculties for productive activity. It increases personal efficiency. Good heating serves buildings as good habits serve individuals. It makes comfort habitual. It permits fullest realization of the potential satisfactions Architecture creates.

Dunham Differential Heating is good heating. It makes a disciplined routine of the process of keeping buildings comfortable. It distributes steam uninterruptedly but at temperatures and in volumes which vary smoothly and automatically with the need for heat. Except during extreme cold weather, it circulates steam at sub-atmospheric pressures and at temperatures 30° to 80° below those of other steam systems. This "cool" steam warms without scorching and maintains a pleasant "feel" as well as a proper temperature within buildings.

Such heating establishes a fundamental good habit which frees good design and good construction to express themselves fully in human satisfactions. C. A. Dunham Co., Limited, 1523 Davenport Road, Toronto.

Good heating more than pays its own way. A Toronto apartment building having 10,250 sq. ft. EDR changed from ordinary to Differential Heating and reduced its season's fuel consumption from 459 to 310 tons of coal—a saving of 149 tons of coal.

DUNHAM
DIFFERENTIAL
HEATING



G-E WIRING MATERIALS WILL DO THE JOB BETTER

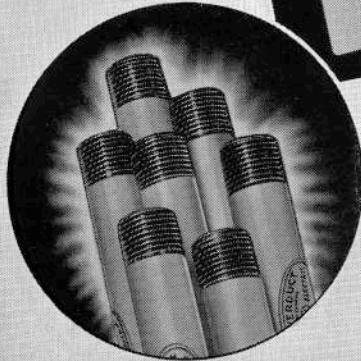
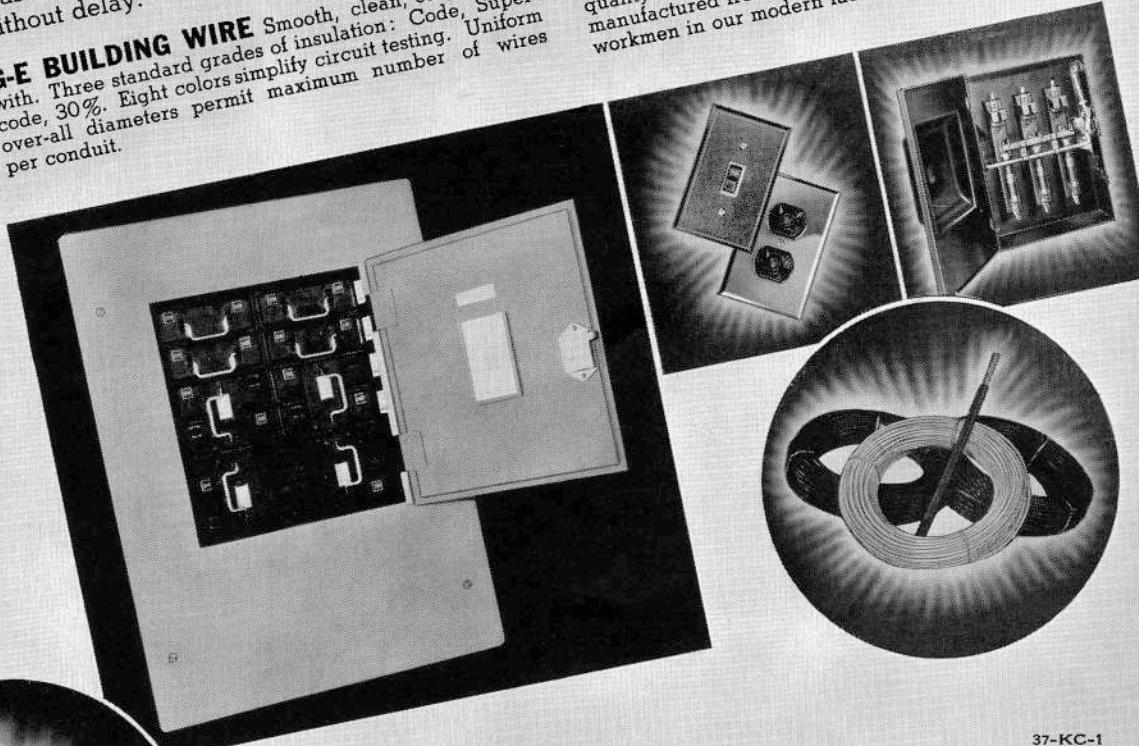
You can rely on G-E Wiring materials to give the long, dependable service that your jobs require. And it's a great convenience to have a single source for all your wiring supplies. G-E factories and warehouses from coast to coast are prepared to fill your requirements without delay.

G-E BUILDING WIRE Smooth, clean, easy to work with. Three standard grades of insulation: Code, Super-code, 30%. Eight colors simplify circuit testing. Uniform over-all diameters permit maximum number of wires per conduit.

G-E BEAVERDUCT RIGID CONDUIT Protected against rust and corrosion by a heavy coating of zinc on the outside and enamelled on the inside for easy wire pulling. Bends and threads easily.

G-E TRUMBULL PANELBOARDS This modern equipment for light and power distribution combines good appearance with low maintenance and installation costs. G-E Trumbull panelboards are giving outstanding satisfaction in many important Canadian buildings.

G-E WIRING DEVICES are durable, dependable and safe. Easily and quickly installed. Their design and quality are based on forty years of experience. They are manufactured from the highest quality materials by skilled workmen in our modern factory.



37-KC-1

GENERAL ELECTRIC
WIRING MATERIALS

CANADIAN GENERAL ELECTRIC CO. LIMITED

JOURNAL

ROYAL ARCHITECTURAL
INSTITUTE OF CANADA

Serial No. 147

TORONTO, NOVEMBER, 1937

Vol. 14, No. 11

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EDITORIAL NOTES

IT is a fact that newspapers, particularly in this country, are rarely willing to give an architect credit for a building. We think such a reluctance on the part of newspapers is not so much a matter of editorial policy as the short-sighted viewpoint of the advertising department. We have all experienced it. We have read of the laying of corner stones without mention of the architect who designed the building. We have heard of architects, who, as a personal favour to an editor, have written an article on a building only to find that the contractor, the subcontractors and the bricklayers (all mentioned by name) were given the credit for the work. We have been asked by newspapers for a perspective of a building which may cost the architect \$50 to \$200 or more to prepare and see it reproduced with our name deleted from the drawing. Such a practice is not uncommon and is, to say the least, rude, if not actually dishonest.

The advertising managers of newspapers still consider the architect a potential advertiser in spite of a rigid code of ethics to the contrary. They never hesitate to give credit to a lawyer in an important case or to a doctor who appears at an accident. A painting is presented or a monument unveiled and the artist is always mentioned. We think, if the architects co-operated and reported newspapers which slighted the profession, we could do much to remedy this situation in Canada. There is every evidence that the general public has awakened to the need for a well-planned city of well-designed buildings. The newspapers are helpless without our co-operation and we should see to it that we are given credit as individuals and as a profession.

We cannot believe, from the editors whom we know as friends and acquaintances, that they would approve of such a policy of suppression. We think they know nothing about it.

Among those who were given credit for their contribution to the design or the construction of Canada Packers Plant at Edmonton, we regret omitting in the August number that of Mr. R. J. McLaren, Architect, of Chicago, who acted as Technical Consultant. We are glad to correct this omission.

It is the policy of the Editorial Board to publish in connexion with every building the names of the engineers and contractor who assisted. We notice that this is done in the better Journals in Europe and members can assist us by including this information in the articles describing a building for publication.

In 1932 "*Punch*" was aroused by the absence of recognition to Miss Elizabeth Scott for her Shakespeare Memorial Theatre and we think it so much to the point that we quote it in full.

THE MISSING NAME

Though I could not get to Stratford or join the pious ranks
Who marched in reverent homage along the Avon's banks,
I have studied most attentively the records in the Press
And gather that the function was a resonant success.

There was no lack of trumpeters, and banners were unfurled
By delegates collected from all corners of the world;
But in none of all the speeches delivered on the spot
Could I find the faintest mention of the architect, Miss Scott.

I'm aware that many critics may legitimately think
That the building is suggestive of a Bolshevik "clink",
But, though the stark exterior is rather grim than grand,
Internally, they all admit, it's admirably planned.

Now 'tis worthy of remembrance that the ultimate award
Represented the consensus of a most distinguished Board;
And there's another fact we cannot possibly ignore—
No woman architect has done a bigger job before.

And yet the gifted lady may lay this cheer to heart:
She shares a common grievance with the masters of her art;
For in Architecture's annals, however richly dight,
The names of the creators don't always leap to light.

In fact, had mighty Christopher been living in our day,
There is no gross extravagance in venturing to say
That, if the opening of St. Paul's with all the honours due,
Had been postponed from Seventeen-ten to Nineteen-thirty-two,

Though nothing might be lacking in pomp or circumstance
The grandeur and the glory of completion to enhance,
None of the chosen speakers, though great and learnéd men,
Would have thought it was improper to omit the name of
WREN.

—C. L. G.

We have just read with great interest of a link between London, Ontario, and Sir Edwin Lutyens. Sir Edwin's father, Lieutenant Lutyens was stationed in London for two years in the 1840's. He was an artist of some ability and at least one of his drawings is to be found in one of the older London Houses. He is mentioned in the diary of Charlotte Harris, a copy of which was sent to Sir Edwin whose interest and pleasure was such that he has just presented the Library of the University of Western Ontario with two photographs of his father.

ARCHITECTURE

By THE HON. AND REV. H. J. CODY,
PRESIDENT OF THE UNIVERSITY OF TORONTO

If this series of addresses on Architecture arouses greater interest in improved building and in town-planning, it will have rendered a service to the community. I am glad to speak of an art which finds one of its homes in the School of Architecture of the University of Toronto, which is of vital importance to the health and beauty of our country, and in which there undoubtedly is a real revival in recent years.

We have been denying to ourselves one of the chief pleasures enjoyed by our ancestors a few generations ago. In the 18th century all educated people took seriously the art of architecture, appreciated it, discussed it, and criticized it. It gave them real pleasure and added interest to everyday life. In almost every earlier age it enshrined the noblest aspirations and ambitions of race, nation, town and village. Why can we not enjoy it again? There is a need for the appreciation of architecture. We find today much ugliness in our surroundings and little evidence of planning in our cities and towns. In a recent editorial in *The Globe and Mail* reference was made to the fact that if a thoughtful observer drove through the environs of our city in almost any direction, he would be impressed by the dominant characteristics of ugliness; in the various zones of our city he would be faced with miles of monotony, and with "stark ugliness heightened by decay and the prevailing human degradation", due to bad housing. If we learned to appreciate architecture, we could not endure such ugliness or lack of planning. Architecture, good or bad, unconsciously reveals our civilization more clearly and more cruelly than anything else. By understanding and praising the good and condemning the bad we can bring about a real change in public opinion and create a taste for the best in architecture. A new watchword may be adopted, "Design with beauty and build with truth".

I wish to define architecture and to point out the elements of which good architecture consists; and then to indicate how it interprets and reveals the ideals of its age, and how it influences the life of the community.

1. Two arts above all others have changed the surface of the world, agriculture and architecture. All primitive architecture grew out of two human needs: (a) the need for shelter from the elements and from enemies; and (b) the desire to commemorate the dead and to worship the divine beings. The range and scale of architectural activity is almost beyond our conception; for the art of building is concerned not only with single structures but with cities and whole countries.

Egypt, Greece, Italy were not so much geographical spaces empty of men and buildings, as groups of cities, filled with people and their dwellings and public halls.

Many definitions of architecture have been given. Mr. Frank Rutter (the late art critic of the London *Times*) distinguishes architecture from mere building by describing architecture as good building, and building as bad building; again, architecture is an effect of which building is a cause; or still again, architecture is "building touched with emotion" or "gentlemanly building". Mr. T. F. Hamlin, a scholarly American architect, gives a more distinctive definition by regarding architecture as "a synthesis of the art and science necessary to produce beauty and the technical knowledge required to realize it in actual building". This is probably as satisfactory a definition as we can formulate. What architecture is we know, even if we cannot accurately express our knowledge in words.

The bare science of structure is engineering; it becomes architecture when the artistic element of beauty enters in. On the other hand, one may conceive of a beautiful building; but it becomes architecture only when it is embodied in an actual material structure. The architect is also more than the pure decorator. In architecture decoration is strictly subservient to the general purpose of the building. Architecture may be said to be "building become an art"; it is controlled not only by the aims of use and comfort but also by the aims of beauty, grandeur and other aesthetic purposes. We fall back upon Ruskin who in his "Seven Lamps of Architecture", offers his analysis of architecture as the art "which so disposes and adorns the edifices reared by man . . . that the sight of them contributes to his mental health, power and pleasure."

Up to the time of the Renaissance, architecture was everywhere regarded as the chief of the arts, and followed the Roman architect, Vitruvius, in requiring three qualities in every fine building: *firma* (stability), *utilitas* (usefulness), and *venustas* (beauty or charm).

2. Just as a painter uses colours and a musician tones, so for the creation of beautiful buildings the architect uses the forms of walls (with their treatment), roofs, windows, doors, floors and ceilings. If there is any change in the factors or improvement in methods of construction, naturally the architect's conception will be changed. The actual materials with which buildings are made also determine architectural forms. Each new available material makes possible a

new architectural opportunity. The use of steel and of concrete, for example, led to the construction of buildings of vast height and with great open interiors, without the support of pillars.

3. What qualities should a building possess in order to be good architecture? Though the appreciation of architecture is open to all, the worth of our appreciation will be enhanced by some training in discrimination and by a knowledge of the main trends of architectural development and of the qualities which should be represented in a fine building.

John Ruskin's "The Seven Lamps of Architecture", whatever may be its imperfections in modern eyes, is still one of the best books ever written to explain not only in what the beauty of buildings consists, but also the reason and meaning of that beauty. He maintains that all beautiful design is founded on natural form, and he also shows that all great architecture, of every period and style, is lit up by certain definite moral principles, which he calls "Lamps". In every noble building the Lamp of Sacrifice shines forth,—you must sacrifice some qualities that others may be emphasized; a law of selective sacrifice must operate. The Lamp of Power must be lit, if the building is to endure through the centuries. The Lamp of Obedience to natural laws must glow, lest the whole structure fall to pieces. Prolifically must the Lamp of Truth be kindled or shams in material and design will not survive the test of time. Without the Lamp of Beauty or Significance the building will have no character or meaning.

These qualities which a fine building must possess may be expressed in more architectural phraseology. They include both the general principles of aesthetics and some special qualities of a more definitely architectural character. They may be summarized as follows:

(a) *Unity amid variety*. Out of the inevitable variety in the form of a building, due to different dimensions and materials and functions, the architect must create a unity, a whole which shall appear one. Every part must be so designed as to help the general unity of composition.

(b) The parts must be in accord with some *harmony* of feeling or form. This harmony must be felt in the separate parts and in the relation of the parts to the whole.

(c) *Proportion* is the quality that results from a proper relation of sizes. Over many generations, certain relationships appear pleasant and are said to be "in good proportion"; others appear unpleasant and confused and are said to be without proportion.

(d) *Rhythm* is a matter of the repetition of measures. A repeated motive, like a window or an ornament, creates a rhythm.

(e) The most obvious *balance* is symmetry, "an

expressed quietness and repose in the totality of the building". No one part seems to outweigh the whole unpleasantly.

(f) Less universal is *climax*. Yet it is often a distinct element in many buildings. Some part or feature (such as a doorway) creates a centre of interest and gives a dramatic quality.

Of the more distinctly architectural requirements to good building may be mentioned (a) *Scale*, which gives the appearance of true size. A large building should appear large, a small building small. The problem of scale is largely the problem of relating the building to a human being. A decorative sculpture of the human form would set a scale. (b) *Honesty in expression* is a most desirable quality. To Ruskin it was the chief requisite. The building should express its materials, structure, and function, and should flow naturally from them.

Mr. and Mrs. Williams Ellis in a sprightly volume "The Pleasures of Architecture", express these necessary qualities by asking a building five questions:

1. Do you fulfil your function as a house or shop or church or hotel, adequately and with a minimum of friction?

2. Are you or were you for a reasonable period structurally efficient so that your doors and windows shut properly and keep out the weather?

3. Do you seem beautiful to me, or if not, did you seem beautiful (not merely correct and expensive) to those who built you?

4. Have you got a general architectural theme which you try to express?

5. Are you a good neighbour so that any buildings there may be near you gain rather than lose in beauty or seemliness by your existence?

"Candidates for admiration need not necessarily pass in all five questions."

4. In architecture we can see portrayed much of the spirit and genius of the races which have employed it and the age in which it was produced. All noble works of art are a kind of sacrament; they are outward and visible signs of the inward and spiritual ideals and ideas of their period.

Architecture has a special claim on all who love the past, because, it is more than any other art "the sister and interpreter of history". The study of the buildings of a country aids in understanding its history. "In them you see how men faced the conditions of their life; you see exactly what they needed in the way of comfort and defence; what form of structure and internal arrangements were prescribed by the uses of religion in churches; by tracing the type of buildings in each particular province or district of a country, you see what were the racial, political, or cultural influences

that operated upon that district when the building was being erected". Buildings thus illustrate history and history explains buildings.

Architecture with remarkable accuracy expresses the life of past ages—their culture and economic and political characteristics. The excavations at Pompeii reveal the life of the early Roman Empire in a provincial city. The life of mediaeval France may be read from the walls of Carcassonne, the Cathedral of Chartres and the Chateau of Coucy. Hampton Court, too, belongs to the transitional age of the Tudors, when the grim ideal of a feudal fortress was yielding to the more gracious conception of a peaceful home. Famous buildings and monuments thus both record important events of the past and reveal the ideals of those who erected them and express the dominant emotions of the age.

Mr. Frank Rutter, in his delightful, popular book, "The Poetry of Architecture", classifies the various periods of architectural development according to some idea which ruled the period and was expressed in its buildings. The Age of Fear includes the Egyptian, Assyrian and Babylonian structures of tomb and temple and palace; the Age of Grace embraces the beautiful masterpieces of Greek genius; the Age of Strength covers "the grandeur that was Rome" which expressed itself chiefly in engineering works of bridges, aqueducts, viaducts and roads; in the Age of Piety impressive churches were built in Romanesque and kindred styles; the great Gothic cathedrals arose in the Age of Aspiration; the Renaissance and its aftermath are described as the Age of Elegance; the last century down to the present is roughly classed as the Age of Memory. These characterizations illustrate the general truth that the history of architecture furnishes a fairly accurate commentary on the life, culture and dominating ideas of the people who produced it. As it has been well said: "We can live without architecture and worship without architecture, but we cannot remember without architecture."

In years to come our standards and motives will lie open to those who study the buildings of today. Such

revelations will be all the clearer because they are quite unconsciously made.

5. Architecture has an immediate and important influence on the character, outlook and daily life of the people. It touches ordinary life more closely and constantly than any of the other arts. We can shut up a bad book; we can stay away from a concert hall, a theatre or an art gallery, if we will, but we cannot evade or avoid houses and streets. If these are ugly, senseless or destructive of natural beauty, we may have to endure them for years. A large part of the subtle effect of a city upon our consciousness is due to the character of the buildings in which the citizens live, work, play and worship. We may become insensitive by familiarity to the kind of building that is about us, but it exercises an exhilarating or depressing effect upon us, even though we do not recognize it. If a man lives where beautiful buildings abound, no matter how simple they may be, his soul is unconsciously uplifted.

Dignified buildings; well-arranged streets; open spaces; cleanliness; order and amplitude in our public thoroughfares—develop the sense of the beauty of proportion that lies deep in the heart of every man. Quite apart from comfort or convenience we are all concerned in making our city or town or home as beautiful as possible. No class can do more permanent good or evil to outward aspect and inner spirit than can the architects.

There is in many quarters a revived interest in good architecture; but the people at large need to be aroused to new appreciation and encouragement. Today in both public and private buildings we are seeing the evidence of the architect's skill and taste. Let us give him his opportunity to the fullest extent. He is always on the alert to make our physical surroundings answer our needs. He will give a lead in the enactment of building codes, in the development of housing standards, and in the beautification of our cities. For Architecture bears an important relation to civic, economic and social problems as well as to the actual, individual buildings that are erected. The architectural touch is essential to civic health and beauty.

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THE HISTORY OF GAMES

By RAMSAY TRAQUAIR, Professor of Architecture, McGill University

THE history of most games is very obscure; we reach back without much difficulty to a certain point, the point at which the game became first popular, then we enter a dense fog with only a hint here and there. Usually the earliest mention of a game is a law forbidding it. The early legislators of England spent quite a lot of time forbidding games.

A proclamation issued in London in 1414 forbids apparently every game the legislators could think of.

"Servants and labourers shall utterly leave off playing at the balls, as well handball as football and other games called coits, dice, bowling and other such unthrifty games."

It is hard to believe that the legislators themselves never played any games, but it is noticeable that all the games here enumerated, excepting dice, are athletic. They are young men's games for which the legislators were probably too old and stiff. It is also noticeable that they are condemned as "unthrifty", a waste of time.

The reason always given was that such games took men away from archery, then, of course, a matter of great national importance. It was as though football and golf were prohibited today on the grounds that they interfered with recruiting for the local militia. But we may be quite certain that the regulations were not observed. Such regulations never are. Young people went on playing games and their elders went on denouncing them.

Give two boys a ball and they have a game; indeed they have the oldest and one of the best games in the world. When the Spanish Conquistadors came to Mexico they found the Indians playing a game with a ball, it was something like basketball, and the ball was made from the sap of a tree. We have no doubt improved the methods since then but the way to coagulate the sap of the india-rubber tree was found by the Indians long before the appearance of the Europeans and the rubber was used for a game.

Catch-ball is mentioned in Homer. Nausicaa and her maidens were playing catch-ball when Odysseus interrupted the game.

In the XV century Walter von der Vogelweide tells us that one of the signs of spring was when the girls come out into the streets and play catch-ball. At the present day in Montreal, and, I imagine, in any town in North America, about the end of March the boys come out and throw a ball from one side of the street to the other, the passing automobiles forming a suitable bunker. Spring has begun.

Catch-ball is a game with many good points. It has very few rules and they have never been written down. It begins and ends when you like. There are no winners, no records, no intercollegiate contests, no leagues, no newspaper reports and no professionals. Yet it is played as regularly as football and possibly with just as much pleasure to the players. All it requires is a ball, a street and players, not less than two. Catch-ball may be played in an open field but this robs it of one of its greatest charms, for an obstacle between the players is desirable and what could be better than the rapidly passing cars. The faintly illicit quality this lends to the game adds to the zest of the players, as no doubt did the mediaeval statutes.

But if only our games-promoters discover it one can see a great future for catch-ball. It will no doubt be played by carefully trained teams on a measured field up the centre of which will run an artificial street whilst at each side will be artificial windows with real glass in them. Up and down the street will run motor cars of carefully regulated heights and speeds. There will be umpires and referees and expensive "street-side" seats. And there will be rules; three points off for hitting a car, five points for breaking a window. And two boys will go out into the street with a ball and will play catch-ball, until the police stop them.

In games of this type the obstacle between the players is very important. In one ball game played in Germany in the XV century the roof of the church was the obstacle and the ball had to be thrown over it. This was rather large; some smaller obstacle was preferred, only sufficient to make the players throw high; a net in fact, and so originated tennis.

Already in the XIII century tennis was a popular game both in France and in England, but this tennis was a very different game from what we play now. The ball was struck with the palm of the hand, as it still is in "fives" (this, of course, originated the scoring by fives) and even at this early date there were two forms of the game, "le jeu de paume longue" and "le jeu de paume court". Long palm-game and short palm-game. "Longue paume" was played in the open on an unlimited space. It was a catch-ball in which the players were not allowed to hold the ball.

"Court paume" was the same game played in an enclosed space, usually the court-yard of a house. Here the windows, galleries, doors and similar features made obstacles and so rendered the play more skilful. But each court was necessarily different from every other one. So there grew out of tennis a great variety of games in which the ball is struck over a net or rebounds from a wall as in pelota.

About the XV century the racquet was introduced, an artificial hand which made the play faster and more accurate. Rules and scoring gradually became more complicated, the court became standardized, of a certain size with certain obstacles, the dedans, the penthouse, the grille and so on, until a game which had begun by a few odd youngsters throwing a ball about a court-yard became extremely skilful, complicated and expensive. Tennis is still played by a few enthusiasts but for most people it is much too complicated and costly.

Meanwhile, about the middle of the XIX century, tennis sprouted a new branch. It was taken out into the garden, a court was laid out with chalk lines and it became lawn-tennis. It was quite simple at first and thrived. It became popular. Today it creates international rivalries and is fully equipped with professionals, publicity, temperamental champions, sports outfits and all the other essentials of a modern game. The modern player jeers at the curates and maidens who used to pat a ball across the lawn, but, do they enjoy the game any more themselves? The curates and maidens were playing a very old game and a very good one; possibly a better game than hysterical lawn-tennis in the centre court.

The old game of tennis was killed by its own rules, the newer game is being killed by too hard a standard; these are the dooms which seem to await every game.

Playing cards seem to have begun as a form of divination, of fortune-telling. The Italian tarots were certainly divining cards and from this appeal to fortune they came to be used in games of fortune in which skill played a part.

Many of the early packs were very complicated. The tarots had five suits of fourteen cards each, spades, diamonds, clubs, hearts and trumps. The spades were swords, indicating success as a soldier, the diamonds money, the clubs danger from violence, the hearts success in love, whilst the trumps were a set of figure cards indicative of good or evil fortune in various lines and of the kind of persons who would influence the enquirer's life. The Dark Woman with much money and the Black-hearted Villain with a club and soon they included a hanged man!

When the tarots were adapted to games, the suits were reduced to thirteen with court cards and trumps were abolished as a separate suit.

It would take volumes to follow the ramifications of card games but some recent developments in them show the danger of too many rules. Fifty years ago whist was the popular English game. But it became very scientific and so loaded with rules and conventions that eventually poor players gave up playing. So whist died. In the meantime, some ingenious person wedged whist to "nap", a game in which betting on the number of tricks to be taken was a principal feature, and bridge was the result. Bridge passed through stage after stage, auction, contract, at each stage the importance of the play becoming less and the importance of the bidding becoming greater until today we have a game utterly unlike the whist from which it originated, and this game is becoming so complicated, so full of rules and conventions that simple persons hesitate to play. It will die, too.

Meanwhile a really simple game like poker which has almost no rules at all and no conventions, will probably live its simple life undisturbed by international conflicts and codes. It is only right to add that a bridge enthusiast to whom this was submitted denies the whole thing. Bridge was created perfect in all its parts and has been getting more perfect ever since.

We had better get back to our ball games. Throwing a ball at something is probably as early a game as catching it. If one player throws the ball at a mark and another tries to prevent him, with a club, the result is baseball, or cricket or one of quite a number of games which have never emerged from obscurity. Cricket was called after the crooked bat used to strike the ball, for the old cricket bat was a curved instrument. The ball was thrown at a three-legged stool and the present wickets with the bails on top are simply the legs and seat of the stool. Cricket is still fairly healthy but since it became an international sport the cricket world has been rent by controversies. Is body-line bowling permissible? It is also tending to become ritualized. It must be played so-and-so, the players must wear so-and-so and do so-and-so. Here lies danger.

Baseball undoubtedly originated from the same beginnings as cricket but it took a different road and resulted in a very different game. Without entering into the endless discussions on the two games it can, I think, be fairly said that cricket is a game of bowling and batting. The attack and defense of the wicket are the most important things, the running and fielding are secondary. Baseball is a game of throwing, catching and running; the hitting is secondary to these. Baseball has been very much overshadowed by its enormous professional and spectacular development, but there is a good and real play-game hidden under the professional incubus. Possibly the little game is more alive and more valuable than the big one.

Throwing or rolling a ball at a mark gave rise to skittles, bowls and quoits, all three very old games. Does not every English schoolboy know that Drake was playing bowls when told of the Spanish Armada and know his reply. Quoits is the farmer's version of bowls. As he found it difficult to get a level place and a good ball, the farmer's boy got a horseshoe and threw it. Quoits is still played with horseshoes in many parts of Scotland.

In winter the bowling green is under snow. Now in frosty weather the stone mason cannot build his walls; the frost affects his mortar. So, having the day off he took one of his stones, went to the nearest pond and played bowls on the ice. He found that if he gave his stone a spin it "curled". So curling is the mason's winter game and being a good game was played by many who were not masons. Today in Scotland curling is a game which pays little attention to social status, it is popular, it has few and simple rules and no professionals. It has spread over Canada and indeed into all parts of the English-speaking world where there is ice in winter.

Another occupational game is golf, the game of the lowland Scottish shepherd.

The name is derived from the Dutch word *kolbe*, meaning a club but the Dutch game seems to have been different from golf as we play it today. *Kolbe* was played in a barn or on the ice and seems to have been something like croquet. The course was quite short and the ball was struck from one point to another. When the name came to Scotland it was probably attached to another game played on the grassy links, or sea-meadows, in which the shepherd struck a ball from one point to another over a long course. Golf is, after all, croquet on a long scale.

There is a curious Scots' proclamation of 1618. "Whereas no small quantitie of gold and silver is transported yierlie out of His Hieness' Kingdome of Scotland for buying of golf balles, therefore His Hieness' confers a monopoly of ball manufacture on James Melville for the space of twenty-one years." So we learn that in the early seventeenth century golf was still a foreign game in Scotland, or at any rate one dependent on foreign supplies. The proclamation also illustrates the mercantile theory of the time, that wealth lies in the possession of gold rather than as a result of trade, a theory, alas, not yet exploded.

But whatever was the original game of *kolbe* or however it was played, there seems to be little doubt that the present game originated in Scotland through shepherds knocking a ball round the links upon which they grazed their sheep. Even fifty years ago it was still a purely Scottish and popular game; excepting for a couple of Scottish clubs it did not spread to England until about 1885 or 1890. After that, as we know, it spread with astonishing rapidity all over the world. The lowland Scottish shepherds' game was found well suited to the tired business man.

In spreading it has lost much of its original character. It has become a rich man's game, fully equipped with championships, records, rules and club houses, and, above all, with an interminable variety of instruments. It also carried with it the dress of the lowland shepherd, the loose knee-breeches of rough tweed. These had been worn in the country by the Scottish gentry, for such people always tend to adopt peasant dress for country occupations. They were carried to England by the "golf-stream" of the eighties and now, under the name of "plus-fours" are in this country identified with golf. The name "plus-fours" referring, of course, to the handicap suitable for wearers of these formidable garments. How many of their wearers know that they are assuming the quaint peasant costume of lowland Scotland?

Here may we be allowed to note the caricatures of golf which show it being played by very primitive personages in kilts. This is a mistake. Golf was never a Highland game; it was imported into the Highlands by lowlanders, just as it was imported into England. The principal old Highland game was shinty or hockey, an almost universal village game. Of course, golf may be regarded as a kind of one-man hockey and it is possible that the *kolbe* was a hockey stick with which the solitary shepherd practised hockey round his flock.

Football is a very old game, probably as old as handball. It is forbidden in an English proclamation of the early fourteenth century. This early football was played by unlimited crowds over a large space, and was very violent. An account of the end of the fifteenth century reads: "the boundaries had been marked and the game started and when they were striving manfully kicking in opposite directions . . ." Another account describes mediaeval football as: "rather a friendlie kind of fyghte than a play or recreation . . . for doth not everyone lie in weight for his adversarie seeking to overthrow him and pick him on the nose, though it be on hard stones, on ditch or dale, on valley or hill or whatever place soever it be he careth not so he have him doune."

This old communal football survives today in a few places. At Ashbourne a match is played on Shrove Tuesday in which the goals are the river and the village, three miles apart, there are no boundaries and the whole village takes part.

From this simple game, boundless and nearly ruleless to our modern football is a matter of increasing regulation. First boundaries, then a measured field of play, then rules and rules, and more rules, until today the rules of Canadian (and American) football fill a large volume and the players have to go into conference every few minutes before they know what to do.

The progress of all games seems to be towards regulation yet it may well be doubted whether any game has ever been improved by rules. Most players are rather proud of the popularity of their favourite game, yet popularity usually ruins a game. The end of regulation and of popularity is inevitable death.

Tennis was killed by rules. Today it is just a complicated corpse played by a few enthusiastic antiquarians. Whist, once as popular as bridge is today, was killed by too many conventions. We may be allowed to ask whether some of our present-day sports are not in danger of being killed by rules,

by popularity and by the champion—the "ace". When competitions and championships, and the rules laid down to cope with them, get too powerful, the indifferent player will not play. But the indifferent player is always in the majority and all clubs are in reality supported by the despised "rabbits". So presently the champions are left to play their complicated game alone; at best they become a commercial spectacle, and the "rabbits" get a ball and play catch-ball. How admirable it would be to start a club in one's favourite game, the principal rule in which should be that anyone winning a championship should be automatically expelled. All other rules to be abrogated.

It has been said that the essence of sport consists in doing things with unsuitable instruments. There is truth in this. There are many better ways of catching trout than with some feathers tied to a very small hook; there are few more unsuitable instruments for propelling a small ball into a small hole than a golf club. A net would catch more fish, a simple spring gun would send the ball farther and more accurately. It is the doing things with instruments that require skill that constitutes the sport. Yet we are always trying to make the instruments play the game.

No game is ever improved by using instruments that make it easier. Golf has not been improved by the rubber-cored ball; the old solid guttapercha ball required more skill, nor has the multiplication of clubs helped it. There is a proposal to limit the number of clubs to fourteen, but the old game played with about half a dozen was just as good a game. Yet we go on trying to improve the clubs and the balls and the shafts not realizing perhaps that when the instruments are perfect, the game would be dead.

Some games remain simple. These are the games which have never been burdened by popularity and all its attendant ills. They have no international champions and so the players are oppressed by no impossible standards, they can be as bad as they like. But there is always danger. Indeed there seems to be no real remedy but to organize the bad players into one vast protective league of happiness and obscurity. The principal difficulty is that this league must have no organization. Still all poor players, all rabbits and duffers are here and now invited to join. The league has no organization, no president, secretary or committee, no rules; so there is no one to write to but there is, oh yes, there is, a state of mind.

NOTICE

The Annual Exhibition of the Royal Architectural Institute of Canada will be held in Montreal during the month of February. Details will appear in the next issue of the Journal, but members wishing to take advantage of foliage should take their photographs immediately.

GASOLINE STATIONS

By GORDON S. ADAMSON,

BEFORE the advent of the automobile, the General Store with its hitching posts was the centre of almost any small community, while in the larger settlements the same was more or less true of the Grocery Store. Today, however, the automobile has changed the order of things and it has become necessary to visit the gasoline station more frequently than any other dispenser of public service. We have watched with apparent indifference the introduction of the gas station and have only vaguely been aware of the very large number which have been and are being constructed. It comes as a shock, therefore, to learn that in many localities there are actually more gasoline filling stations than retail food stores, exclusive of restaurants and eating places. We begin to realize the very important part the gas station is destined to play in the architectural scheme of our towns and cities. An architect's views on gas station design, therefore, should be of interest to owners and their community. Though gas stations in Canada are not on the whole more poorly designed than those of many other countries, the European stations are admittedly better than ours. Due to the nature of the oil refining activities we have necessarily been influenced in the design of filling stations by the prototypes to be found in the United States, where this business, as well as the automobile industry generally, is centred.

Stations here fall into two classes:

- (a) the efficient looking (or functional);
- (b) the romantic.

To explain these terms to the lay reader let us hasten to add that when we say efficient looking we mean just that. While Casa Loma, Toronto's turreted castle, with its romantic appeal, might be converted into a gasoline station and made to operate efficiently, it would never-the-less be a building whose appearance would obviously not express its function. In other words it would not be efficient looking.

We have often been puzzled over the obvious preference for the romantic among the gasoline companies of Canada and the United States. Does it mean that the average customer is a sentimentalist whose thoughts turn to Merrie England or the castles on the Rhine while a most efficient modern mechanical pump gaily clocks up the gallons? Are gables, half timber work, flower boxes, and doveless cotes subtle suggestions to the motorist to buy more gallons and take himself off into the country where according to the romantic novelists such things are to be found? The answer eludes us.

Unlike our domestic work and public buildings which for generations have taken traditional forms, the gasoline station is a new comer without precedent.

Why then, we ask, have not the gas companies kept pace in the design of their stations with the amazing advances in the design of the motor car? Indeed, with every advance in motor car design some gas stations go a step farther back into history. The automobile is not designed as a stage-coach. Why should the service station take the form of a 16th century Roadside Inn?

The makers of gasoline pumps are always abreast of the times and have never pandered to the romantic instincts of the gas companies. We have never been served gas from a pump with handle and spout, though such might easily be the case if the pattern of the pump were taken from the same source as that of the station which houses it.

The motor car is a highly efficient machine, each year adapting its designs to some new mechanical principle like streamlining. So is the pump a purely functional instrument which every year improves in design and operation. It becomes more, rather than less mechanical and its beauty results from its obvious fitness to do its job.

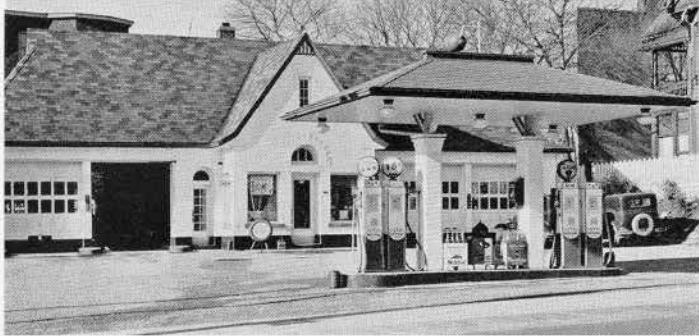
Companies are giving much thought to the primary functional requirements of service station design, in seeking to develop layouts which will facilitate speedy service and embody adequate office and toilet accommodation. Some are going farther in applying modern store design principles for display areas which will be effective in calling attention to, and promoting sales of accessories, tires and batteries. More attention is being paid to services such as lubrication, which require more time than routine gas dispensing, these being housed conveniently without obstruction to the more transient business.

Many companies today recognize the advertising potentialities of their stations and are striving for easy identity in the standardization of trade marks, uniformity of color schemes and basic design. Plan types for various kinds of sites, with respect to size and shape of lot, location relative to thoroughfares, proximity to other public services and centres, are being studied and ideals set up, thus evolving standard type designs which will meet all geographical, operating and economical requirements.

If the architect in practice is to arrive at a logical solution for service station design he can ill afford to be hampered by the dogmas of tradition. He must adjust his thinking to the modern world of the motor car, taking advantage of new building materials, new construction methods, and new uses of color and lighting effects. In doing so he will be acting in the interests of his client, creating for him the "eye appeal" which he demands. He will, moreover, be contributing to architectural progress.

C
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IMPERIAL OIL LIMITED



CANADIAN OIL COMPANIES LIMITED



SUPERTEST PETROLEUM CORPORATION LIMITED



McCOLL-FRONTENAC OIL CO., LIMITED



CITIES SERVICE OIL COMPANY LIMITED



The gasoline stations shown on these pages were not selected by the Editor. . . . The companies represented were asked for a photograph of what they considered their best station.

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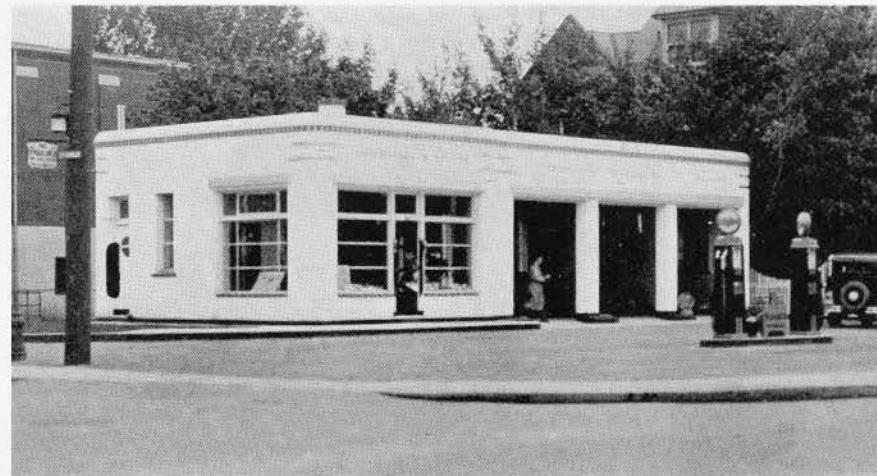
SHELL OIL COMPANY
OF CANADA LIMITED



PERFECTION PETROLEUM CO., LIMITED



SUN OIL COMPANY LIMITED



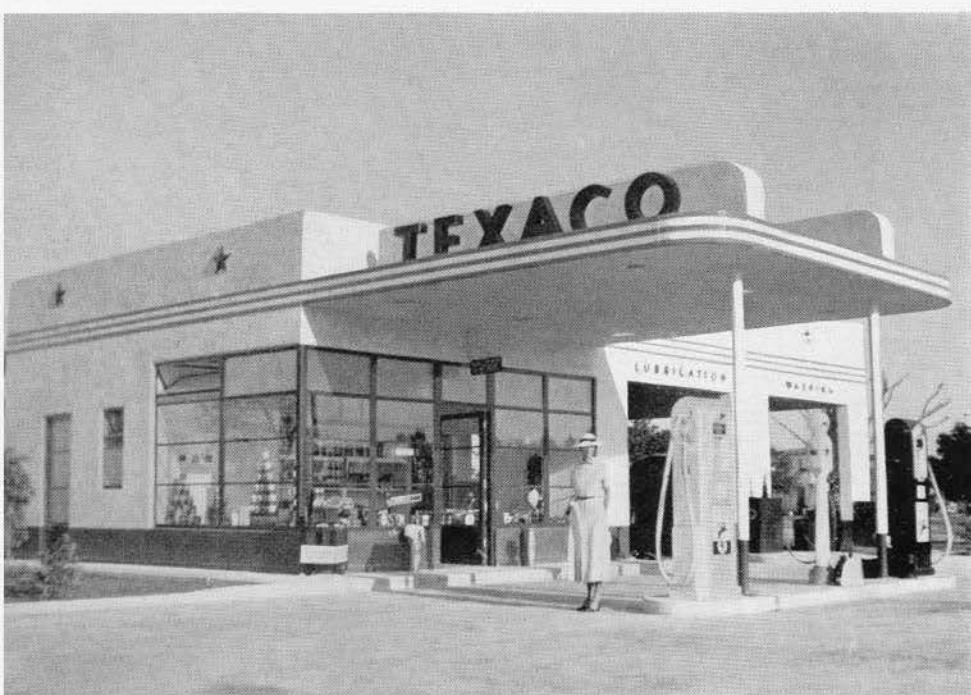
MCCOLL-FRONTENAC OIL CO., LIMITED



FINLAND



UNITED STATES

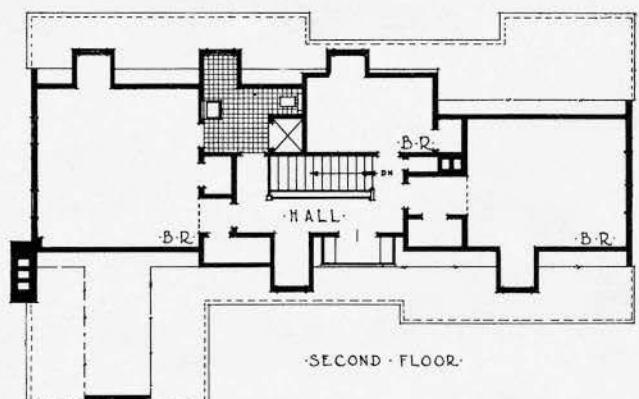
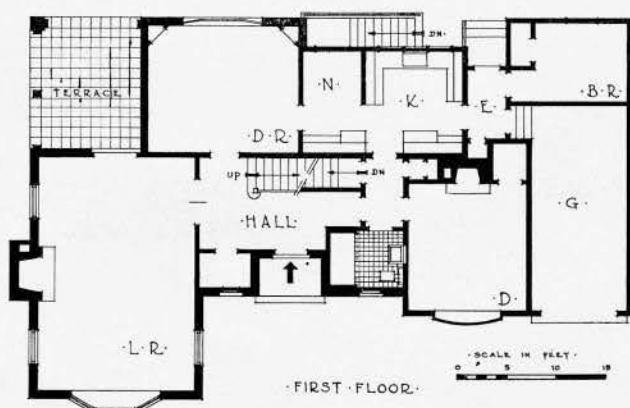


GERMANY

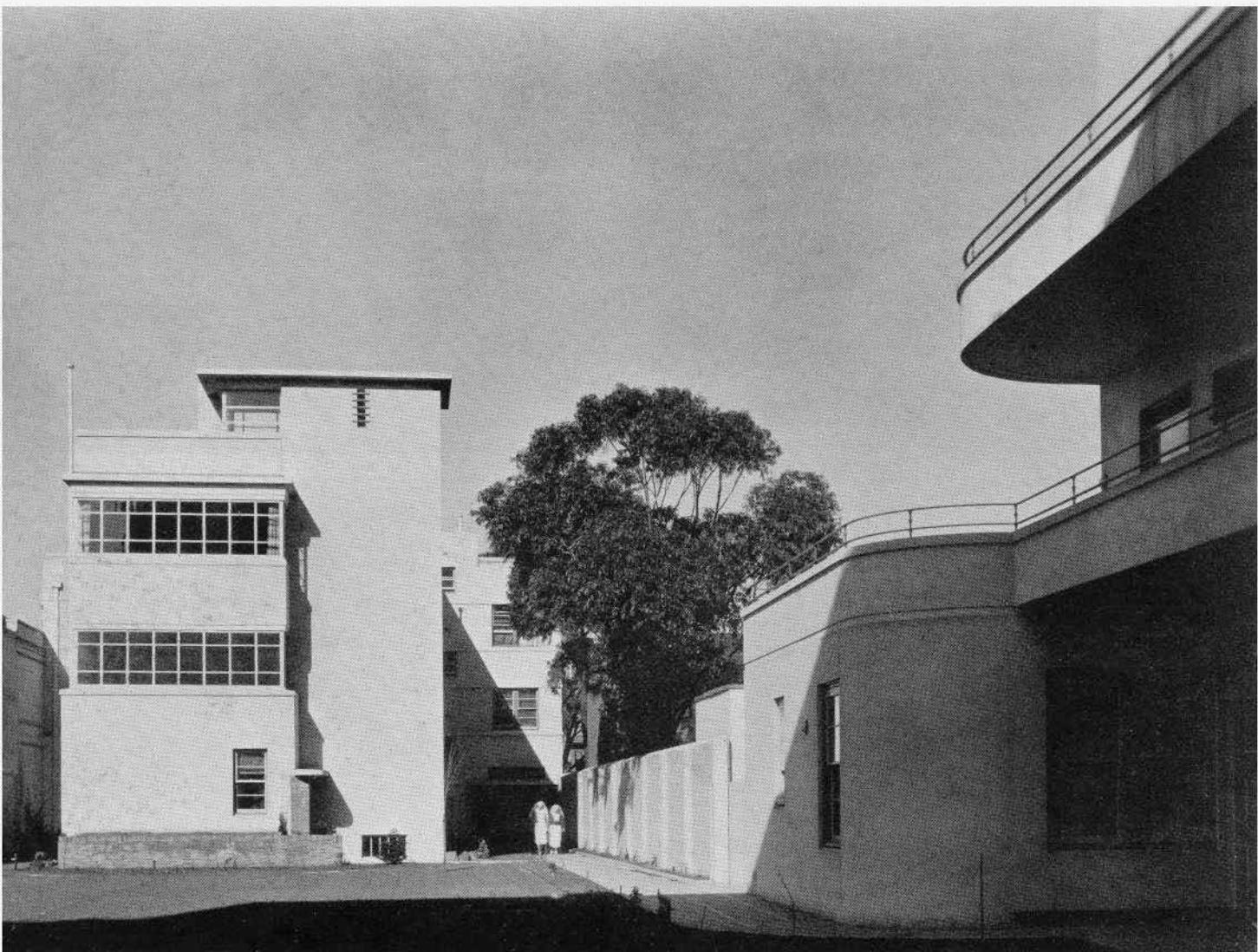




HOUSE OF MR. CARL HALTERMAN, VANCOUVER
C. B. K. VAN NORMAN, ARCHITECT



A U S T R A L I A



MERCY HOSPITAL, MELBOURNE

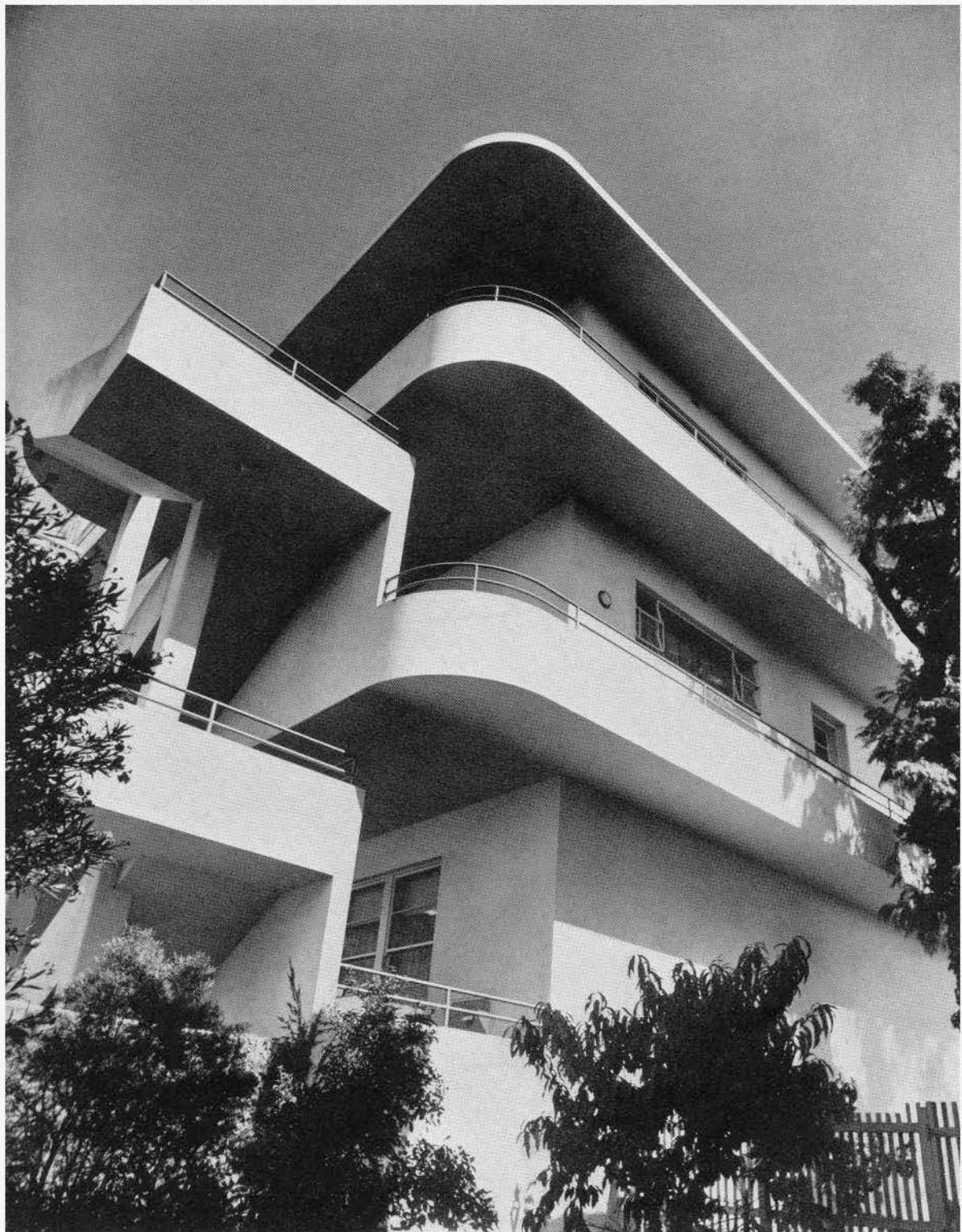
STEPHENSON AND MELDRUM, ARCHITECTS

A U S T R A L I A



ROYAL PRINCE ALFRED HOSPITAL, SYDNEY

STEPHENSON, MELDRUM AND TURNER, ARCHITECTS



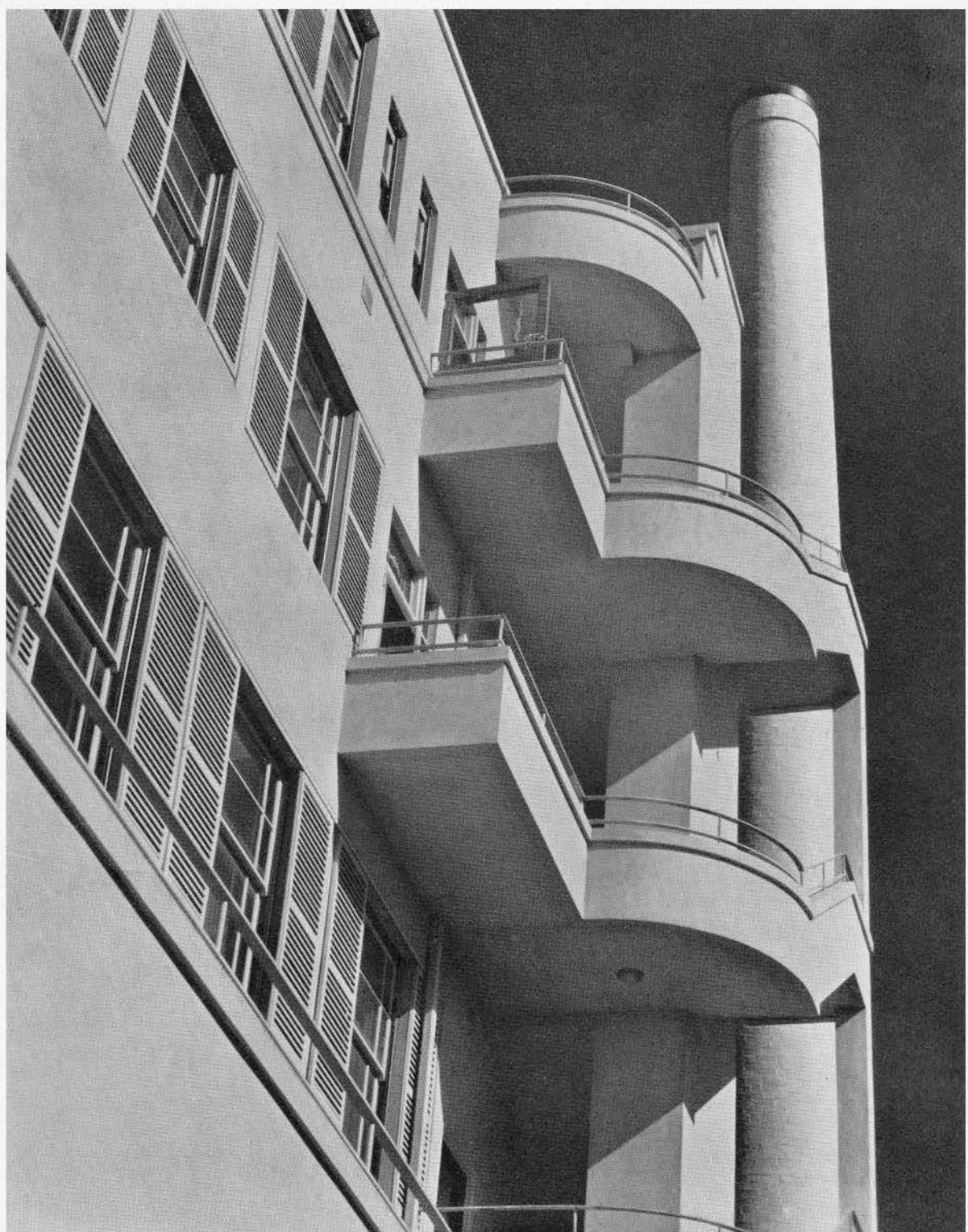
FREEMASONS' HOSPITAL, MELBOURNE

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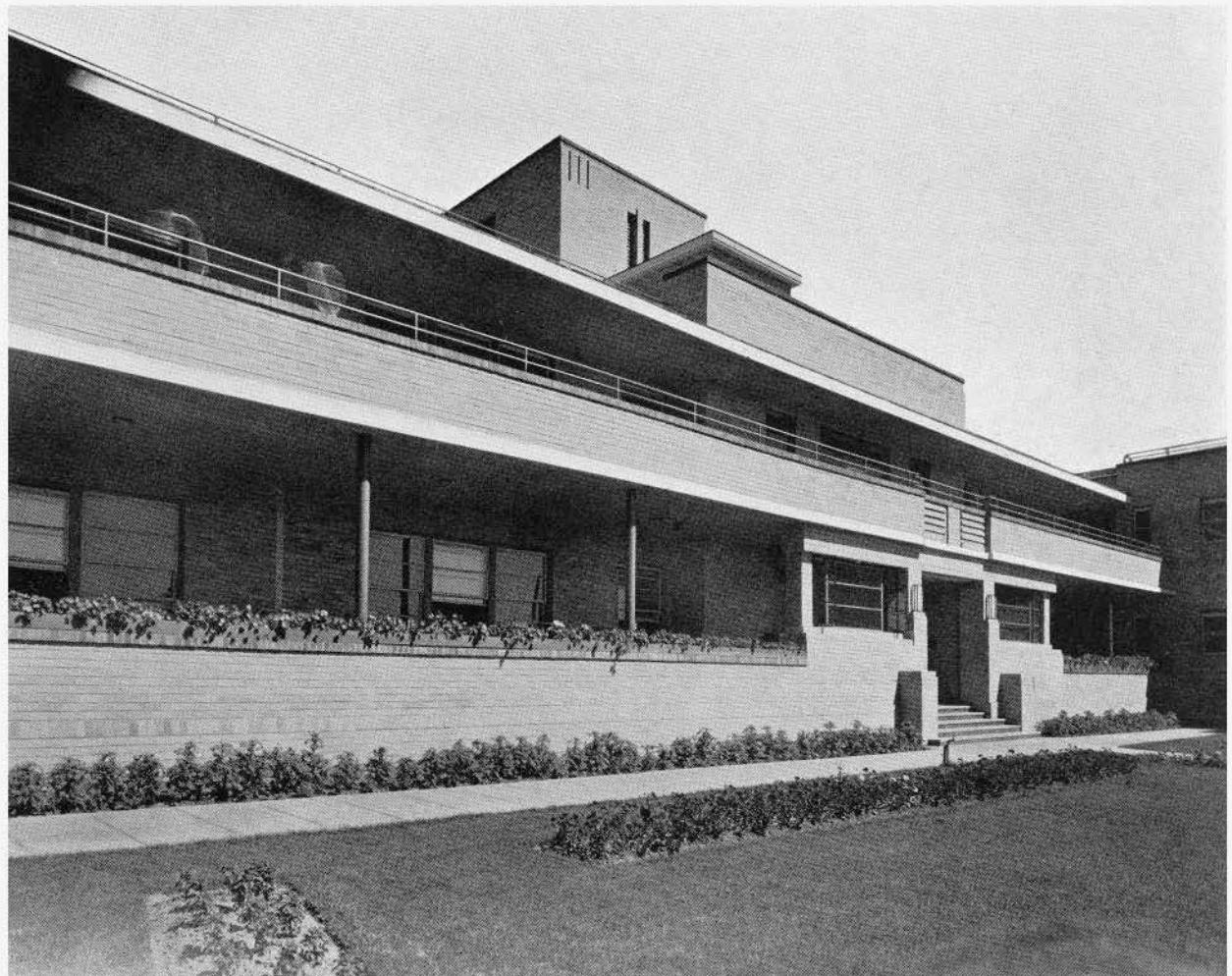




MERCY HOSPITAL, MELBOURNE
NURSES' STATION AND LIFT HALL

STEPHENSON AND MELDRUM, ARCHITECTS

A U S T R A L I A



BALLARAT AND DISTRICT BASE HOSPITAL, VICTORIA

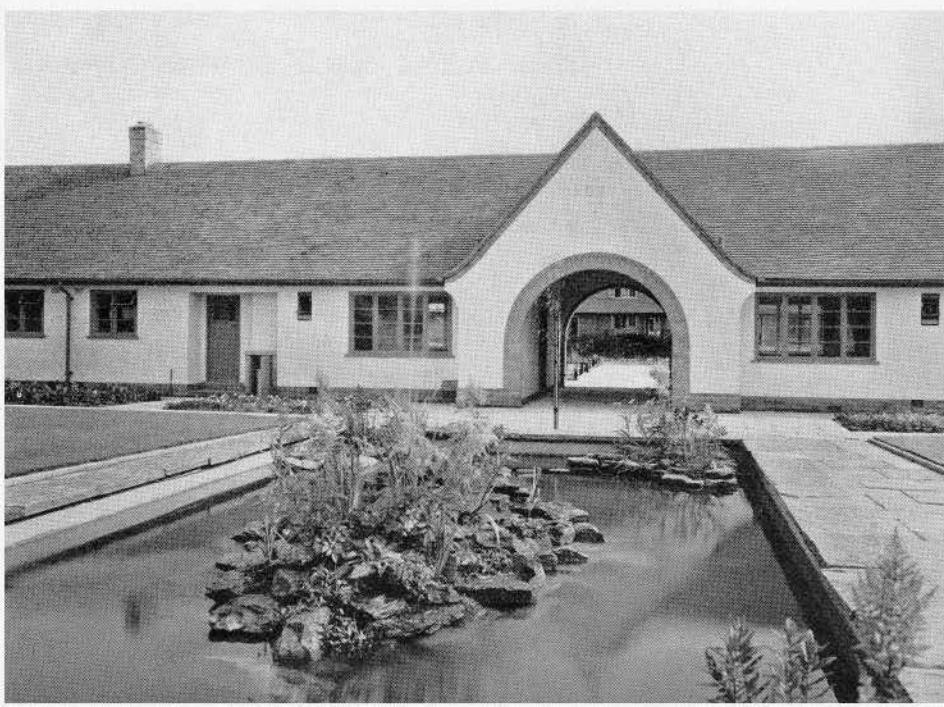
STEPHENSON AND MELDRUM, ARCHITECTS

ENGLAND



MITCHELL GARDENS, WYTHENSHAW, MANCHESTER

LEONARD HEYWOOD, A.R.I.B.A.
HOUSING DIRECTOR



FROM "OUR FOREIGN CORRESPONDENT", ATHENS

ARCHITECTS used to be intellectual once, they used to be able to read and write and sculpt and orate and philosophize; in fact, in ancient Athens you probably had to take Philosophy, Dialectics, Logic and Rhetoric in your first year at college before you even knew what a tympanum was. And you had to keep it up, too, or you weren't seen in the best atriums. But today's brand has let its brain go very soft. What is Plato to us but an inventor of a rather horrid love? If an architect was given his "Republic" to read today he would find Glaucon continually reminding him of Charlie MacCarthy, such is the low calibre of most of our minds. But we came upon one bred still in the classic tradition and eager to split the dialectical hair and we have to wish him well.

A friendly native gave us a philosophical number of the *American Architectural Record* for our siesta the other day, maybe you read it, it was the June issue. Anyway if you didn't, get it and try it out on your own brain. The first article is best, written by Mr. Paul Nelson; it is an essay in pure philosophy called "A Method of Procedure in Architectural Design". You should not sneeze at it either, it seems to get results. Of course Mr. Nelson is clever to begin with, a follower of Corbusier, which is quite a job in itself, and has a continental practice. So if you can't make your mind jump through his fine series of hoops, don't be discouraged, there may be others like you.

This Method of his, which should be applied to every architectural job, he divides into three parts, which are: "First Stage: The non-architectural analysis—abstraction in terms of life. Second Stage: The architectural analysis—abstraction in terms of space. Third Stage: The architectural synthesis—concretion in terms of Architecture."

The First Stage, he says, is the fundamental one and "life" must "be resolved into the most minute terms" to discover abstract functions, which functions when "brought into contact with abstract space in the Second Stage" and then "with concrete space" in the third, will "mold its own architectural form". This Method, he says, "is a dialectical one in which reality creates the idea as opposed to the preconceived architectural idea or formula" and he calls it the BASIC PRINCIPLE (*sic*). So far that is all pretty easy stuff if you lie on your back and shut your eyes, but you try bringing a function of life in contact with abstract space yourself some time at the office. Don't try too hard because Mr. Nelson adds "for the architect to attempt to go beyond life is an artificiality both sterile and unavailing", and you would hate to be that. "It is preferable then," he says, "that the architect, conscious of this truth, adopt an attitude more anonymous, less anarchistic (*sic*

again) . . ." Somehow this sounds like an improper suggestion; we have never consciously been anarchistic, perhaps it is a style of architecture like "modernistic", but whatever it is it sounds nasty and it is to be hoped that the word will lapse into hapaxlegomenonisticity at once.

In elaborating on the First Stage—the non-architectural analysis—the Method of Procedure "reviews . . . the proposed project" in order to "determine the main premise or 'idéologie' (French for ideology) so as to set up tenets which define for the analysis the central axis of investigation, thus eliminating the unnecessary discussion of non-germane factors". Having done which, if we follow this Method through to the bitter but germane end, we must now "commence the analysis", remembering that "the work of this period is abstract because entirely non-architectural" hence we architects need "the collaboration of the sociologist, philosopher . . . poet, artist . . . builder, (which is lucky) engineer" and "economist". No anarchist you see, he hates them, they might make us that nasty word he warns us against being. We wonder what the R.A.I.C. Scale of Charges for associate poets would be.

In the Second Stage—the architectural analysis—we must all make "schematic and flow-process drawings", but the work "is still entirely abstract" and interested in "technics", "interrelationships", "practicality" and "research".

The Third (and final) Stage—the architectural synthesis—is where all the simple things he lightly describes as "economics, space, traffic and so forth" become, if you will play fair, "the active agents in determining how the organisms already resolved may germinate the new life which in turn will shape its architecture. . . . For the architect it is the period of interpretation where the quality of creation will depend upon his faculty of objectivity". If you have followed this Method of Procedure, he says that "the resulting architecture will be", and this is a beautiful word, "unforeseen".

There is something about this kind of architecture that appeals to the sporting instinct. Imagine sitting round a table with poets and sociologists and people, probably in a darkened room, analyzing more or less anonymously, abstract germane functional organisms in terms of life and space, and there suddenly in a flash of synthesis all ectoplasmic-like is your unforeseen brewery warehouse.

It somehow reminds us of that classic aphorism of Epictetus, or one of those people:

ἄλλα μαλ αἱ ἄνδ Βέττη Μάρτιν.

PROVINCIAL PAGE

A representative of the Editorial Board has been asked to write a letter each month to the Journal in order that members may know something of the activities of Provincial Organizations throughout the Dominion. The monthly letter may come from any member, but the representative of the Board is responsible. It is hoped that this page will become of increasing interest to members.

MANITOBA

What appears to be an opportunity for Winnipeg architects to enter the field of small house designing has come about through the organizing of the Winnipeg Housing Company which is sponsored by several Winnipeg business men and is under the able leadership of Mr. Frank E. Halls of Carter, Halls and Aldinger. The city has shown its interest and co-operation through the enthusiastic support of Alderman Richard Sara, Chairman of the Housing Committee of the City Council. The city proposes turning over to the company certain city properties in consideration of stock in the company. It is proposed to build several houses in the \$3,000 to \$4,000 range, the owner putting up only 12 per cent. of capital and paying on a monthly rental basis with amortization over a 20-year period.

The Manitoba Association of Architects has been approached to submit plans for the houses and the suggestion has been made by the Council of the Association that architects prepare plans from which the prospective builder would make his choice. As each house is built a small fee would be added to the construction charges to reimburse the architect until the entire professional fee has been collected. There would be the possibility that certain designs would not catch the public fancy, but this would only tend to show the trend of popular demand. The scheme seems to offer an opportunity for the architect to do a genuine service for the community and to take his logical place in a field too long dominated by the speculative builder.

The Council has suggested that the Association would be in charge of the plans and that reimbursements to architects be made through the secretary's office. Other details are still to be completed between the Company and the Association but it is to be hoped that this enterprise will lead to a co-operative effort on the part of the profession, the city and the business men to greatly improve housing conditions in Winnipeg.

The Committee on Foundations, composed of members of the various engineering organizations, together with three members of the Manitoba Association of Architects, has made a very interesting report, a copy of which your correspondent is forwarding to the Secretary of the R.A.I.C. The report covers three major items. 1. Why difficulties are experienced with foundations. 2. How best to repair faulty construction. 3. Proper design for new foundations. It has been made clear in the report that the work of the committee could in no sense be considered conclusive but that more thorough research work should be done to insure accurate knowledge of actual soil conditions and the proper methods to be employed in future building enterprises in Winnipeg.

This is a problem which has faced builders in the Red River valley since early days and has cost property owners hundreds of thousands of dollars. A conclusive survey would be well worth the money it would cost to collect and compile the necessary information.

—Milton S. Osborne.

NEW BRUNSWICK

With the limited membership of our Architects' Association of New Brunswick, and the considerable distances separating us, it is rather difficult to carry on very much individual contact between our members; however, our Council has tried to consistently carry on and deal with such matters as seem of interest to our profession in this province. We can scarcely watch the apparent growth of the *Journal* without some twinge of conscience from our apparent failure to contribute material.

At our September Council meeting particular interest was expressed in several articles published during the last three issues. In the October number Mr. Parry referred to series of radio broadcasts upon the modern phases of architecture. It would be appreciated if our Association Secretary could be furnished from time to time with sufficient notice of the dates and time these broadcasts will be delivered so that he could notify our membership that they might profit by listening in.

The current year has been a reasonably busy one for the building trades throughout this province. There has been a marked increase in medium and moderate-priced home construction and considerable activity in the larger centres remodeling, particularly in the creation of apartments from many of the larger houses which are gradually losing favour with the average home owner.

Unfortunately, much of this building activity has not come under the professional guidance of our architects, although possibly as large a proportion has as might be expected from our lack of any aggressive attempt to educate the public in general as to the practical necessity for employing our services and justifying the expenditure by some real improvement in the investment.

On the whole, new construction completed or in progress, as well as anticipated building, has an encouraging showing at the present.

We would appreciate more articles like those of Mr. Mathers, on "Brickwork" and contributed by our Institute members with experience. We agree with Mr. Hynes in his comment on machine mixing of lime mortars and feel the same comment applies equally to cement mortar.

Construction in this province still suffers from the illegal preparation of plans, etc., by some unqualified and unregistered individuals, and our Association, through the Council, has consistently endeavoured to correct this evil for the sake of all concerned. It has endeavoured to do so with considerable success and it is hoped that we may, within a reasonable time, eliminate the evil without applying a legal remedy.

—H. Claire Mott,
Secretary and Registrar,
Architects' Association of New Brunswick.

ONTARIO

For the past three years, the executive of the Toronto Chapter of this august body have been meeting with fair regularity every second Thursday at a well-known hostelry in the north end of the city, well known for its good meals and absence of beer and wine.

There they talk of many things from performing seals, the coming exhibition of the Toronto chapter of the O. A. A., biennial exhibition, the new fee schedule, builders' plans and poison gas, while your correspondent sits near by awaiting a convenient opportunity to move an adjournment.

I think it is safe to state that Mr. Burden will again undertake the promotion of the 1938 show at the Toronto Art Gallery. So does one success lead to another. The job of organizing this exhibition is an arduous one and I think the Chapter as a whole will feel most grateful to you, Hank, and to your associates-elect for undertaking this job. Just here one might mention the fact that the best way to co-operate in this and save the promoters a lot of hard work is for members to get busy right now with their probable exhibits.

Under the able leadership of Mr. Eric Haldenby, Mr. Walter Moorhouse, and just now of Mr. R. S. Morris, the Chapter has accomplished much, so for those whose annual fee goes towards its being, perhaps a short resumé of its activities would be timely. These for the most part have been the arranging for and the holding of the 1937 exhibition, careful co-operation with the work of the Committee of Public Relations in the policy of weekly broadcasts which this committee has so ably taken care of; dealing with the reports of standing committees appointed for various services which in the opinion of the Chapter as expressed at the general meetings are necessary. These include matters relating to building codes, fee schedules, and press publicity. In connection with this latter, we are informed by our Director of Public Relations that some of the members are slipping in respect of the publication of illustrations and letter press. The policy determined on being that all illustration and press matter be submitted to the committee elected to deal with this. It is to be hoped that this note will serve to remind members of the real value of this service and that they will continue to assist by complying with the regulation established.

The Public Relations Committee were wise in changing the hour of their weekly broadcast. This is now 7.45 p.m. to 8 p.m. each Thursday.

A recent letter from the Windsor Chapter reminds us that in previous years lectures had been given to various organizations free of cost. These lectures were prepared by members of the association. The Windsor Chapter wishes to know if these are going to be continued. This is being dealt with.

Further comments on the Toronto Chapter, O. A. A., will be continued on this page.

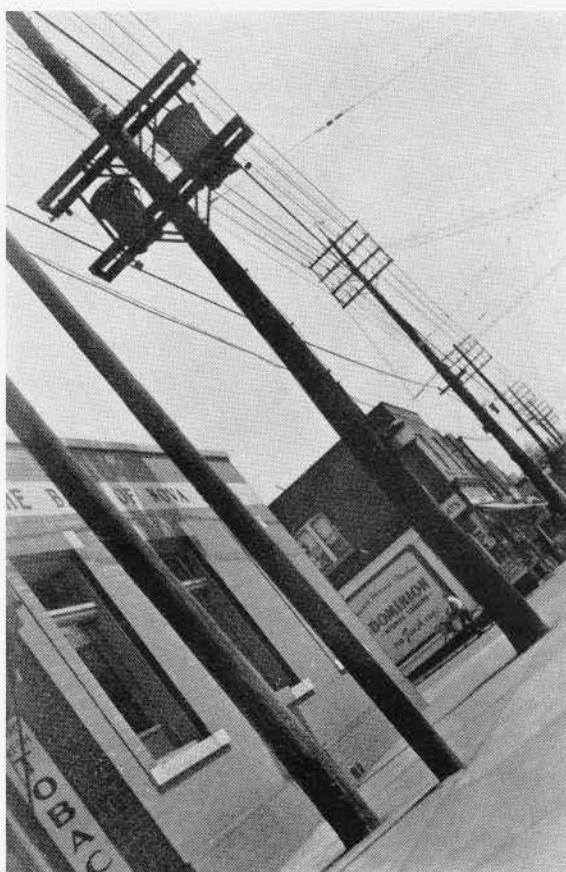
—Raymond H. Collinge.

QUEBEC

We regret to hear of the passing of Mr. Ulric J. A. Asselin on October the 13th, 1937, at Montreal. He was a member of the Province of Quebec Association of Architects and one of the Charter members of the Royal Architectural Institute of Canada. He had his office at Three Rivers, Que., in partnership with Mr. Paul Denoncourt. He was born in Quebec, Que., and had studied architecture at the Montreal Polytechnical School and at Boston, Mass.

—Alcide Chaussé

"O, CANADA"

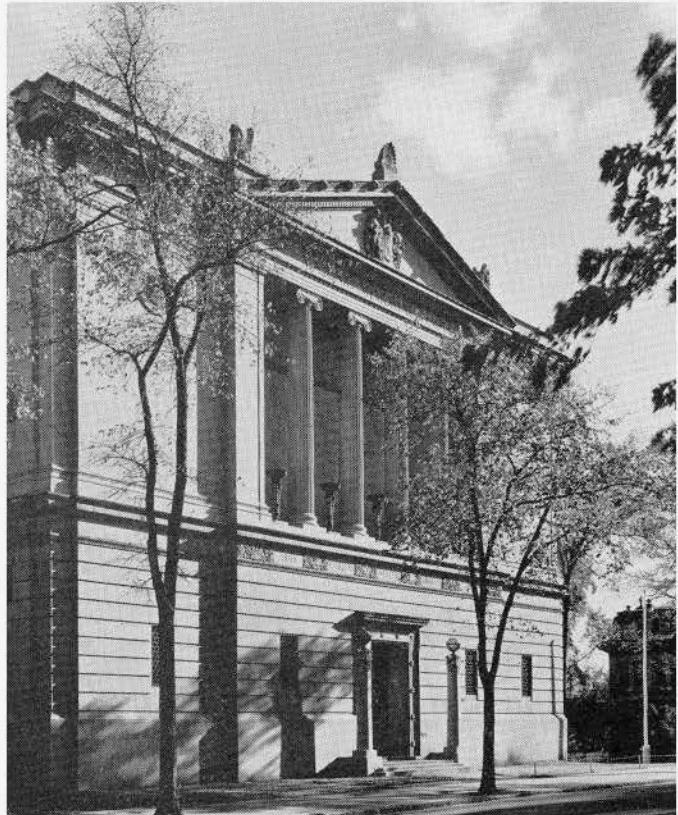
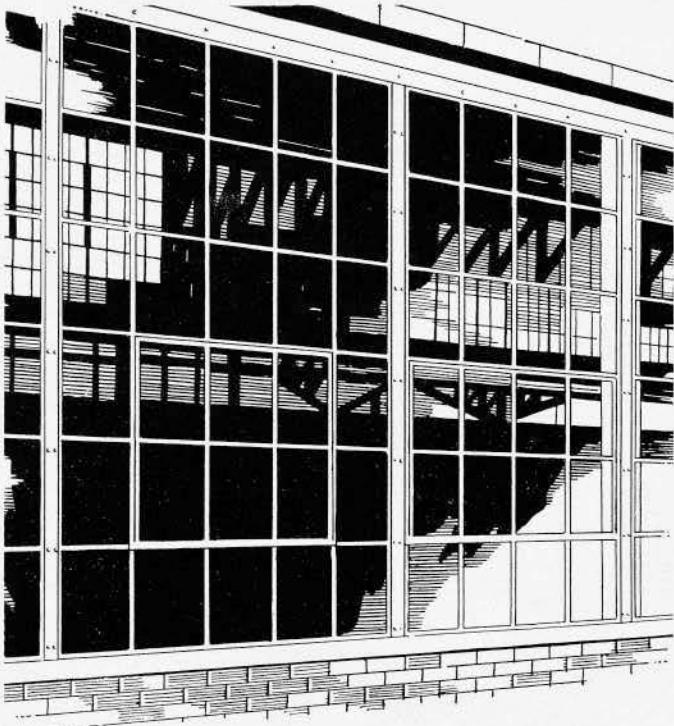


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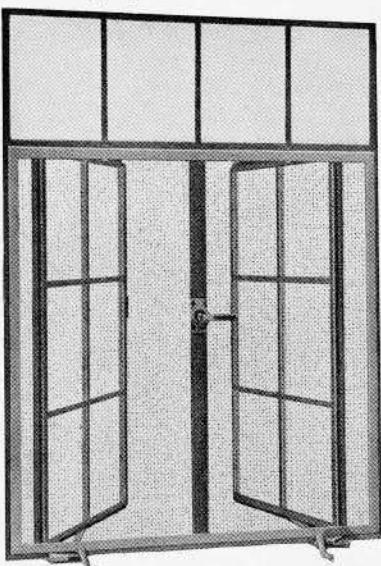
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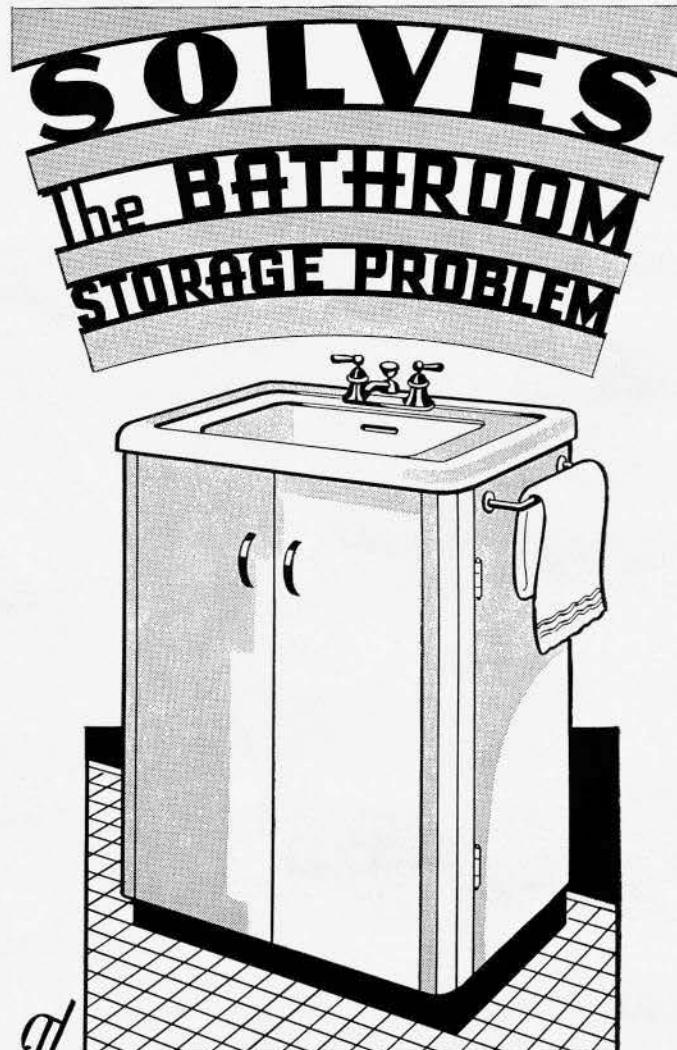
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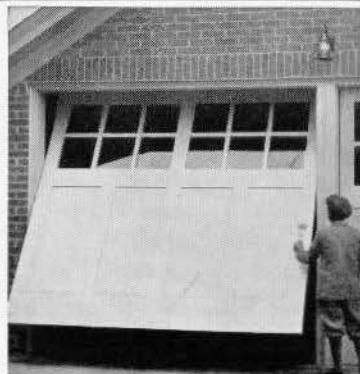
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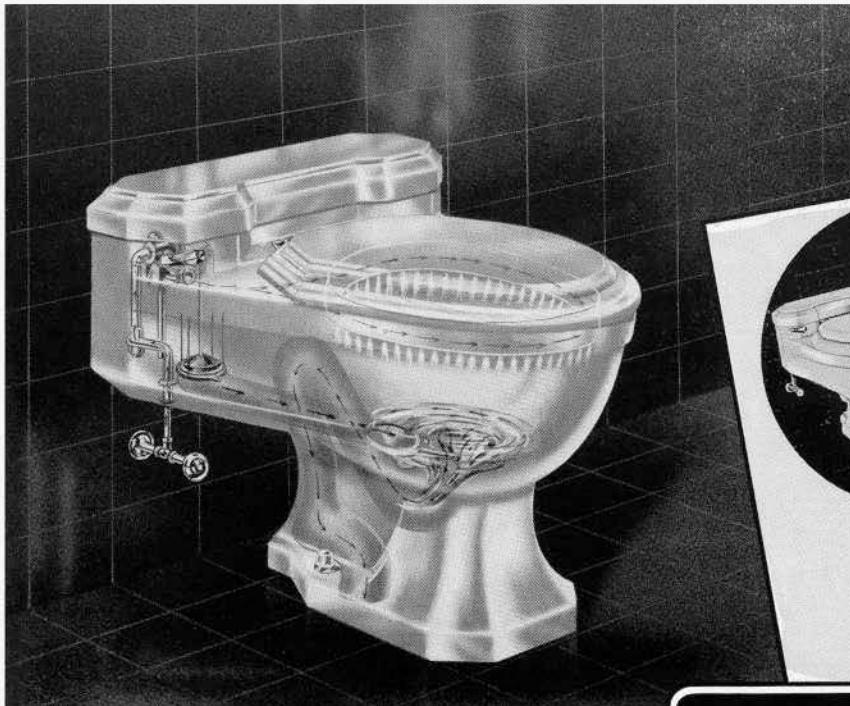


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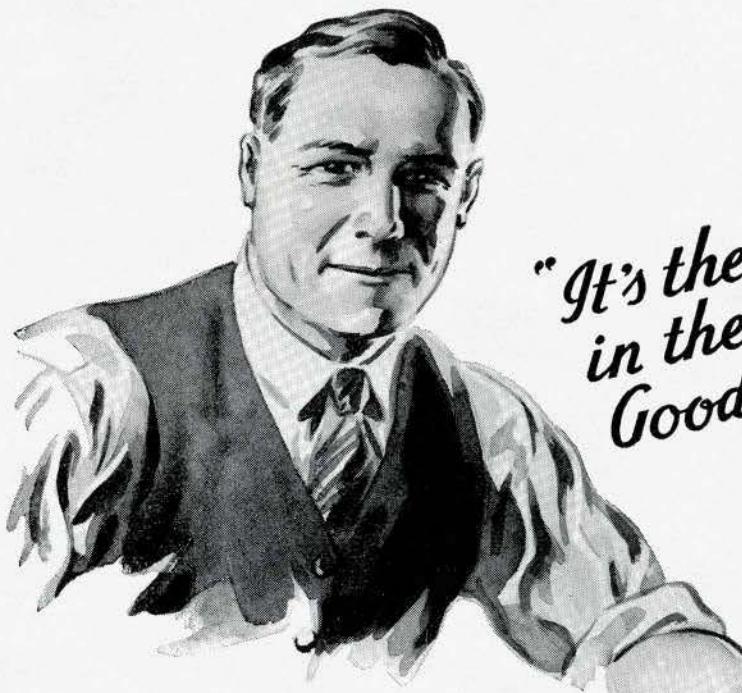
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NATIONAL EMPLOYMENT COMMISSION
UNDER THE AUTHORITY OF THE DOMINION GOVERNMENT



*"It's the easiest thing
in the world to get
Good PIPE on a job*

simply specify



The STEEL-MARK of QUALITY

Plumbers and steamfitters know how much depends on the quality of the pipe they work with. The wise ones use nothing but STELCO Scale-Free PIPE. It's clean-run, easy to cut, easy to thread and it delivers clear water in full volume all the time, because it's scale-free and doesn't clog.

Stelco Pipe is made in a wide variety of styles, weights and sizes, including Standard and Extra Heavy threaded and coupled, grooved for Victaulic Couplings, beveled for welding, Line Pipe, Refrigeration Pipe, Pipe Bends and Special Pipe for many other purposes.



Stelco is a major employer of Canadian labor. Its ten great plants, employing thousands of Canadian workers, make a vital contribution to Canada's industrial progress.

THE STEEL COMPANY OF CANADA, LIMITED

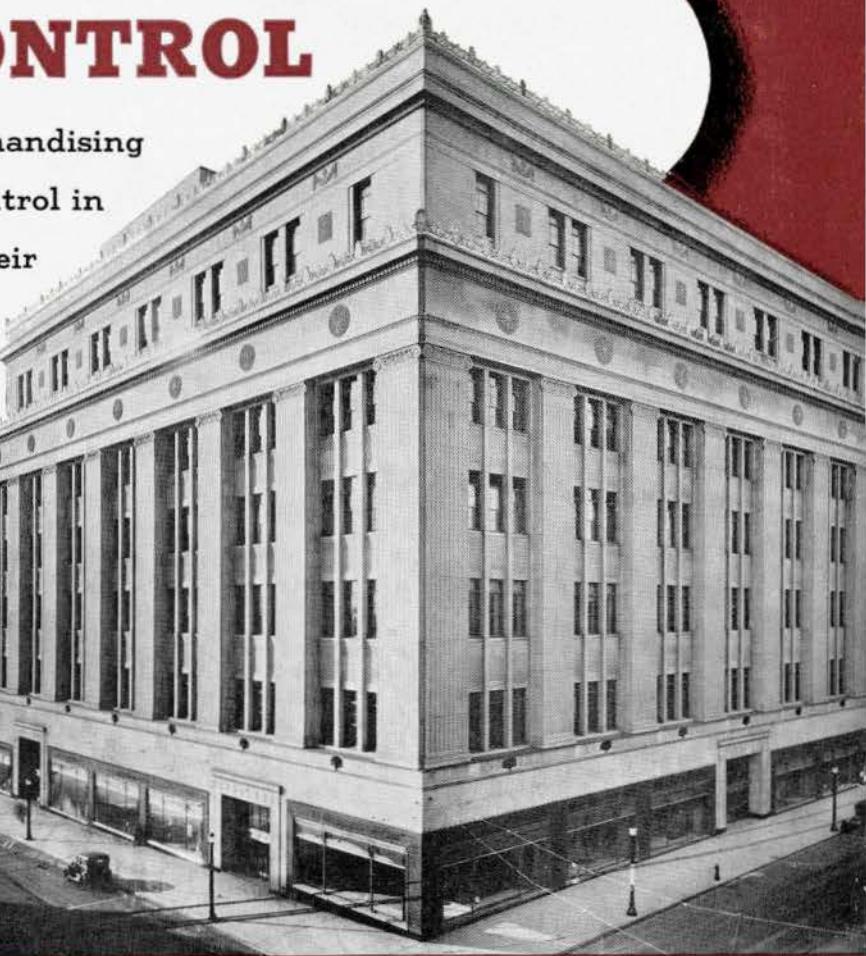
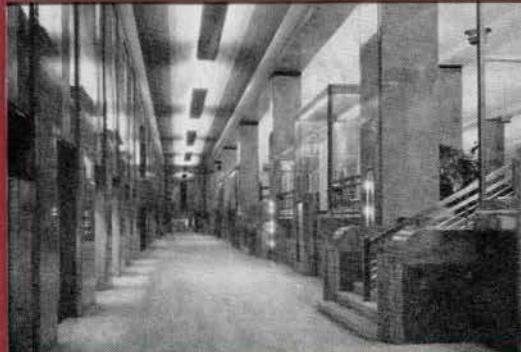
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SALES OFFICES: HALIFAX, ST. JOHN, MONTREAL, TORONTO, HAMILTON, WINNIPEG, VANCOUVER
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POWERS CONTROL

Canada's foremost store and merchandising organization uses Powers automatic control in their two Toronto stores as well as in their stores in Montreal, St. Catharines, Saskatoon and Calgary.



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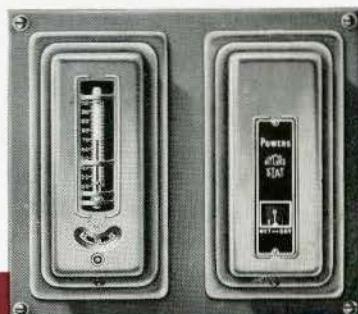


Other prominent users of Powers Control in Canada are:

Royal York Hotel—Toronto Stock Exchange—Winnipeg Grain Exchange—Dominion Parliament Buildings—Imperial Bank of Canada—Canadian Bank of Commerce—Bank of Nova Scotia—Dominion Bank—Mutual Life Assurance Co. of Canada—Gore District Mutual Fire Insurance Co.—North American Life Assurance Co.—National Life Assurance Co.—Bell Telephone Co. of Canada—Huron & Erie Mortgage Corp.—Crown Trust Co.—Canada Permanent Mortgage Corp.—Great-West Life Assurance Co.—Alliance Nationale Building—and hundreds of others.

With a most complete line of controls for air conditioning and 45 years of experience installing automatic regulation in buildings such as those listed above, we are well qualified to help you select the proper type of control for any of your buildings.

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For Heating • Cooling • Air Conditioning Systems • Industrial Processes