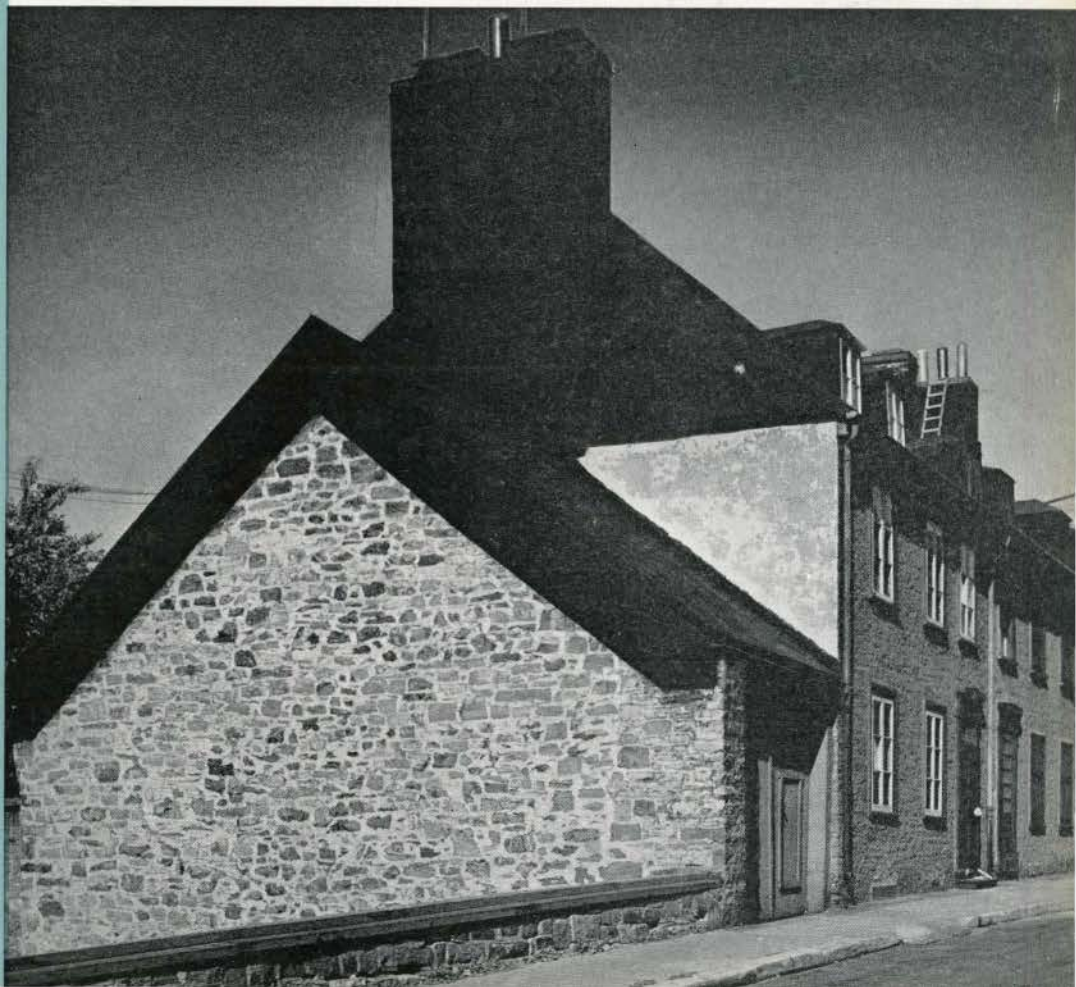


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HOMES



APARTMENT BUILDINGS

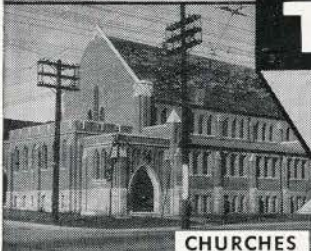
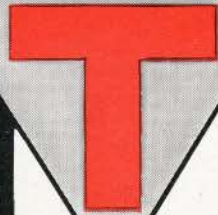


SHOW ROOMS



OFFICE BUILDINGS

TRANE



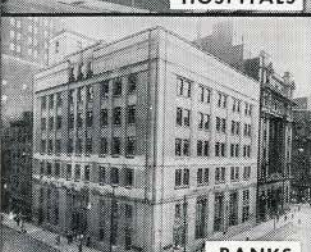
CHURCHES



UNIVERSITIES



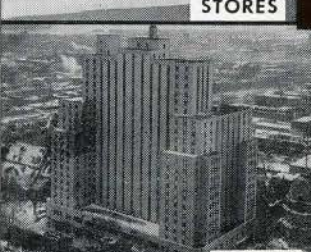
HOSPITALS



BANKS



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HOTELS

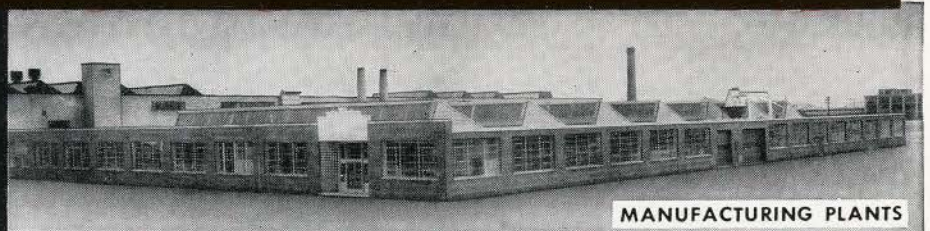
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Toronto August 1951

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EDITORIAL

WE HAVE just had a letter from a friend, who is "doing" the antiquities of Florence with all the enthusiasm of youth on a first visit to the old world. What brought us up with a jolt was the statement "saw magnificent exhibition, with photographs and models galore, of the work of Frank Lloyd Wright — in the Strozzi Palace." To have his work shown in Florence and in the Strozzi would, for any other architect, be a signal honour which would most certainly be mentioned in his obituary. For Mr Wright, who has, in our presence, proclaimed himself the only architect of note in half a millennium, the Strozzi must be just another building: perhaps a not very suitable building for such an exhibition. We take the view that another well deserved honour has been bestowed on Mr Wright — this time by the Italian people. Many books have been written dealing with the genius of Wright, and we do not intend to discuss it here except in one particular — his mastery of material.

Mastery of those intangible and elusive elements in architecture like proportion and scale; the imaginative handling of space or the ability to reduce a vast and complex programme to a plan, beautiful in its directness and simplicity, mark the great designer. The very enumeration of these qualities suggests that they are gifts to be found in a man who is rare in his generation. A mastery of materials, on the other hand, suggests a facility that all might acquire with varying degrees of success. It is, however, patently not so, and Frank Lloyd Wright stands out like a giant, not only among his contemporaries, but among the architects of the last few hundred years.

Lutyens had a certain gift for material, but he did not always put it to use. It appears in his domestic work in the happy integration of terrace and landscaping with house, as well as in the materials of the house itself. It is non-existent in buildings like the Anglo Persian Oil Company building or any other of his buildings in the City. The extent to which it is lacking in the Viceroy's Palace at Delhi might be the subject of debate. One cannot conceive of a building, small or large, rural or urban by Frank Lloyd Wright where his genius for material leaves any room for debate. It pervades the whole structure.

One reason why Le Corbusier and Gropius have so many followers and Wright so few is that while the work of the former demand no great understanding of material, the work of Wright's does to a degree that baffles imitation. It is a healthy sign in our generation that Wright should have so many admirers and so few imitators. The best modern houses show a new appreciation of space and a fine discrimination in the selection of modern materials, but they show, too, a new understanding of the beauty to be found in unpainted wood; in the texture and colour of stone flagging, and the lovely simplicity of the brick or stone wall.

The Dutch are frank to admit that for the return of these qualities to domestic architecture they owe much to Mr Wright. We, in North America, are beginning, only now, to recognize our indebtedness.

We take the rather pessimistic view that a genuine feeling for material is inherent in a student, and can be taught only in a superficial way. An appreciation of material can be attempted by field trips, and great hope is held out for the effect of the foundation course in design, which is now part of the curriculum in some schools. Essential equipment in any school is the Sample Room, which, in our opinion, is as important as a library, and warrants just as much annual expenditure for its maintenance. Unfortunately that is out of the question at the moment in any Canadian School.



THE ARCHITECT AND THE
FUTURE DEVELOPMENT OF
QUEBEC IN RELATION
TO ITS PAST

by EDOUARD FISET

EXTRACTS FROM A LECTURE PRECEDING A SEMINAR HELD FRIDAY,
2 MARCH 1951, AT THE CHATEAU FRONTENAC IN QUEBEC CITY, ON
THE OCCASION OF THE FORTY-FOURTH ANNUAL ASSEMBLY OF THE
ROYAL ARCHITECTURAL INSTITUTE OF CANADA.

Chers confrères,

Nous allons nous entretenir, cet après-midi d'un sujet qui, je le crois, nous tient également à cœur: *de Québec* . . . de Québec, de son passé, de son site, de ses monuments, de ses rues, de son caractère, de son architecture, de la région qui l'entoure (j'allais dire qui l'ençâsse); et du rôle qui nous revient, à nous architectes, dans la protection et la préservation de ces éléments; de Québec et de son avenir, de sa physionomie présente et future et de la responsabilité que nous assumons en la dotant d'oeuvres nouvelles, qui, tout en s'harmonisant avec les anciennes, doivent assurer un cadre de vie et d'activité nécessaire à la ville contemporaine. . . .

Ladies and Gentlemen,

The subject of the present seminar is, I dare say, close to the heart of every Canadian, and moreso, to the heart of every architect. . . .

I am very grateful to our president, Mr Roxburgh-Smith, whose unconstrained love and affection for Quebec is well known, for having given me the opportunity of expressing my views on this subject, and permitting me to lead a discussion which I am sure will result in constructive suggestions, and pertinent comments from you all.

Let us review the duties of the architect towards Quebec. . . . They are relevant to an important phase of architecture, in its loftier sense, as their very existence creates a unique opportunity, for the Canadian architect, to enter a field of artistic expression (both theoretically and practically) so closely related to culture and history; a field which has great importance for the architect of older countries. Hence, it is only normal that each of us individually, as well as a collective official group or association, should be deeply conscious of our duties and responsibilities towards the relics of the past.

Briefly, these duties are as follows:

With regard to the old (meaning ancient structures which have historic or aesthetic interest) they consist in preserving them as well as their environment and in restoring them when needed.

With regard to the new, these duties consist in providing for contemporary requirements, without clashing with the old structures, while preserving one's artistic integrity.

This dual aspect of the problem seems irreconcilable to certain persons. But, there are ways and means through which these aims can be attained. . . . Certain principles, and organized procedures can be devised with the view of assuring the protection of our artistic heritage,

within the normal and healthy development of the urban center and region.

Such procedures should embrace three main phases:

1st: Regulations, laws and by-laws on provincial and municipal levels, to be enforced through official channels, with sufficient authority and means;

2nd: General aesthetic principles which would guide the artist within the provisions of a defined procedure to this effect, and

3rd: a non-formulated code which would be simply an appeal to each of us in every case, to exercise the best of his ability, judgment and tact, to take pains and pride in his work. . . .

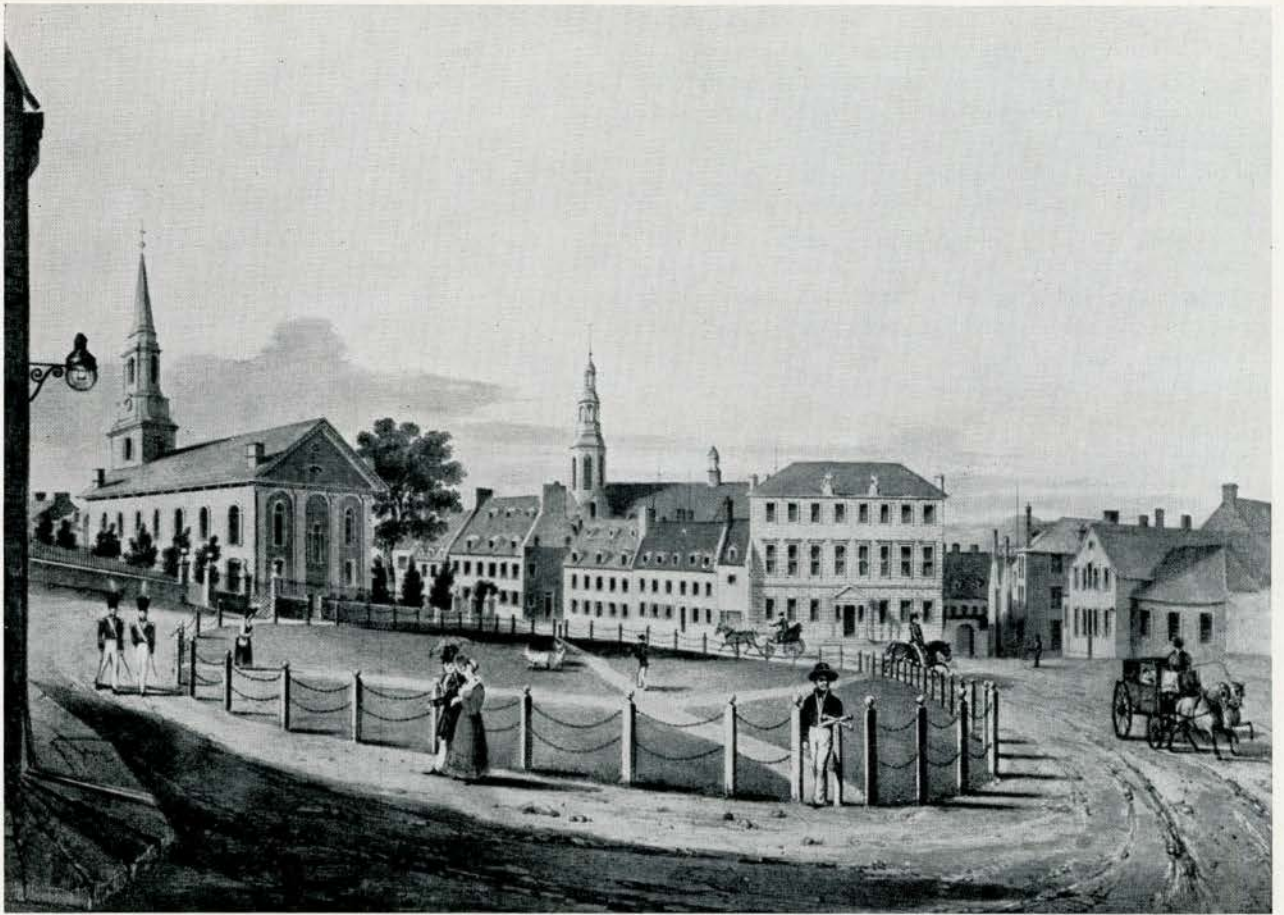
We have not now at our disposal the first means, which is the least important insofar as the creation of masterpieces is concerned, but the major one for preventing some of the most regrettable and often unredeemable blunders.

As for the general aesthetic principles, the issue has been so confused by so many people – some of whom have the best intentions in the world – that we have long departed from the wisdom and tact of our ancestors, who apparently were not involved in these scholarly sophisticated considerations, and who could live surrounded by the works of their own forefathers and add to these works with the mark and seal of their own time, while creating harmony and respecting the artistic expression of both

The Market-place, Upper-Town, in 1832. Drawing by Robert-Auchmuty Sproule, lithographed by C. Hullmandel. Collection Coverdale, Manoir Richelieu, La Malbaie



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The "Rond-de-Chânes" in 1832. Drawing by Robert-Auchmuty Sproule, lithographes by C. Hullmandel.
Collection Coverdale, Manoir Richelieu, La Malbaie

their own creation and that of their ancestors. . . .

As a first axiom justifying the proposals of a provincial jurisdiction, we must accept the fact that no municipality within its own powers and limited budget, is able to protect efficaciously its own historic and artistic monuments, especially when these monuments are quantitatively and economically important.

The first and major step to insure the protection and conservation of our historic and artistic patrimony is the creation of a Commission within some provincial department. . . .

Being more familiar with the French set-up . . . I will endeavour briefly to outline the characteristics which could be retained in the formation of a similar organization. . . .

Through an enabling act of December 31st, 1913, this Commission was vested with the right to classify in whole or in part, any structure as being an "historical monument," the conservation of which was of public concern, either from the historic or from the artistic point of view. Such classification can also be extended to *pieces of furniture*.

Ways and means of compensating the owner, when warranted, are defined. . . . Sanctions are also provided for the contravener. . . .

The law as defined in 1913 was amended and extended in 1927. Instead of being classified, monuments can be

designated within an inventory. In this case, the owner cannot proceed with any alterations without a two-months notice being given to the "Ministre des Beaux-Arts" . . .

This measure permits of wider control at less expense, as no other formality is required than an inscription on the inventory and a notification to the owner.

The latest improvements brought to this law dates back to February the 25th, 1943. It permits the classification of a "site," comprised within a maximum radius of 500 meters from a historic or artistic monument, which must have been already classified. This last measure permits not only to protect a building as such, but its environments. We are now right at the heart of the problem with which we are concerned, that is preservation of a whole, of an ensemble, of an atmosphere, of panoramas; preservation of the characteristic features of a city as a whole — of Quebec City. . . .

Such a Commission is essential for the protection of Old Quebec and the intervention of the architect is required toward the formation and the functioning of the Commission. . . .

On the municipal level in Quebec, there is already in existence a town planning Commission. . . . This Commission . . . has the responsibility of approving every building permit within the city limits, and every plan of subdivision within a radius of five miles, except within other chartered cities, if any. The Commission is assisted by a Town Planning Service. Though the terms of the authority of the Commission are somewhat ambiguous or incomplete, it actually has much power, and its decisions can be superseded only by the City Council. However, it lacks, two vital elements: *budget* and *sanctions*, and is not directly attached to a provincial organization. Because of these conditions, its tasks are rendered very difficult and delicate as far as the preservation of the Old Quebec is concerned. It can only prevent new constructions by delaying building permits. However, the Commission has already on several occasions, taken firm stands and prevented some disastrous and regrettable deteriorations of the character of the oldest sections of Quebec. Such initiatives are to be highly commended and should win for them the gratitude of all lovers of the old Quebec.

Unfortunately, such actions must be limited to infringements, which are sufficiently obvious to give rise to press comment and solid public opinion. It is otherwise very difficult to prevent the plague of ill-conceived and ugly construction from invading the periphery of the very heart-sanctuary of the historic city as, once started, like a treacherous disease, it inevitably meanders through the old urban pattern to its very core. . . .

So far, we have dealt only with the administrative aspects of the question — we have not, as yet, entered upon matters of aesthetics, properly speaking. Presuming that the organization that we have briefly described would be enforced, what should be the line of conduct?

Descriptions of "sites" of historic or artistic value should be proceeded with. Of these, I will note only the most important. First of all, the silhouette of Quebec, of its beak as seen from the other shore of the river or from the river itself. Such a measure, implemented thirty years ago, might have been a blow to the Chateau! Then there



Powder magazine on the "Esplanade," built shortly after 1840, now mellowed in its natural environment.

is the view of lower-town from the Terrace. Within a definite area, the height of buildings, the type and materials of roofs would be the main elements of control together with the size and disposition of bill-boards. Equally there should be a control of such boards on the Lévis side.

The selvage of the river as seen from the Citadel and the plains of Abraham should also be classified. It is rapidly deteriorating now and is being cluttered up by warehouses, oil tanks and the like.

In the immediate outskirts of the town there should be certain measures of protection concerning the cliffs of Beaupré and of Ste-Foy on the river side, and the Montmorency falls, all of which are natural assets of particular beauty.

The two main areas to be classified are the City of Quebec itself "intra-muros" together with certain areas immediately adjacent to it, such as the environs of the provincial Parliament Buildings. Also to be included are the old part of the town of Charlesbourg with its typical radiant plan, the whole of Orleans Island, and part of Beauport.

The classification of these sites should not be financial burdens to be carried by the Commission. Apart from specified zoning restrictions to be implemented in the usual way, these areas should be subject only to the following: request of a building or repair permit to the Commission; presentation of plans to the advisory committee on aesthetics *in their initial stage*, and final approval of plans by the Commission. . . .

The roofs of Quebec. View of Upper-town from the Chateau Frontenac.



MR JACQUES ORFÈRE



Aerial view of Quebec, showing the Basilica, the Seminary, the University and, in the background, the harbour.

Houses on St-Denis Avenue, facing the Citadel. These houses were built between 1820 and 1845.



Gate entrance of the Citadel, the construction of which was started in May 1820, from the plans and under the supervision of Elias Walker Durnford, Commanding Royal Engineer.



GÉRARD GARNEAU, QUÉBEC PLANNING SERVICE

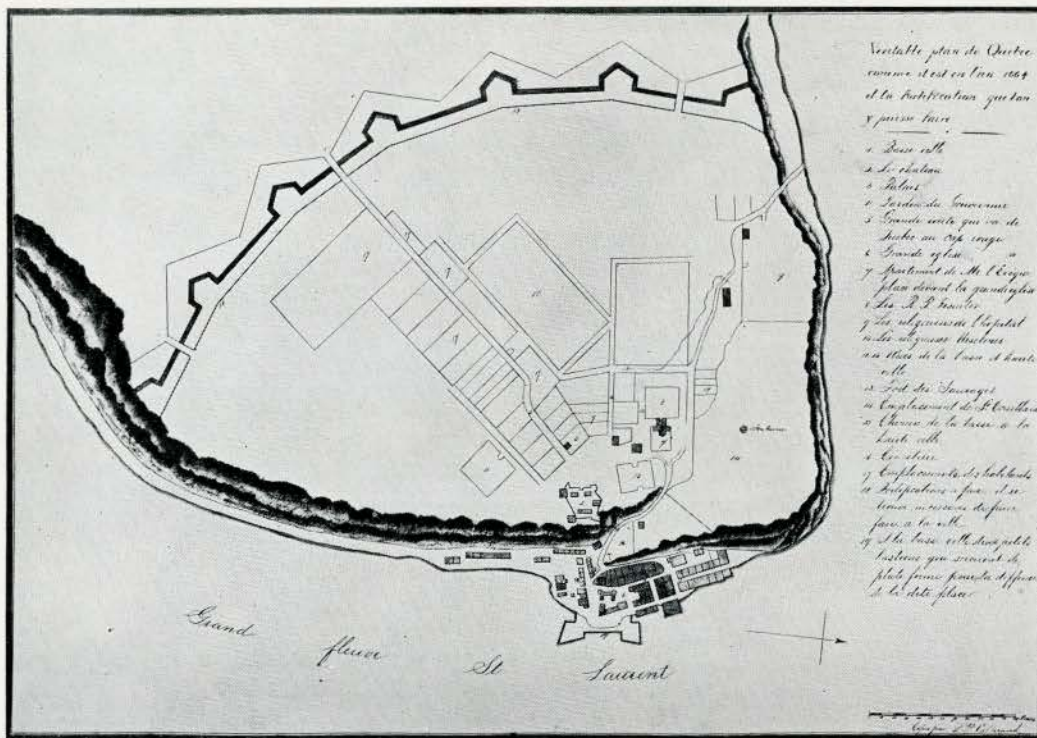


“INVENTAIRE DES OEUVRES D'ART”

Entrance portico of military warehouses (or armoury?) built in 1820 from plans prepared by Elias-Walker Durnford, responsible for most of the existing main features of the Citadel. The building was destroyed by fire in March, 1950, but the portico which was preserved will be taken down stone by stone and reconstructed close to its present location.



Doorway of the "Hotel-Dieu" Chapel, built in 1803 from plans prepared by Abbé Philippe-Jean-Louis Desjardins.

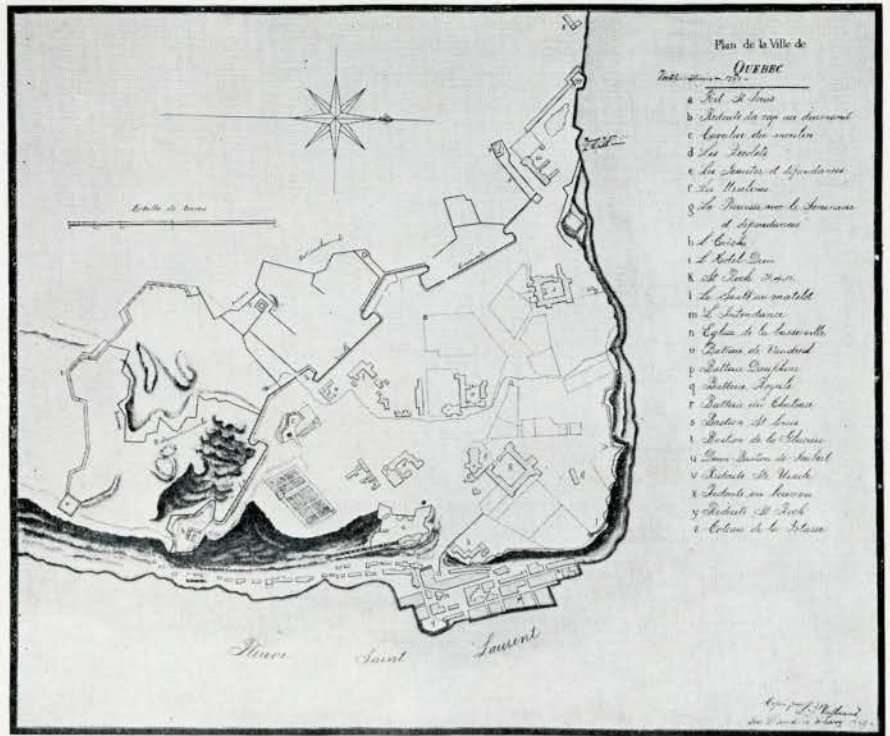


Plan of the City of Quebec in 1664, showing one of the many proposals made for the fortifications.
Document originating from the Quebec Provincial Museum

This classification should be completed by a second one of more restrictive nature: classification of streets, plazas or neighbourhoods, requiring more elaborate and detailed measures of zoning and control of materials. First, there should be a survey of the street or plaza, with complete drawing and indications of material and colour, together with the nature and age of buildings. The oldest and most characteristic structures should serve as guides for the preparation of architectural disciplines, which should aim at being a "consecration" of the character of the environment. Such classification should not put any more financial burden on the Commission than the first mentioned. It would require, however, on behalf of the Commission, a more thorough investigation of each case and a greater care in supervising the proposals. . . .

Finally, we arrive at the third stage: classification of monuments entailing complete control of the building and compensation where required. This would comprise buildings of different types such as churches, market places, "habitant" houses, monuments, etc. In such cases, the owner is not dispossessed, but the use of the building is controlled by the Commission as well as any contemplated work of alteration. . . . No other objective should be sought than the respect of the shape, character and nature of the building in its initial form through restoration if and when necessary.

A last means of protection, the only efficient one at our disposal now, is expropriation. But expropriation, in view of expenses involved, is necessarily very limited and is no overall solution. However, in certain cases, its recourse may be most desirable. *The expropriation of a whole city block by the Government, to be followed by internal*



Plan of Quebec, in 1711, showing the old fortifications. Civic and religious institutions sought refuge on high grounds, behind the fortified walls, while the commerce was concentrated in lower town on the river shore.

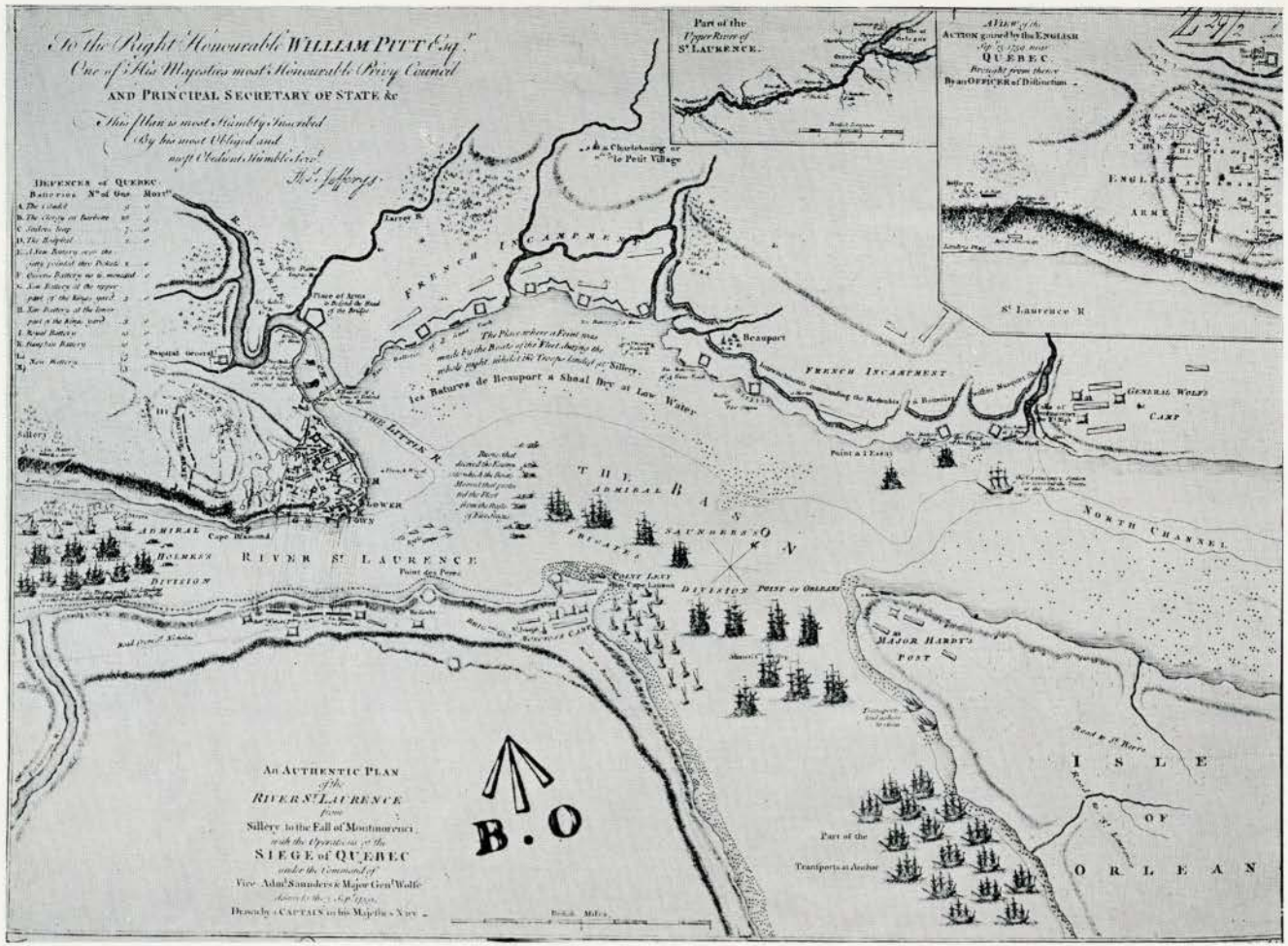
Document originating from the Quebec Provincial Museum

renovations for office space, and clearing of back yards, would ensure the preservation of certain characteristic streets, which are under the threat of undesirable alterations, due to economic pressures. . . .

It would be futile to pretend that there is a recipe which would permit the architect to produce masterpieces, but there are certain aesthetic principles which should serve as a guide to the designer and allow him to remain within the path of good taste and good sense.

Over these matters there is a great confusion of thought. The responsibility of this confusion, I think, is attributable to men of letters, historians and archeologists, more so than to the artisans themselves. The issue here is badly mishandled. These learned gentlemen have discovered (or is it created or hatched?), and then fed and finally led astray to an unlimited and eager audience a little monster — or the envelope, the illusion, the fallacy, the shape of a monster which is known as *the style*. There could be mention of programmes, of materials, of techniques, of means but not of this sentimental garment called style. It is a great mistake to encourage buildings to be designed in what is commonly known as “old Canadian style,” under the pretext of harmony or character. There are multiple examples in the past of groups of buildings or even, of parts of buildings — specially churches — which are built at different periods and bear the mark of these periods — they are of different styles. Yet they are quoted as examples of good taste, of harmonious and picturesque ensembles, often as masterpieces. It is thus evident that the “style” has little or nothing to do with this pleasing result.

In analysing the elements which create this harmony it will be found that they are due to the nature of materials,



Plan of Quebec and surroundings showing the siege of Quebec in 1759 by the English troops under the command of Wolfe.

to the close similarity of technical means, to the respect of human scale, and, naturally, to the sensitiveness of the artist. Thus, if it is desired to build in harmony with ancient constructions, let us recommend that the new buildings be erected in the same materials as the old ones — and, if not with the same technical means (which would be an unreasonable demand), at least with respect to the limited possibilities of these means. Then the buildings will have similar texture, volume and scale, though they may have different treatments in design.

Such recommendations, in my mind, should apply only to environments already endowed with ancient monuments, but outside such environments, an entire liberty of design, and techniques should be favoured. My stand is as firm against the conception that new structures should be solely functional and bold in design, irrespective of their environment, as it is against the opposite conception, which sponsors a sort of limitless continuation of a pattern, regardless of the needs and functions of the structure and its location, the requirements of modern techniques and conditions of life. . . .

Let us be of our time but let us adopt shades in expressing it, as we may do in social life. Without weakening one's personality or betraying one's conviction, a gentleman may address an old respectable lady in a different way

as he would talk to his colleague, or to his office boy! Well, Quebec is the oldest and dearest lady on this side of the ocean.

Tomorrow you will have the opportunity of being acquainted with her smile and her charm. You will admire the frills of her garment in the indentations of the grey fortified walls, the delicacy of her embroidery in the intricate and picturesque pattern of its streets, her warmth and frankness in the old stones of ancient houses. But you may find her a little abrupt when climbing hills at the flank of the cliff, and you may also think of one or two occasions that she needs a manicure when looking at a backyard through some old wooden carriage entrance. You may find that she has taken now to the habit of adorning herself with some cheap and flashy jewels when looking at the bill-boards or the neon signs, or that the feathers of her hat are a little heavy for her features, but in the whole you will be charmed and conquered.

One of the reasons for her charm is the harmony of the old streets even if now and then some feature clashes with the neighbourhood. You may not find any masterpiece in architecture, but you will find honesty in design and construction, simplicity together with refinement in expression of detail, good proportion, good material and all signs of good craftsmanship.

Though very few buildings date as far back as the seventeenth century, many streets and plazas keep the full flavour of the little towns from Normandy, due to their stone walls, their highpitched roofs and their party walls covered with chimneys.

If you are in search of "styles" you may find some satisfaction in observing the influence of the "Louis" styles on the main entrance of the Citadel and some auxiliary buildings, while you will readily recognize a victorian version of gothic in the St-Louis or St-Jean Gates. The "Jesuit" characteristics of the Basilica may appeal to you. . . . You may see a touch of pompous 19th century classic on the entrance of the Archbishop's Palace, and here and there a detail in roccoco style, but, on the whole this type of learned satisfaction will be somewhat limited and you will appreciate the frankness, the honesty and the simplicity of the architecture more than its purity and thoroughness of style. If you read the history of Quebec, you will marvel that after such calamities as a siege and bombardment, four or five major fires and speculators' appetites, there is so much left of the old structures and character. . . .

I know that we can complain justly that still too many things have disappeared and that they are too often superseded by undesirable elements — but, on the whole, the situation is not desperate. . . .

And now, I wish to enter upon the subject of the present seminar, that is: "The Architect and the future development of Quebec in relation to its past." But, I find here that I have little to say. If we consider only the oldest part of Quebec, well, I have endeavoured to enunciate a policy which should guide the main aspects of our

activities, and if we consider the greater Quebec, and its multiple activities, I do not find that there is any problem.

From the planning point of view Quebec, though not very large in size, is of the most complex nature. It is an administrative city as it is the seat of the Provincial Government; it is an important religious and educative center; it is a university town; it is also a military town, not only through its glorious and tormented past and its old fortifications, but as much so in the present; it is what we call in the planning jargon, a museum-city — and undoubtedly the most significant in North America — and as such a touristic center of great importance; it is a center of exchange and is unquestionably a queen of a nearly unlimited rural region; its port activities are a major aspect in its economy and in its shape; and finally it is an industrial center becoming more and more important due to its strategic position and to the strong pressure of a dynamic Industrial Commission.

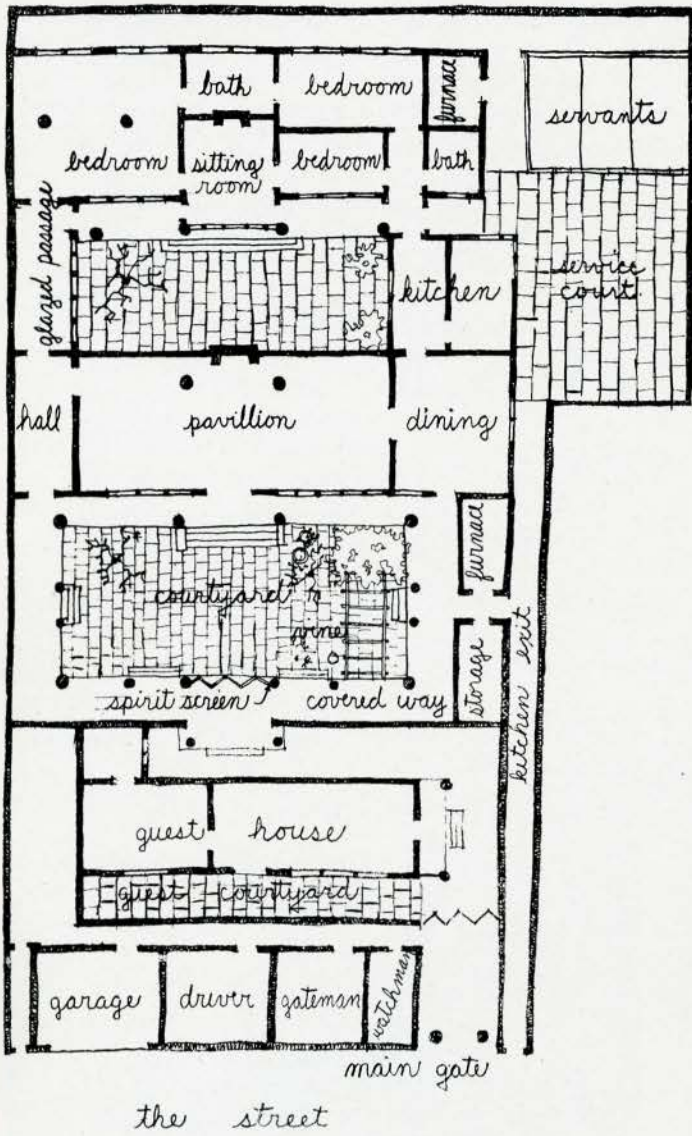
Few cities can boast of being representative of so many major aspects of urban activities. The task of the planner will be to encourage these activities, to guide them and to "localise" them, while the task of the architect will be to express, through well planned structures using all modern techniques, not only the function of the buildings but also the characteristics and aspirations of our period, as is the task of all Canadian architects in any Canadian town, and of any architect in any part of world. . . .

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View of Saint-Denis Street and the Chateau overlooking the river, from the Citadel.

neighbours property



中國屋宇 圖形及 攝影

*



* THE CHINESE HOUSE, plan and photographs

Feng Shui, or the spirits of wind and water, are not taken lightly in China. The housebuilder who offends them is asking for trouble. A little book used to be published annually in Peking listing the various festivals of the year, together with the days of good and bad omen for different occupations. As I remember it, there was a period of at least a week for which there was no entry but the terse comment, "inauspicious for digging holes."

One might feel that that would lead to difficulties for the builder who had finally got his material and men organized to the point of digging the foundation. Not at all. Any sensible Chinese has had the whole project, including the choice of land, worked out for him by a geomancer, at a much earlier stage than this. He knows when, how, and where he must start, according to the Feng Shui.

Of course there are many rules that he knows he must follow, even without his personal reading from the soothsayer. For instance, the north is inauspicious in Peking, so he must face his principal rooms south. Evil spirits, for some reason, have difficulty in getting around corners, so a screen should be put up inside any main gateways to make it necessary to turn before entering. A goldfish pool is reputed to bring peace to the household, while a pomegranate tree, with its heavily seeded fruit, is a good omen of many sons. A p'ung, or matting roof over the courtyards in summer will give the owner much "face."

The surprising thing about these traditional rules of housebuilding is that the result is so very practical and modern.

The dominant and most unpleasant wind of Peking comes from the north. By facing your main rooms south you avoid the wind and turn your courtyards into winter sun pockets. The devil-detering screen also insures privacy, as none can see in even if the gate is open. The pool brings peace, according to the Chinese, because women will quietly contemplate the fish and talk less. But it is also a charming addition to the garden, as is the colourful fruit of the son-encouraging pomegranate. The p'ung is a temporary roof of matting, spread over scaffolding and controlled by ropes which roll it back in different sections. Since it is above the roofs, the passerby can see what a man of wealth you are to be able to afford it, and you gain much "face." But you also gain the comfort of controlled shade and breeze in the hot Peking summers.

It would be ridiculous to claim that the courtyard houses of Peking are essentially modern. Glass has replaced rice paper in most windows and in many cases plumbing has been added, but otherwise they are practically unchanged in design since the Ming dynasty. And yet it is impossible to live in one without being impressed by the theoretical similarities to our current ideas in domestic architecture.

The sense of complete privacy is the most outstanding feature of life in a courtyard house. The Chinese love walls. Having put a wall around the country and around every city in North China, they have then surrounded their private properties and even section within these properties. Perhaps the inner wall of all is the much talked-of inscrutable face of the Oriental. Behind these walls, which are to restrain the outsider not to imprison the inmate, is one's private world.

Branching off the wide, busy thoroughfares of Peking are narrow little hutungs or streets, entirely outlined by high grey brick walls. Piercing these walls at intervals are bright red, brass-studded gates of varying degrees of splendour. Over the walls one can see great trees, grey tiled roofs with upended roof poles, and nothing more.

Inside the gate may be a one court hovel or a great mansion.

Although they differ from each other as much as ours do, the overall plan of these houses along the hutungs is traditional. Built on a north-south axis, they consist of a series of main, one-storied, rectangular buildings or pavilions placed one behind the other and separated by gardens or paved areas which are the courtyards. Additional rooms face into these courtyards from east and west, and where there are no such rooms, the main pavilions are connected by roofed-over corridors or pergolas which are usually closed by the main wall on one side and either open or glassed in on the courtyard side. In very large gardens these connecting corridors may twist and turn and be open on both sides.

The courtyards vary in size from small pockets for light and air to large gardens with grass, lotus pools and rock gardens. Most of them are stone-flagged, with some unpaved areas for trees, shrubs, or wistaria vines. Red lacquered pillars support the overhanging roofs of the buildings, and gold, green and blue designs decorate the eaves and ends of the ceiling beams. Potted plants and flowering shrubs are an essential part of a summer courtyard.

In dwelling houses, the roofs are of grey unglazed tile and do not have the upsweep one associates with Chinese architecture, but the ridge pole is often rather massive and ends in elaborate scrolls or upturned tails which apparently ward off fire, or flying foxes or whatever evil spirit is apt to plague your house. Often a square plaque is mounted on top of a roof to give additional protection against troublesome spirits.

All roofs have a very long overhang which is balanced by a wide terrace protruding at room level beyond the walls of the building. Broad steps lead up from the courtyard to these terraces or verandas and hence to the door of the pavilion.

On either side of the door, which is always in the centre, windows stretch across most of the width of the building. Formerly these window areas were covered with rice paper and were heavily latticed with strips of red-lacquered wood. Now that the latticing has been reduced to a space across the top, and around the door, and glass has replaced the paper, the large windows are surprisingly modern. In winter, sun pours into the rooms. In summer, the overhang of the roof prevents any rays from penetrating beyond the veranda area.

Oddly enough, the rice paper windows too, have a counter-part in modern design. In our Chinese house we had a guest pavilion in the first courtyard, consisting of a sitting room, bedroom, and bath. Someone before us had solved the problem of guests' privacy very simply. Those windows of the bath and bedroom section which faced into the courtyard were of rice paper instead of glass. The result was filtered light remarkably similar in effect to that given by glass bricks, or the wavy glass which we use.

The Chinese is essentially practical. If the spirit screen had not been pleasing and useful, he would long ago have found some other proof against demons. Through tradition, superstition, and good sense, the citizen of Peking has got the type of house which suits him best, and he sees no need for change. Dynasties have come and gone, and wars surged around him, and yet he remains serene, cultured, and courteous. Perhaps it is because he knows that, come what may, in the end he can go behind that screen, within a gate, within a wall, to his private world, his courtyard house in a hutung.

ALUMINIUM IN CONTACT WITH COMMON BUILDING MATERIALS

GENERAL

Consumption of aluminium by the building industry has increased enormously in the last five years. Aluminium in one of its many forms may be seen in most of our large urban buildings today (see Fig. 1A, B). For farm buildings this metal provides excellent service over very long periods of time and it requires little or no maintenance.

Probably the most common building product in aluminium is roofing or siding in corrugated or ribbed forms. It is also very frequently used for batten-seams and standing-seam roofs and flat-seam roofs on domes or

Aluminium foil is used for vapor barriers and insulation. Aluminium ductwork is most efficient and economical and, thus, large quantities are used for industrial and domestic ducting. Aluminium structural sections are becoming more common of recent years.

In all these manifold applications in the building industry, aluminium will be placed in contact with the other common building materials.

GALVANIC ACTION

Galvanic action has been held up all too frequently as



Figure 1A

The Laurentien Hotel has a wall-facing of aluminium of more than 70,000 square feet. This use of aluminium ended a search for a lightweight curtain-wall construction that would remove the need for hoisting and hanging tons of masonry on modern, slender steel frames without sacrificing fire-resistance, thermal and sound insulation, and life expectancy; offering, in addition, relatively rapid erection, dry construction and lower cost than traditional stone facing.

towers. It is used for flashings both with aluminium installations and with roofs of non-metallic materials. Extruded architectural shapes of aluminium are very popular for window frames, sash, sills, door mouldings, trim of all kinds, store fronts, marquees, copings and parapets, etc.

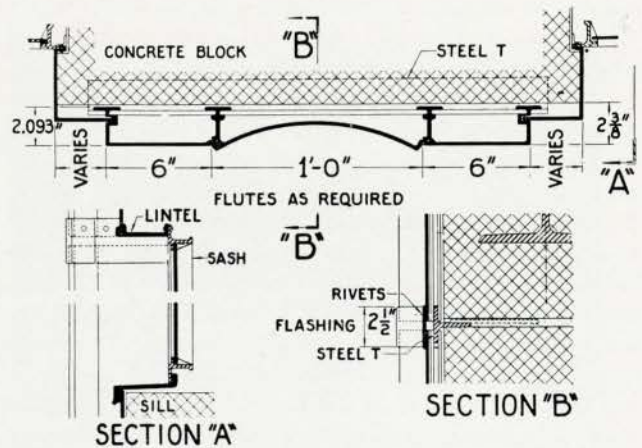


Figure 1B

The details of the extruded aluminium facing and the method of attaching it without the use of screws or bolts anywhere except at windows are illustrated. This plan was evolved from two previous ones.

a factor militating against the use of one metal in contact with a dissimilar metal or material. In common building practice today, aluminium may be placed in contact with many other dissimilar materials without deterioration of either. In some cases the architect or designer will specify insulating the other building material from the aluminium by such a simple procedure as back-painting the contacting surfaces with asphalt-base paint. Common sense is the best criterion to follow with all installations to minimize chances of galvanic action.

Inside, provided the location is dry, any combination of metals or metal to other material may be used. Outdoors, or with inside locations where moisture or conden-

sation is likely, aluminium may be used in conjunction with steel if the contacting surface(s) of the steel or the aluminium are painted. Zinc, galvanized iron and stainless steel are safe to use with aluminium under normal building conditions. Lead may be used in contact with aluminium under most conditions and, in fact, where aluminium nails or screws are being used outside, it is recommended practice to fit them with lead washers as a waterproofing measure. An exception to this is in marine atmosphere where good grade neoprene washers are recommended.

Where copper, brass and monel are being used in contact with aluminium building materials, they should be painted on the contacting surfaces with asphalt-base paint or synthetic resin-base paint. Lacquers and varnishes are also effective but are more expensive. Certainly, copper, brass and monel should not be installed in such a way that rain or condensed moisture may run off or drop onto the aluminium.

CONTACT WITH WOOD

Aluminium building materials will frequently be placed

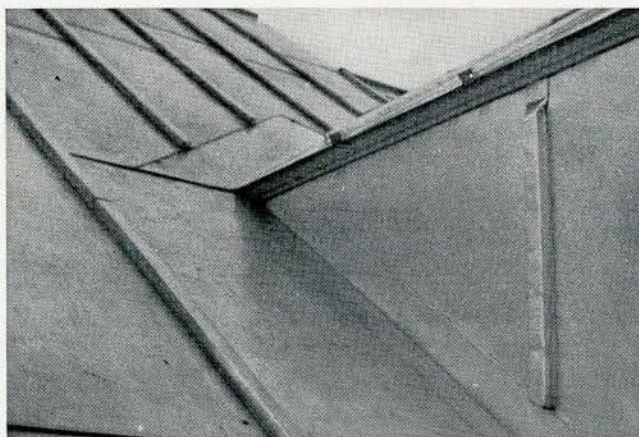


Figure 2
Batten Seam Roof

in contact with wood as is the case with the aluminium batten-seam roof shown in Figure 2, where the sheathing and the battens are spruce, pine or other local woods. Good practice requires an underlay of asphalt felt or tar paper. If the contacting surfaces are small in area it is satisfactory to give the contacting surfaces of the wood two coats of asphalt base or other paint.

CONTACT WITH CONCRETE, MORTAR, STUCCO AND PLASTER

In many aluminium architectural installations, both large and small, concrete and mortar contact the aluminium or they are applied very close to an aluminium installation. Where the concrete and mortar sets and dries and remains dry, there is negligible action with the aluminium. During the time of setting there is some slight attack at a slow rate; this is not sufficient to cause any deterioration in the properties of the aluminium even though some slight stain may appear. However, where aluminium may contact wet or damp concrete or mortar, or intermittently damp alkaline materials of this type, it is required

practice to paint the contacting surfaces with asphalt base paint.

In support of the information above, actual tests have been made on aluminium embedded in an extensive selection of concretes, etc. These include: mortars (high-lime, Portland cement, stucco gypsum, floor gypsum, slag cement, aluminous cement, brick and hydraulic lime), cements (Portland, aluminous and slag), concretes (ordinary cement, aluminous cement, and Portland cement), plaster (hardwall and Portland), plaster of Paris, Keene's cement, limestone and hydraulic lime. Experiences with these and other building materials such as artificial cement, reinforced concrete, gypsum, plaster of Paris, gauging or flooring plaster, ordinary and hydrated lime, and white-wash have showed fairly similar results in all cases, i.e., slight corrosive attack on unprotected aluminium, varying with the amount of moisture in contact with the metal, condensation due to the humidity of the surrounding atmosphere, and the alkalinity of the building material in question. In many cases, the attack was merely superficial and in no way impaired the structural performance of the metal; wherever protection was provided, little or

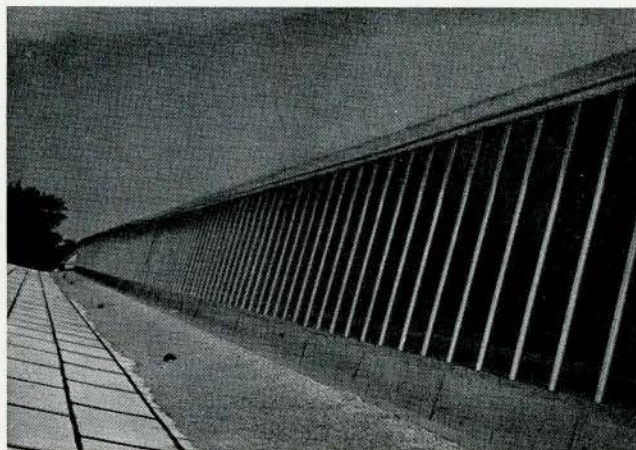


Figure 3
Industrial window sky-light installation and aluminium flashing on the same installation.

no attack was evident.

Depending on the particular aluminium to masonry contact involved, the protective material may vary. A large number of these compounds are available on the market under proprietary trade names. The most widely adopted and recommended coatings are asphalt-base or bituminous paints.

Where aluminium is to be caulked into slots or reglets in brickwork, concrete or cinder block construction, or con-

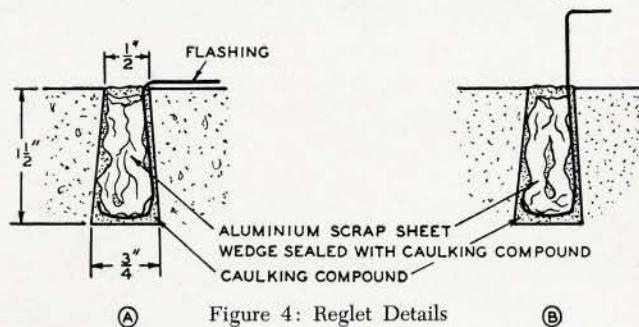


Figure 4: Reglet Details

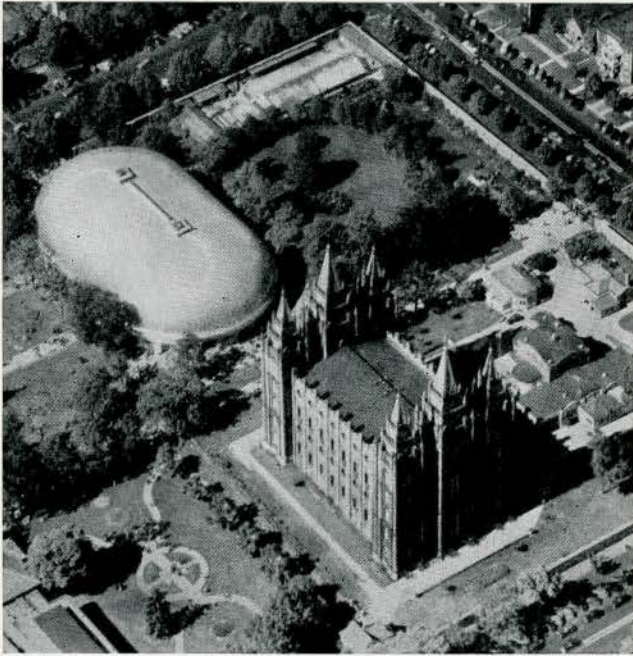


Figure 5

Aluminium Roof on Mormon Tabernacle, Salt Lake City, Utah

crete, such as is the case with many flashings, (see Fig. 4, A, B), the reglet should be filled with a suitable mastic compound before and after the flashing is inserted. The pointing should also be done with this mastic material.

In the case of aluminium windows, spandrels, panelling or sheet applications such as copings, cornices, etc., to be installed in contact with, or adjacent to, concrete, stucco or plaster work, it is advisable to guard against stains or superficial attack by giving the aluminium a thin coat of an alkali resistant lacquer. There are several removable, peel-off types of coatings available for this purpose. The clear methacrylate type of lacquer is very satisfactory. Mixtures of beeswax and paraffin with kerosene or even just grease have been used as removable protective coatings.

Aluminium although a relatively modern metal, has demonstrated its excellent weathering characteristics and satisfactory service in conjunction with steel, concrete, mortar, stucco, plaster, etc. Listed below is a selected group of installations with photographs in some cases, embodying aluminium in various applications together with the commonly accepted building materials.

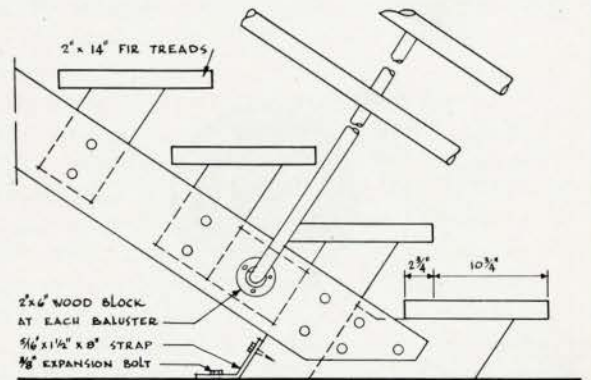
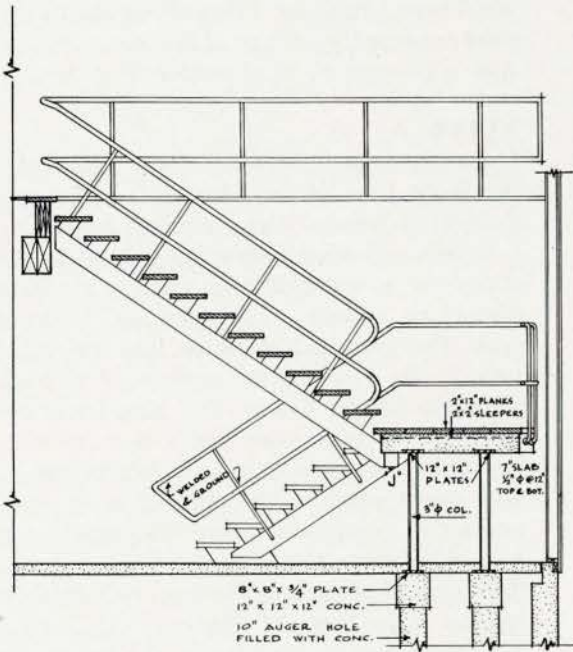
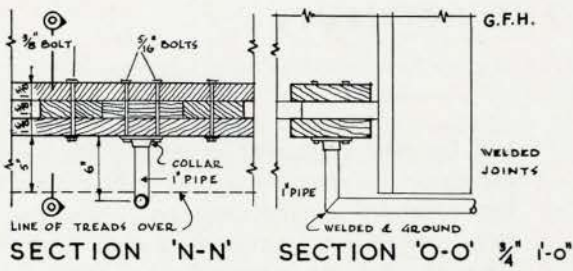
BUILDING DATE OF INSTALLATION

Canada

The Canada Life Building, Montreal – cornices	1896
The Canadian National Railways Building, Montreal – cornices	1901
Bank of Toronto Building, Toronto – roof	1907
Aluminum Company of Canada, Limited, Arvida – ventilators	1926
Houses, Arvida – roof and flashing	1926
Canadian National Railways terminal roundhouse, Toronto – smoke jacks	1929
Medical Arts Building, Toronto – flashings, copings, cornices	1929
National Research Council Laboratories, Ottawa – copings, flashings, ventilators	1932
Laurentien Hotel, Montreal – facing, windows, miscellaneous interior work (Fig. 1A, B)	1947
New S.K.F. building, Toronto – copings, flashings, windows (Fig. 3)	1950

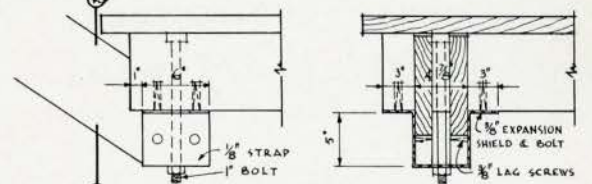
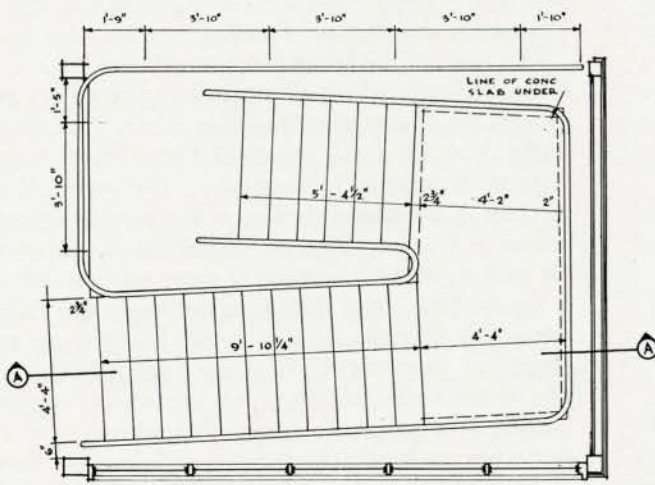
Other Countries

The Church of Saint Gioacchino, Rome – roof	1895
The Erkerturn House, 'Oberhof,' Switzerland – roof	1898
Chrysler Building, New York – tower portions, windows	1929
Haish Memorial Library, DeKalb, Illinois – roof	1930
U.S. Marine Hospital, New Orleans, Louisiana – roofing, cornice	1930
First Church of Christ, Scientist, Cleveland, Ohio – roof, bells, finial	1930
Empire State Building, New York – tower portions, windows	1930
Federal Reserve Building, Pittsburgh, Pa. – roof	1931
The Pennsylvania Railroad Depot, Norwood, Ohio – roof	1931
The Mellon Institute of Industrial Research, Pittsburgh, Pa. – roof	1933
Cities Service Building, New York – tower portions, windows	1938
The Cincinnati Union Terminal, Cincinnati, Ohio – roof	1945
St. Louis Court House, Missouri, – tower portions, windows	1946
The Mormon Tabernacle, Salt Lake City, Utah – roof (Fig. 5)	1947

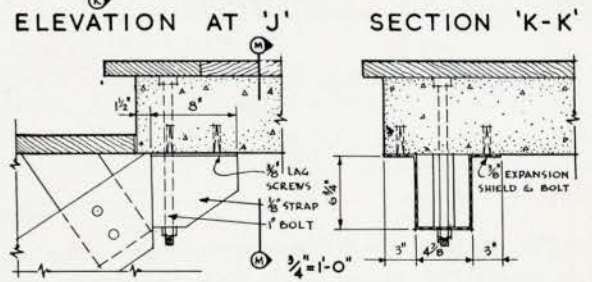


SECTION 'A-A' $\frac{3}{16}$ " 1' 0"

ELEVATION AT FLOOR $\frac{3}{4}$ " 1'-0"



PLAN $\frac{3}{16}$ " 1' 0"



SECTION AT 'L' SECTION 'M-M'

WOOD STAIR
DRIVE-IN THEATRE KILDONAN

GREEN BLANKSTEIN RUSSELL & ASSOC.
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NEWS FROM THE INSTITUTE

Enquiries Regarding Employment Opportunities in Canada

Letters, enquiring about employment opportunities in Canada, are still being received from time to time in the Secretary's office. They come from architects and draughtsmen residing in Great Britain and some European countries. Institute members who might be interested in offering employment to any of these men are requested to contact the Secretary for further details.

Institute Christmas Cards

Institute Christmas Cards will again be available for purchase by members through the Secretary's office this year. The card, as pictured, has the RAIC crest embossed in



ROYAL ARCHITECTURAL
INSTITUTE OF CANADA

Christmas

reduced 1/4

red on the front, the Institute name in grey lettering, and the greeting in red, spaced on the inside, leaving room for the sender's name to be printed or written. The cards sell at the rate of 10 for \$1.50. Orders will be accepted in the Secretary's office any time up to October 5th. All members will be receiving a circular regarding the Institute Christmas Cards, attached to which will be an order form.

The bulk order for the Christmas Cards must be placed

with the printer this year by October 5th in order to have delivery in this office guaranteed by November 15th. Members interested in purchasing cards are accordingly asked to co-operate in submitting their order forms by *October 5th* so that delivery in the individual offices may be made well before Christmas. These arrangements should ensure plenty of time for printing of firm names on the individual card allotments by local printers if desired.

ALBERTA

Much has been written about the buildings erected on the South Bank of the Thames in connection with the Festival of Britain. These writings in part describe the buildings and other contraptions themselves and in part endeavour to appreciate the value or significance of the display as indicating the spirit and tendencies of our time. The great exhibition of 1851 astonished and entranced the world by the erection of its huge house of glass, the Crystal Palace. This glass-house opened up a new way of construction and a new era in building. It inspired an era of exhibitions in which high engineering skill was applied to the production of vast halls illuminated by great areas of glass. To judge from the present festival buildings, this particular ambition no longer holds the centre of attention. The most considerable engineering feat is the Dome of Discovery. Although its span of 365 feet makes the roof by far the largest dome in the world, no exceptional engineering skill is claimed for it. It might quite well have been made a great deal larger if wanted. The machinery hall at the Paris exhibition of 1889 had a wider span and the building was more than three and one half times that length.

The spirit of the times is better exhibited in the Royal Festival Hall in which all kinds of ingenuity are applied to produce a permanent building which shall most perfectly meet the requirements of the production and enjoyment of musical performances. The proposed future erection of a national theatre in the neighbourhood is a further indication of the same spirit. It would seem that the past appetite for vastness of space and unlimited light is, for the time, sated. This need not imply any backward trend. The general ambition is still for lightness and ingenuity of construction. Some accounts give the impression of the whole exhibition as a mixture of "science and silliness" — a common enough phenomenon. The skylon and other mechanical feats seem to be merely "tours de force" without further purpose. Even these, however, give indications of the changing attitude towards construction.

In its early days, when ancient Egypt first raised humanity from barbarism by the establishment of permanent civilisation, architecture was a matter of the display of power and stability in feats of heavy-weight

lifting. To this the Greeks added grace of accomplishment, still of weighty work. The Roman and Medieval architects introduced methods of enclosing great spaces by skilfully exploiting the relatively ponderous materials of concrete and stone. The latter half of the nineteenth century produced solutions of similar problems on a larger scale by the scientific employment of steel with an appearance of ease and lightness. We have now reached the stage of delighting in acrobatic feats and conjuring tricks such as skylons and stairways that stand on their tails without other visible means of support. Even the Dome of Discovery exhibits with what apparent ease a vast temporary shelter against rain and wind may be erected. It serves the purpose of the great circus tent in a somewhat less nomadic and more secure manner. Curiously it ignores the great exhibitions' use of glass for it depends mainly on artificial lighting. This itself is of course another modern achievement.

The Victorian age which produced the miracle of the Crystal Palace as typical of the time, has been stigmatised as the "period of bad taste." The Victorians themselves considered that good taste was one of their outstanding qualities. By advanced spirits of today "good taste" is looked upon as the hall-mark of an inferior and backward mind. How little we know ourselves. By what stigma will the next generation characterise the most highly touted works of today?

Cecil S. Burgess

CONTRIBUTORS TO THIS ISSUE

Kay Baker-Carr resided for several years in the Orient, and has attempted in her article to stress some parallels between the traditional Chinese house and certain trends in contemporary work. Problems of visual privacy and the relationship of interior and exterior spaces combine with the integration of an established tradition built on social and technical considerations, to produce an established architecture of significance to the modern house.

I. H. Jenks is Head of the Publications Division of Aluminium Laboratories Limited, Kingston. Mr Jenks graduated in 1941 from Mount Allison University with a B.A. degree (English and Chemistry), and in 1942 with a B.Sc. degree (Honours Chemistry). From 1942 to 1945 he worked at the Arvida Works of the Aluminum Company of Canada, Ltd as a control chemist and shift supervisor. In 1945 he transferred to Aluminium Laboratories Limited in the capacity of technical writer.

Edouard Fiset, graduate from the Beaux-Arts School in Quebec and from the "Ecole Supérieure Nationale des Beaux-Arts," Paris, France. Interned by the Germans

from 1940 to 1944. Since 1946, Associate Director of the National Capital Planning Service. Town Planning Consultant for the Town of Baie Comeau, P.Q. Author of the Master plan for Laval University, Quebec, now in course of execution. Has given lectures on town planning under the auspices of this Institution. Consultant on the reconstruction of Rimouski, his native town. With Jacques Gréber, Town Planning Consultant for the City of Quebec. Member of the RAIC, of the SADGF (Société des Architectes diplômés du Gouvernement français), of the Institute of Professional Town Planners.

OBITUARY

The death of Mr J. Hugh Whitford occurred at the Halifax Infirmary on Thursday, July 12th, 1951. Mr Whitford was 51 years of age and at the time of his death was the District Resident Architect in Nova Scotia for the Federal Department of Public Works. Mr Whitford was born in Bridgewater, N.S., where he received his early education. Following two years of service in World War I his architectural career began when he joined the architectural staff of the Canadian National Railways.

Mr Whitford first attracted attention as an architect when he placed eighth in an international competition for the design of a War Memorial at Cambrai, France. Later, Mr Whitford produced the winning design for the Lady Beaverbrook Building at the University of New Brunswick.

As a result of his success in these competitions, Mr Whitford accepted a position with McKim, Mead and White in New York. While with this firm he took part in the designing of the National Hotel at Havana, Cuba, and the City Hall at Schenectady, New York. He later joined the firm of Fellheimer and Wagner and during this association was closely connected with the design of the Union Terminal in Cincinnati.

In 1931 Mr Whitford returned to Canada where he assisted in the designing of the dock buildings in Saint John, New Brunswick. Following this he set up private practice in his home town of Bridgewater. The Mahone Bay Public Building, built in 1935, is a very fine example of his work during this period.

In 1938 Mr Whitford joined the Federal Department of Public Work as Assistant District Resident Architect, and in 1941 was promoted to the head of this department.

He was also a past president of the Nova Scotia Association of Architects, and for a number of years served as a valued member of Council.

Being a keen sportsman and an ardent fisherman, Mr Whitford was a member of the Halifax Gun Club. He was also a member of the Rotary Club of Halifax and the Masonic Order.

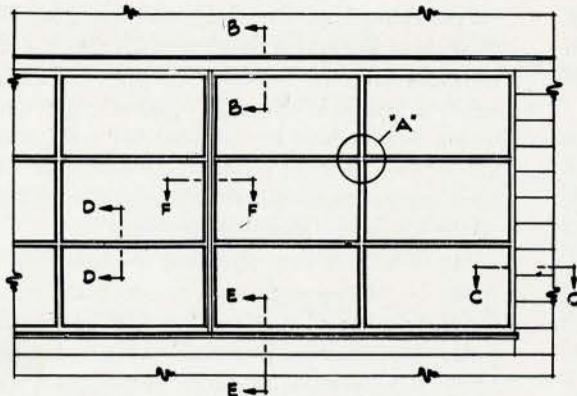
Allan F. Duffus

Facts by Pilkington about Glass

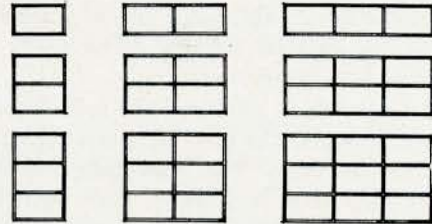
FOR ARCHITECTURAL STUDENTS

VOL. 2 - No. 4
THERMOPANE
 WINDOW WALL
 CONSTRUCTION

Despite the extreme temperature changes of our Canadian climate, year round window comfort and clear vision is made possible by the installation of *Thermopane** double glazed Window Walls. Various designs may be used at the Architect's discretion, but here are some suggested details for *Thermopane* Window Wall construction.

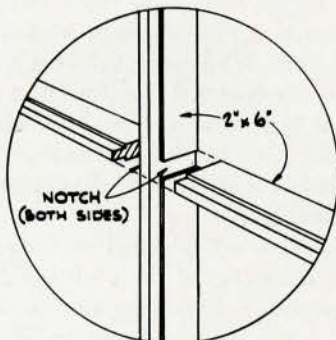


ELEVATION

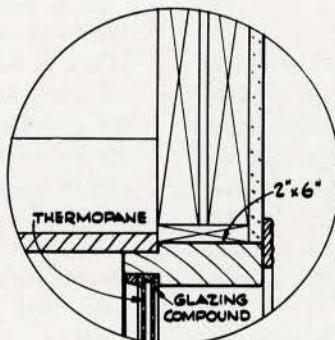


SUGGESTED FRAMES

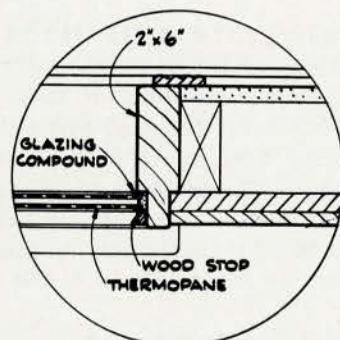
THERMOPANE GLAZED METAL OR WOOD VENTILATING UNITS CAN BE INSTALLED IN ANY OPENING AS DESIRED WITHOUT CHANGING THE WINDOW WALL FRAME.



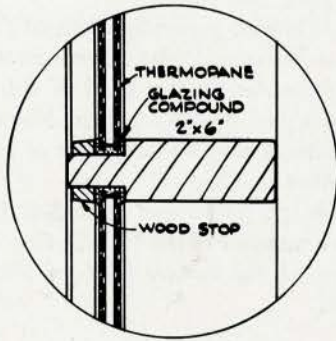
JOINT 'A'



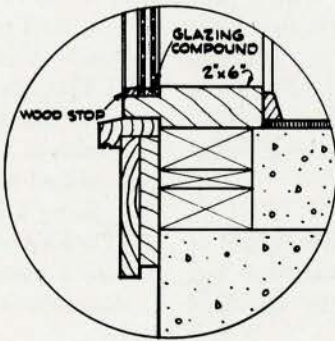
HEAD SECTION B-B



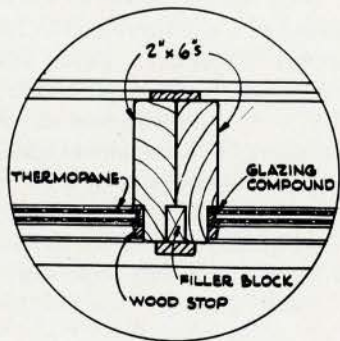
JAMB SECTION C-C



MUNTIN SECTION D-D



SILL SECTION E-E



MULLION SECTION F-F

For complete *Thermopane* glazing and installation details please refer to Nos. 1, 2, 3, of this series.

*Reg'd. T.M.



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