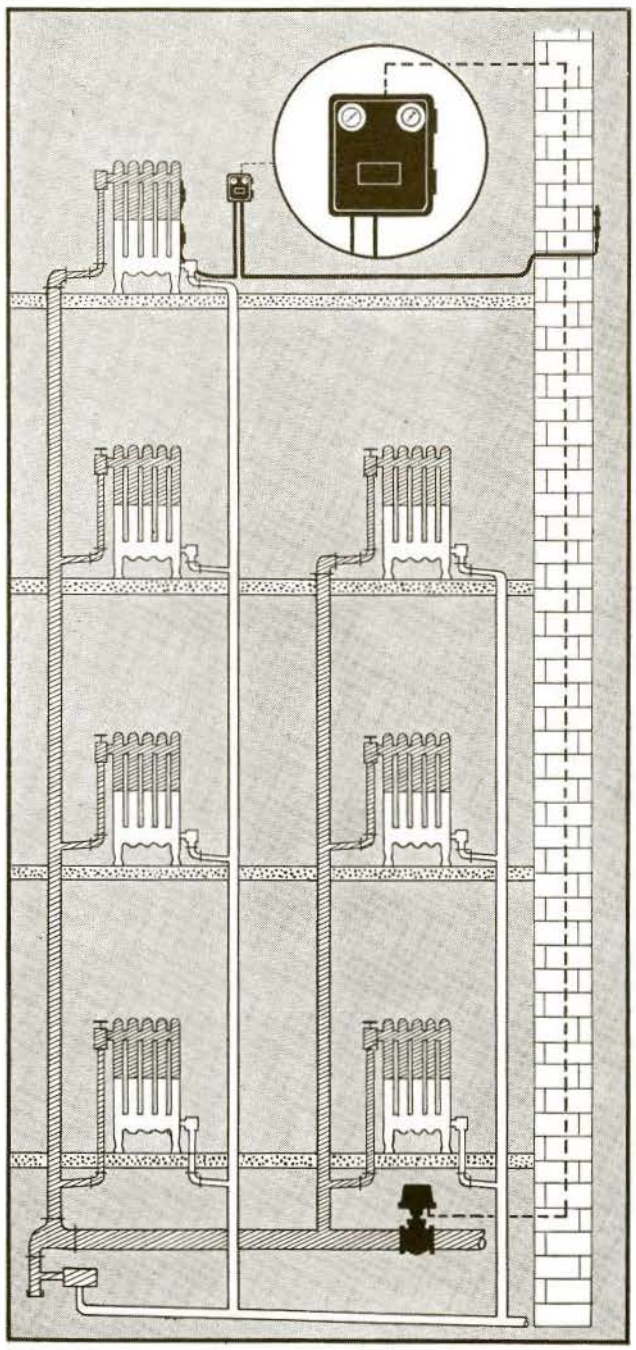
THE JOVRNAL ROYAL ARCHITECTVRAL INSTITVTE OF CANADA

Vol. XI, No. 11 NOVEMBER, 1934 TORONTO

For HEAT CONSERVATION

JOHNSON ZONE CONTROL



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THE JOURNAL

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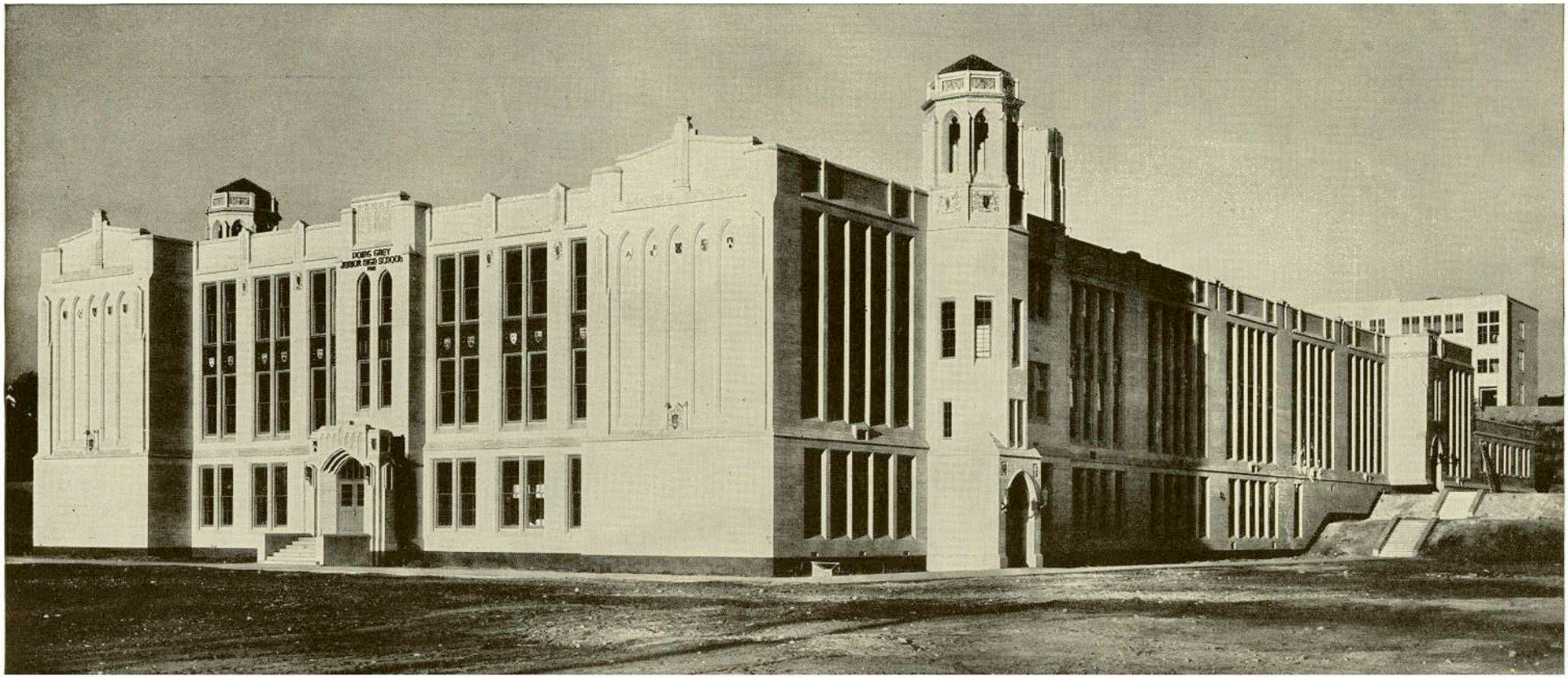

Point Grey Junior High School, Vancouver, B. C. Architects: Townley & Matheson. Contractors: Dominion Construction Company. Monolithic Concrete treated with colored cement paint.

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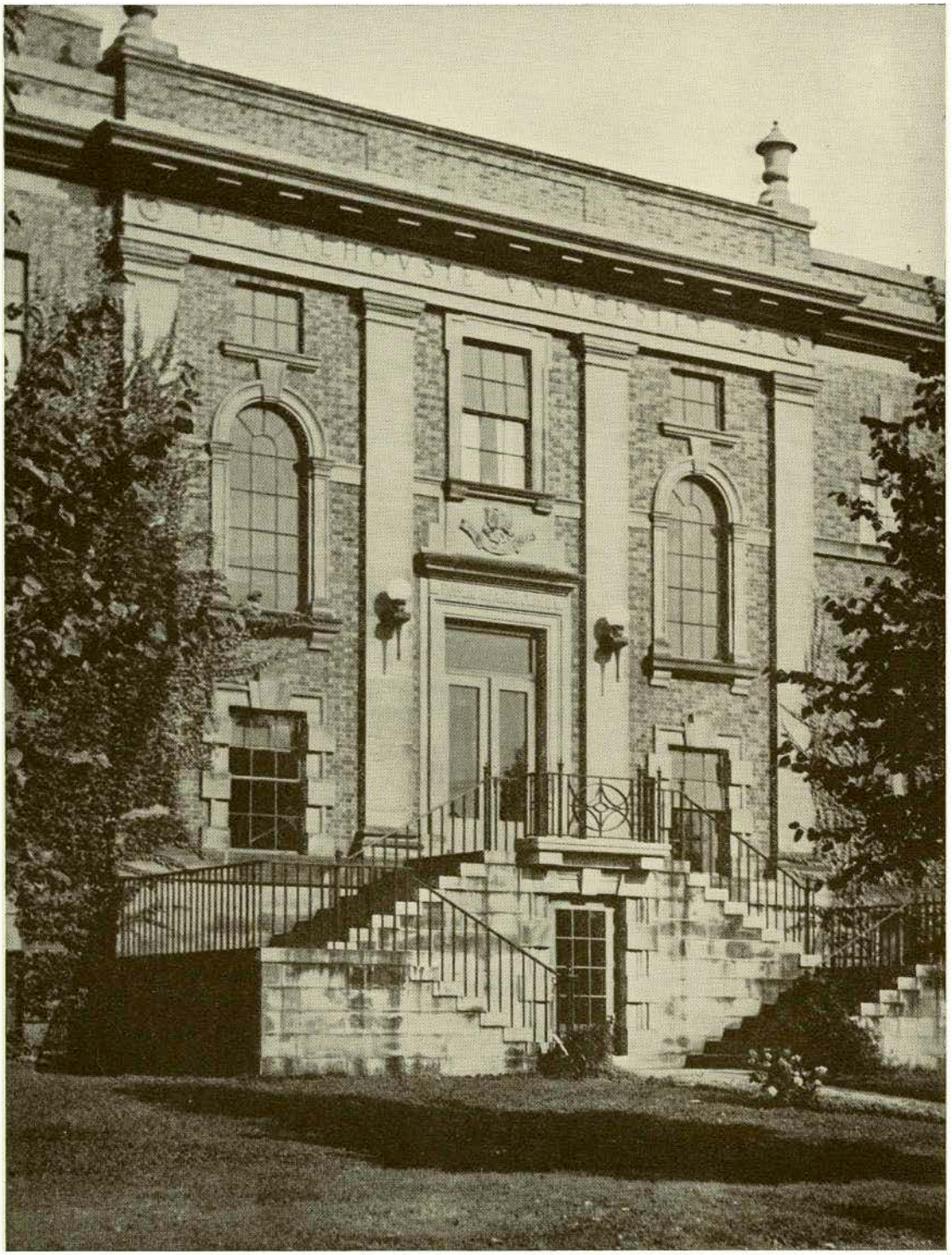


DALHOUSIE PUBLIC HEALTH CENTRE, HALIFAX, N.S.
Andrew R. Cobb, M.R.A.I.C., Architect

Built in 1921 for Dalhousie University as a unit of the Medical group. Located near the Victoria General Hospital. Is of fireproof construction with inside trim and doors of wood. Outside walls are of Cooksville brick in a dark range of colours with trimmings of olive Wallace sandstone.

AESTHETICS AND STRUCTURAL ENGINEERING

BY RONALD W. CATTO, B.A.Sc., M.R.A.I.C.

WHEREAS, formerly, the responsibility for both stability and beauty in structure was centred wholly in the person of the architect, today architecture and structural engineering, whether rightly or wrongly, have come to be generally recognized as two distinct professions. Nevertheless, even in these days of specialization, they, perforce, go hand in hand; and if architecture be the mother of the arts then, surely, structural engineering is the father of her latest mode and the cause of her present travail to bring forth a rational and aesthetically satisfying solution in the design of modern buildings.

The term structural engineering has been used advisedly as the word engineering has become so prostituted by its use in connection with a multitude of different types of work—plumbing, heating, electrical, mechanical, mining, chemical etc., (we even have "sales engineers!")—the title engineer has lost its former significance. It seems a pity that when the title civil engineer was adopted as opposed to military engineer a more explanatory name was not chosen. Some such term as "structuralist" would have been more to the point and, certainly, would not have given rise to the many misconceptions nor have permitted the many abuses which occur. This idea might well be carried out in regard to all those professions now using the word engineer as a cognomen.

It is to be regretted that structural engineering should ever have been differentiated from the practice of architecture. The architect cannot exercise his "art," even in the most insignificant building, without some knowledge of the strength and use of materials. And, again, there are few structures which the engineer can erect successfully while having no adequate ideas of architectural form; immediately he commences to plan and fit together his engineering details and solutions to form a building, or a bridge, he, in fact, becomes an architect in the true meaning of the word. The more desirable beauty and proportion become the more engineering becomes subservient to architectural requirements until, in the finest buildings, it becomes only a stone, albeit perhaps the key-stone, in the architect's arch which he shapes to suit his purpose.

Probably the great majority of people, today, look upon the architect as an artist, one who "draws pretty pictures," puts the "frills" on the exteriors and devises the interior decorations of buildings. Most people have little comprehension of the difficulties and perplexities attending the conception of the plan or of the embarrassments put upon the unification of all the components supporting the scheme by structural, mechanical and economic considerations. Not a few architects approve of the classification "artist" though few will willingly admit it, for fear of the conclusions which may be drawn; for, though there is much evidence to the contrary, artists generally are thought to be altogether impractical and unbusinesslike. The word artist, however, has no real significance as applied to the man who practises architecture. He is sufficiently and satisfactorily described by the word architect. He may have other attributes which are not covered by this designation, yet, in so far as his profession is concerned, it is complete. If the great architects of the past are to be looked upon as artists, they are also entitled to be classed as structural engineers of the highest order, as witness the domes of St. Peter's and St. Paul's and many other "engineering feats" performed by the architects of by-gone days.

Through training and, usually, by temperament the architect and engineer bring two different types of thought to bear on the problem of building design and it is, perhaps, impossible for them to regard structure from the same point of view. While both are concerned with building economics, the architect is engrossed with beauty, the engineer is primarily a scientist. Each has an essentially different approach to similar problems. To attain success in the fullest measure, the special attributes of both must be brought to play upon the design of modern buildings.

What is known as inspiration comes to the architect. He has a task, a definite or an imaginary one, to perform. He becomes absorbed in the problem. He macerates the programme of requirements. He imagines himself as an occupant of the building, as a functionary, even of the most menial type, engaged in the operation of the building. In his mind, he gazes upon the building from this point and that. Eventually—and here is the gist of the matter—he has a vision, the germ of an idea. Indefinite, wraith-like, perhaps, yet it exists. The form may be vague, the outline uncertain, but, at least, the scheme is there, insistent even though obscure.

A shadowy theme, it gradually takes shape, passes from the abstract towards the concrete. Slowly, by steady degrees, the solution resolves itself until finally the fantasm becomes reality.

The engineer reverses this procedure. He is intrigued by facts and worships formulae. While the architect toys with a French-curve, the

engineer methodically manipulates his slide-rule. The engineer, with precisely formulated data and tabulated facts as a jumping-off place, explores the uncharted realm of his problem in search of the solution.

It is now, for various reasons, widely recognized that in the design of even the most utilitarian types of buildings some attention should be paid to those elements which give pleasure to the eye. Probably it would meet with general approval to say that architecture begins when lines and masses are consciously arranged to produce an emotional effect. It is, therefore, difficult to draw a dividing line and designate what structures fall entirely within the confines of engineering. The employment of architectural assistants in the offices of engineers is not a satisfactory solution as, usually, this only results in the misuse of ornamental appendages, planted here, there and everywhere without any correlation to the general mass or purpose. The happiest solution, for the proper co-ordination of all the elements which enter into the design of most structures, would be that every distinguished architect had a prominent engineer as his partner. Such combinations have already proved eminently successful and would be not only mutually advantageous but nationally beneficial.

The rudiments of design are: first, to formulate a scheme which will fulfill the purposes and functions of the building; second, to determine the structural components by means of which the scheme is to be consummated; and third, to consider the possibility of beauty, which elevates the building into the realm of architecture.

No one of these is sufficient unto itself. It has been said "A work of architecture is not a visual appearance only but also discerned by the mind, an internal organization as well, and what is seen by the eye and what is discerned by the mind must be found indissoluble." The plan determines the mass, the internal arrangements regulate the pattern of the exterior, which also bears witness to the structural components. All these exercise their influence on the unified expression of the building.

Few people are cognizant of this essential attribute of architecture though they often may be aware that, while they are intrigued by the style and detail of a building, for some reason, complete satisfaction is lacking. To avoid becoming a meaningless mask, the exterior must expound the functions and purposes and, at least, the main components of the structure.

In many modern buildings the structural components become a major element of interest. In these, as in the past, abide many possibilities for aesthetic stimulus. Architectural development has always followed structural innovations. Today the precise science of structural engineering inspires the architect to break the bonds which have so long held him fettered to the pillar, beam and arch. More than that, this new-born knowledge gives rise to a compelling force, a public urge to erect colossal bridges and build into the clouds. Business potentates vie with one another in the desire to have their private office atop the tallest building in the world.

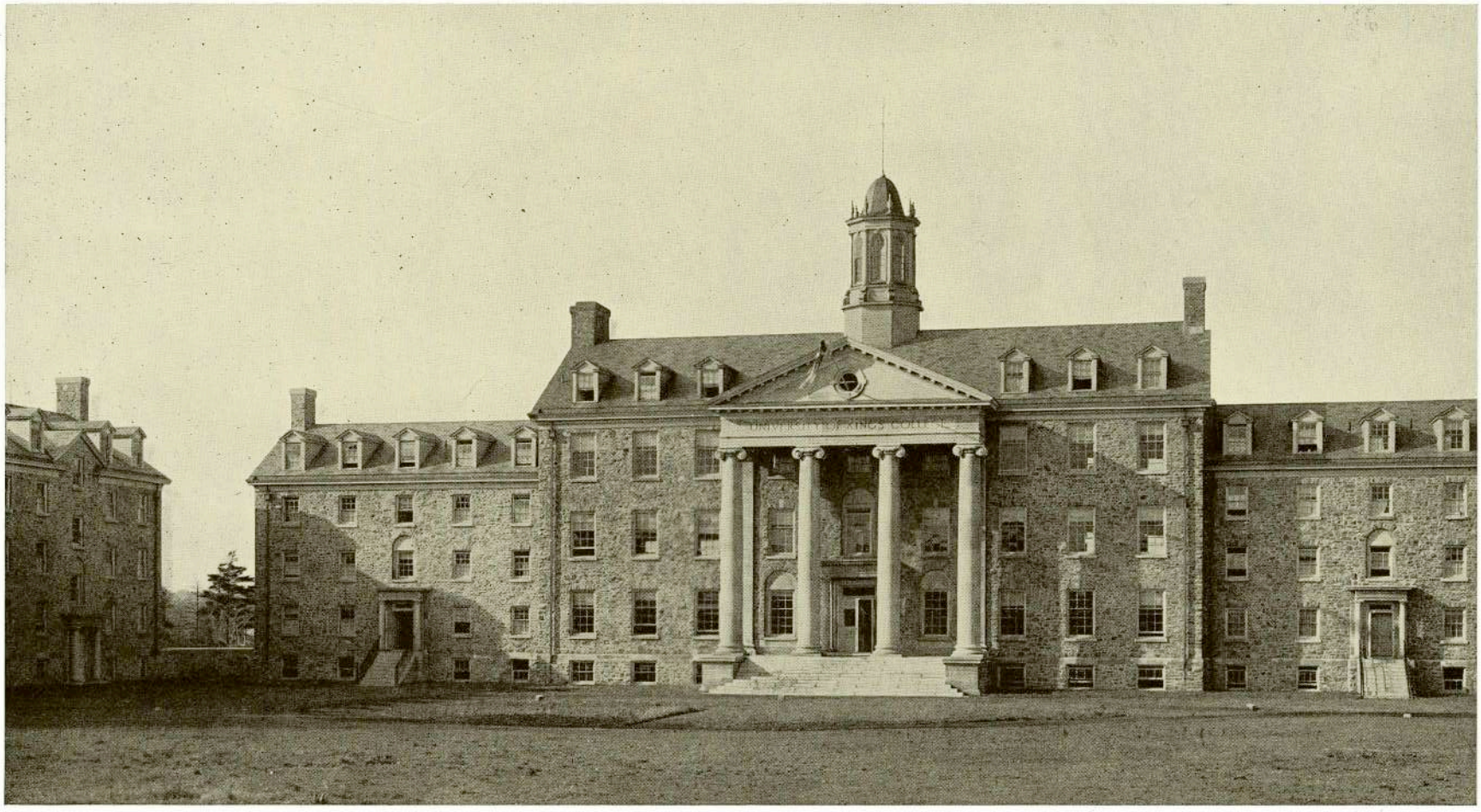
Structure, therefore, has reached a position of such significance that it demands outward expression. But structure alone, even though it solve the problem satisfactorily from every engineering standpoint, cannot fulfill the whole spirit of architecture. Structure, to become architecture, must be contacted by the magic wand of imagination. It must be treated in proportion to its relative importance. In some instances the form which the building takes may be ascribed almost entirely to the structure but it does not follow that structural members need be exposed; the enclosing materials and decorations must acknowledge their existence in a convincing manner.

The skyscraper falls immediately into this category. The structure, comparatively light, yet so wonderfully strong, the mental faith and physical courage necessary for its erection, are elements which may well be presented to the passer-by. Of course it is possible to ignore the elements of structure as a basis of expression and to use the character of occupancy or some other phase of the building's function for this purpose but these are less convincing, more difficult to deal with and usually fail to produce the fine feeling of composure which is required of a successful design.

Steelwork, at least in its present form, is rather difficult to leave exposed but many instances exist where the architect has successfully given, through the exterior, a suggestion of the intricate and vital structure within. The same may be said of concrete structure and this material is more easily adapted to frank exposure. New materials, too numerous to mention, are being constantly offered and open up unlimited possibilities in the adornment and protection of structure. In these, if the tether of tradition be not too short, lies a vast field awaiting exploration by the imagination.

In exposing structure, the designer must evolve not only a form economically permissable and of satisfactory stability but one which entertains the quality of beauty. Superfluous embellishment will not attain this end and the most laudable attempts to expose structure have been those where its natural form and character have not been subjected to subterfuge. That concrete, especially, may be used without disguise has been demonstrated adequately in nearly every type of building, including churches and even residences, both in Europe and in this country.

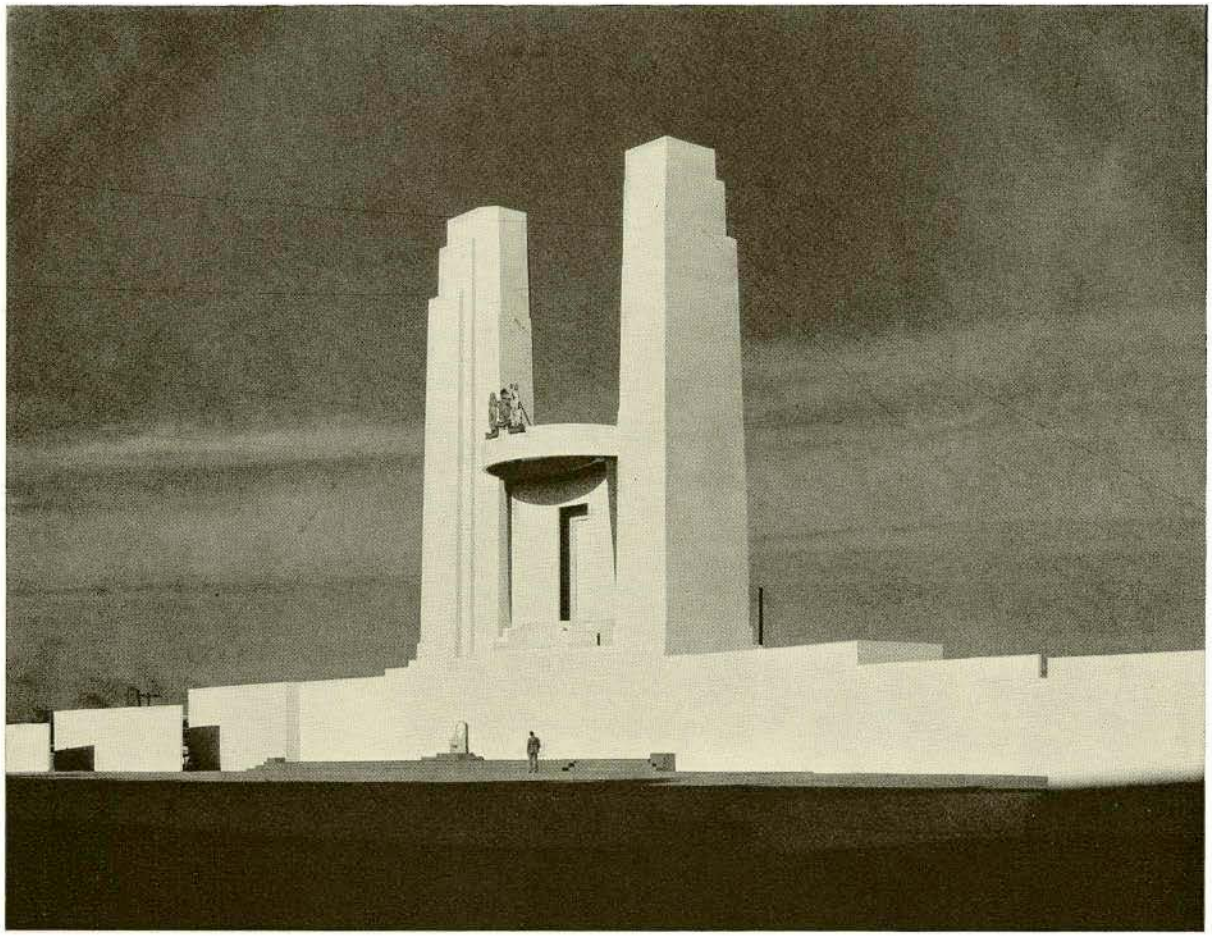
(Continued on page 168)



KING'S COLLEGE GROUP, HALIFAX, N.S.

Andrew R. Cobb, M.R.A.I.C., Architect

This group of buildings was completed in 1929 to replace the old King's Building destroyed by fire at Windsor, N. S., after one hundred and thirty-four years service. The new King's College was built on the Dalhousie Campus at Halifax, N.S. The buildings are of fireproof construction with inside doors and trim of wood. Outside walls are of quartzite and trap in various colours with trimmings of Indiana limestone.



STAGE AND BACKGROUND SET FOR THE TORONTO CENTENNIAL PAGEANT
Herbert E. Moore, F.R.A.I.C., Architect

STAGE FOR THE TORONTO CENTENNIAL PAGEANT

The stage and background sets for the Toronto Centennial Pageant, "Milestones of a Century," produced in July last at Exhibition Park, were specially designed to meet the presentation requirements of a scenario that suggested an architectural motif which would be monumental and inspirational in character, where the colour values of costumes and lighting would be effectively displayed against plain surfaces of simple and severe outline. Unnecessary detail and elaborately painted surfaces of the customary scenic type were avoided and the structures were treated in a cream colour in a desire to obtain unity and co-ordination of parts.

The main stage, 100′ deep, with a frontage of 325′, was designed to accommodate a dramatic personnel of 1,600 performers, and great chorus of 2,500.

The tableau stage located 25 feet above the main stage, circular in form, with a proscenium opening 32 feet high, curtained in jade green to give theatre effect and surmounted by the City Coat of Arms in colours, was flanked by two great pylons rising to a height of 100 feet, symbolizing the strength and dignity of a great city.

From the tableau stage the story of the pageant was illustrated by a series of tableau pictures posed on terraced levels with cyclorama background screen in which a large opening framed a series of sliding painted panels located 4 feet back of the screen, each panel presenting a picture symbolical of its accompanying tableau act.

The central screen, forming the pedestal or base of the superstructure, was flanked by background screens set in echelon formation, providing six entrances and exits to main stage.

The lighting of the stage and backgrounds, a feature of the pageant, was handled in three sections, namely: main stage from top of grandstand; tableau stage, self contained, in three colours; and pylons and backgrounds from base reflectors in three colours.

The pageantry committee which conceived and produced "Milestones of a Century," acting in co-operation with the Centennial director, was representative of the various arts, and included two members of the architectural profession, namely the late C. Barry Cleveland, who directed the mobilization of the great chorus, and Herbert E. Moore, who acted as chairman of the committee.

ARCHITECTURAL ECONOMICS

JOB CONDITIONS

BY ROBERT H. MACDONALD, F.R.A.I.C., F.R.I.B.A.

THE term "Job Conditions" used at the heading of this article might be otherwise expressed as "Job Hazards," "Job Difficulties," or "Job Economics," and any effort to write on the subject would be expected to record one's experience in the supervision alone of work under construction, this to some extent is true, but "Job Conditions" after all are but the visible effort and result of minds that have previously studied, planned and thought out the details of a structure designed for a particular purpose, and of a combination of materials, more or less durable and permanent in their nature.

It will, therefore, be assumed that satisfactory "Job Conditions" may be very seriously affected by lack of knowledge in the choice of materials, error in adapting them to their proper uses, and ignorance of the practical methods employed in the combination of building materials of various kinds.

Assuming that an architect has enjoyed a comprehensive and very thorough training, that his drawings and specifications are complete, clear in describing all the requirements, and quite practical in their details, one would expect some measure of satisfaction, and a successful outcome at the completion of the work; and yet a very sad experience may be inaugurated at the start of a building operation. A situation of this kind may be caused by the first evidence of weakness or uncertainty on the part of the architect as to what are his standards of quality, what he really means when he calls for some particular thing "or equal," how far he will give way on substitutes, and what he will accept or tolerate; for with a certain type of contractor the architect will most surely be tested in the first few days of the building operation, and it is just at this period "he who hesitates, is indefinite and uncertain, is lost."

Probably at this stage of building, it is most important that the architect should impress upon the contractor, on the architect's representative, and maybe even persuade himself, that the plans, the details and the specifications were prepared not only for obtaining tenders and for the selection of a contractor, but especially for use in the erection of a building. In this connection it not infrequently happens that the specification is almost a "closed book," unless all concerned are constantly reminded that it is intended for daily reference and application. Disregard in this respect, intentional or otherwise, is largely responsible for errors, and tends to what might be termed "sloppiness" as against accuracy, care, and recognition and acceptance of the fact that someone gave serious thought to essential requirements of the undertaking, and has set forth standards of quality and workmanship to be strictly observed.

Any weakness on the part of an architect in enforcing the terms and obligations of a contract and the specification, renders him equally culpable in the eyes of the law and in the regard and esteem of his client, as the contractor who by disregard, evasion or wilful act, breaks the terms of an agreement solemnly entered upon.

ARCHITECT'S SUPERVISION

Recent litigation has again brought forward the existing ambiguity with regard to an architect's responsibility and the extent of his financial liability by reason of faulty workmanship and disregard of specification requirements by a contractor and his employees. Although it is impossible for an architect, or his representative, to have one pair of eyes alert to the actions of men visible and invisible, on the roof, on the walls and in the cellar at one and the same time, intelligent and learned representatives of the law will argue, and endeavour to persuade, that notwithstanding the physical impossibility of the architect to meet such demands, it is still incumbent upon him to do so, and if dishonest workmen deliberately or through carelessness build imperfectly and thus cause damage and loss to the owner, then the architect is solely and wholly to blame, and must bear the consequences. In view of such a prospect, in accepting an appointment for new work, an architect would, on every occasion, do well in making clear to his client the extent and nature of the supervision he proposes to render.

In recent years a form of insurance has become available to architects who may become liable under the Civil Code of Lower Canada in the Province of Quebec, and elsewhere, by reason of efforts made in our courts of law to place the blame for loss upon an architect who might not discover a fault in material or workmanship during the period of construction.

LEGAL RESPONSIBILITY

An architect is expected, as a result of his training, experience, intelligence and judgment, to render competent opinion on all matters pertaining

to the practice of his profession; this is a very general and broad statement of his obligation and duty to the individual and to the community he seeks to serve. In the province of Quebec, however, the duties, obligations and responsibilities of the architect and the contractor are engaged in one common liability in the event of failure and loss. It is expressed as follows under paragraph 1688 of the Civil Code of Lower Canada. "If a building perish in whole or in part within five years, from a defect in construction, or even from the unfavourable nature of the ground, the architect superintending the work, and the builder are jointly and severally liable for the loss." In the province of Quebec, therefore, it is incumbent upon both the architect and the contractor to realize the importance of their joint relationship and the duty they owe each to the other in one common effort to and in the interest of the client.

But whether such a law or regulation applies or not, it requires only a few "sad experiences" by either the architect or the contractor, or both, to convince the architect, in whose interest these articles are primarily written, that he is well justified in urging and even compelling a client, as far as he is able, to submit to his judgment in the choice of contractors proposed to submit tenders with a view to ultimate selection for the work. The writer has firm conviction on this point and is convinced that not only will better work result, but if contractors and sub-contractors are compelled to conform to, and fulfil the exact requirements of the plans and the specifications, the best contractors will be the low bidders and the dodgers and deliberate defaulters will be the high bidders, and strange though it may seem, the cost will be no greater but actually less, provided all contractors bidding believe that the architect knows what he wants and intends to get it. Further, there is not the slightest doubt, that such an architect merits and commands the respect of the honest and responsible contractor; what the other kind thinks of the architect is immaterial and after a while will prove to be of little consequence.

BONDS

The architect sometimes, and particularly for the erection of a large building, provides that a "contractor shall furnish a bond that he (the contractor) shall well and faithfully complete the work," and a bond is furnished. If the work is done and paid for and no difficulties have arisen, the bond and its cost are forgotten; but if, during construction, difficulties do arise from any one of a number of causes, the architect, and the client especially, soon learn, not how much, but sometimes, how little a bond is really worth. Some architects may be ignorant of the fact that in some cases the only reason that a bond was easily obtained by a contractor or a sub-contractor, was that an architect of good reputation and experience was in charge of the work, and in the event of any failure on the part of a contractor, the company furnishing the bond will make every effort to show that the contractor's failure has been due to carelessness on the part of the architect in not supervising the work properly and in its minutest details. In other words an honest contractor and a competent architect are the guarantee behind a bond furnished by some companies, although they, the companies, collect the commissions. It is also a generally accepted opinion, legally expressed, that the only way to collect on a bond is by process of law, an architect should, therefore, in the interest of his client carefully scrutinize and even obtain legal opinion on a bond before final acceptance.

GUARANTEES

Sometimes guarantees are furnished by sub-contractors, and these are also bonded. With reference to bonded guarantees, the architect should carefully review these to see that they fulfil the intent and purpose for which they have been obtained.

In connection with roofing guarantees it may be a surprise to some, that the manufacturers and distributors of slates, wood shingles, slate-surfaced shingles, clay and cement tiling will not give a guarantee for a stated period; that roofing contractors will not give a longer guarantee than five years on galvanized iron and galvanized copper bearing steel sheet metal roofing, flashings, copings, etc., and only on some occasions will they give a guarantee of ten years on copper roofing, copper flashings, etc.

The manufacturers of roofing materials such as felt, pitch and so-called ready roofing will furnish ten, fifteen or twenty year guarantees, sometimes bonded, on work done strictly in accordance with their specifications, under their inspection, and by a very select list of roofing firms who enjoy their confidence and who use their materials.

During the past ten years new roofing materials and new methods have been urged upon architects, some of whom, like other unwary individuals who are willing to try anything once, have tried these new methods much to their regret and to that of their trusting and unsuspecting clients. In roofing, an architect is well advised in being conservative and painstaking in every particular, leaving the experimentation to the jerry builder.

SPEED

In recent years architects and builders have been drawn into the prevailing whirl of speed. In such a climate as ours it is desirable in the interest of good workmanship, that the work of certain trades be performed between the months of March and November inclusive, the winter months being

availed of for the conduct of such work as can be best performed after a building is entirely closed in and heated.

This very desirable arrangement, however, does not, or seldom does, fit in with the impatient demands and expectation of the client who asks the architect to do "the impossible." When an architect is called upon, in the month of March, to prepare drawings for a building intended to accommodate a large number of people for an important event already fixed for the month of November of the same year, the cost approximately one million dollars, constructed of steel and concrete and equipped with considerable and varied types of mechanical and electrical equipment, there is involved some smart work, and most efficient and sacrificial effort on the part of both the architect and the contractors to meet the demand and without detriment and serious faults in the design and in the quality of materials and workmanship: There is considerable satisfaction to the architect and contractor of course in an accomplishment of this kind, but what of the building? In such a case only succeeding years will tell.

The craze for speed in building is a subject which should receive the serious consideration of architects and builders generally, and every effort made to extend within reason the period for construction, thus making possible adequate study on the part of the architect, and assurance of good workmanship in every detail of construction.

JOB ORGANIZATION

This is a matter of chief concern to the contractor and some of them are awake to the value and necessity of it, whether the work in the field employs 20 or 500 men.

In these latter days, when the general contractor sub-lets a very considerable percentage of the work to others, controls their coming and going and the arrangements by which the work of each should dovetail into that of the others, and the whole into his own general programme from start to finish, it must be apparent that organization of some kind is an absolute necessity.

An architect is not only vitally interested in such organization but he should also be concerned about its personnel and its efficiency. In the first place an architect should expect the contractor to head-up or have a very intimate relation to it instead of subordinating his responsibility to others after making an entry in his books, and a mental note that he has signed up another job.

The personal interest of the contractor himself in the work of construction is very important, but unfortunately there are contractors quite interested in securing a contract, but once that important event has been recorded, his next and only duty is to go out and secure another, and the job so diligently sought after is turned over to men of more or less intelligence with one definite purpose, to make it produce a profit in which they with their employer will share.

It is right that the contractor should have a profit, that his employees should receive adequate remuneration, and the architect, working in close and helpful relationship with them, may assist toward such a desirable end without the slightest injury to the interest of the client, but if a contractor views his job "from afar" and his only interest therein is that of profit, he is not a contractor in the truest sense, any more than an architect is an architect whose visits of inspection and supervision are intermittent, irregular and superficial.

There is no more attractive and interesting occupation on this good earth upon which architects and contractors have been placed for some useful purpose, than that of building, and when these rather important living units in an enterprise take their tasks seriously, set a mark for skill and quality in their work, and honestly and diligently apply themselves to their task, each with the other and both for the client, there can hardly be any other result than one of satisfaction to the three parties principally interested.

As regards methods, each job determines the duties of a contractor's staff, but once a suitable arrangement has been made and duties defined, a time-table or rather a "progress schedule," to use building phraseology, is of value in the interest of time and cost, and on most operations, a job meeting held at regular stated periods, where obstructions and difficulties confronting the various trades can be discussed and eliminated, are of inestimable value. If the architect thinks it worth his while, and he should, the job meeting affords him a splendid opportunity to sustain an intimate relationship with the work and its problems, and bring him into cordial and sympathetic relationship with the men employed upon the work.

RESEARCH

There is probably no building work done which is perfect and free of fault in some respect. When these become known or brought to the attention of an architect, whether upon his own buildings or upon others, it should be a matter of serious concern and investigation, so that in his future work there will be, as far as possible, no repetition of such faults and failures.

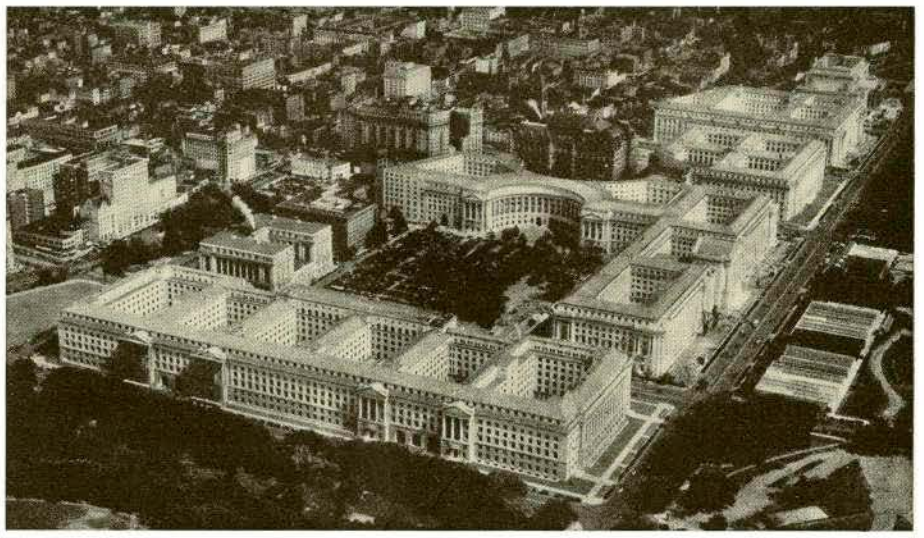
Why? What? and How? are the questions most juniors ask, before they reach teen-age, but thereafter the *"know-it-all"* attitude often extends away into the years of maturity, and the resignation spirit of *"it-can't-be-helped"* broods over all until

the day of doom. But *it can be helped,* and *the why* of stone, of brick, of brick mortars and leaky walls, of insulation, of water-proofings that will not waterproof, of the painters tricks with thinners and adulterants, of corrosive action on metals and their protection, of mastics (hard and soft) and their appropriate uses, of shrinkage in concrete and its effects, of roofing and roof leaks, of marble for exterior use, of air conditioning and other pertinent questions "ad infinitum" all have an appropriate answer, and the camera, the microscope, the testing tube and even a water hose may in the hands of the architectural investigator yield valuable information and suggest the remedy.

CORRESPONDENCE

Editor, THE JOURNAL, R.A.I.C.
Dear Sir:

Foolish, I know, but I just can't resist exploding over the "Circumspice" page in last month's issue. The blithering idiot responsible for presenting a very lame photograph of the small corner of the Federal Triangle Group of buildings at Washington as illustration to a bright young thing sounding, but quite incoherent effusion, really should sign his name. This complacently self-confident member of the architecturally discriminating group of "a few hundred among millions" should accept the spotlight. Certainly THE JOURNAL may not with propriety accept responsibility for an offensive frivolity.



Inconceivable it seems, that anyone presuming to absorb a page in THE JOURNAL can be ignorant of the background story of the buildings so libellously illustrated; that they are but a corner of the great Federal Triangle Group of buildings at Washington that have been designed with such care by an almost unprecedentedly well selected group of architects. Brown (Interior), Delano and Aldrich (Postal)—both shown in the photograph—York and Sawyer (Commerce), John Russell Pope (Archives), Okie's firm (Justice), and others, each designing his own building, and working jointly in committee with the art commission and supervising architect's office may have produced a bewhiskered antique—that is matter of opinion—but, ye gods, "juvenile effort" of all things—a display of weakness for snappy expression approaching madness. Speaking as one of "many millions" standing outside the inner circle of "intelligent citizens including some architects" I must express sincere conviction that the Triangle Group, including the two buildings shown in your photograph (one by Brown, the other by Delano and Aldrich), stands, and will continue to stand, as one of the world's great architectural achievements. Casual study of these buildings nearly every day for a month left me in no doubt about this. Even those standing still further from the inner circle of superior intelligence than does the writer must sense obvious difficulties; an important decision was required at the beginning; a choice must be made between continuance in the perhaps archaic public building tradition of Washington and oppositely and at the risk of the complete loss of unity, abandoning the anchor and embarking on experiments with more rational, but perhaps not more permanently satisfying, current design conceptions. But after all, the intellectual processes and decisions—of architect and layman—can have little to do with those everliving qualities of fine and beautiful scale that have ever been evident in really enduring architecture—from Egypt to yesterday. Millions of fools glorify and enjoy their theories, but the skill that achieves beauty is not common.

But, and this is my reason for writing, THE JOURNAL is faced with a responsibility and very much in need of an alibi. A hundred million dollar building scheme produced by the selected best talent on the continent dubbed a "juvenile effort" just won't do. There must be some limit to essays in comic lightheartedness or our young men will have no respect for anything. Publication by THE JOURNAL of the very satisfactory photograph from the air (close-up) that appeared in the New York Times supplement a week or two ago with some sort of caption evading responsibility (editorial) for the effusions of Circumspice might extricate THE JOURNAL from a rather silly situation. Certainly in common fairness, readers unfamiliar with the Triangle Group are entitled to enlightenment.

Yours very truly,
Hugh G. Jones, M.R.A.I.C.

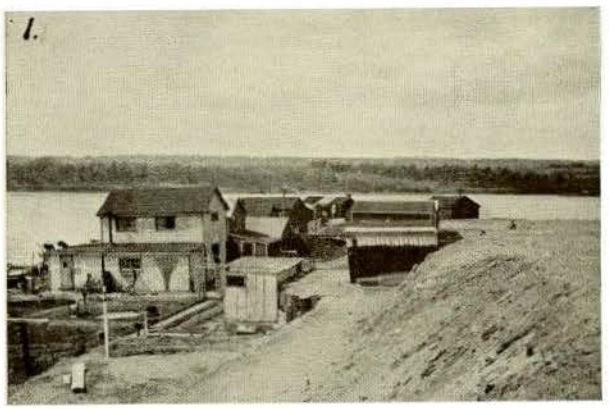
CIRCUMSPICE

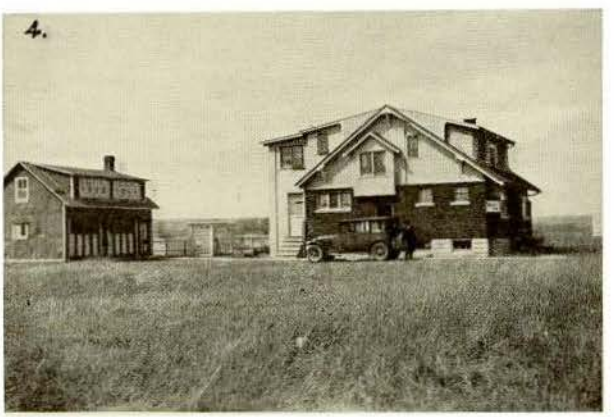
We share with all really first class artists a love of competition and welcomed as an event of the year the little Welland War Memorial Competition. Our pleasure at its announcement in THE JOURNAL was a little dampened by the nature and personnel of the jury. We are, of course, a rank outsider, but we think our view of the judges will be shared by the competitors, both architect and sculptor. We have the greatest regard for the two architect members, but our confidence is not unbounded in Mr. Wyly Grier, Mr. Charles Jefferys, Mr. Justice Livingstone and Mr. L. B. Duff. At the same time, lest we be misunderstood, we hold the first two highly as painters, Mr. Justice Livingston is an ornament to the Bench, and Mr. L. B. Duff is, when all is said and done, Mr. L. B. Duff.

We do not suggest that they should be replaced by architects, but we are quite sure the competitors would enter the race with more enthusiasm, if there were a sculptor and a landscape architect on the jury. The blessing of the Institute on this strange family is made complete by the PP.R.A.I.C. a judge, and the P.R.A.I.C. a competitor.

We can only pray that Mr. Lyle will wear his choicest rose and confound his non-professional colleagues with parti, poché, projet and the gesticulation of hands.

(Editor's Note: Since this column was written, the results of the Competition have been announced.)





We have been holding back some photographs illustrating Hamilton's answer to the housing problem.

We are indebted to Mr. James H. Craig for the information that the cube cost in Nos. 1, 2, 3 runs as low as 5 cents per cu. ft.; a price which includes a Chick Sales and unheated garage. Plumbing is not included as (English and U.S. papers please copy) the lake has been ingeniously adapted for supplies of water on the bucket system. The lake (sic) is marshy and provides hot water in summer and cold in winter. The low cost per cubic foot may be partly accounted for by the fact that the City of Hamilton presented the land some years ago in perpetuity and no taxes are paid or demanded.

No. 4 in Hamilton baronial is remarkable for the ingenious combination of material and the appropriate severity of the landscaping which serves as a foil to the studied whimsicality of the general facade. We have not yet arrived at a cube cost because, nobody being about to advise us at the moment of writing, we do not know whether it would be fair to take the height half way up the roof slope or whether we should go to the ridge.

THE OLD CHURCH OF ST. CHARLES DE LACHENAIE

RAMSAY TRAQUAIR, M.A. (Hon.), F.R.I.B.A. AND G. A. NEILSON

THE little village of Lachenaie stands on the banks of the Rivière des Mille Iles, a few miles below Terrebonne. The parish was founded in 1684 and the first church was probably a wooden structure. At some time about 1730 a stone church seems to have been built, as was being done in so many parishes throughout the Province at this period. But of this building we have no record.

The earliest accounts are contained in an unbound book in the archives of the church; they begin in 1726 but are very fragmentary and contain no items which deal with building. They include an item of 42 livres paid in 1736-38 to the Sieur Labrosse, the well-known sculptor of Montreal, "pour la sculpture d'un grand cadre."

Regular accounts do not begin until 1739 and by this time the stone church was evidently built.

Amongst the documents in the archives of the parish is a contract between the Marguilliers and a Sieur G. Bolvin, dated 1737. This is one of the earliest contracts of this kind still surviving and must be given in full. It is on a single sheet of paper.

"Le dessein du tabernacle paraffé par Monsieur la Combe tel qu'il a été accepté par Messieurs les Marguiers dela fabrique de l'eglise de St. Charles a lachenay, scavoir le Sr Louis Donay marguier en charge, et Sr pierre Garguepy et pierre truchon dit leveillez et autre habitant. promettant les ds marguilliers a leur propre et privé nom de payer au Sieur Bolvin entrepreneur du dit tabernacle pour les dits tabernacle la croix et les chandeliers avec six souches proportionné et semblables de façon et de la même grandeur de ceux de l'hotel de trois Rivieres, y comprit les boetes pour mettre dans les barque le dits tabernacle et les epingles la somme de neuf cents trente livres. Laquelle ditte somme totale sera payé au dit Sr Bolvin scavoir celle de trois cents livres en argent dans le mois de mars prochain de l'année 1737, item trois cent livres en blez au prix courant prit a l'eglise ou argent a l'obtion de dits marguilliers au temps que le dit Sr Bolvin livrera le dit tabernacle qui sera dans le mois d'aoust de 1738 et le trois cents trente livres derniers aussy en blez ou argent a l'obtion des dit marguiers dans le cour du mois de juin sept cent trente neuf car ainsy sont convenu en semble les dits marguiers et Sr Bolvin. les dits Sr Marguiers prennent pour construction du dit tabernacle, les gradins de l'adroit le corp de l'entablement dela gauge avec les Reliquaires sera observé le cadre dela porte du soleil de ladroite, et sur la porte une branche de vigne d'un coté et de lautre des epits de blez les deux niche seront garnies d'un Vierge d'un coté et de lautre un St Joseph et par dessus le tabernacle sera terminé d'un globe avec une croix enrichy, fais double a lachenay le 10 fevrier, 1737 le dit pierre truchon a declare ne scavoir siner de ce enquy apres lecture faite

louis daunay — pierre gariepi
G. Bolvin — J. Lacombe P.C.
J. augustin Quintal — Temoins

The description in the latter part of the contract is obscure, but the general sense corresponds to the tabernacle as it exists. There are three carved grades in the lower part; above this is a projecting centre part containing the custode for the monstrance (le cadre dela porte du soleil). This is flanked by niches in which are still the two statues of Our Lady and St. Joseph. The reliquaries are above the niches on each side, the tabernacle is finished by a globe and enriched cross. On the door of the large custode are ears of wheat and around it is a very rich frame of vine branches.

The stipulation that payments might be made in wheat or in money was usual at this time. Some of the payments to Sieur Bolvin were so made and the grain shipped to him, as is shown by the receipts of the ship-masters.

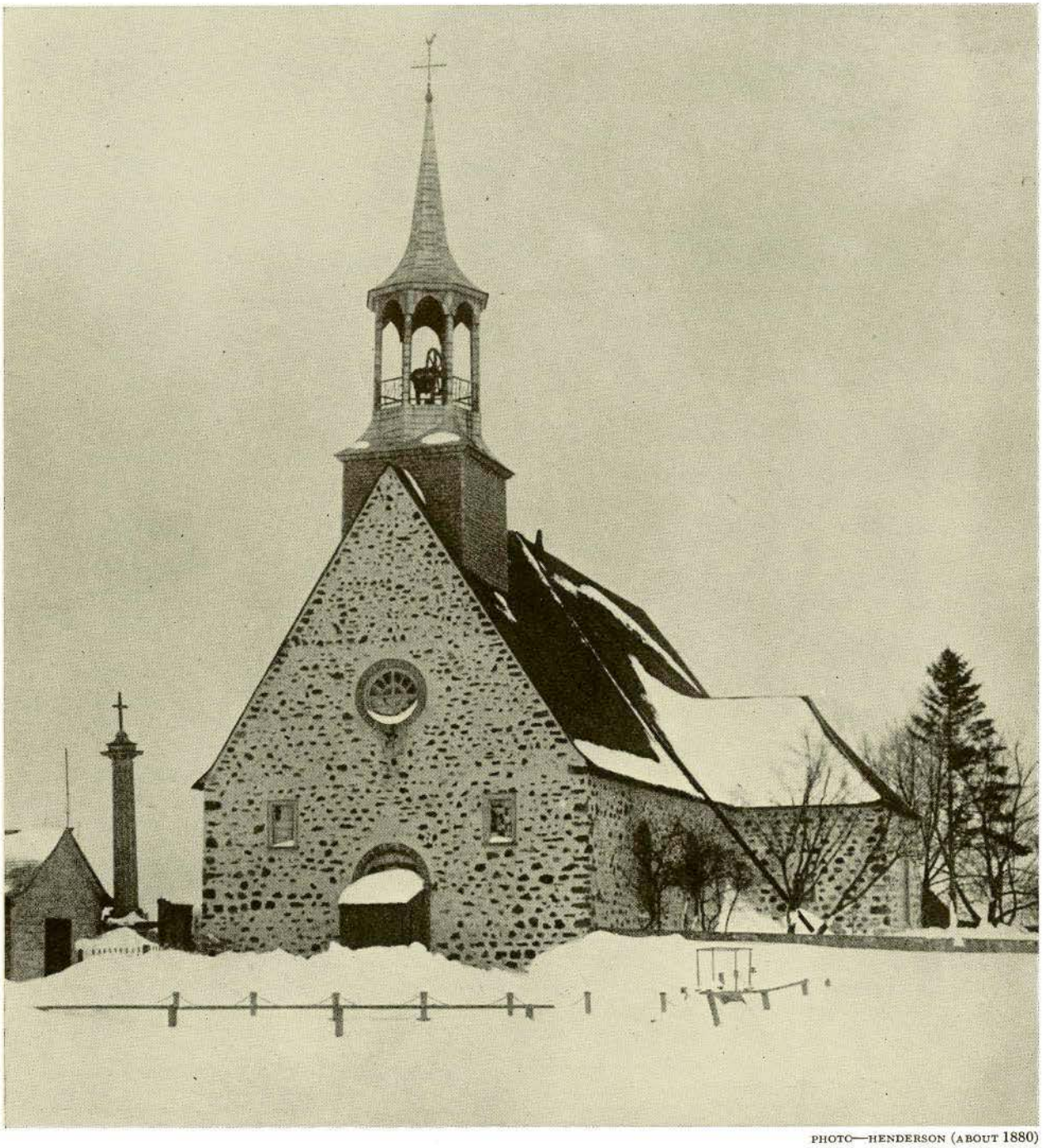
Gilles Bolvin was a master sculptor of Three Rivers. He was born in 1711, the son of Jean François Bolvin of St. Nicholas d'Avesnes in the diocese of Cambrai in France. We do not know whether he was born in Canada but, if not, he must have come to the country at an early age since in 1732 he married Marguerite Lamarque in Three Rivers. Here he lived until his death in 1766.[1] From this contract we see that he was already well established as a master sculptor in 1737.

The story of the erection is given in the Livres de Compte. It commences in 1739 with the following entry. "Premièrement livré au Sre Bolvin Mtre Sculpteur cens cinquante minots de bled à 40s coe il parait par les reçus de Denauls et Brulos maître de Barques. cy.....300 li[2].

On the same page is a second payment of thirty bushels of wheat amounting to 70 livres.

The first instalment of the tabernacle arrived in the same year. It is noted in two entries, "à friches pour transport du premier Etages du tabernacle livré.....10 li.[2] and

[1] Tanguay. Dictionnaire Biographique.
[2] Livre de Compte dep 1739 f2b.



PHOTO—HENDERSON (ABOUT 1880)

THE OLD CHURCH OF ST. CHARLES AT LACHENAIE, P.Q.

(Destroyed about 1882)

"payé pour transport du premier etage du tabernacle de La Barque chez Lesieur Guy....15 li."[1]

The first part consisted of the three grades and the custode. Works of this kind are always made in pieces for convenience both in making and in setting up. The pieces are usually simply laid one on top of the other so that in case of emergency they can be dismounted at once.

The work proceeded quite steadily. In 1740 Bolvin received 50 li 10 sols in money[2] and in the same year the second stage was delivered.[3]

Finally in 1744 the third and final stage was brought to Lachenaie by road.[4]

Gilding was a necessary part of all work of this kind. It was very expensive, often costing more than the woodwork and carving. Much of it was done by the nuns and entries of payment for gilding to "les religieuses" are common in XVIII century accounts. The Ursulines and the Hôpital Général at Quebec and the Congregation at Montreal had gilding departments (la dorerie) and derived quite a considerable revenue from them. The Lachenaie tabernacle was gilded in Montreal.

In 1739 the Fabrique bought from Mr. le Normand, superior of the Seminary at Montreal, gold and silver leaf to the amount of 303 livres.[5] In 1740 is the following entry:

"A la Soeur Ste Hypolite Depositaire par son reçu du 28 mars 1741 sur la dorure du tabernacle La Somme de vingt livres en dix Mts de bled cy.....20 li.[6]

Similar entries continue until 1745 when we find a final payment of 77 li.[7] making, if we include the first payment for gold leaf, a total of 936 livres in all, a great expense for so small a parish.

Under the accounts for 1742-43 is an interesting item:

"Pour le transport du 2' etage du tabernacle de Montreal à la Chenaye celuy de la quayne (?) aux chandeliers de lapointe aux trembles à Montreal ensemble pour avoir ramene a Montreal Les Soeurs Ste Therese et Ste Monique payé.....31 li.[8] and in 1744 a payment of 1 li. 20 sols was made to Jacques Vaudry for having taken back to Montreal "les soeurs qui etoient venu pour monter le tabernacle."[9]

Sieur Bolvin made the tabernacle and candlesticks in his workshop. As each piece was finished it was sent to Montreal, landing apparently at Pointe aux Trembles. In Montreal it was gilded by the nuns and sent either by road or by boat to Lachenaie where it was placed in position under the supervision of the nuns who came down for that purpose.

After the erection of the tabernacle there is no mention of any work in the church until 1770 when a total amount of 4,073 livres was paid to "hardy" for a retable and similar work.[1] Included in these items is an amount of 138 livres paid to "jacson" for sculpture additional to Hardy's contract. Antoine Jacson is a known sculptor. He was living in Quebec in 1770 and is recorded as doing decorations in St. Pierre on the Island of Orleans in 1781-83. Who Hardy was we do not know. He was apparently a master sculptor but we have not previously met his name.

In 1772 two statues and eight "pots à feu" were bought from the well-known sculptor Le Vasseur.[2]

In 1782 the Marguilliers examined the drawings for a pulpit presented by Sr. Louis Fournier,[3] master sculptor of Montreal, at an estimated cost of 1,200 livres. This, as well as a banc-d'oeuvre and an Easter candlestick, was carried out in the same year.

In 1819 large payments begin to Mr. Rollin and continue until 1825, amounting in all to 4,492 livres for work in the church. Rollin was an associate of Louis Quevillon and his work here must have been a complete redecoration of the church, including retable and side altars.

The old church was pulled down about 1882 when the present one was built but the old tabernacle was preserved and reused in the new church where it is still in use. Fortunately the old church was photographed both inside and out before its destruction and even more fortunately copies of these photographs have been preserved.

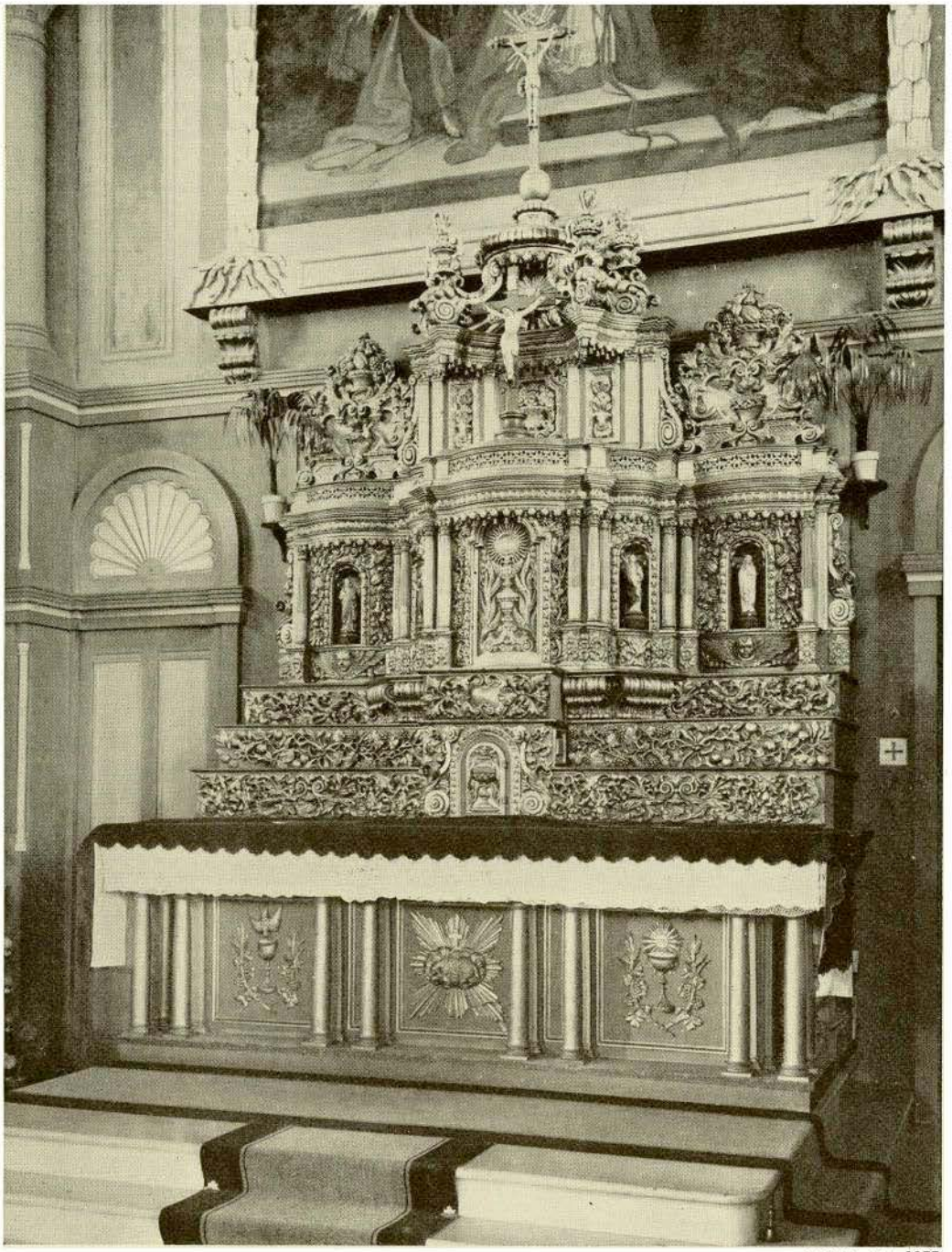
They show a simple, well-proportioned building of the typical early Quebec form with a square eastern termination, small side transepts, a large steep roof and a front gable surmounted by a graceful bell-spire.

The photograph of the interior shows the old tabernacle. It has since then been slightly altered. The grotesque terms on each side of the central compartment have been replaced by corinthian columns—they were probably regarded as too pagan for their position—and the lower custode has been brought down to the level of the altar table. Otherwise it is as it was when the nuns superintended its erection.

The tabernacle of the high altar at Boucherville is a replica of this at Lachenaie, excepting that the lowest carved grade is absent from the Boucherville tabernacle. There can be no doubt that both were executed in the same workshop and by the same sculptor. This identification is very welcome as the early books of Boucherville have been lost and

[1] idem f3a.
[2] Livre de Compte f4a.
[3] idem f4b.
[4] idem f12a.
[5] Livre de Compte dep. 1739 f2b.
[6] idem dep. 1740 f4a.
[7] idem dep. 1744-5 f14b.
[8] Livre de Compte f8b.
[9] idem f12a.

[1] Livre de Compte dep. 1770 f47a.
[2] Livre de Compte 1772 f48a.
[3] Livre de Compte dep. 1772 f57b. The name is otherwise unknown. It is difficult to read and might be "Fourcie" or Fourcin.



PHOTO—R.T., 1933

THE TABERNACLE—CHURCH OF ST. CHARLES,
LACHENAIE, P.Q.

the artist of the tabernacle was unknown. It was by Bolvin and probably made about 1730-40.

It is very curious that the photograph of the old interior shows plain plastered walls with no trace whatever of any retable whilst the accounts tell of two separate decorations, those of 1770 and 1819. No explanation of this can be offered. The retable of 1819 by Rollin must have been removed or destroyed by some accident of which no record has been preserved.

The accounts contain some interesting purchases of silver including in 1739 a ciborium from Roland Paradis, which is still in use in the church, and several articles from Mr. Delzenne, orfèvre, and Duval, orfèvre, which unfortunately have not been preserved.

AWARDS IN THE WELLAND WAR MEMORIAL COMPETITION

The results of the competition for the Welland-Crowland War Memorial have recently been announced. Of the thirty Canadian architects and sculptors invited to submit designs, twenty-two entered the competition, twelve of them being architects, and ten sculptors.

The first prize of $400.00, and the commission to execute the memorial, was awarded to Miss Elizabeth Wyn Wood, sculptor of Toronto. P. Roy Wilson and Dr. E. I. Barott, architects of Montreal, were awarded second and third prizes of $250.00 and $150.00 respectively.

The jury of award consisted of Messrs. E. Wyly Grier, president, Royal Canadian Academy, chairman; Gordon M. West, past president, Royal Architectural Institute of Canada; John M. Lyle, F.R.A.I.C.; Charles W. Jefferys, R.C.A.; Judge L. B. C. Livingston, and Louis Blake Duff.

Miss Wood's design provides for a memorial 40 ft. long by 17 ft. 6 in. high. The base will rise from a broad platform sunk almost flush with the ground at a gradual angle until it reaches a height above eye level, where will stand an heroic group. The group will consist of two symbolic figures—Man, the Defender, and Woman, the Giver—against a background of growing grain and young red pine which will partly conceal a trench mortar. The memorial is to cost $25,000, exclusive of foundations, and is to be erected at Welland, Ontario, near the banks of the Welland Canal.

AESTHETICS AND STRUCTURAL ENGINEERING

(*Continued from page 156*)

The flexibility of modern structural methods opens up a whole wide range of possibilities in architectural design. Architect and engineer can be of mutual assistance; they are complementary the one to the other. The latter helps the former to nurture his vision into reality. The former brings to the latter some compensation for the lack of those abstract considerations which he finds indispensible. Architecture and structural engineering cannot be divorced; separately, yet side by side, they advance, as always, bound together by the laws of mechanics and aesthetics.

If instead of trying, as many architects do, to minimize the importance of the structural engineer, or (perhaps with the help of steel company engineers or the examining engineers in the local building department) to get along without him altogether; if instead of trying, as many structural engineers do, to represent themselves as architectural designers, or, when the need arises, to get along with inferior architectural assistance; if, instead of standing aloof from one another and instead of competing in what should be a mutual field of endeavour, these two professional groups would concentrate on reaching a better understanding of each other and unite to promote, in the mind of the public, a clearer conception of their functions and the services which they have to offer; then, while advancing their own interests, they would bestow a national benefit.

The architects, undoubtedly, are in the better position to take the lead in such a movement and should consider ways and means of bringing it about.

NOTES

The twenty-eighth general annual meeting of the Royal Architectural Institute of Canada will be held in Montreal on Friday and Saturday, February 22nd and 23rd, 1935.

* * * *

W. S. Maxwell, P.R.A.I.C., was re-elected vice-president of the Royal Canadian Academy of Arts at the annual meeting of the academy held in Toronto on November 3rd.

* * * *

David Shennan, M.R.A.I.C., announces the opening of an office for the practice of architecture at 515 Keefer Building, 1440 St. Catherine Street West, Montreal. Frank W. Graves, M.R.A.I.C., is associated.

* * * *

The annual meeting of the Saskatchewan Association of Architects was held in Regina on October 30th, 1934. David Webster, F.R.A.I.C., of Saskatoon, was elected president to succeed Joseph Warburton of Regina. A full report of this meeting will be published in the December issue of THE JOURNAL.

* * * *

Jocelyn Davidson, M.R.A.I.C., architect of Toronto, announces the removal of his office from 119 Scollard Street to the Bank of Nova Scotia Building, Bloor Street and Spadina Avenue.

* * * *

L. C. Martin Baldwin, M.R.A.I.C., of Toronto, has been appointed secretary of the Ontario Association of Architects to succeed Mr. R. B. Wolsey who has served as secretary of the association for the past twenty years. The office of the association has been moved from 350 Bay Street to the Grange, 26 Grange Road, Toronto.

* * * *

Leonce Desgagne, M.R.A.I.C., announces the removal of his office from 42 Couillard Street, to 53 Ste. Ursule Street, Quebec.

* * * *

Professor Goodhart-Rendel, chairman of the R.I.B.A. Centennary Committee, visited Montreal recently and was entertained by the president of the Province of Quebec Association of Architects.

* * * *

W. W. Pearse, M.R.A.I.C., has tendered his resignation as business administrator and secretary-treasurer of the Toronto Board of Education. Mr. Pearse was formerly City Architect of Toronto, and entered the service of the Board of Education in 1919.

* * * *

Patsy Colangelo, M.R.A.I.C., announces the opening of an office for the practice of architecture in the Castle Building, 1410 Stanley Street, Montreal.

* * * *

Sir Raymond Unwin, past president of the Royal Institute of British Architects, who has just completed a tour of the United States in behalf of the National Housing Committee, was a recent visitor to Montreal where he addressed a meeting of the board of trade.

* * * *

The following have recently been admitted to membership in the Province of Quebec Association of Architects: Lucien Lemieux, Anastase Gravel, Rodolphe Lajoie of Montreal, J. Berchmans Gagnon of Comte de Beauce, and J. H. Caron of Nicolet.

* * * *

John Y. McCarter, M.R.A.I.C., past president of the Architectural Institute of British Columbia, delivered a radio address recently over station CKMO, Vancouver, on "The Business Situation in British Columbia."

The seventh Toronto Chapter Biennial Exhibition of Architecture and Allied Arts will be held at the Art Gallery of Toronto during the month of January, 1935. Awards will be made in the various classifications and a medal of honour will be awarded to the most outstanding building exhibited. John M. Lyle, F.R.A.I.C., has been appointed chairman of the hanging committee.

* * * *

Establishment of the first comprehensive course of instruction in fine art at any Canadian university has recently been announced by President H. J. Cody of the University of Toronto. The chair of fine art has been established at the University of Toronto through the generosity of the Carnegie Corporation of New York which has undertaken full financial support of the course. The first incumbent of the chair will be Edward John Gregory Alford of London, England. Professor Alford was formerly lecturer at the Courtauld Institute of Art, the art division of the University of London. He will lecture at the University of Toronto on the history and interpretation of fine art which will embrace painting, sculpture, and fine art in all its phases.

* * * *

During the recent Canadian National Exhibition, Forsey P. Page, president of the Ontario Association of Architects was presented by L. R. Macgregor, Australian Trade Commissioner, with a Setting Mawl comprising 230 pieces of Australian decorative woods inlaid in an attractive design.

Photograph shows presentation of the Mawl. *Left to right*—F. Hilton Wilkes, Member of Council, O.A.A.; L. R. Macgregor, Australian Trade Commissioner; Forsey P. Page, President, O.A.A.; Murray Brown, First Vice-President, O.A.A.

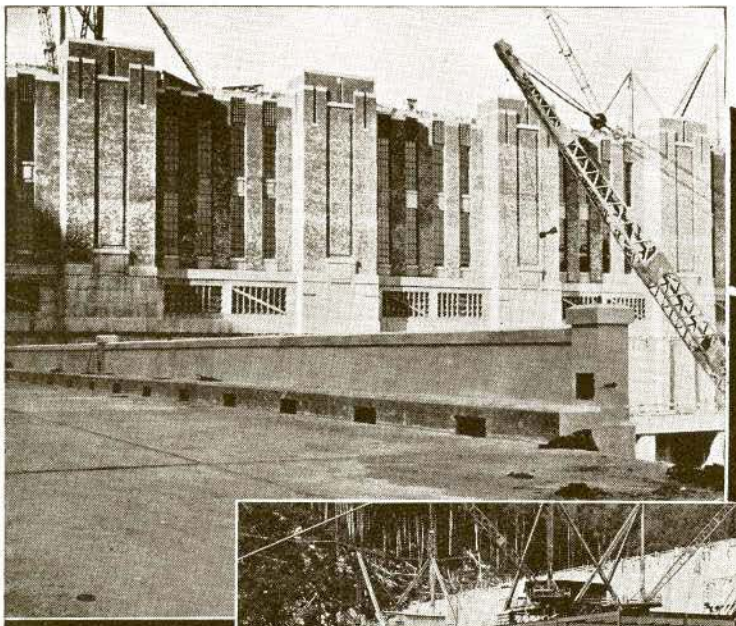
OBITUARY

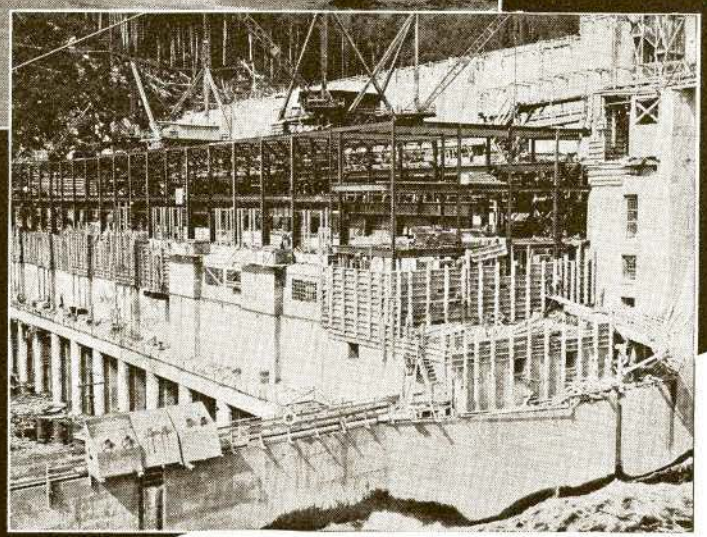
J. E. VANIER

The death of J. E. Vanier, D.SC., civil engineer and architect, president of the Laurin and Leitch Engineering Company, Limited, occurred at his home in Montreal on October 11th, following a year's illness. He was 76 years of age at the time of his death.

A native of Terrebonne, Quebec, he studied engineering at the Polytechnic School where he later became a professor. For a time he practised his profession in Los Angeles, Cal., and was concerned in important engineering projects in various parts of the country.

Mr. Vanier was a charter member of the Royal Architectural Institute of Canada, and was for a great number of years honorary secretary of the Province of Quebec Association of Architects. He was elected president of the P.Q.A.A. in 1921, and at the time of his death was an honorary member of that association.





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