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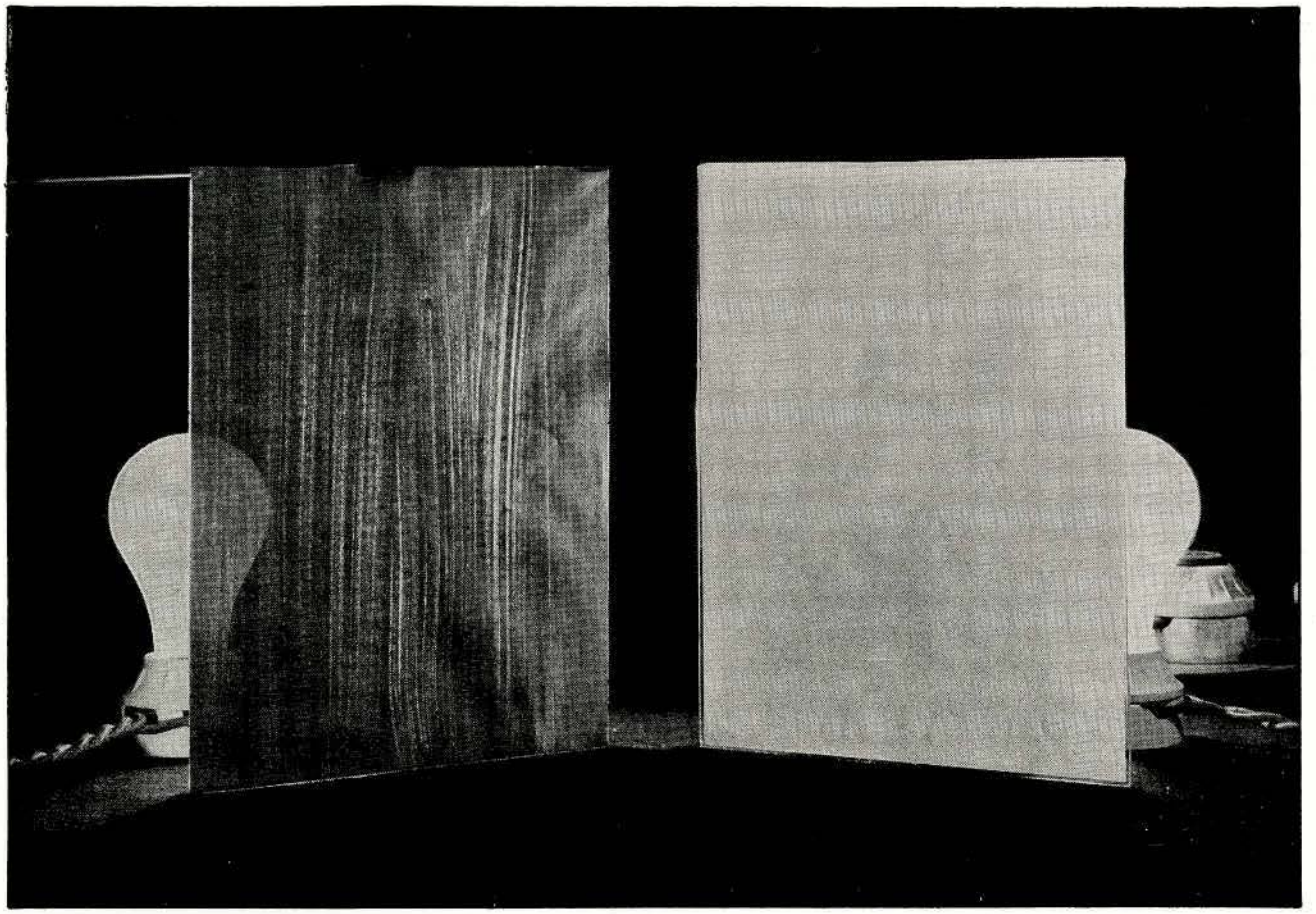
Vol. XII, No. 11 NOVEMBER, 1935 TORONTO



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THE JOURNAL

ROYAL ARCHITECTURAL INSTITUTE OF CANADA

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STAIR HALL — RESIDENCE OF ARMAND CHEVALIER, ESQ., SENNEVILLE, P.Q.

J. Cecil McDougall, F.R.A.I.C., Architect

ARCHITECTURAL COMPETITIONS

BY PROFESSOR C. H. REILLY, LL.D., F.R.I.B.A., O.B.E., M.A.

COMPETITIONS have been for generations a boast of the architectural profession. We have all said at one time or another: "What other profession offers opportunities to do its finest work to unknown men?" In our youth we have all enjoyed them, some even like Henry Vaughan Lanchester have continued the gamble into respectable old age. The present president of the R.I.B.A., though still in the fifties, lets very few of the major competitions go by without having a fling at them, and generally a successful one. In other offices where the practice has not been built up on them, as in the cases quoted, it is nevertheless felt that a competition now and then is the way to brace up lagging energies. The whole staff enters into the game in a spirit very different from that it puts into its ordinary work. In England I am convinced the competition system is here for good unless the public shy away from its expense. Winners of one or two big competitions, previously unknown men, quickly become figures in the profession. They get elected to the council of the R.I.B.A. and are then placed on the competitions committee where they entrench the system still deeper.

One would feel quite satisfied with all this if on the whole the system seemed to produce the best architecture. As one looks around, however, at the work of the successful competition architects, with one or two exceptions, one realizes that in England at least neither the winning work nor the men themselves are of the first class. They are not the men leading a movement or doing pioneer work. They are not the men with the greatest influence on the profession as a whole. Occasionally of course an exception occurs as when a Giles Scott wins a Cathedral or an Elmes a St. George's Hall and never goes in for another competition. When this is the case it will generally be found that the building is for some special purpose, the expression of which in elevation and section is at least as important as the minor arrangements of its plan. With the town hall or municipal offices, the schools and other usual competition subjects, this in the past has not been so, at least in the assessors' minds. They have paid too much attention over here, in my opinion, to the cross-word puzzle element in the problems. Our competitions committee at the R.I.B.A. in its laudable zeal for seeing that the ring is held and the fight refereed in absolute fairness, has led the way to a too rigid interpretation by assessors of the schedule of accommodation. If a water-closet, or something equally trifling, is missing, a design is ruled out. Fine main ideas cannot weigh as they should against the given sizes in a long list of rooms. The quick puzzle-solving brain rather than the big thoughtful one, slow and creative, but with deep feeling behind it, wins. This seems to me the first defect of our system. It could best be met, I suppose, by a preliminary sketch competition for main ideas, the three or four leading men to develop their schemes later and re-submit them to the assessor.

The second main defect, that the selected designs are generally twenty years or so behind the times in the forms of expression used, is merely the result of appointing assessors whose perceptions have become atrofied with age. The established men at the head of the tree are generally not only too old but too fixed in their outlook to appreciate new ideas. The youthful director of the National Gallery referred the other day to the Royal Academy as a period piece. The assessors of the majority of our competitions might be called the same. The majority of the buildings which result from them in this country still have an over-elaborated Victorian appearance. The only safeguard against this creeping paralysis is youth with its agility of mind. Age is always for compromise, yet compromise is the deadly thing in all the arts. It is the guarantee of mediocrity. The danger, the certainty rather with an aged assessor, is not removed by having a jury of assessors. Rather it is increased. My experience is that members of a jury bargain with one another. "I will let your young Bolshevist get third place if you will give my quiet sedate old classical fellow the first."

That's how it goes, unless the majority of the assessors have the same youthful point of view. The success of the great competition for the new headquarters of the R.I.B.A., to take a recent example, was due to the fact that the majority of the assessors, if not exactly young men, had young minds. It is better today to state definitely in the conditions whether modern functional designs are desired or not. Once more we are living in an age with a battle of the styles raging around us. It is a different battle to the old one and much more exciting, for the styles this time, like some league of waxwork figures, are all on one side. The new champion, or enemy as you may view him, is functional designing. He is the David fighting a dozen Goliaths simultaneously. It is a thoroughly bitter battle which makes it so exciting. For the young, however, it is a battle which is all the time opening up new vistas, providing new chances of making something real in a world of make believe. Never was life more worth living for the young architect. Before, however, he enters a competition today he needs to know on which side fights the assessor, or, if he is past fighting, as is generally the case, whose prisoner he is.

T. EATON COMPANY STORE, TORONTO
Ross & Macdonald, FF.R.A.I.C., Architects

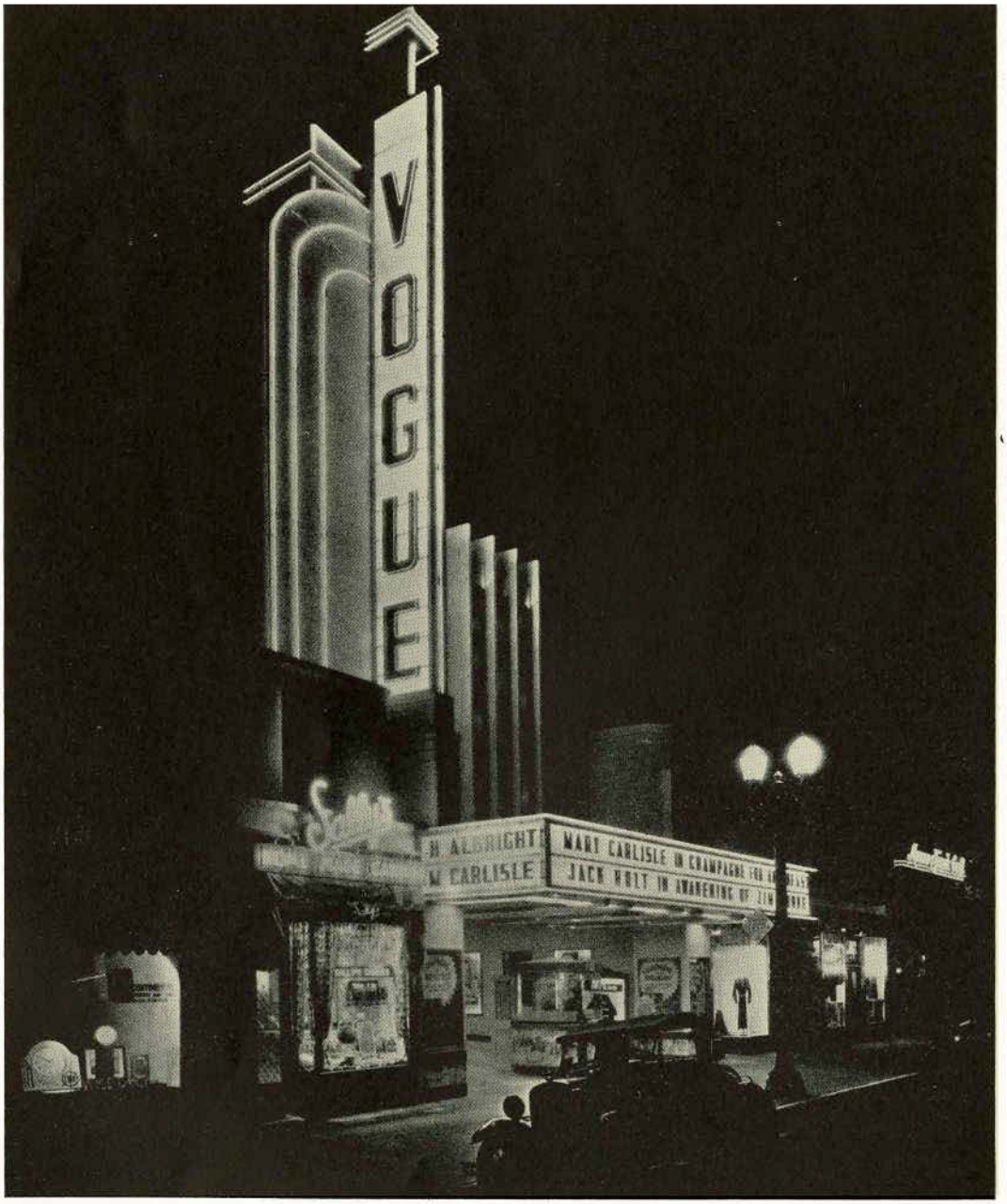
Alternate light and dark strips feature the night lighting of the exterior of this department store. The evenly lighted upper section completes the lighting effect. Lighting of this nature marks the store location in the minds of all passers-by at night.

MODERN LIGHTING FOR EXTERIORS AND INTERIORS OF BUILDINGS

BY J. W. BATEMAN, B.A.Sc.

THE idea of embodying lighting in the design of new building exteriors and interiors is becoming well established. Of the modern media available for new forms and structures, none holds more interest for the architect or designer than does artificial light. No other feature so impresses the public and attracts attention as do luminous facades and unusual illuminated interiors.

This newer form of light architecture has been given consideration only within the last few years. While artificial electric light has been available for just more than fifty years, early forms of man-made light have existed from the early ages. These early light sources, however, all employed combustible material and a flame. They were dangerous light sources. They had to be hung down from the ceiling and kept away from surfaces and materials which they might mar or ignite. These requirements throughout the many centuries moulded our practices in artificial lighting methods. We became accustomed to suspended lighting units and brackets supported on walls or columns. They had to be placed within reach in order to be lighted and extinguished. In general, if more light were required an additional candle or wick was added. The illuminants were of low efficiency, they were costly and artificial light was relatively expensive.



VOGUE THEATRE, HOLLYWOOD BLVD., HOLLYWOOD, CAL.

S. Charles Lee, Architect, Los Angeles, Cal.
Erected by Luminous Structures, Inc., Los Angeles, Cal.

Striking treatment of a motion picture theatre facade using a luminous glass marquee and silhouette sign letters. The upright lines of light add attraction and decoration to the design.

The past decade has brought many advances in light sources. The range of electric lamps for ordinary lighting circuits has extended to miniature lamps as low as 6 watts and even 3 watts and to large lamps as high as 2,000 watts, 10,000 watts, and even 50,000 watt units. The efficiencies of the standard general service lamps have greatly increased and the costs have diminished, so that today there are light sources readily available to meet every need. These developments have removed the limitations on lighting design and have made possible a variety of treatments in decorative and utilitarian lighting in both interior and exterior applications.

Materials and Control

Along with the improvement in light sources themselves has grown improved types of lighting equipments and lighting materials with which to work. There is an unlimited variety of light-transmitting and light-reflecting materials which may be used in the arranging of lighting as an integral part of the structure. In light architecture a knowledge of the characteristics of these materials, how they control light, their strength, durability and appearance, is required.

In giving consideration to the application of these modern lighting methods it is very essential to study first the principles of light control. The light from a bare incandescent lamp is distributed in a manner such that under most circumstances it cannot be employed effectively without the use of reflectors or enclosing glassware or other media. Such accessories must redirect or distribute the light as required and produce the effect sought. Usually, it is desirable to modify the brilliancy of the light source, diffusing the light to produce a soft and pleasing illumination, but at times one may also wish to make use of highlights and shadows.

In screening and redirecting light, three classes of substances are used: transparent, translucent and opaque. Substances differ widely in their properties, varying from almost perfect transparency to complete opacity. All of them absorb a certain percentage of the light rays incident on them whether they reflect, refract, diffuse or absorb. By controlling these four factors, absorption, refraction, reflection, and diffusion, it is possible to make the light from any source perform practically as desired.

Polished metal and mirrored glass reflecting surfaces reflect the light so that the angle of reflection is equal to the angle of incidence. This is called regular or specular reflection. Thus, where reflectors of this type are employed the contour or position of all parts of the reflecting surface with respect to the light source is important.

Dull finished metal reflecting surfaces, as for example, a velvet-finished nickel or aluminum surface, or one coated with aluminum paint, reflect the rays of light at slightly different angles, but all in the same general direction. This is known as spread reflection. Surfaces of this type eliminate the streaks and striations which occur with straight mirrored reflection. They are, however, more difficult to keep clean.

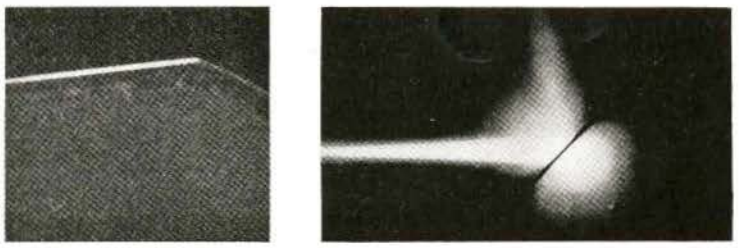
Rough or mat-finished reflecting surfaces will reflect a beam of light in all directions. This is called diffuse reflection and if a surface is perfectly diffuse it will appear equally bright from all directions, no matter at what angle the beam of light strikes it. The shape of the reflector made of a material of this nature has little influence on the resulting distribution of light.

The three types of surfaces which have just been referred to are found as described and in various degrees of modification in the construction materials used. The non-corroding metals such as stainless steel, treated aluminum, and chromium plate have a prominent place in modern structures. Porcelain-enamelled steel, which is now available in various colours, in both matte and glossy finished, is a very satisfactory material for either facings or reflectors.

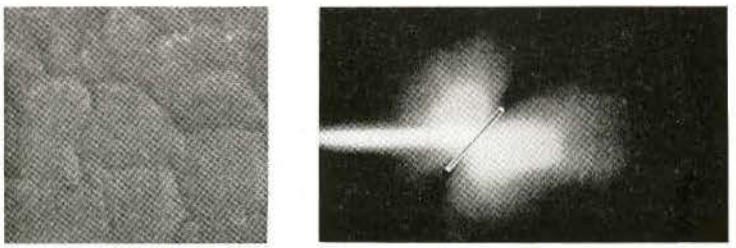
Some of the other substances finding either general or specific use are paints and enamels, ceramic coatings, mirrored or opaque glasses, onyx, alabaster and various organic compositions.

REFLECTION FACTORS FOR TYPICAL MATERIALS

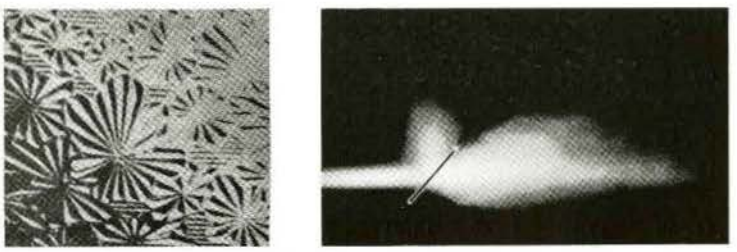
Material	Reflection per cent
Paint:	
Flat White	75-85
Gloss White	75-80
Vitreous Porcelain Enamel on Steel:	
Matte White	60-83
Glazed White	65-77
Plaster: *White*	90-95
Terra Cotta:	
White and Cream—smooth and matte	60-80
Sandstone: one sample	41
Limestone	35-58
Marble ($CaCO_3$):	
One side polished	30-71
Impregnated	27-54
Alabaster ($CaSO_4$):	
Veined	40-67
Coloured	27-29
Matte Finished Metal:	
Oxidized or etched aluminum	70-89
Aluminum Paint	60-65
Polished Metal:	
Silver	90-92
Chromium	63-66
Aluminum	62
Monel Metal	49-55
Chromium nickel (stainless) steel	55



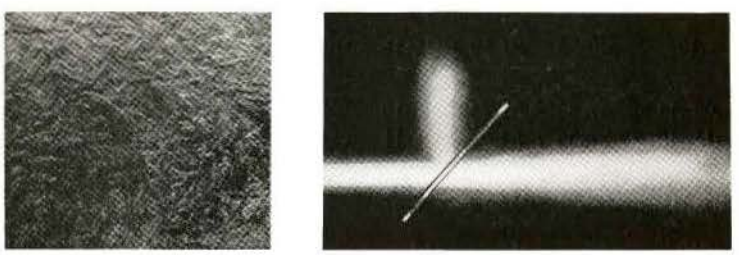
FLASHED OPAL



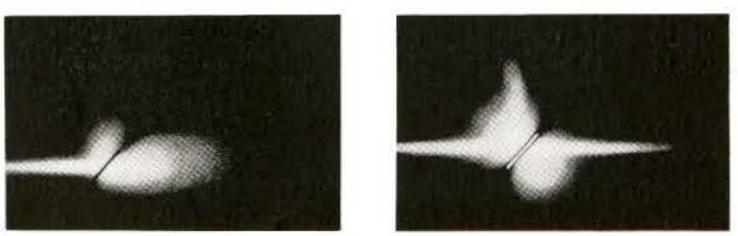
ALABASTER (MULTIFLORA)



SHARPLY CONFIGURED CRYSTAL (FLORENTINE)

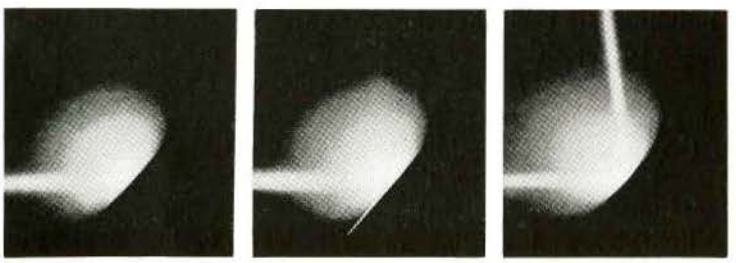


ROUGH CRYSTAL (CARNATION)



SAND-BLASTED OR GROUND CRYSTAL

OPALESCENT



MATTE WHITE PAINT

MATTE PORCELAIN ENAMEL

GLOSSY PORCELAIN ENAMEL

Characteristics of reflection and transmission of representative types of glass and finishes used in luminous elements and cavities.

TRANSMISSION, REFLECTION AND ABSORPTION FACTORS FOR TYPICAL TRANSLUCENT MATERIALS

Type	Thickness inches	Transmission percent	Reflection percent	Absorption percent
Clear Glass		80-92	8-10	2-10
Clear Glass (Silvered)			82-93	7-18
Configurated, Obscure Clear Glass	.12-.23	57-90	7-24	3-21
Clear Glass:				
Satin Finish:				
—*toward source*	.075	89	8	3
—*away from source*	.075	85-88	6-8	4-9
Acid Etched:				
—*toward source*	.08	82-88	7-9	5-10
—*away from source*	.08	63-78	12-20	10-17
Sandblasted:				
—*toward source*	.08-.12	77-81	11-16	7-11
—*away from source*	.08-.12	70-77	13-18	10-16
Alabaster Glass	.125-.19	60-70	20-30	10
Other Opalescent Glasses	.09	58-84	13-28	2-14
Marble ($CaCO_3$):				
—*one side polished*	.29-.39	3-8	30-71	24-65
—*impregnated*	.12-.20	12-40	27-54	11-49
Alabaster ($CaSO_4$):				
—*veined*	.44-.53	17-30	49-67	14-21
—*coloured*	.25	34-50	27-29	21-39
White Ceramic Coated Clear Glass: (varying diffusion)	.125	40-64	24-50	10-13
Flashed Opal Glass:				
Group 1	.08-.11	47-66	31-45	3-10
Group 2	.11-.13	27-35	54-67	8-11
Composition:				
White Diffusing	.010-.025	0-41	32-75	7-27
Clear matte (typical sample)	.010	68	15	17
Solid Opal Glass:				
Group 1	.07-.14	12-38	40-66	20-31
Group 2	.07-.10	37-51	43-54	6-11
Group 3	.06-.14	13-35	65-78	4-10

Building Exteriors

During the past few years a notable change has taken place in the architecture of new buildings. The designers have modified or departed from traditional forms to bring about structures more in keeping with our modern age. The characters of these modern types of buildings are such that they lend themselves to the use of light either as a part of the building itself or applied to the finished structure. More and more attention is being given to luminous effects on the exteriors of buildings.

The three principal methods of applying light to the exteriors of buildings are: floodlighting, structural or built-in lighting, and outline or decorative lighting.

Floodlighting

Floodlighting has been used in various ways for a number of years. Floodlighting, at first unfavourably looked upon by architects, was accepted as soon as it became apparent that with suitable equipment, favourable conditions for mounting it, and skilful technique in the projection of light, the structure could be made to stand out at night in dignity and beauty. With the floodlighting incorporated in the plans at their inception the effect desired can be accomplished and the finished building made a complete unit with the lighting.

Floodlighting may be used either for general illumination of the entire building front or for the lighting of certain portions or sections. Often the result is more striking and the effect more in keeping with the character of the building when the lighting is applied non-uniformly to bring out certain special features, forms or patterns. The uniform illumination of the whole building emphasizes solidity, strength and mass.

Where a building has columns, setbacks or variations of this nature, unusual effects can often be brought out by special treatment. Such factors as form, depth, and balance need to be given careful consideration if the final result is to be worthy of the installation.

Floodlighting may be a feature that the architect has in mind in designing a new building, or it may be added to already existing buildings if they are of suitable type and satisfactory conditions prevail. Often some liberty may be taken in the character of the night lighting effect provided the attention and advertising features are accomplished. Without any light at night, the most beautiful edifice stands unseen.

Luminous Facades

Structural or built-in lighting is rapidly being adopted as a form of night lighting of many commercial buildings. This form of lighting can be added to many existing buildings in the making of modernizing alterations. It can of course very readily be incorporated in the facades of new buildings. The materials described earlier find use in various forms for this new mode of lighting.

Theatres and stores have been the first commercial types of buildings offering the greatest opportunity for this new decorative and attention-compelling architecture. These days, more than ever before, merchandisers are looking for the new and unusual. One of the best possibilities is the numerous means of employing light to make the whole front present a lasting and favourable impression on the passer-by. By the use of luminous elements these places calling for public attention may be made as striking and dynamic as desired. Luminous columns, entrances, signs, canopies and facades to various degrees offer means of revealing in the architecture of the night whatever effect is desired. The new character and appeal of beauty derivable from living, luminous elements are only beginning to be appreciated. Before the full

CANADIAN BANK OF COMMERCE BUILDING, TORONTO

Darling & Pearson, Architects

The Head Office Building of the Canadian Bank of Commerce stands well above its surroundings and offers in the architecture of its upper stories a pleasing subject for a unique floodlighting treatment in light and shadow effects which attracts favourable attention.

possibilities are sensed, traditions may have to be uprooted and new craftsmen trained and perfected.

Decorative Lighting

Decorative lighting is considered here in the sense of special lighting which usually is not permanent. In this class there is festoon lighting, outline lighting, sprays and luminous boxes and patterns. For some types of buildings, particularly those in commercial classes, luminous designs of this nature serve to attract attention and convey the greeting desired, particularly at the Christmas season. A wide variety of lamps in different sizes and colours present an unlimited scope in design.

In erecting buildings where festival lighting is likely to be used, it is advisable to make allowance in the wiring and service capacity and to also provide suitable outlets and hooks or projections on which the lighting strings or patterns may be supported.

Interiors

In the new concepts of lighting we find architectural forms of luminous elements in pylons, columns, pilasters, panels, parapets, spandrels; and as beams, coffers, mouldings, niches, and decorative patterns extending to the design of hanging fixtures, brackets and portable units.

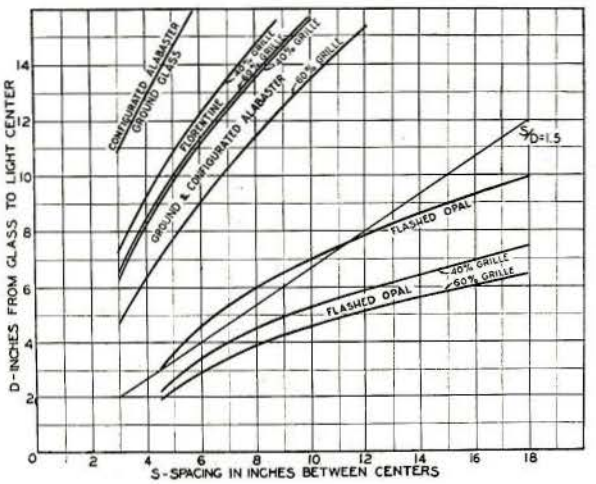
These newer forms of lighting were applied first to interiors as modifications of the lighting system which was required in any event for the interior illumination. The possibilities which have developed have had a marked influence on the trend in architecture and decoration. "Built-in" lighting as it was commonly known in the beginning took on various shapes and forms. In this type of lighting it was found to be essential to plan the lighting arrangement with the planning of the room or building and to install the lighting elements with the other construction work. This meant a change in the past practices of leaving the lighting until the last, adding it only when the other features had been completed. The change to the planning of the lighting along with the other elements opened up unlimited opportunity, not only for different lighting effects, but also for entirely new interior designs.

Luminous Panels

The simpler forms of light boxes which extended into luminous panels were the first new luminaires to come into being with this vogue of so-called modern art. The past few years have seen many improvements in this method of lighting. Well designed panels which may be used in the ceilings or walls are relatively efficient and useful in providing the higher levels of illumination of present-day practice. Engineering data for the design of various types of boxes are now readily available. On account of the greater extent of the luminaire in this form, surface brightness can be reduced and glare kept within reasonable limits. The substituting of the lighting "built-in" or "built-on" to the ceiling for the hanging fixture creates the effect of greater spaciousness.

For most applications, the best light transmitting element for luminous panels is flashed opal glass. This glass has a high transmission factor and provides good diffusion. Opalescent glasses, stippled and prismatic designs may produce the desired effect where some sparkle or special distribution or effect in the lighting is required. With these more translucent glasses grille works of various patterns may be employed for very pleasing decorative light effects. The use of a grille over the glass permits a much greater unevenness in the brightness of the glass without creating an undesirable nonuniformity in the appearance of the luminous element. Frosted glass even if roughened on both sides is never very satisfactory.

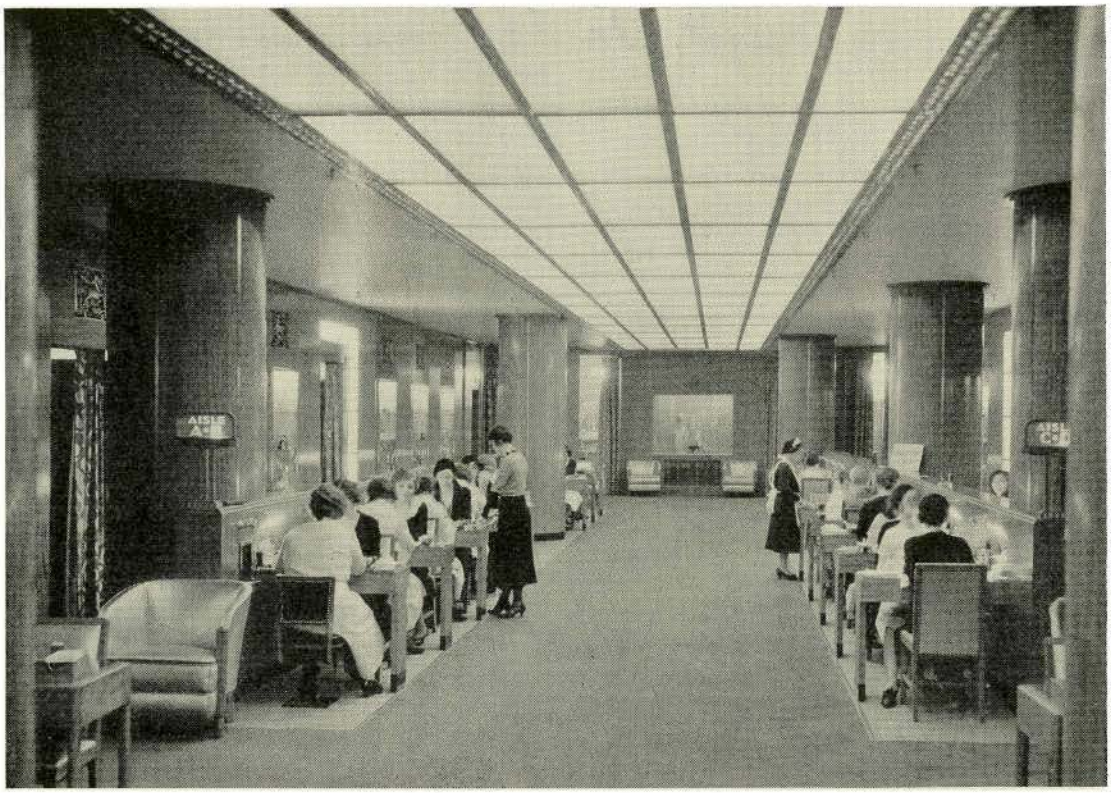
The accompanying chart gives the lamp spacing for acceptable uniformity of brightness for various kinds of glass. Recesses with highly reflective backgrounds make possible a wider spacing for a given uniformity than those where the background cannot be counted upon to reflect the light.



Lamp spacing for acceptable uniformity of brightness. With grilles or decoration on the glass, lesser uniformity of brightness is permissible.

Where a luminous panel is employed for decorative effect mainly, the surface brightness may be of a very low order. However, where the panel is required to give useful light, care must be exercised in the size of panel for the wattage required in order that the brightness is kept within reasonable limits so that glare is not objectionable. The brightness of a decorative panel constantly in the field of view should be of not more than about 75 foot-lamberts,* while a brightness as high as 500 foot-lamberts is permissible for ceiling elements at a height of 20 feet or more above the floor.

**The foot-lambert is a unit of brightness equal to the average brightness of any surface emitting or reflecting light at the rate of one lumen per square foot, or the uniform brightness of a perfectly diffusing surface emitting or reflecting light at that rate.*



In this hair-dressing salon the entire ceiling becomes the source of light simulating the overcast sky in providing well diffused illumination with a minimum of glare. The lighting is efficient and modern.

FOYER OF AUDITORIUM, T. EATON COMPANY STORE, TORONTO

Ross & Macdonald, FF.R.A.I.C., Architects

Luminous panels along the cornices of this room provide ideal illumination and add to the modern decorative design.

Various ranges of brightness in between may be permitted, depending upon the particular application.

Luminous panels substantially flush with wall or ceiling are an important architectural element because they may be adapted to so many conditions and lend themselves to many forms of decoration. They may be simple or elaborate, and therefore have had quite wide application. Panels are easily incorporated in a new structure where the necessary depth of cavity can readily be provided. The depth of the cavity, the extent of the panel and the brightness or light production depend not only on the architectural features but also upon the efficiency, economics of wiring and light requirements.

There are unlimited designs for all the various types of panels which may be employed. So far, the uniformly luminous panel has most often been used. However, it should be emphasized that more unusual results are frequently to be obtained in graded brightness and colour, in highlights, sparkle and shades.

Cove Lighting

With the growing appreciation of the higher quality of indirect lighting for comfortable and adequate illumination in interiors, there is found an increased use of cove lighting in modern buildings. Cove lighting is not new, but the greater attention given to the whole question of the lighting of interiors has led to more thought and care in the design of cove lighting installations. This form of lighting is essentially indirect, making use of the upper side-walls and ceiling for the redistribution of the light. It is essential therefore that these surfaces have the proper finishes for the job in hand. In general they should be light in colour and of a diffusing nature.

T. Eaton Co. Round Room, where a series of three coves has been effectively used for the general illumination of the room. The luminous panels also add a modern touch.

Cove lighting equipment may be divided into three classes: continuous source, discontinuous source, and projectors. The new tubular lamp is well adapted for use as a continuous source. These lamps are available not only in clear, but also in pastel shades of moonlight blue, emerald, straw, surprise pink, orange and white. They are applicable for use in the usual cove and may be made to form an integral part of the decorative scheme.

With the discontinous source or the ordinary individual lamps there is the danger of pronounced scalloped effects or spottiness unless the lamps are placed very close together or the cove particularly designed so that direct light from the lamp does not fall on the surface immediately above. Reflected light from an extended cove may be used to satisfactorily even out the light, on the wall directly above.

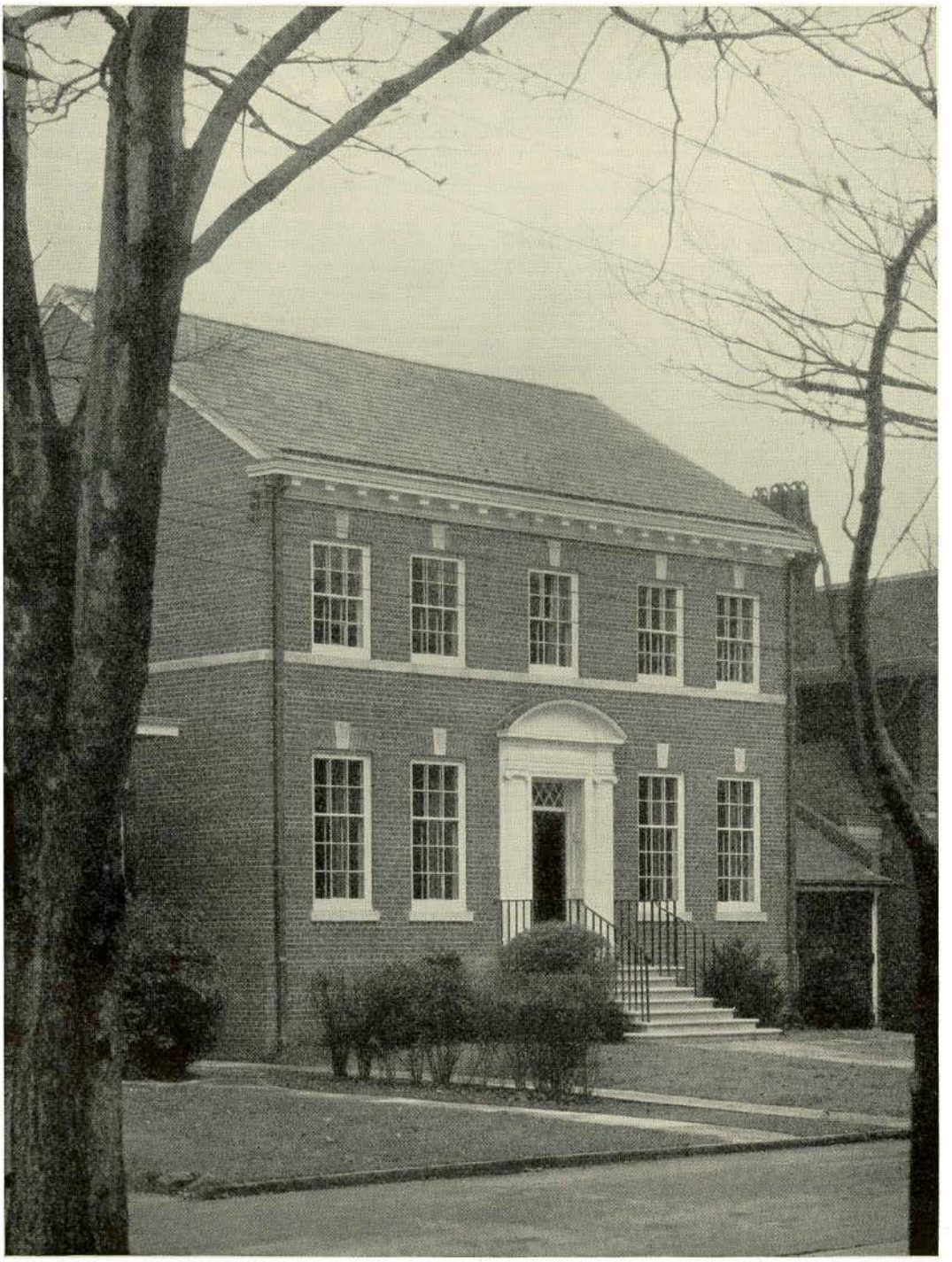
Projectors are used in the larger installations where the cove becomes only a place for the concealment of the lighting units. This method of lighting is sometimes referred to as cross lighting.

Urns, Niches and Coffers

Closely allied to cove lighting is the use of indirect wall pockets or urns which may be placed along the wall panels or on columns either to supplement the lighting or provide general illumination where hanging ceiling fixtures are undesirable. In the design and use of luminaires of this nature it is desirable to see that they throw the light upward and out away from the wall. Urn units on pedestals or conveniently located furniture or furnishings are now coming to the fore for general interior illumination in stores, offices and other commercial interiors.

Along this same general idea is the use of lighted niches or recesses. In these the lamps are concealed, either in the sides, top or bottom or in a trough in front. This scheme is very applicable in many lobbies and like places.

Similar to wall recesses we find this arrangement in lighting carried over to the ceiling in all its variations. In many forms of architecture it is found desirable to break the sweep of the ceiling by means of square, hexagonal, octagonal or round recesses which are known as coffers or caissons. The lamps may be concealed around the edges or suspended behind a shield or bowl. Luminous elements of this design are usually extended over an appreciable area so that the luminous unit becomes comparatively large. This feature introduces better diffusion and minimizes glare. Often the modern ventilation grille or opening may be combined with the luminous panel or recess.



RESIDENCE OF DR. D. E. ROBERTSON, TORONTO

Marani, Lawson & Morris, MMM.R.A.I.C., Architects

THE ARCHITECT'S PLACE IN THE HISTORY OF THE ROYAL CANADIAN ACADEMY*

BY HUGH G. JONES, M.R.A.I.C., F.R.I.B.A., R.C.A.

Editor's Note: The author of this article wishes it to be distinctly understood that the examples cited are intended to be partly illustrative of the Academy members' production as a whole in all periods, styles, and qualities. Well-knownness, time and geographical distribution, and accessibility—not writers' admirations—may be taken as a basis of selection. It is not suggested that sole credit—or discredit—is due to the member noted as the author. Architect members have but rarely appeared as even sole author of record, for partners seem to have been almost the rule in busy offices, and partners not members have no place in a history of the Academy. In the sense that in all classes, members have been elected by fellow workers on the strength of their appraised fine art contribution over a period of years, the share of partners or unnamed associates and assistants on any one work cannot be so material as may first appear.

A FREQUENTLY recurring comment in reviews of the exhibitions of the Royal Canadian Academy has been "where are the architects?" For the not altogether unconvincing reasons that we have mentioned, it is quite true that the exhibitions have reflected but faintly either the activities or qualities of the architects—members or non-members. More serious seems to be the criticism that to the architects belongs the responsibility for the Academy's almost complete failure to materialize a vision of the founders; the encouragement of "Designs for Manufactures" and all of those accessory arts that contribute to the creation of beautiful surroundings and fine buildings.

For the better understanding of those members who are not architects, some brief review and comment providing background for references to the architects and examples of their work seems to be required in this chapter. We must note that prevailing fashions, taste of client, conviction—or only passing mood—of the architect have been among the causes for the appearance on our streets, year after year, of new buildings of entirely unrelated scale and style. Too often they were side by side, built in the same year, and almost never has mercy been shown to the sensitive eye or rational mind. The appearance of our streets truly illustrate the chaos of our time. But very few of these buildings, no matter what the style or other pretention may be, can by any stretch of the imagination be considered good architecture, or even architecture at all. The long procession of style revivals of the past one hundred odd years succeeding the break with evoluting traditions must have been architecture's greatest curse, for but rarely have architects become skilfully acquainted with the peculiar limitations of the one before they were off with another. And yet from almost every period and every style there survive a few buildings showing lasting good form quality. Perhaps because of other numberless limitations; clients, associates, materials, craftsmen, builders, all added to his own, the serious architect in the fine art sense, but rarely regards his past performance with any great affection.

Looking back to the 80's we find Canada like England and the U.S.A. nearing the end of what seems to many of us the most completely, utterly, indefensibly, absurd architectural period of all time—the Victorian-Gothic revival. All propaganda and theory; beautiful Ruskinian words in volume, but beautiful form, almost never. The protesting Romanesque revival in the U.S.A. may scarcely be said to have invaded Canada in force until the next decade. But out of the now so universally despised Victorian-Gothic movement certainly one successful group of buildings resulted—the old Parliament Buildings at Ottawa. Here the main dispositions are so masterly that we may be quite cheerfully unconscious of disagreeable stylistic details. This group is so important that some dates are worth recording; competition won by Fuller (firm) in 1859, corner stone laid by the Prince of Wales in 1860, Legislative Halls opened in 1866.

Four of the architect charter members were born in the British Isles. Hopkins and Scott may be thought of as British trained; Smith and Storm, Canadian—although Storm studied in Europe after achieving his first success. Langley was Canadian born. At the date of founding, all had been in practice in a large way for years, and could be credited with important works. Their own appraisals are perhaps illustrated by their retrospective selections for exhibition at Ottawa in 1880. Hopkins sent in the Royal Institute (diploma work), the Merchants Bank Building at Montreal, and the Bank of Montreal at Ottawa. His Crystal Palace for which he had been awarded a silver medal by the Prince of Wales (King Edward VII) at the time of laying the corner stone in 1860 was not shown. Smith exhibited the St. James Square Presbyterian Church (diploma work), and Knox College Buildings (Toronto), and the Deaf and Dumb Institute (Belleville). Scott, who exhibited the Toronto Union Station (diploma work), was

*From a History of the Royal Canadian Academy of arts written in 1934 by Hugh G. Jones, R.C.A. in collaboration with Edmund Dyonnet, R.C.A., Secretary of the Academy.

the architect of St. Andrew's Church at Montreal, and had just completed ten years service as chief architect of the Federal Department of Public Works (1870-1880). Storm exhibited the Arts (1865, diploma work), and Convocation Hall Buildings (Toronto University), the Normal School, Osgoode Hall (1860), and St. James Cathedral (all at Toronto). The last named he had won in competition as a youngster of twenty-two in 1848. Langley exhibited the Metropolitan Church at Toronto.

Of the Academician members elected in the 80's, Fuller, Howard, and Watts (designer), were of English birth and training. The others, Hutchison, and Darling were Canadian; only Darling, who studied and worked in English offices, had the advantage of foreign experience.

Out of the twenty-eight architect associates from eight cities appointed by Lord Lorne in 1880, the names of only eight appear in the membership list of 1890; of these Darling had been elected an Academician in 1886. The evidenced desire of the Academy to create an interested and nationally distributed membership had not worked out. Some well known names appear among those first associates of brief connection: Baillarge, architect of the Facade of the Basilica at Quebec (1884); Thomas, architect of the Stephens (Dorchester St., 1860), and the McIntyre (Drummond St.) houses at Montreal; Strickland, architect of the Toronto Union Station (Front St. section, 1895). Powers, architect of the St. George's Cathedral at Kingston (exhibited in 1908), and Nelson, were among these first associates. Powers and Nelson continued their memberships for many years. Steele (Hutchison & Steele), who may be credited with the design of the Lord Strathcona house, and the Redpath Museum at McGill, was an associate during most of the 80's.

Only at the first exhibition in 1880 did the architects show much of their work. Scott, Dunlop, Taylor, Dick, and Watts, were the exceptions who continued to exhibit with some regularity. Watts was really indefatigable; year after year we find him showing architecture, furniture, decoration, stained glass, etchings, and landscapes in both water colour and oil. Others of the architects from time to time wandering from the architectural path were Scott, Taylor, Smith, and Dunlop, with their travel sketches and painting. At the exhibition of 1882 there was shown Fuller's Albany Capitol; Scott's design for the McKenzie Tower at Ottawa (drawing by Watts), and his St. Louis and Kent Gates at Quebec. In 1883, Fuller sent in the Fuller and Jones competition design for the Parliament Houses at Ottawa, and a design for the Assembly Chamber at Albany; Connolly the Cathedral of St. Peter's at London, Ont. In 1884 Taylor exhibited his second premiated design for the Glasgow Municipal Buildings and some travel sketches. In 1887 Taylor exhibited an interior of the Bank of Montreal at Montreal. Dunlop's St. James Methodist Church was shown in this year.

SECOND DECADE

In the 90's revivals still continued; the Romanesque, on the whole a waning influence, and signals at least of an Italian Rennaissance. Basic working theories of design were perhaps no great improvement on those of the previous decade, for in practice stylistic exteriors continued to be grafted onto unrelated plan and structure. But whatever may be said of inconsistencies, the leaders at least of these revivals in the U.S.A.—Richardson and McKim—throughout their lives held firmly to an ideal; beauty of form. Of the Romanesque it cannot be said that much good came of its importation into Canada, for it proved to be but another passing style revival, and but few creditable examples may be ascribed to our Canadian architects. The Italian Rennaissance, quite differently, has continued a lasting force, for out of it has grown those habits of persistence in exhaustively experimental search for form that alone may be expected to achieve pure beauty, whatever may be the style or no style at all. Only near the end of the decade was there dimly discernible in Canada results from the teachings of the French School of Fine Arts (Beaux Arts) first brought to the U.S.A. by R. M. Hunt in 1855. Gothic forms persisted in church work. Norman Shaw was something of an influence, but there was no accepted tradition or practice.

An almost distinctively Canadian revival appeared at this time; the French Chateau (transition) adaptation at first inspired by a client—Sir William Van Horne. We may think of Edward Maxwell as the leader; he produced a number of admirable buildings—minor and major. The C.P.R. Station at Ottawa is perhaps the best known early example in the style.

Curiously enough the British born members in their work displayed but slight evidence of their early associations; they mostly seem to "have gone Romanesque." To this period belong most of the Romanesque buildings: Dick's very fine Library at the University of Toronto; Hopkins', MacKenzie house (now Workman) on Sherbrooke St., Montreal; Strickland and Symon's, Union Station at Toronto (Front Street section); Taylor's, McGill University Buildings (Physics, 1890), Redpath Library (1891), and his Sir George Drummond house. Nearly all of these buildings were shown at the Academy exhibitions. Maxwell's (Edw.) Birks Building, and his Sir Edward Clouston house, neither of them Romanesque, were of this period.

Of other buildings shown at the exhibitions, we may note: By Dunlop; Queen's Hotel at Montreal

(1893). By Strickland & Symons; St. Matthews Church at Toronto (1890). By Powers; St. Andrews Church, Kingston (1891). By Taylor; Bank of Montreal at Vancouver (1893), Chemistry Building at McGill University, Montreal, and Molson's Bank at Vancouver. By Storm; Victoria College, Queen's Park, Toronto (1891). By Dick; Toronto University Gymnasium (1895), Chemical Laboratory (Toronto University), and Royal College of Dental Surgeons (1896). By Gordon & Helliwell; Church of the Messiah at Toronto (1895), and Queen's College, Kingston (1895). By Harris; St. Dunstans Cathedral, and St. Paul's Church (1895), at Charlottetown, P.E.I. By Darling, Sproatt and Pearson; St. Andrew's Church at Belleville (1895). By Hutchison; Melville Church, Westmount (1897).

In this decade but two new associates were elected; Symons, and Townsend. Capper, Dick, and Taylor (all of them British), and Dunlop were elected Academicians. Out of the forty-five members elected in the 80's, only seven academicians and six associates appear as members of the Academy in 1899. Not all of these were in active practice.

THIRD DECADE

The incoming French School influence that we have noted, was at first evidenced by a disposition to perpetuate in building materials the paper architecture forms currently used in Paris ateliers. But around the beginning of our third decade (1899-1909), young men possessed of better understanding of the basic principles of French teaching, were returning to Canada from their studies in the U.S.A. and France: Lyle from New York and Paris; W. S. Maxwell, and MacFarlane from Boston and Paris; Miller, and Vallance from Boston; Chapman, and Marchand from Paris. These men, and others, contributed skill in broad scale planning and dispositions of mass—working from the inside out—that somehow inspired added interest and respect for the real bones of things. The too often unbeautiful extremes of paper architecture forms interested most of these men but briefly; along with nearly everyone else they experimented at times with style revivals. Early in the next decade through the efforts of Lyle and Maxwell (W.S.) the teachings of the French School as tempered by current practice on this side, were brought more directly to our young men through the night ateliers for working draughtsmen established by them (Maxwell and Lyle) at Montreal and Toronto. Both of these ateliers were affiliated with the Society of Beaux Arts Architects of New York.

Of the buildings designed later on by these then young men we may note a few of those displaying—certainly to the layman—the more obvious results of French training and influence: By Lyle; The Royal Alexandra Theatre at Toronto (1910). By Maxwell; the C.P.R. Station and Hotel at Winnipeg (1904), Parliament Houses at Regina (1908), Dominion Express Building at Montreal (1909), and the Palliser Hotel at Calgary (1912). By MacFarlane; Union Station at Ottawa (1908). By Miller; the Canadian Express Offices (1908) and the Shaughnessy Building (1912), McGill Street, both at Montreal. By Marchand; St. Cunegonde Church (1906); Mother House, Congregation of Notre Dame (1907); and St. Boniface Cathedral (1908).

In quite different stylistic languages were other buildings by these designers: By Lyle; free Georgian houses. By Maxwell; the Art Association Galleries at Montreal in Classic tradition (1910). By MacFarlane; the Chateau Laurier at Ottawa in French transition chateau (1910), and the Roslyn School at Montreal in English transition (1909). By Miller; St. Andrew's Westmount Presbyterian Church in Italian Romanesque (1910). By Vallance; Strathcona Medical Building at McGill University (rather Gothic-English transition, 1909), and the Children's Memorial Hospital (Montreal, 1907-1920).

The workings of a quite different influence is discernible shortly after the turn of the century; a new British invasion. This time we find an almost militantly individual point of view, freed from Palladian book slavery and style revival shackles, but evidencing strong sense for distinctive form, and that traditional and instinctive British feeling for craftsmanship and interesting use of materials, that somehow has nearly always persisted, even through periods of error in conscious thought. In its beginnings we may think of Nobbs as the chief and almost sole invader. For thirty years, through teaching at McGill and example of executed work, he has exerted an influence on our young men. Of the well known early examples of his work we may note: McGill Union (1903); Macdonald Engineering Building (McGill, 1907); New Birks Building, Montreal (1912); University Club, Montreal (1913). Minor and less well known residential examples might perhaps be more clearly illustrative of essential qualities.

Over the long period English influences could perhaps be sensed most strongly at Toronto. Darling's design had always carried some suggestion of English training and a continuing interest in current English work. Buildings so far apart in both time and style as his Bank of Montreal (Front Street, Toronto) and the C.P.R. Office Building (1909) evidence current English contacts. In altogether different vein is his very traditional Georgian Women's residence at Dalhousie. Partly reflecting current U.S.A. fashions in bank buildings, but still reminicent of English design of the time were his Canadian Bank of Commerce buildings at Winnipeg (1906) and Montreal (1907). Sproatt

& Rolph's consistent loyalties were to the traditional English-Gothic, accepted as a starting point for free modern treatment, and but little if any, influenced by later English versions. Belonging to this period are the early buildings at Bishop Strachan School and Victoria University. Later came Hart House.

Not many of the buildings cited as illustrating style or movements were shown at the exhibitions. Among others shown we may note: By Harris; Trinity Church, Winnipeg (1900). By Taylor; Merchants Bank at Winnipeg (1901), Maternity Hospital at Montreal (1903), Isolation Pavilion at the Royal Victoria Hospital (1904). By Dunlop; Montreal Star (1902) and the Commercial and Technical High School (1906). By Burke; (firm) McMaster University Chapel (1907). By Hutchison; (firm) Main Building at Macdonald College (1907). By McVicar; (firm) Prince of Wales Fusiliers Armoury at Montreal (1907). By E. & W. S. Maxwell; Church of the Messiah, and the McNicholl house at Montreal (1907). By Powers; St. George's Cathedral at Kingston (1908), and the Biological Building, Queen's University (1909).

In this third decade but two new members were elected—Maxwell (E.) (Academician), and McVicar (Associate).

(To be Continued)

AWARDS AT THE FIFTH ANNUAL EXHIBITION OF THE ROYAL ARCHITECTURAL INSTITUTE OF CANADA

The fifth annual exhibition of the R.A.I.C., now being held in conjunction with the Royal Canadian Academy exhibition at the Montreal Art Gallery, consists of approximately ninety-five photographic enlargements, representing some thirty-three buildings designed by members of the Institute.

Prior to the opening of the exhibition on November 21st, the buildings were judged by a jury of award consisting of Messrs. J. Cecil McDougall and Ludger Venne of Montreal, and W. L. Somerville of Toronto. After giving careful consideration to the buildings exhibited, the jury decided not to award the Gold Medal this year. Other awards, however, were made as follows:

RESIDENTIAL BUILDINGS—EXTERIORS

First Award—Residence, Maj.-Gen. D. M. Hogarth, Toronto—Mackenzie Waters, architect.

Honourable Mention—Residence, J. Russell Morrow, Esq., Orangeville, Ontario—Gordon S. Adamson, architect.

Honourable Mention—Country Residence, Mrs. G. Ross H. Sims, St. Saveur Des Monts, P.Q.—A. T. Galt Durnford, architect.

RESIDENTIAL BUILDINGS—INTERIORS

Honourable Mention — Bedroom, 494 Avenue Road, Toronto—H. J. Burden, architect.

ECCLESIASTICAL BUILDINGS—INTERIORS

Honourable Mention — Valleyfield Cathedral, Valleyfield, P.Q.—Henri S. Labelle, architect, Louis N. Audet, consulting architect.

Honourable Mention—Knox Presbyterian Church, Ottawa, Ontario—Sproatt and Rolph, architects.

INDUSTRIAL BUILDINGS

Honourable Mention—Gin Distillery for W. & A. Gilbey, Ltd., New Toronto, Ontario—Mackenzie Waters, architect.

FURNITURE AND DECORATION

Honourable Mention—Furniture and Decoration in a sunroom, residence at Westmount, P.Q.—Maxwell and Pitts, architects.

ACTIVITIES OF PROVINCIAL ASSOCIATIONS

SASKATCHEWAN ASSOCIATION OF ARCHITECTS

The annual meeting of the Saskatchewan Association of Architects was held in Regina on October 31st, 1935, at which many matters of interest to the profession were discussed.

It was decided to request the Lieutenant-Governor in council to approve the changing of our scale of charges as contained in the by-laws of the Association, to make the minimum fee 5% for all classes of new buildings and to place the fee for alterations at from 7½% to 10%. At present the Saskatchewan Association's schedule calls for 4% on warehouses and factories and 5% to 10% on alterations and additions. The proposed changes would bring Saskatchewan's fees more in line with those of other provinces.

Approval was given to the suggestion of the Ontario Association of Architects to limit representation of provincial associations on the council of the R.A.I.C. according to the schedule suggested by the O.A.A.

The election of officers for the ensuing year resulted as follows: president, David Webster, Saskatoon; first vice-president, W. G. VanEgmond, Regina; second vice-president, F. H. Portnall, Regina; secretary-treasurer, E. J. Gilbert, Saskatoon; councillors: Prof. A. R. Greig, Saskatoon; Jos. Warburton, Regina; and Harold Dawson, Regina. Francis B. Reilly and F. H. Portnall, both of Regina, were appointed delegates to the R.A.I.C. council.

* * * *

ARCHITECTS' ASSOCIATION OF NEW BRUNSWICK

A meeting of the council of the Architects' Association of New Brunswick was held on October 22nd, 1935.

At the request of the Saint John Town Planning Commission, Mr. H. C. Mott was appointed to serve as a member of the engineering committee of the Commission, representing the A.A. of N.B.

The proposal of the Ontario Association of Architects relative to a reduction in representation from provincial associations on the council of the R.A.I.C. was considered and approved.

NOTES

The annual exhibition of the Royal Architectural Institute of Canada opened on November 21st in the galleries of the Art Association of Montreal, in conjunction with the 56th annual exhibition of the Royal Canadian Academy of Arts.

* * * *

Dr. John A. Pearson, F.R.A.I.C., of Toronto, and the Hon. Irenee Vautrin, Minister of Colonization for the Province of Quebec, have recently been elected to honorary membership in the Province of Quebec Association of Architects.

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W. S. Maxwell, of Montreal, president of the Royal Architectural Institute of Canada, has recently returned from an extended trip to England and the continent.

* * * *

Philip J. Turner, F.R.A.I.C., of Montreal, delivered an illustrated lecture on the spirit of London before the St. James Literary Society on October 29th, 1935. Mr. Turner also delivered a lecture to the Quebec Library Association on November 18th on the subject of some recent English libraries.

* * * *

H. L. Fetherstonhaugh, M.R.A.I.C., of Montreal, left recently for a six weeks' trip to England and the continent. Mr. Fetherstonhaugh expects to return to Montreal during the early part of December.

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C. R. Tetley, M.R.A.I.C., has recently returned to Montreal, after spending some time in Europe.

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The Province of Quebec Association of Architects is to be complimented on having prepared a very fine document, printed in both French and English, containing the Charter, By-Laws, and Code of Ethics of the Association.

* * * *

Dr. John A. Pearson, F.R.A.I.C., architect of the parliament buildings at Ottawa, has recently published an interesting brochure illustrating and describing the peace tower and memorial chamber in the parliament buildings. The brochure has been written by Katherine Hale, and has been dedicated by Dr. Pearson to the veterans of the great war.

* * * *

The Toronto Chapter of the Ontario Association of Architects have arranged a very interesting dinner and cabaret for its members to take place at the Arts and Letters Club, Toronto, on Friday evening, November 22nd. This function will provide an opportunity for the greatly enlarged membership of the chapter to meet together.

* * * *

The publicity committee of the Ontario Association of Architects have under preparation a series of lectures on architecture which will be available to service and community organizations. Many of these lectures will be illustrated and will include such topics as modern insulation; old Ontario architecture; house planning; materials; modern architecture in Europe; the modern school; planning and construction; church planning and construction; street architecture, commercial and residential; some famous architects; historic architectural design; historic furniture; private schools. Domestic interiors; landscape gardening for the suburban home; a plan for educating the layman's taste in architecture; architectural background of the Christian church; the rural hospital, requirements in planning and construction.

A series of radio broadcasts has also been arranged by the publicity committee which will be given over station CRCT, Toronto, at 6.30 p.m. every Saturday evening. The first of this series under the title of The Architects and the Public, was given on Tuesday, November 12th, by B. Evan Parry, F.R.A.I.C., director of publicity for the O.A.A.

ERRATA

In the September issue of THE JOURNAL, accompanying the article on "The Treatment of the Modern Bathroom" by Earle C. Morgan, a bathroom in a residence, Westmount, P.Q., Maxwell & Pitts, architects, is illustrated and described as an example of the use of plaster ornament as a wall treatment.

The architects have advised us that this description is misleading inasmuch as no plaster ornament was used in the room. The painted decorations on the end walls, by Mr. Gert Lamartine, recall in much of the colour used the pale jade green of the lower walls. Where figures are used they are in Gesso, not exceeding over one-sixteenth of an inch in relief. No mouldings are used in the room and any linear effects are achieved by very low relief sinkages. Relief ornament is limited to carving over cases and on a mirror.

COMPETITIONS

A competition open to the artists of the United States and Canada (including architects and architectural draftsmen) is announced by the Institute of Foreign Travel, Maritime Exchange Building, 80 Broad Street, New York, for the execution of a poster to stimulate an increase of travellers to Europe in 1936. The following prizes will be awarded: First prize, $500.00 and a non-transferable passage to and from Europe in the highest class of liners selected by the winner; second prize, $200.00; third prize, $100.00.

All posters must be sent in not later than December 31st, 1935, when the contest closes.

Conditions for the competition may be obtained from the Institute of Foreign Travel, Maritime Exchange Building, 80 Broad Street, New York.

BOOKS REVIEWED

THE USE OF BRICK IN FRENCH ARCHITECTURE.

By William Emerson, F.A.I.A., and Georges Gromort, D.P.L.G., with drawings by Samuel Chamberlain. Published by the Architectural Book Publishing Company, Inc., New York. Price, $6.50

This book, while presenting much information on French brickwork, is made additionally attractive by the inclusion in the volume of a number of sketches by Samuel Chamberlain. The field of French brickwork is so broad that the publishers have decided to cover the subject in a series of six volumes, each one of which will feature the characteristics of certain districts. The first volume, which is the subject of this review, contains sketches, photographs and measured drawings of examples taken from the Midi, a region in the southern part of France, of which Toulouse and Albi are the chief centres. Subsequent volumes will deal with other regions in France, namely, The Centre, Normandie, Ile-de-France, and Flanders.

The volume is 9¾" x 13" in size and contains 94 pages, including a large number of excellent illustrations and measured drawings. —I.M.

OBITUARY

Noulan Cauchon

Noulan Cauchon of Ottawa, noted Canadian engineer and town planning expert, passed away suddenly on October 28th, 1935, at the Ottawa Civic Hospital.

Mr. Cauchon was born in Quebec City on March 4th, 1872. He was the son of the late Hon. Joseph Edouard Cauchon, former premier of Quebec, and the first speaker of the senate of Canada after Confederation. He received his early education in Quebec and at the age of sixteen joined the staff of the Old Quebec and Lake St. John Railway. Later on he secured an appointment on the administrative staff of the Canadian Pacific Railway Company at the head office in Montreal and for the ensuing twenty years was in the service of that corporation. In 1907 he accepted a government appointment as assistant to the engineer of the board of railway commissioners for Canada.

Mr. Cauchon took a keen interest in town planning and interested many others in the ambitious plans he conceived. He wrote and lectured widely on the subject and his talks on civic improvement were much in demand not only in Canada but in the United States. He was also given the opportunity to present his views on town planning before many learned societies in several European countries.

When the Ottawa town planning commission was created in 1921 Mr. Cauchon became its chairman and technical adviser, which post he held until the time of his death.

Mr. Cauchon was a past president of the Town Planning Institute of Canada and was an honorary member of the Ontario Association of Architects.

Murray A. White, m.r.a.i.c.

Murray A. White, of the firm of Horwood and White, architects of Toronto, passed away on November 3rd, 1935, at the age of sixty-five years.

Mr. White began his architectural career in Toronto, later on moving to Chicago from where he returned to Toronto in 1907 to join the original firm of Burke, Horwood and White.

NEW BUILDING MATERIALS AND EQUIPMENT

REVIEWED BY B. EVAN PARRY, F.R.A.I.C.

The information contained in the following reviews is based on data furnished by the manufacturers, and we therefore cannot accept any responsibility for the statements contained therein. Mr. Parry, however, has endeavoured to include only such information as may prove of value to the profession.

"STREAMLINE" FITTINGS AND COPPER PIPE

Copper pipe and fittings for plumbing work today are very desirable and the streamline fittings manufactured and distributed by the Canada Wire and Cable Company Limited are such as to deserve the attention of architects throughout the Dominion. The tests carried out by the University of Toronto for the committee appointed for revision of the plumbing by-laws of the city of Toronto, support this contention.

The chief claims for the pipe and fittings are that they are rust proof, vibration proof, leak proof, smooth waterway, and valuable for replacement work.

Canada Wire and Cable Company Limited
Montreal Hamilton Toronto Regina Winnipeg
Calgary Vancouver

STEEL-CONCRETE COMPOSITE CONSTRUCTION

The many advantages of Steel-Concrete Composite Construction, which scientifically combines steel and concrete as a rapid, economical type of construction, have firmly established it in Canadian industry.

A loose-leaf handbook published by the Dominion Bridge Company Limited gives the general features of design in a clear manner and several examples are worked out. The second section is given over to charts and tables of which there are some twenty-three in number. These include tables giving allowable negative moments and negative moment reinforcement data as well as tabulated values of web members under both C.E.S.A. and A.I.S.C. formulae. Following this are beam design charts for beams 16″ to 36″ in depth and using either 2000# or 3000# concrete.

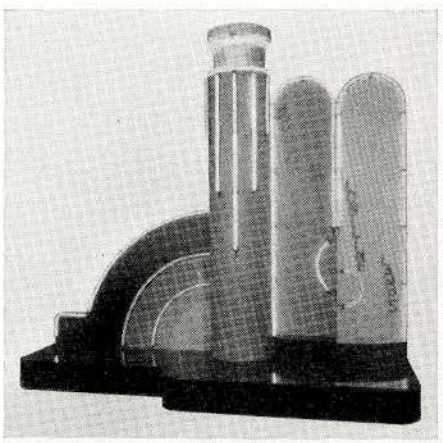
The book is in loose-leaf form, as additional charts extending the beam design series as well as other information such as column data, etc. is under preparation and will be issued shortly to all recipients of the original.

Architects should make a point of getting this valuable data for file in their library.

The Dominion Bridge Company, Limited
Lachine, P.Q.

"LUMILINE"—The New Linear Light Source

Edison Mazda Lumiline Lamps are a new form of tubular light source now offered as a means of special decorative and architectural treatment for interiors and exteriors. They employ a single stretched coil tungsten filament drawn into a continuous line from one end of the tube to the other. By setting lamps end to end a continuous slim line of light results. The tubes are 1″ in diameter and are 12″ and 18″ in length. For completing corner designs or making geometric patterns various curves and bends are available. Lumiline lamps may be had in either of two degrees of brightness and are available in clear glass and with diffusing coatings of white



and colours. The manufacturers claim that the surface temperature of these lamps is so low that flush mounting on wood or painted surfaces is absolutely safe.

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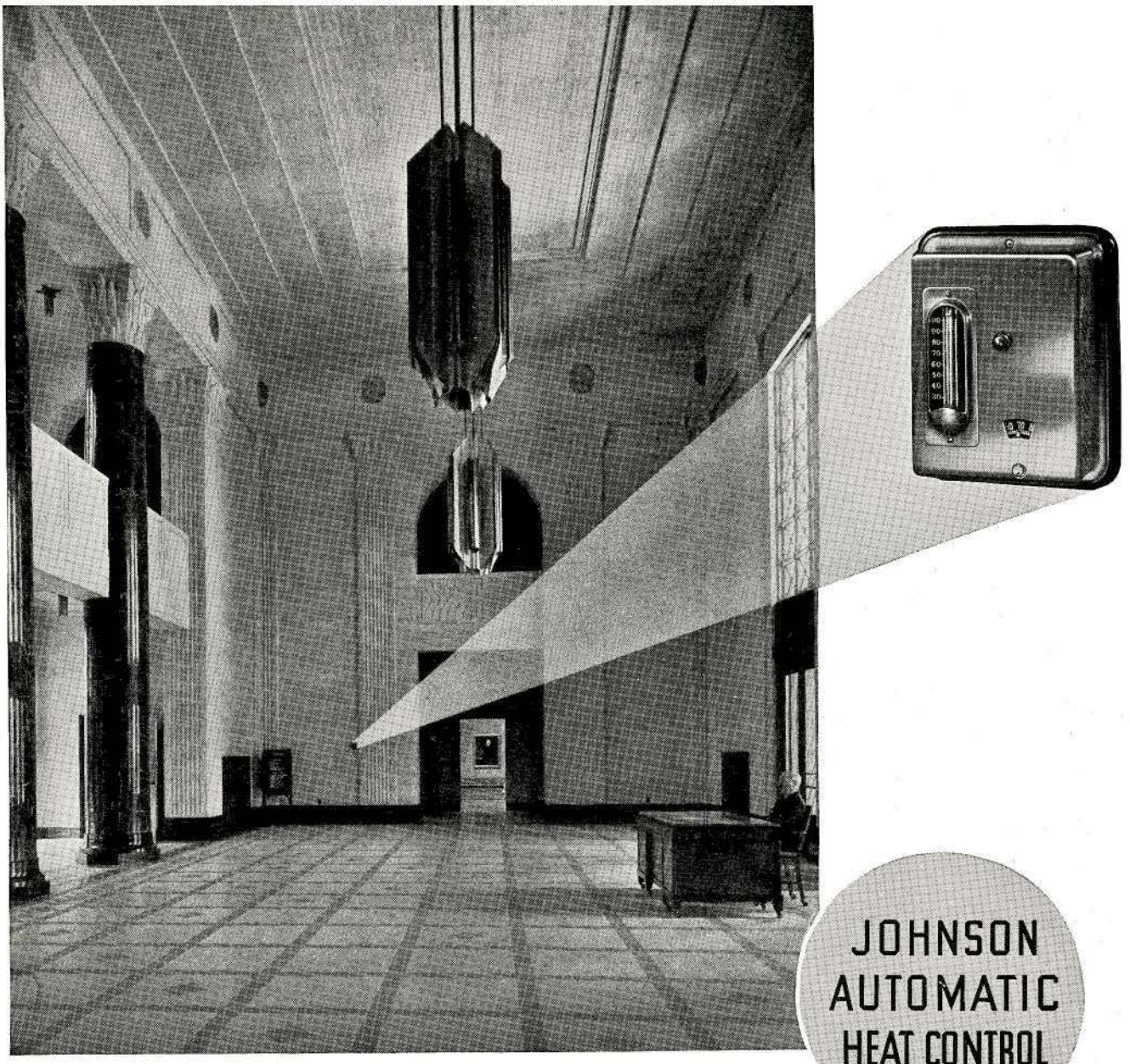

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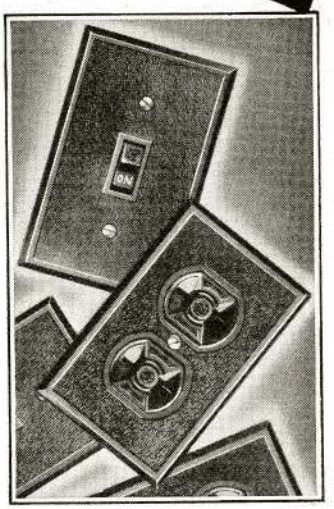

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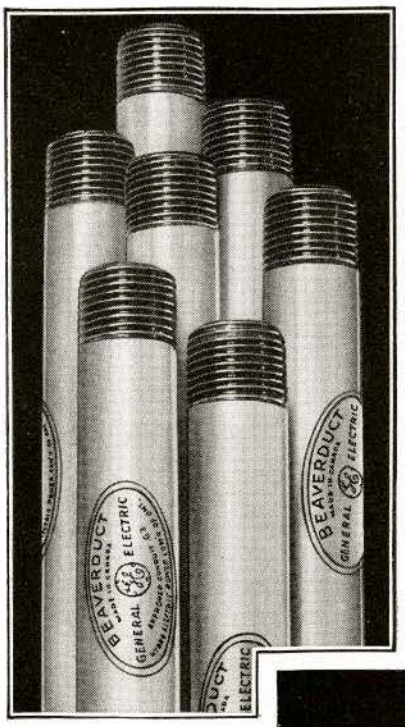

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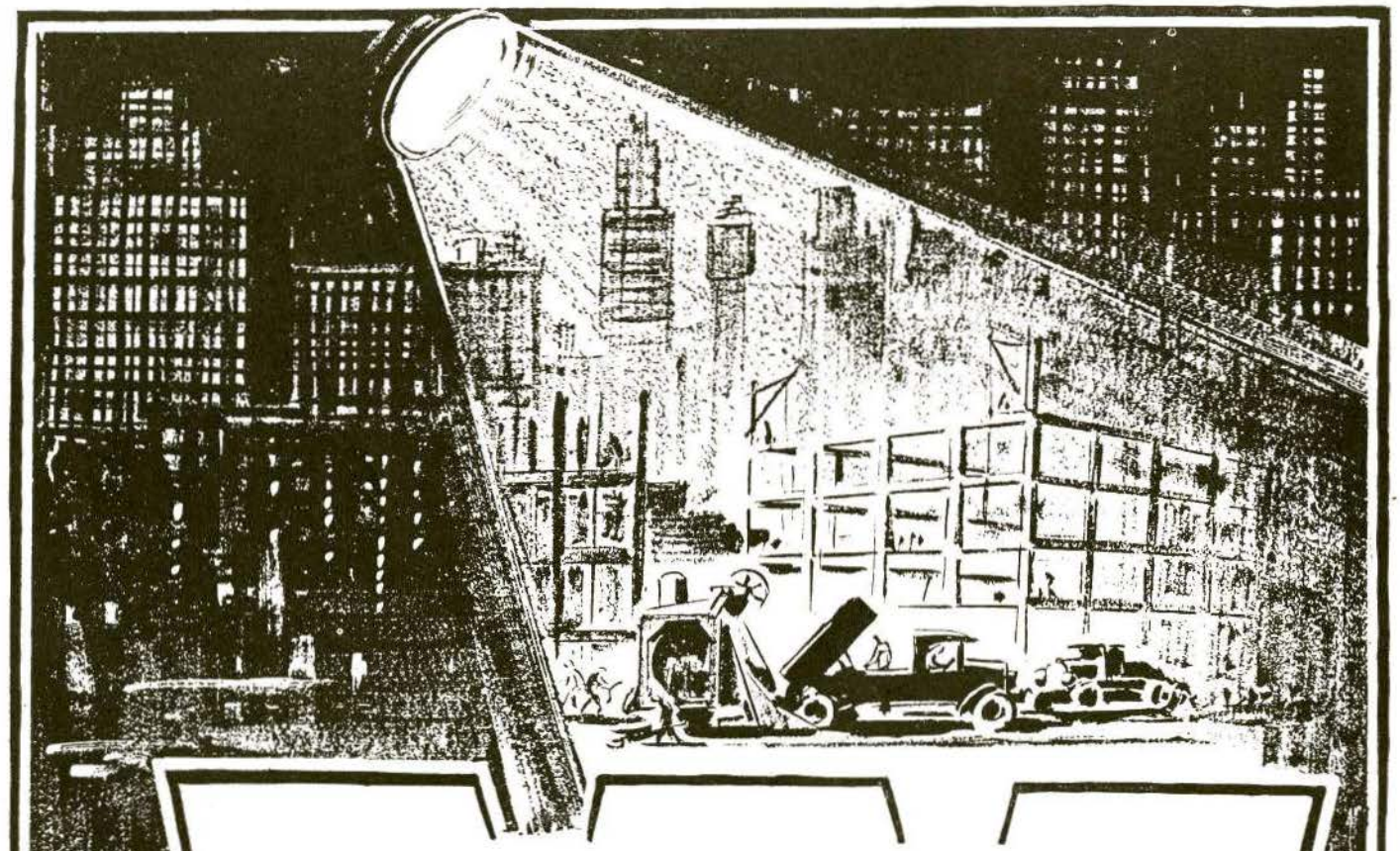

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