

The Journal

Royal Architectural Institute of Canada

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TORONTO, MAY, 1927

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CHALICE FOR ST. MICHAEL
AND ALL ANGELS CHURCH,
TORONTO.

*Designed by A. SCOTT CARTER
Executed by H. M. DORET*

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EDITORIAL

THE Frontispiece in this issue is rather an unusual one. It is a photographic reproduction of a Silver Memorial Chalice, designed by Alexander Scott Carter, A.R.C.A. for St. Michael's and All Angels Church, and was shown at the recent Toronto Chapter Exhibition of Architecture and Allied Arts. Mr. Carter has earned an enviable reputation as an illuminator and designer. Some examples of his art are illustrated in this issue. They were among the most outstanding exhibits at the Exhibition.

MR. LYLE'S ARTICLE ON THE ALLIED ARTS

Mr. Lyle describes in this issue the Allied Arts side of the Exhibition. As will be seen from the illustrations shown, they were of immense interest, and proved to be one of the chief attractions. Mr. Lyle points out the value of such an exhibition, and commends it to other Architectural Associations. It will serve to call the attention of those who are interested in art to the excellent craftsmanship existing in Canada to-day. We believe that it will serve also to create a closer association between Architecture and the Allied Arts. We have consistently favored this, and the combining of Allied Arts with an Architectural Exhibition is probably the best means of securing it.

A FEDERAL DISTRICT COMMISSION FOR OTTAWA

The move recently made by the Dominion Government in forming a Federal District Improvement Commission at Ottawa affords an opportunity of making the Capital City of Canada more worthy and beautiful. It is to be hoped that the Commission will rise to the occasion and avail themselves of the best available skill in bringing about improvements to the seat of Canada's Government. The recent Bill which has just passed the House of Commons to increase the annual grant to the Commission from \$150,000.00 to \$250,000.00 a year, should certainly bring encouragement to Mr. Noulan Cauchon of the Town Planning Commission, who has fought so hard for the beautification of our Capital, as well as to architects and others who are deeply interested. The pride taken by our neighbors to the south in their beautiful Capitol at Washington, should serve as a splendid example to the Canadian people. The Government in making this grant is in a measure only doing justice to the city of Ottawa, a large portion of which it occupies without the payment of taxes. As no part of the grant is to be expended on the ordinary Municipal undertakings, it should result in a real advance towards a "city beautiful."

Up to the time of going to press, we have not been informed as to the personnel of the Commission, but

we hope that it will be composed of citizens who have the foresight to retain the best of architectural and engineering skill, so that the development may be worthy of the Capital. The success of the Federal Commission at Washington can be accounted for by the fact that architects, sculptors and landscape architects, each with a national reputation, were called in to collaborate in the development of their city. Perhaps it is not too much to hope that the day may soon come when the new Federal District Commission at Ottawa will be given the authority to approve of all buildings erected in the Capital, both from a point of view of zoning and design, before they are built.

MR. GARDINER'S ARTICLE ON ELEMENTARY SCHOOLS

In this issue will be found the last of a series of articles by Mr. J. Rawson Gardiner on the Elementary Schools of Canada and the United States. The information which Mr. Gardiner has compiled should prove valuable as a reference work for all Canadian Architects who may be called upon to design school buildings. The remarkable progress in education in this country during the last few years has created a very much larger demand for Public Schools, and the modern school requirements are such, that a digest of up-to-date solutions of the many problems involved in the erection of school buildings, should be made available to the profession. We realize the importance of Mr. Gardiner's articles, and believing that a series of articles on Canadian Schools will be appreciated, it is our intention to present to our readers in the July issue, as the first of the series, an article on the Public Schools in the Province of Ontario by Mr. Cyril E. Dyson, architect for the Toronto Board of Education.

PRESENT METHOD OF TENDERING

Mr. John S. Archibald's article on the present day method of tendering, which appeared in the March issue of the Journal has created considerable comment. In this issue we print three of the letters received in connection with this important subject. It was evident from Mr. Archibald's article that he did not expect his suggestions would be acceptable in their entirety. It may be true, as Mr. Archibald states, that the present method of tendering is somewhat antiquated, and that it follows the practice that has been in force for many years. It is not a matter, however, of our being tied to traditional practice, but rather to finding a better and more practical system to take its place. We have often heard it said that the solution for the present unsatisfactory method of tendering is the introduction of Quantity Surveying. Unfortunately this has been

(Concluded on page 194).



VIEW OF NORTH WEST GALLERY, SHOWING METHOD OF PLACING EXHIBITS

THE ALLIED ARTS at the Recent Toronto Chapter Exhibition

By JOHN M. LYLE, R.C.A.

AT last the Architects have held an exhibition that has awakened in the mind of the public a genuine interest in architecture and the allied arts, for in the two weeks that the Exhibition was open to the public over 29,000 people passed through the turnstiles. So great was the interest that the catalogues were all sold out on the 6th day, and so many requests poured in to the Directors of the Grange that it was decided to open the Exhibition in the evenings.

What were the reasons for this patronage on the part of the public?

First—A general awakening of interest on the part of our people as to the value of architecture in relation to our everyday life, and to the fact that architecture is a fine art, and again to a realization that there is such a thing as Canadian architecture.

Second—The coupling of the allied arts with the purely architectural side of the Exhibition.

Third—The great diversity of the exhibits.

Fourth—The effective handling of the exhibits.

If we have been able to show by this Exhibition the importance of collaboration between the designing and controlling architect and the executing crafts-

man, we will have made a step forward towards the goal when the sister arts will simplify and harmonize themselves in order that they come into the proper relation to architecture.

For the first time also, we have recognized the value of the allied arts and the work of the individual craftsman, with the result of a great awakening of that pride in achievement which is one of the main-springs of success.

Before beginning a more critical review of the exhibition, I would like to congratulate the Exhibition Committee who bore the brunt of the battle and achieved such splendid results—they are entitled to great credit and have the satisfaction of knowing that they have performed a very real service to their profession and their country. They are: Mr. Martin Baldwin, Mr. A. S. Mathers, Mr. C. Barry Cleveland, Mr. W. L. Somerville, Mr. Mackenzie Waters, Mr. Eric Haldenby and Mr. F. H. Marani.

Among the designers and craftsmen the work of Mr. Scott Carter and Mr. H. M. Doret stands out. Occupying the position of honour in the centre of the Sculpture Court was Mr. Carter's wrought silver chalice for St. Michael and All Angels' Church, Tor-



MEMORIAL CASKET AND COMMEMORATIVE BOOKLET
Presented to Mrs. Timothy Eaton in memory of her son the late Sir John Eaton.
Designed by Scott Carter. Executed by H. M. Dorel.





GRANDFATHER'S CLOCK FOR THE HUDSON'S BAY
CO., VANCOUVER

Designed by Burke, Horwood & White. Executed by J. C. Scott Co., Ltd.

onto (Frontispiece). This little masterpiece reflects the greatest credit on Mr. Carter and Mr. Doret. The chalice rests upon a base formed of five lobes, symbolical of the five wounds of Christ; round the edge of the lobes is a rich tracery of delicate creeping and twisted gold wire. The pentagonal shape of the base runs up to a moulding, above which is a minute tabernacle formed of five small niches clustered round the stem, canopied, crocketed and cusped, delicately wrought in fine gold, each niche containing a minute gold figure supporting a shield emblazoned in coloured enamels bearing the emblems of the Passion; above this is the central base, set with five large crystals, the silver work being overlaid with delicately modelled and chased gold grape vines, twining in and out between ten small jewels, alternate rubies and emeralds—five round the top between the crystals, and five below. Above this again the stem continues in circular form and is terminated by a richly chased open crown in gold set round with small sapphires, upon this crown, and rising out of it is the bowl of the chalice beaten out of a flat piece of silver, and round the edge of the bowl is the following inscription, engraved in Gothic letters, and filled with black enamel: "Qui edit carnem meam, et bibit meum sanguinem, habet vitam aeternam." (Whoso eateth My body and drinketh My blood hath eternal life.) Engraved round the upper surface of the base are the names of those for whom the chalice is a memorial.

The memorial gold plaque, illustrated on page 171, presented to the late Sir John Eaton and Lady Eaton by the men of the T. Eaton Company, Limited, who served in the Great War, is another fine piece of design and craftsmanship. The beautiful scale of the mouldings, the spotting of the coloured enamel on the pilaster faces, the handling of the figures and cornucopia on the cresting is masterly. Some criticism might be made of the rather extreme relief of the central heads. While Italian Renaissance in general spirit, there is a strong personal note evident in the design and conception of this exquisite piece. Some mention also should be made of the very beautiful embossed leather case with exquisitely chased gold handles, which encloses this plaque.

Back again to the medieval, and we have Mr. Carter and Mr. Doret thoroughly enjoying themselves in a lovely jeweled casket and illuminated book presented to Mrs. Timothy Eaton in memory of her son, the late Sir John Eaton. The casket is in wrought silver with tooled gesso panels, enriched with crystals and rubies. The scale and balance in design is admirably maintained, and while the different panels all take their proper place in relation to the general scheme, there is the greatest variety in the treatment of the individual motifs, both of the wrought silver work and of the gesso panels. The illuminated book is bound in silver, enriched with repousse work and spotted with jewels, pearls and coloured enamels. The central panel is of gesso.

The iron work exhibited by Edgar Brandt, of Paris, and loaned by the T. Eaton Company; the work of Mr. Mark Smith of the John Lindsay Company, and that of Mr. Wenger, aroused great interest.

Edgar Brandt is the outstanding figure to-day among the iron craftsmen and designers. His work

is having a tremendous influence, not alone in the iron workers' field, but also in the new decorative art movement which is making such headway in France and on the continent generally. This movement has also lifted its head in England, and in the decoration of the new Claridge's Hotel, the Savoy Hotel and the Hyde Park Hotel we have examples of metal work in its different combinations with glass and other materials striking a distinctly modern

note. There is no question that Edgar Brandt has been the outstanding figure in this new development, both as to design and as to craftsmanship; with the modern hydraulic press and the acetylene torch he has done wonders in marrying divers kinds of metal into decorative forms. The beautiful table, the electric light standards and iron framed mirror are characteristic examples of his work. (See page 135, April issue.)



AN EARLY EIGHTEENTH CENTURY ENGLISH BUREAU DESK
Decorated in Lacquer by Caleb Keene, Oakville.



MARQUETRY TABLE AND CHAIRS
Designed and executed by Sidney White, Toronto.

Mr. Mark Smith, of the John Lindsay Company, has executed from designs of Mr. A. F. Harvey some beautiful decorative stands for the display of art fabrics, illustrated on page 175. The treatment of the peacock motifs, with their lovely rhythmic forms, their light airy elegance and the lacy beauty of the shell pattern motifs, were among the outstanding exhibits at the Exhibition. There was also a very beautiful wrought iron table with marble top designed by Mr. Harvey and executed by Mr. Mark Smith. The spirit of this work is reminiscent in design of some of the modern French work, though with quite a strong personal note as to technique and design which stamps it as being out of the ordinary.

The forged character of Mr. Wenger's work shows a fine appreciation of the sound traditions of the older school of wrought iron work.

Another exhibit that awakened a great deal of interest, particularly among the women, was the pine room, designed by Mr. Mackenzie Waters and executed by Messrs. Ridpath. (See page 148, April issue.) This type of wood panelling being a novelty aroused the critical interest of both the lay and professional public. I see that Mr. Arthur does not like the knots. I like them, and think that they give a great deal of character, life and charm to the woodwork. If one might offer a criticism about these knots it would be that some of them are a little on

the large side. The colour of the woodwork and the finish are excellent, and after a few more rubbings should take on an even lovelier colour and patina than they have at present. The public, and I should think the profession also, judged by the remarks that one heard, know very little about the wonderful possibilities of pine, or as it is commonly known in the New York market, "Ontario deal". There is a gamut of fifty shades in colour, depth and finish for this wonderfully sympathetic wood, and this is probably the reason for the great rage that these rooms are now enjoying in London and New York. The carving is vigorous and not too mechanically sophisticated, having something of the naive character that gives the appearance of age. This type of wall treatment offers a wonderful background for old furniture, especially of the needle point type of covered chair. It was unfortunate that the curtains were only of a temporary character, and being of a very strong red did not fit properly into the picture.

The china cabinet for Mr. Clarence A. Bogert, illustrated on page 173, designed by Mr. John M. Lyle, and executed by the J. C. Scott Company, Limited,—carving by Mr. W. B. Bruce, of Messrs. McCormack & Carroll—was interesting as an effort on the part of the designer to interpret his client's wishes for a Queen Anne cabinet that would have

the spirit of the period, and at the same time strike a personal and modern note. The carving by Mr. Bruce is subtle, and shows a fine appreciation of what one might term the plastic quality in wood carving; the ornament seems to belong to the field and to decorate it. There is no feeling of the ornament being glued on; the chiselling is excellent, not too crude for the small scale of the panel, yet having the necessary vigor. The grapevine pattern which borders the doors was etched in Toronto by the Central Ornamental Glass Company.

Mr. Sidney White, of Toronto, has been executing some fine furniture for some years, but has not received the recognition that is his due. He is a finished and painstaking craftsman, with a fine sense of scale in his work, both as to the general proportions of his furniture and as to the handling of the decorative features. The carving of the Georgian gilt mirrors is excellent. These mirrors, I understand, were designed for Mr. White by Mr. Barraud, of Toronto. The chairs and marquetry cabinet shown in our illustration reflect the greatest credit on the designer and craftsman.

The grandfather's clock for the Hudson's Bay Company, designed by Mesrs. Burke, Horwood & White, and executed by the J. C. Scott Company, Limited, is a beautiful piece of cabinet work, as well as a fine design. The mouldings are subtle and have vigor; the transition from the field to the clock section and to the base is well handled.

There was some interesting lacquer work by Mr. Barraud of Toronto and Mr. Caleb Keene of Oakville. The illustration is an early 18th Century English bureau desk decorated in lacquer by Mr. Caleb Keene. One might criticize the extreme brilliancy of the red in this particular piece, it did not seem to have the depth that one looks for in the Chinese lacquers. In form and general aspect, however, it possessed distinct personality and was a striking colour note in the Exhibition.

Another exhibit that aroused great interest was that of the Sisters of St. John the Divine, who showed some of the most lovely embroidered work that it has been our pleasure to see for a long time. The vestments shown were copes, chasubles, dalmaticas, and tunics. This embroidery was largely executed on a silk ground with varied coloured embossed embroidery, following the great early English tradition.

In the same gallery was a very lovely altar, illustrated on page 177, designed by Mr. Wm. Rae of Toronto, for the Bishop Bethune College Chapel at Oshawa. Our illustration shows the Frontal flanked by four riddle posts surmounted by angels. These angels were modelled by Miss Florence Wyle of Toronto, and cast in plaster and decorated in polychrome colour by Mr. J. C. Keeley. The Frontal was embroidered by the Sisters of St. John the Divine. The arrangement of the altar setting, follows what is known as the English arrangement.

In this same gallery were some fine stained glass designs by Mr. Peter Haworth. The Exhibit in the Sculpture Court of coloured pottery and porcelain by Mrs. Haworth, was a striking colour note and the command of colour and form by their designer was much commented on.

One heard the remark time and again that if some of our craftsmen would branch out a little along

modern lines and, while holding to sound traditions, endeavour to strike a new and Canadian note the future is full of promise. We have the designers, we have the craftsmen and all we want is the necessary opportunity and encouragement from our people to do something worth while. An exhibition of this character is bound to exercise a tremendous influence both on the architect and the craftsman, which will stimulate them to renewed efforts and awaken a pride in achievement as Canadians that has been lying dormant.

The Allen White exhibit of furniture, tapestries and crewelwork panels was an extremely interesting one, particularly as regards the crewelwork. These lovely panels, strongly Jacobean in their design, are not very well known to Canadians. They make wonderful curtains for certain types of rooms, particularly that of the wood panelled type.

There was also some very interesting needlepoint work—chairs and settees—by Mrs. Dr. Caulfield and Mrs. Slimon, which reflects great credit on them.

On the opening night I met Mr. Hugh G. Jones, the Architect, of Montreal. He was all smiles and enthusiasm—"A wonderful show, the finest ever held in Canada, I wish," he said, "we could put one on like this in Montreal! the crowds! the beauty of the women! the 'class' of the whole affair." He was *épaté* as they say in Montreal by what he had seen.

I will tell you in confidence what he was really thinking, for I beam-rayed him—"If our Montreal architects would take a leaf out of the Toronto Architects' book and make some effort to educate our people as to what constitutes good or bad architecture and so awaken the minds of the Quebeckers to the fact that there is such a thing as Canadian architecture, that it has merit and distinction, and that it has received recognition abroad, but none at home, then there would not be quite the same urge on the part of our people to award the architectural plums to our American confreres. Explain to them the value of architecture in their everyday lives and its importance as a national asset, show them that you cannot build up a national architecture without opportunity. English architecture was not developed by giving the work to French architects, nor Italian by the awarding of commissions to German architects."

I told him this was the most sensible thing I had heard him say for a long time and assured him that if the Quebeckers are like our Ontario compatriots they will be surprised and even stunned at the very idea that Canadian architecture has won recognition abroad. If they ask on what grounds you base your contention here are some of them—

The Right Hon. Lord Burnham, in his address at the opening of the Exhibition of Dominion and Colonial Architecture, in London, last year stated: "Especially in Canada, but in all the Dominions, there have been erected, within recent years, parliament houses and town halls which, I believe, compare favourably with anything that has been done during the same time anywhere."

The English architectural press, in selecting examples from the Dominion and Colonial Exhibition, featured Canadian Architecture ahead of all other exhibits describing it as "Undoubtedly the most interesting and inspiring."

A distinguished Scottish divine, Rev. Dr. J. R. P. Sclater, toured Canada about a year ago, and in writing his impressions of Canada, remarked that of all the achievements of the Canadian people, the outstanding one was her architecture,—her achievements in this line being far greater than those in painting, sculpture, music, the drama or in literature.

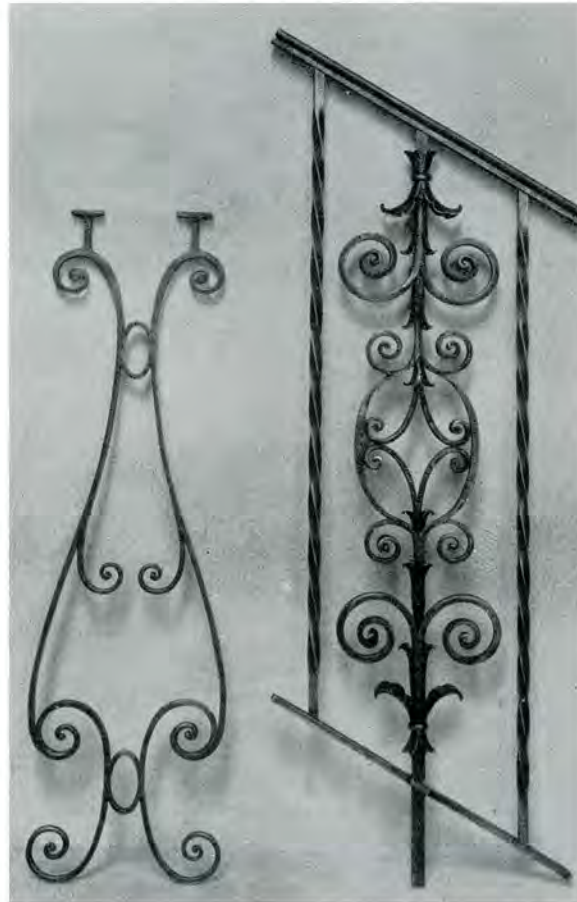
The Very Rev. F. S. M. Bennett, Dean of Chester, last summer made exactly the same statement, declaring that in his opinion the nobility of our architecture was the outstanding achievement of the Canadian people.

Mr. Hector Charlesworth in Saturday Night made the following comment—"Recent progress in all branches of the art, institutional, memorial, commercial and domestic, is convincing proof that of all the

arts architecture is that which ranks highest in Canada to-day; though it is the art least talked about."

Then again in a world wide competition for scholastic work which was held in New York last year we have the awarding to Messrs. Sproatt & Rolph for Hart House, the Gold Medal of the American Institute of Architecture. When you remember that this building was awarded the prize over such magnificent architectural groups as the Harkness Memorial at Yale or the splendid buildings at Princeton and the University of Pennsylvania, we, as Canadians, should have the greatest pride in the achievements of our fellow citizens—Mr. Henry Sproatt and Mr. Ernest Rolph.

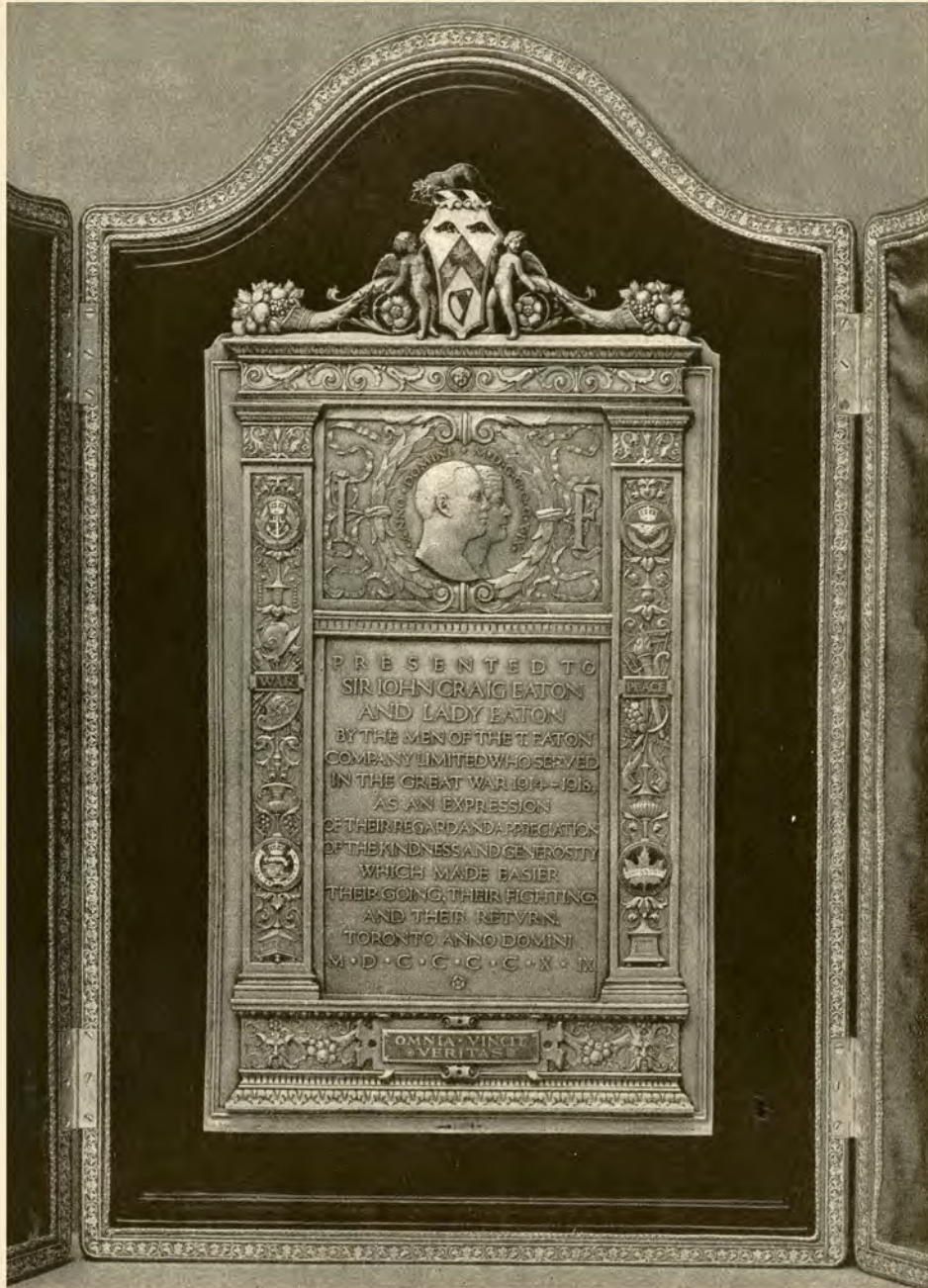
Winnipeg and Vancouver Architects please copy.



IRON BALUSTRADING FOR RESIDENCE OF F. F. DALLEY, ESQ.

Designed by John M. Lyle.

Executed by W. Wenger, Toronto.



MEMORIAL GOLD PLAQUE

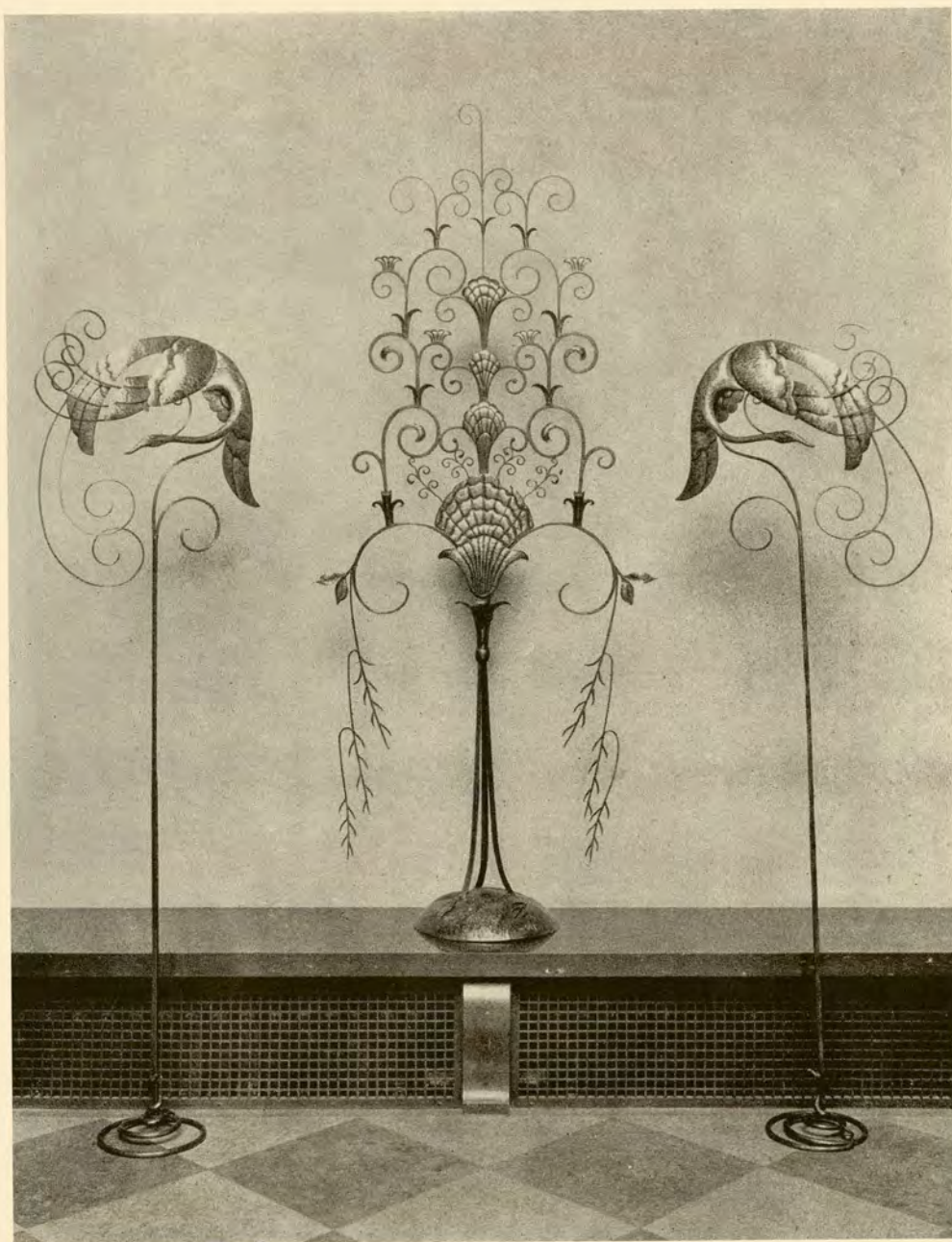
Presented to the late Sir John Eaton and Lady Eaton by the men of the T. Eaton Company who served in the Great War.

Designed by A. Scott Carter.

Executed by H. M. Doret.



QUEEN ANNE CHINA CABINET FOR CLARENCE A. BOGERT, ESQ.
*Designed by John M. Lyle. Executed by J. C. Scott Co. Ltd.
Carving by W. B. Bruce of McCormack & Carroll.*



DECORATIVE WROUGHT-IRON STANDS FOR THE T. EATON CO.

Designed by A. F. Harvey, Toronto.

Executed by Mark Smith of the John Lindsay Co., Toronto.



ALTAR FOR BISHOP BETHUNE COLLEGE CHAPEL AT OSHAWA

Designed by Wm. Rae, Toronto.

Embroidery by the Sisters of St. John the Divine, Toronto.

Decorative Sculpture by Miss Florence Wyle,

Painting by Mr. J. C. Keeley.

THE ARCHITECTS

A TALK TO CLIENTS

By PERCY E. NOBBS, M.A., R.C.A., F.R.I.B.A.

FOR a hundred years we architects have been failing most conspicuously to make our public understand what we are after. This remark would furnish a text for a whole course of lectures, but we must here leave it as a bald statement. It is our hope to set before you, as clients, certain ideas as to the aims and objects of our art which may be new to some, or if not new, may at least serve a use next time you have dealings with one of us, for they are rarely acted on.

Of architects in general it may be said that all aspire more or less to be, or to be considered, artists; and it is of those whose aspiration is well founded that I have most to say. It is not my intention to say anything of styles and schools and periods, for these are inconsequent brain-spun notions which stand in the way of our understanding one another.

The architect, the client, and the public: that is my theme. Of the three, the client is the most indispensable, but the least important—a mere human link whose privileged function it is to bring architect and public face to face, and the public is very literally "the man in the street." First let us consider what the architect of to-day inherits from the past in his relation to client and public.

THE PAST

From sun-baked Nineveh to wind-swept Chicago, all down the ages, building has been an affair of organization very closely parallel in its technical arrangements to good soldiering. In Roman times, indeed, it is difficult to say whether the legion was based on the builder's yard or the yard on the legion. Labor, skilled labor, foreman, master, architect, and, behind all, the man who pays, in the one case and in the other, private, sapper, non-com., commander, staff and, again behind all, the man who pays.

In happier times, before the propagandist's pen came to vie with the sword among the instrumentalities of chaos, that is to say, before the discovery of printing with movable types, there were two activities, and only two, to which all other productions were subordinated—building in peace time, and fighting in war time. Both required men of imagination to formulate the plans of action, and generals and architects were rewarded as much in fame and honor as through their recognized systems of pay, commission, spoils or graft.

While public appreciation of architects has been both fickle and variable throughout history, the function of the man whose trade is to conceive, and perhaps draw or model a new thing, a thing distinctive and unique, a thing not yet in existence, has been much the same for a thousand years—the same in the day of the Coliseum, and of the Albert Hall, of the wayside chapel at Houghton, or of the Pierpont Morgan Library in New York. General social conditions, it is true, have so wrought that, in certain places and at certain times, the architect has tended to absorb many of the functions of the master builder, like William of Sens at Canterbury, or to

have forced upon him the work of an engineer, like Michael Angelo in the case of the quarries, or to owe his selection to sheer impractical pedantry, like Dr. Perrault, of the Collonade of the Louvre. But all, at any rate, who achieved architecture, had these endowments in common—imaginative power, the geometrical sense and the instinct for scale. If they have differed as practical men, as professionals, as diletanti, it is not difficult to recognize their kinship as artists. "By their fruits ye shall know them."

Now, from the remote past up to comparatively recent times, the people who did the staff work of building were selected primarily because they were artists in the sense above described. This does not necessarily mean that they were ornamentalist, though in certain periods most of them were that also, to the delight of our eyes.

MODERN PROFESSIONALISM

It would be tedious to trace in detail the effect of modern industrialism on the practice of building since "Puffing Billy" plied his noisy course on rails of wood. The whole story is summarized in a word—the advent of "competitive prices." That is the result of the industrial revolution. The professional architect, as we know him to-day, and as he differs from his predecessors, is a by-product.

What, then, is the modern architect? He is occasionally an artist himself; he often owes much to professional assistants who are. When things are so, there is no use wasting time, energy, sentiment and ink as *laudator temporis acti*, or beating about the bush. So let us recognize the facts, without even alleging that they are brutal and see what it all means.

The professional architect of to-day is not necessarily an artist, but he must be a rather clear headed, just, business man, and a fairly skilled constructor. Ingenuity will carry him farther on the road to success than artistic power, and we are discussing the successful ones. Without opportunity, the architect, whether artist or not, is as nothing. Of himself he cannot build a cottage.

Let us look into this matter of architecture from the point of view of that kind of artist who is not a dancer, nor a poet, nor a musician, nor a painter, nor an engraver, nor a sculptor; but one who delights to express in stone, wood, concrete, and such like building materials, certain spiritual things—emotional complexes, the ugly-tongued psychologists would call them—that can not be danced, or sung, or done in black on white; and let us seek better acquaintance with him.

OPPORTUNITY

Assuming him to have the instinct, the accomplishments, and the necessary training, on what does his opportunity of expression in the manner aforesaid depend—how does he get his work? Competitions, the making of himself indispensable in an older man's office, strict observances, dancing, the buying of a practice, marriage with a builder's

daughter, partnership with a promoter—all these avenues to opportunity have oft been sought; and when certain elements of success (of which more later) have been part and parcel of his makeup, the avenue has led to something. But these are all avenues which, being not quite straight, the end cannot be seen from the beginning.

Indulgence in competitions—a vice akin to gambling—does not lead to a comfortable general practice, and often leads to bankruptcy—financial and spiritual. There is always a very considerable element of chance in a competition. When very fairly conducted, with professional judges, and all possible safeguards, competitions are decided on purely practical issues—cost, cubic contents, close planning, adroit connections—all which constraining considerations are as often as not destructive of such architectural potentialities as the problem might otherwise suggest.

As to making himself indispensable, blood is thicker than water, and his master's nephew, yet unborn, when that process began, may become a junior partner on completing his articles.

Church connection is a well recognized pathway towards public confidence, but the wise ones will seek to serve their congregation individually, as clients, rather than in their corporate capacity. Parsons, wardens, elders and deacons have proverbially thin business ethics where the design of extensions to the Sunday School is concerned. Few architects achieve their competence unscarred by these harpies, unless they be avowed free-thinkers, as so many great ecclesiastical architects are.

The social avenue is of course at once the pleasantest and the least dignified path to tread in search of opportunity—a variant on the commercial traveler's glad hand and "Have a cigar!" Yet many firms of architects have a dancing partner, or a sporting partner, and find the arrangement profitable. But here again there must be that very solid something already referred to in the way of special service to offer, and quite apart from the art that they profess to purvey; otherwise the useful dancing partner would soon be short of nice white ties.

As to buying a practice, the sense of the scoundrelly venality of such transactions is only dawning on the profession in Great Britain, though simony was attacked so far back as the XIVth century. The sale of architects' practices has never been at all general in America, where "goodwill" is a more personal thing than it is in Europe. An old established address in a dingy street has less advertising value on this continent than accommodation in a modern office building. The extreme case of the sale of the good will of an architect's practice by his widow is now obsolescent. Progress in architectural education, moreover, leads to more or less publicity in the discrimination between the sheep and the goats who enter the profession.

So much for the avenues of opportunity. These are not what we are seeking to disclose as the *sine qua non*, the conditional endowment on which an architect's success ultimately depends, though many of the architects and the public think they are.

THE NINETEENTH CENTURY IN ENGLAND

Let us seek for further light in the history of the recent past. A critical review of the profession in England throughout the nineteenth century—tempered with justice and with mercy—reveals the fact that, of the many thousands who practised pro-

fessionally, scarcely one hundred can merit the name of artist; while those who could fairly be ranked as eminent in their art can be told off on less than ten fingers. On the other hand, some enormous and lucrative practices, coupled with the highest honors, have fallen to gentlemen of great force of character, fine scholarship and cultivated taste, whose work is wholly innocent of the divine fire.

The really great, Elmes, Barry, (Philip) Webb, Bentley, Norman Shaw, Garner, form a veritable constellation in a firmament of tallow dips. All these, individualists as they were, gave us architecture of an essentially modern kind, conforming to those great rules (so rarely learned in the schools, alas!) which ignore the differentiations and proclaim the common principles of Phile and the Propylea, the Pantheon and Chartres—and this in spite of surface pedantries. But the most curious thing about these good things done in England in the XIXth century is the vast agglomeration of "masonry brute mis-handled" amidst which the treasures are imbedded. For there were many circumstances of the Victorian era which made the recognition of architectural power a slow and frosty process. Good influences were too often winter killed, root and branch. When the sincerer forms of flattery did manifest themselves as seedlings, variable winds of fashion and the gritty soil of ignorance combined to stunt the growth.

Much was built in England between 1800 and 1900, and never was a like amount of building more varied and original in thought and contrivance, yet never was the sum of architectural achievement less in its relation to the number, or importance, of building operations undertaken. The fact is, that at the end of the last century, strangely, few architects knew the art of architecture, even when it was exemplified before their eyes; while the general public's natural instinct for just appreciation had all but atrophied for lack of use, or, when discoverable, was vitiated by extraneous sentimental considerations.

Now, 1900 A.D. was not very long ago, yet when we look on the last twenty years—even allowing for the Great War's interruption—some improvement is noticeable in the appreciation of architectural effort, more especially in America. The recent publication of *popular* illustrated magazines, and volumes of current, instead of ancient architecture,—the works of Mr. Lutyens and of Mr. Platt, to single out two recent folios in the realm of domestic art—has done much to counteract the blight of style-mongering, generated by the legions of plates on the "historical styles"—unhappy phrase—and by the activities in period carpentry of the Warings, the Sloans, and other modern stage setters of the ready-made past.

THE APPRECIATION OF ARCHITECTURE IN AMERICA

Speaking of improvement, we said, "especially in America." Now the culture of Europe delights to patronize the culture of America, as an aunt of uncertain age acquiesces in the frivolities of a budding niece. Public appreciation of architecture usually has preceded public appreciation of literature in past civilizations. Architecture is the matter before us—let us rejoice that America begins to take pleasure and pride in something Europe has apparently out-grown. Admitting the debt to France which American architecture owes, and very fully acknowledges, there is still no comparison between the flood of genius shown in the architecture of the last

twenty years in the United States and the drought-dried stream in France.

Of course America has had the wealth, and the opportunities have been unprecedented. But the point we make is not the quantitative occasion, but the qualitative results. One doubts if French traditionalism, with equal opportunities, could have done better in France. In any case, we recognize to-day in America a lively public appreciation of architecture, not very intelligent, not very spiritual, and rather materialistic, but quite sincere and full of promise. With all the goodwill in the world we cannot aver as much of any part of the British Empire; not even of London town. In France, cultivated public taste in architecture is no longer the active force it once was. Starvation has, as it were, reached the stage of alternate paroxysm and inanition—for positive proof look at any French villa built since 1870.

GERMANY

Very different was the case in the Germany of 1914. A vast material prosperity, combined with a robust increase of all national forces, had given architecture opportunities at once exuberant and profuse. With a logic which the Americans did not have the hardihood to risk, German genius, in the generation before the war, struck out in search of a modern nationalistic tradition. The experiments were, in many cases, disastrous enough. But there was a real public interest in the matter. Criticism and appreciation were not private matters between a jaundiced scribe on the one hand, and an outraged designer on the other, both unheeded of the reading public. Perhaps the German public read too much appreciative criticism, and looked too little. The bizarre, the gross, and the crudely experimental appeared, but soon gave way before the rational excellencies of Messels' work and that of his great successor, Hoffman. We are of opinion still, as we were in 1914, that Hoffman's is by far the greatest individual contribution to the development of the art of architecture between 1890 and 1914. Whether the fervid building activity which was so marked a feature of German life before the War, has been brought to a dead stop, or has only suffered an interruption, it is of course vain to guess. Certain it is, that in Germany before the War, the architect enjoyed a large, an appreciative, and, we are inclined to think, an understanding public. For it was not mere business ability, structural skill, or economic service that enabled Hoffman to extract from an elastic traditionalism the spiritual fires whose flickering light warms stone to very life. His public recognized his art as such and craved it.

THE AGENCY

Now, when a client in the English-speaking world, whether individual or corporate, commissions an architect to design a building, the last thing he thinks of buying from the architect, or he in turn of selling, is that imponderable spiritual fire under whose warm and magic rays builded stones speak their serene consolations, passionately asseverate the everlasting melancholies, or smile indulgence on our reprobate gambols. No, what this client bargains for, and what this architect purveys, is agency—usually valued at something a little over six per cent of the cost of the work—agency to get better value in real estate than the client could do if left

to his mother wit; spiritual fires are not in the bargain at all.

In detail, this agency consists in first helping the client to find out what he really wants or needs, then inducing the client to acquiesce in sketches, which he can not understand, but which purport to represent what is wanted. A great trust this, as between man and man, and recognized as worth between one and two per cent on the probable cost, which at this stage is guessed, chanced, or otherwise estimated. Working drawings are then prepared, and specifications are written, both with mechanical skill and elaboration, and a double object in every line and word: First, to enable expert valuers to make up competitive prices for the contractors who employ them, and, Secondly, should a price be accepted and the work proceed, to be adequate to show how things are done, clearly and without doubt. When the working drawings and specifications are complete, between two and three per cent on the estimated cost, or lowest tender, becomes due the architect, *whether work proceeds or not*. This arrangement obviously takes no account of possible spiritual fires. If it did, then in the case of work not proceeded with, large sums would be chargeable for moral damages to the architect—what the psychologists would call "the pains of inhibited emotional expression." That such a charge is not the practice is proof positive that architects are not paid for art, but only for agency.

But if the work goes on there begins an anxious campaign to get the contractor's organization to do the thing, to do it rightly, and do it in time. The staff orders the architect issues are largely in the form of supplementary drawings, on each and every one of which the question of excess over what is shown on contract documents may arise. The making of these drawings is, next to the sketch planning, the most fascinating part of the architect's work. He also gives general supervision. The client usually fails to distinguish between this and sitting on the job watching every brick laid. That is the function of a clerk of works, paid by the client and under the orders of the architect. Some architects profess to give this service free, as a gift, like the spiritual fire, but it is not so. They do not. There is a "joker"—but that is another story. As the work goes on, the architect computes the value of what is done, and when it is complete he checks the accounts for extras and deductions which may or may not represent additional work and authorized omissions. The client usually finds difficulty in distinguishing between additional work required by himself, and true extras, arising from errors of omission in the contract documents. He is also slow to perceive that an extra, or additional work, generally costs the architect far more than he can ever get out of it by his commission.

Some diplomatic finesse, a habit of mind usually bought by dear experience, is an essential accomplishment, when at last the accounts are squared and paid. If the contractor and the client have been successfully kept from engaging each other before the law, the architect often finds that he has incurred the suspicion of each that his mind is not judicially constituted. By that time the architect has earned his remaining two or three per cent. on the cost of the work. It is due, and it is earned, often desperately. So much for professional services—agency. What of architecture?

We have followed the commission to its consummation, "My new cut ashlar takes the light," and the job is paid for, and let us suppose holds together, fulfills its functions of use and convenience, and is hygienic withal. As a rule, the question as to whether it is good to look upon does not affect the architect's fee. No doubt a client often feels that he did not fully appreciate the significance of certain lines or tints upon the sketches; and that proves that he does not, or did not then understand sketches, and that is all there is to it.

Of course, if architects were suitably remunerated for pained susceptibilities—inhibition of expression—when work did not go beyond the sketch stage, then it would be fair to penalize them when a finished building could be proved to have failed to arouse in enhanced degree those emotional complexes experienced by the client at the time he approved the sketches. It is perhaps just as well for the peace of society that this is not the practice, thought gaiety suffers in consequence.

All which goes to prove beyond shadow of doubt or cavil that the art of architecture has at present no appreciable or demonstrable market value in the English-speaking world. On the other hand, agency in the skilled provision for material requirements is reasonably remunerative.

THE CASE FROM THE ARCHITECT'S POINT OF VIEW

This brings us to the focus of our whole discussion. Let us now state the case from the architect's point of view, assuming for the sake of argument, that the architect happens to be an artist as well.

The *architect-designer-artist* should have realized three things in his student days, if properly instructed: That nobody wants to pay for his *architecturally-designed-art*; that some may be found to tolerate it, however; and that a few, (chiefly of his own profession) may even appreciate some of his efforts to make stone eloquent. He would not be what he is—a member of a most exacting profession with the longest apprenticeship of all the trades of man behind him—did he not desire, with a consuming passion, to exercise, or at least attempt, the magic touch of plastic art, and on the greatest scale too, and with the most expensive of materials—stone walls and landed property. What, then, is the condition he must fulfill before he may be permitted to try his hand? It has been answered above—perfect himself in agency, and try not to lose his soul in the process. He must do good, in the economic sense, rather than harm, to the property involved in his adventures and experiments.

The bargain is like this. If, says the client, you can convince me that you are sure you can convert this place, and these stones, bricks and what not, to my purpose, more conveniently and economically in all senses than anyone else, then proceed to do it, and so earn your commission. If you can at the same time so arrange things seen, by means of your art, trade, science and mystery, that people in general will profess aesthetic satisfaction, then go ahead and do your damndest; I don't pay you for that, and I don't fine you if you fail in that, but if I don't like it I'll never speak to you again, and shall "blast your reputation as far as my voice can carry!"

That's the implicit understanding when the architect writes that "following your call of yesterday, I shall be happy to proceed with your sketches, remuneration to be on the usual professional basis."

Now, all this is perfectly right, though some architects grumble at this aspect of the world as they find it.

THE EXPLANATION

It is to be observed that architects—the art—is not done for the client at all, and the client has therefore no reasonable right to blast his architect's reputation for anything but failure in agency, for that's all he pays for. The architect's art is a personal charity, as between himself as an artist and the "man in the street"—certain persons unknown, to whose need he seeks to minister.

"The song I sing for the minted gold,
The same I sing for the white monie;
But best I sing for the stoop of meal
That simple people given me."

Now, it would make the trade of architecture easier, and on the whole pleasanter, if clients, both individual and corporate, realized their function to be that of publishers, with the most shadowy claims to editorial control, once they have exercised their privilege of selecting their agents, or authors. It is always possible that the client may be entertaining an angel unawares; he must trust very largely to chance for that. Without opportunity to carry out works, none can prove whether he be an artist, as well as agent.

As things are, on the other hand, there is only one claim that any architect may fairly advance for the privileged opportunity he seeks to use other people's walls and lands for his artistic ends, and that is sheer efficiency as a practical agent. Can he plan with an adroitness and economy never dreamed of in former generations? Can he construct with the mighty forces of modern materials scientifically used, and temper their use with some invention. Can he do these things with a cultured grace founded on tradition but not overbound thereby? Can he deal evenhandedly as between his clients and his contractors? Can he endure the sustained drudgery inevitable in the manufacture of contract drawings and specifications? If he can do these things willingly for from five to ten per cent, the question of his giving something else (if he has it to dispense, and of that he can never himself be sure) is entirely a matter between himself and his Maker.

And now we may probe a little deeper regarding this something which some architects are privileged to dispense as a free gift willingly bestowed and most of us would give if we could.

DESIGN

The joy of design is in the *discovery of the form*; in so complex a thing as a modern building this is not achieved without very great and sustained concentration. The simple, graceful solution of harmonious plan and elevation, which looks so easy and self-evident, is usually a synthesis of very complex elements. Physical requirements, dimensions, connections, aspect, prospect, climate, materials, structural methods, traditional forms, the moods of color, and the reaction of the client's on the architect's, and possibly on the contractor's temperament, to say nothing of the cultural development of the skill available—a little firmament to be reduced to order.

And the discovery of the form is only the beginning. If a work of art in any sense is to result, then the character, and more of the character, and yet

again more character of this form must be apprehended, digested, exuded, and when realized be instilled throughout every fibre of the structure—as it is in the design of a man and of a tree.

The two great instrumentalities of the architect, out of which the souls of buildings are conjured, are called scale and proportion. The effects of scale and proportion are infinite, and can most readily be made manifest by the use of familiar forms. Experiment must necessarily be conducted with some caution in so costly an art as this. Traditional form is a mere incident, however, for mastery of scale and proportion, by any means new or old, is the ultimate technique of architecture.

But it would serve no useful purpose further to enlarge upon the technicalities of this art, when we are seeking to expound its fundamental nature. For one thing, to do so would involve us in those controversies of the rival schools of tradition which are so largely responsible for the prevailing mountains of ignorance we seek to dispel. And secondly, appreciation, and that is what art is for, was never engendered by the knowledge of means. Such science has an inevitable tendency to destroy those blessed illusions which are the ends of all the arts.

The architect is then an artist who, instead of a fiddle to play upon, or a yard of canvas to paint upon, or the back of an unpaid bill to write upon, demands acres, and square miles if he can get them, to build upon. As his stupendous materials are rarely within his means, he is forced to hire their use in exchange for such service as will give him *the necessary measure of control*. Why he does so, and whence his impulse, are not the questions before us. If it has been shown that this kind of artist pays a fair price in kind for his materials, the main object is achieved. If so, it may be inferred that he has a natural right to do with them as the spirit moves him, so long as he does not thereby diminish the price he must pay—be false to his agency. But loyal agency to his client is to be very clearly distinguished from loyal artistry to his public—the service of the man in the street.

It takes two to make a quarrel; it takes two to make love; it takes two to achieve a work of art—one to utter, one to respond. It is therefore for the client to identify himself with the man in the street if he would share this unearned increment of values. On the other hand, the architect may be very grateful to his clients for their support of his industry and experiments, for after all he can rarely know whether his work has been fulfilment of agency—in itself a very respectable claim—or the magic that can quicken the hearts of men. Perhaps that is why architects as a rule are so shy and timid in voicing their aspirations, so hungry and brutal in contesting their opportunities, in all innocence of common greed. Each child of their imaginations may be a God.

ARCHITECTURE

When one walks abroad, not too much engrossed with one's destination, the faces of the passers by, and sometimes their apparel, strike on one's attention with rich diversity of impact. The vast majority in any city (unless it be a city newly seen, where all has the glamour of fresh interest) seem dull, expressionless, common, perhaps repellent. But here comes some engaging villain, or a benevolent patriarch, or perhaps some haunted fanatic, or a dear complacent matron—someone displaying character, achieving style. Analysis racial, hereditary, circumstantial, has nothing to do with the interest aroused, though it may have much to do with the interest pursued, and may also be wholly astray. What matters is that these human objects of human interest manifest character, and if the manifestation be sometimes false, that is a small affair. It is the manifestation that concerns us. As it is with people, so it is with buildings. The blank, expressionless structures that are, for the most part, mere products of faithful agency, do not touch us at the heart as we pass along. One may be called in professionally to attend the case of a building, passed a thousand times without having been aware of its existence, till invited to look it over for reconstruction. But there, in the crowd, one saw mere eyes, and again, eyes that were windows to the soul; so, among the houses one sees windows, and again, windows that are eyes.

The ultimate test of the architectural quality of a building is the answer to the question "Can it look?"—look at you, look past you, look over you or beyond you, serenely, playfully, sadly, smugly? Is the look kindly or harsh, keen or naughty, austere or proud? If it looks to you, and at you, or anyone else, in any such ways—and whether you like the way or not, has nothing to do with the case—then be sure you are in the presence of a work of art. Someone who had to do with the construction before you was an artist, and you are his man in the street, and the least you can do is to bow and salute your new acquaintance, the spirit of his building, for this thing may become your friend on better acquaintance.

But do not make the mistake of supposing that anyone paid the artist to make the building smile or frown. We have been at pains to explain that there is a service that cannot be either sold or bought, or even be performed at will.

Editor's Note.—This article was first read as a paper by Mr. Nobbs before the Women's Art Club of Montreal, and was later published in the Journal of the American Institute of Architects.



Two Recent War Memorials

REGINA WAR MEMORIAL

R. W. G. Heughan, Architect.



deavor was made to discriminate carefully the appropriateness of the sentiment expressed, the suitability of scale and form in relation to the proposed site of the monument, and finally the sense of beauty and proportion with which these ideas had been worked out. According to the Assessors' report, the design submitted by Mr. Heughan fulfilled the requirements called for in a vigorous and beautiful manner. It follows the type of Cenotaph monument suggested by the conditions of the competition, and is of dimensions suitable to be a dominating feature in the park. It also commemorates the citizens who fell in the war in a finely restrained and dignified manner.

The monument, which was unveiled on Armistice Day, 1926, was erected in the centre of Victoria Park, Regina. It is 16' 0" x 13' 0" at the base, the shaft is 10' 0" x 6' 0", and is 31' 0" high. It is built of Stanstead gray granite, and the total cost of the monument was approximately \$23,000.00. Mr. F. H. Portnall, Architect, of Regina, was associated with Mr. Heughan in the superintendence and erection of the work.

ON November 17th, 1925, the City of Regina called for a competition for the selection of a design for the erection of a Cenotaph as a monument to Regina's citizens who fell in the Great War. The competition was open to British subjects resident in Canada. The conditions stated that the type of memorial commonly known as a Cenotaph would be preferable, but that other types or designs would be given due consideration. The Assessors appointed were Professor C. S. Burgess, of the Department of Architecture, University of Alberta, and City Commissioner L. A. Thornton. Forty-nine different designs were submitted, illustrated by drawings and models. From the designs submitted, the Assessors selected the one by Mr. R. W. G. Heughan, of Ross & Macdonald, Montreal. In the Assessors' report it was pointed out that many of the designs submitted were of very artistic quality. In judging the relative merits of the designs an en-



ESSEX COUNTY WAR MEMORIAL

Messrs Nichols, Sheppard & Masson, Architects.

IN the early spring of 1924 a small group of women who had been actively engaged in patriotic work during the war had reached an objective for which they had been working ever since the Armistice, viz., to raise a sum of money sufficient to erect a worthy memorial to the great numbers of citizens of Essex County who had made the supreme sacrifice in the late war. The amount of money available was \$20,000.00, which had been raised by popular subscription and various activities which this group of women had sponsored.

A competition was held to choose a design, and the committee decided that the one submitted by Messrs. Nichols, Sheppard & Masson was most suitable for their problem. Working drawings were started at once, and the monument was unveiled in the Fall, on Armistice Day, November 11th, 1924.

The entire monument is of Canadian granite, called Laurentian Pink, with the exception of the flooring of the platform, which is Pink Tennessee marble. The flag poles and sword are of statuary bronze. Around the base are described the names of the major engagements in which the Canadian corps took part.

On the front, beneath the sword and cross, is the inscription: "*Their name liveth for evermore*", following out, in this respect, the same inscription which appears on all the British cemeteries in France.

On the back, at the base of the shaft, appears the following inscription:

"In Memoriam our men of Essex—They shall not grow old as we that are left grow old—Age shall not weary them nor the years condemn—At the going down of the sun and in the morning—We shall remember them."

At night the monument is lighted by four flood lights concealed in the urns around the base. This system is connected with the city lighting system, and the lights are maintained by them.

The cost complete was slightly under \$20,000.00.



The Royal Institute of British Architects

I.—Organization and Control

By PERCY E. NOBBS, M.A., R.C.A., F.R.I.B.A.

NOTE—A second article will deal with the educational machinery and policy of the R.I.B.A. The immediate purpose of these notes is to clarify professional opinion in Canada as to what the R.A.I.C. should, or should not, attempt to do, and as to what organization is appropriate to the ends in view. The Institute with headquarters in London, has a problem to deal with which is in certain respect radically different from that of the Institute in Canada, which will in time no doubt achieve headquarters in Ottawa, but which meantime is functioning peripatetically. Until such time as the R.A.I.C. finds its component provincial elements more homogeneously organized than at present, there remains much that could be better done in the general interest by the central body, which the provincial bodies are nevertheless either unable or unwilling to delegate to the national professional organization. Then again, with distances to be taken into account, it must be frankly recognized that the administration of a profession of 7,000 members concentrated within a "right little, tight little island," is a very different problem from that of administering about a tenth of that number spread across a continent intersected by natural barriers.

THE R.I.B.A. Council consists of a President, two past Presidents, four Vice-Presidents, an Honorary Secretary, eighteen members (representing the Fellows), nine "Associate" members, six "Licentiate" members, fifteen representatives of Allied Societies in Great Britain and Ireland, an indefinite number of representatives of Dominion Societies, two representatives of kindred professional bodies and five Chairmen of Boards and Standing Committees.

The Executive Committee consists of fourteen members and there is of course a paid secretary with a highly qualified and efficient staff, under his direction.

Four standing committees, of about twenty-five members each, deal respectively with Art, Literature, Practice and Science, in their applications to Architecture. The Board of Architectural Education is a somewhat separate piece of machinery with an *ex officio* and appointive membership of nearly sixty persons.

Then the Council has its minor committees, which it appoints; (the standing committees are elective). These deal with finance, house, gold medal, joint premises, etc.

Under the heading "Other Committees" the Kalendar names the Architects and Builders, and the Architects and Operatives Consultation Boards, and the Committees dealing with competitions, conditions of contract, exhibitions, sessional papers, Thames bridges, town planning and housing, London architecture medal, London Building Act, registration, reinforced concrete, and last, least but most important the *Annual Dinner Committee*.

There is also a body under the R.I.B.A.'s auspices, known as the Allied Societies Conference, with a membership of about ninety, and a Franco-British Union of Architects, where the British Section numbers a score.

Such is the formidable machinery installed within the substantial fabric of the R.I.B.A. and designed to function in relation to thirty-seven more or less component societies and branches in great Britain and Ireland and some thirty more overseas (including the R.A.I.C. and its constituent elements the provincial societies).

At this time of writing the R.I.B.A. comprises within its corporate membership "some 1,200 Fellows ("F.R.I.B.A."), some 2,300 Associates ("A.

R.I.B.A."), over 2,100 Licentiates ("L.R.I.B.A."), In addition to these it has three small classes of Honorary Members, some 120 in number. More than 1,400 Probationers and 600 Students make up a total of over 7,700 persons directly associated with the Royal Institute.*

It is estimated that there are about five thousand members in the Allied Societies and there is some overlap in the case of Dominion bodies. In the case of Canada, for instance, the provincial societies, which constitute the R.A.I.C., contain a R.I.B.A. membership of about ninety, eighteen per cent. of these being Fellows. These are significant figures and show the value attached by the public and the profession to a qualification carrying an affix, or letters, and widely recognized. Individual institutions and provincial societies may of course easily achieve, and with difficulty maintain, as high a standard of professional education and conduct, but the fact remains that the highly organized and widely recognized achievement of the R.I.B.A. rests on a remarkably solid basis. No other professional organization within the British Empire has anything to show comparable with the R.I.B.A. in the matter of scale.

Of late years the cause of unification of the profession in England with "registration" as a motive, has made great strides, the absorption of the Architectural Association within the Institute being recent history and Legislation being now imminent. The R.I.B.A. came into existence in 1834 and is now about to achieve, after over ninety years' consistent evolution, the status before the law to which the Province of Quebec Association of Architects attained on its inception, in 1890. It will be most interesting to see how the British Architects' Act deals with some of the difficulties with which the regulation of a profession bristles. One consequence of such an act will be a distinction between R.I.B.A. membership at home and abroad in the Empire. The writer takes the view that when the R.I.B.A. ceases to be a private and voluntary body and takes on something of the character of an instrument of government, the very slight hold it has so far exercised on the professional conduct of its members overseas must entirely disappear—a matter of serious regret, as it must be a long time before the R.A.I.C. can organize itself for profes-

*"The Architect and his Work"—R.I.B.A., 1925.

sional control, and provincial edicts are not very imposing outside provincial borders.

Let us now consider, in some detail, the work of the R.I.B.A. in regulating professional conduct. In virtue of the honour which the writer enjoys of representing the R.A.I.C. on the Council of the R.I.B.A., he has access to the confidential reports of the Professional Conduct Committee, besides laying claim to some experience in the responsibilities of professional organization in Canada. It is safe to say that proportionally to the membership far more cases are dealt with in England than here. These are disposed of with equal care in the matter of ascertaining facts but with somewhat greater severity than in Canada. This disproportion of cases brought up does not reflect a greater laxity of professional conduct in England—on the contrary, it reveals a greater sensitiveness on the part of respectable practitioners to assert their rights and privileges and a more acute realization that the profession must be kept above all reproach in the eyes of the public, both in its own and in the public's interest.

The Professional Conduct Committee of the Council naturally reports confidentially. That its labours are difficult and thankless goes without saying. These are performed with extraordinary tact and great frankness, and are as successful as they are necessary to the preservation of a very high standard of professional conduct. The policy of course is to act only on complaint. The Professional Conduct Committee is not a detective agency.

The findings include such phrases as . . . "transgressed the code of etiquette in failing to communicate with . . . according to the established usage of the profession"—or again,

"Mr. 's reply was frivolous and evasive The Council are recommended to suspend Mr. for six months."

Or again "to request Mr. to resign his membership in the R.I.B.A."

Or again "necessary steps be taken to proceed against Mr. under By-law 25."

Or again "inform Mr. that he must either resign his membership in the R.I.B.A. or his membership of the firm of &"

Or again "The Council to take disciplinary action against Mr. but suggest as a first step that he be invited to resign his membership of the R.I.B.A."

There is in a Professional Practice Committee, which is the agent of a Society of seven thousand persons, a certain impersonal quality and power which it is quite impossible to achieve with a similarly empowered committee of a Canadian provincial association representing a matter of from two hundred to forty persons. In the case of the smaller bodies personal feelings and relations cannot be disentangled from the cases to be dealt with to the extent that it is desirable they should be.

It is, alas! the common experience of those who have been chairmen of such committees functioning under our provincial societies that a very great number of cases are verbally reported for their consideration, while very few are put in writing over a signature. It is at least worthy of the consideration of all Canadian architects to enquire whether, in spite of its manifest difficulties in the matter of distances, varied legislation, and cultural cleavages, the R.A.I.C. might not, to some extent, relieve the Provincial Societies of responsibilities which are not infrequently beyond their practical as distinct from their legal powers.

The Casting of the Bells for the Parliament Buildings, Ottawa

BONG-G-G! As I passed into the Croydon Bell Foundry the air around me quivered with the sound of one of the big bells. A sound that was warning and silencing: a sound that would brook no other sound, save perhaps the bronze voice of a sister bell. For this was one of the big bells of the world; a bell in which four or five men could have stood. From all parts of the works came the sound of bells—bells solemn and mournful, like funeral bells coming over the sea; cathedral bells that struck in me deep moods of devotion; curfew bells that toll the ending of day. In Messrs. Gillett and Johnston's foundry I was present at the casting of a bell—one which was to take its place among the great carillon of fifty-three (the largest in the world) for the Victory Tower of the new Canadian Houses of Parliament at Ottawa. With the Prime Minister of Canada, I saw the electric playing apparatus for the carillon, saw the slow-turning lathe upon which the bells were being tuned, and the big frames of elm upon which English church bells would swing. And now the metal was ready for the casting of a bell, and we assembled in the foundry with strange men about us, and our footfalls silenced by a carpet of black foundry dust. A trap

in front of the furnace was dropped, and a river of molten metal poured down into a great bucket lined with loam. The flames from strange gases burned around: sparks swept up. An unholy glare fell upon our faces. As if to waken the livid metal to intenser fury, a chief devil or priest of the foundry approached and stirred and skimmed the molten metal of its dross.

And still the molten river ran, but more slowly now, and at last it ceased. And now there was a slow hauling upon pulley blocks, until the bucket of glowing metal swung clear of its pit. It was raised . . . it was raised. And slowly moved sideways through space. I stepped back deferentially as it went by. It came to attention in front of the big bell mould, and again there was a hauling upon chains. After a long waiting at this altar it leaned forward, to imprint a fiery kiss upon the bell-mould's ashen lips. . . . So was created one of the big bells for the Ottawa Parliament House. Its voice will sound over the Ottawa River and the Gatineau Hills. In five hundred years—in a thousand—it will give out the same note as now. Bong-g-g!—By "*Astragal*" in the *Architects' Journal*, London, Eng.

Elementary Schools in Canada and the United States

By J. RAWSON GARDINER,

(Continued from April issue, page 154).

Editor's Note.—This is the last of a series of articles by Mr. J. Rawson Gardiner, Architect, of Montreal, on the Elementary Schools in Canada and the United States.

DOMESTIC Science Room.—The girls' vocational studies consist usually in cooking lessons during the first two years and a room will have to be provided, containing from 900 to 1000 sq. ft., preferably a corner room with windows on two sides for this purpose, also wardrobe space for the number of benches desired, a teacher's cupboard and bookcase, and 4 by 10 feet of blackboard behind the teacher's desk as in classrooms.

benches to have 2" pine top with gas or electric burner with aluminum plate under and fitted with a compartment for utensils and bread board. The benches to be supported on iron standards. A six hole coal and a similar gas or electric range to be provided with hood and set on tiled hearth as stated above. A dresser or pantry cupboard in three sections, about 10 feet, with glass panel doors to upper sections and drawers and cupboards to lower portion.



FIG. 25—DOMESTIC SCIENCE ROOM; PRINCE OF WALES SCHOOL—HAMILTON, ONT.
W. Grayson Brown, Architect

The floor may be of hardwood, except the space under the ranges and the walls behind them to a height of 7 feet which should be of 6" square red quarry tile. If the room is in the basement the walls may be of salt glazed brick to a height of 7 feet and above this painted.

The following fittings will be required:

A work bench for each pupil, the number varying in accordance with the size of the class desired. If one half of the ordinary class of say 42 then 21 benches will suffice. These benches, 26" wide, are usually set up in the form of an ellipse or oblong, with a demonstration bench 3' 0" long having an open space about 2 feet wide, on each side and on the side opposite, and a dining table in the centre. The

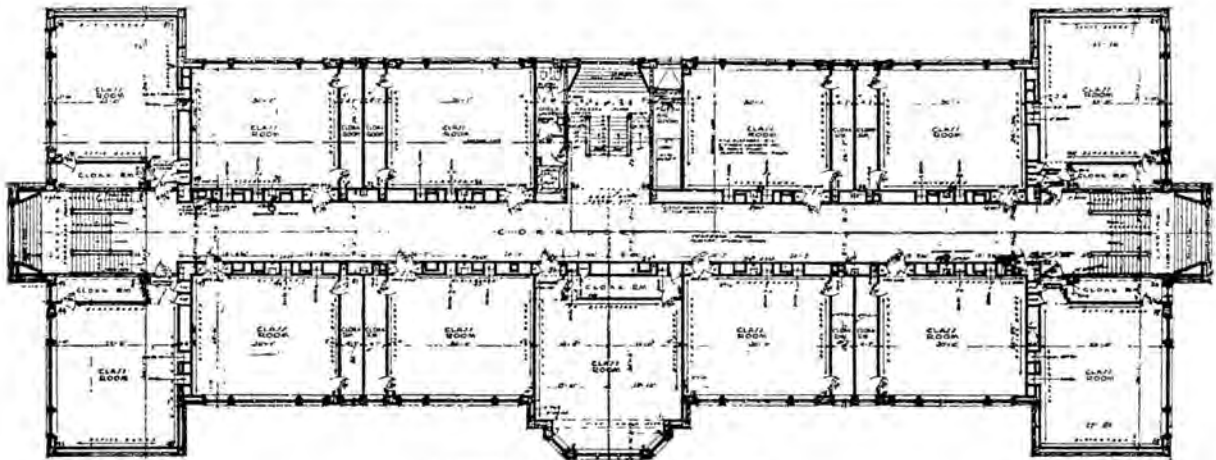
A recipe cupboard or bookcase similar to those in the classrooms, two sinks one 60" and the other 24" long with a drip board at each end, and a refrigerator will complete the equipment.

Manual Training Room.—Should contain from 900 to 1000 sq. ft., preferably a corner room with light on two sides and on the boys' side of the building. It is very commonly placed in the basement with walls in salt glaze brick to a height of 7 feet, with 4 x 15 feet of blackboard, but if above, basement may be finished as a classroom. There should be a stock room, about 80 sq. ft., off the work room, preferably long and narrow with two rows of shelving 18" wide running round the room. Wardrobe space for the number of benches, a

teacher's closet, about 40 sq. ft. with shelves for holding the finished work as well as for coats and hats, a bookcase similar to those in classrooms, a work rack 6' 6" high 24" wide and about 28 feet long divided into the same number of compartments as there are benches with each compartment numbered, a porcelain enamel sink, 36" long, with hot and cold water taps will be required. The number of benches required will be determined by the number of boys to be taught at one time, usually half the class, and there should be a stool for each, demon-

far more marked than in warmer districts where physical exercise can be obtained more easily in the playground. Skating and hockey could be provided if the playgrounds of the schools in northerly districts were flooded, thus converting them into rinks.

Having decided upon the number and the approximate sizes of the rooms required, it will be necessary to determine the number of floors, the type of plan, and the probable cost of the school in order that the amount allowed by the school board



FIRST AND SECOND FLOOR PLAN.

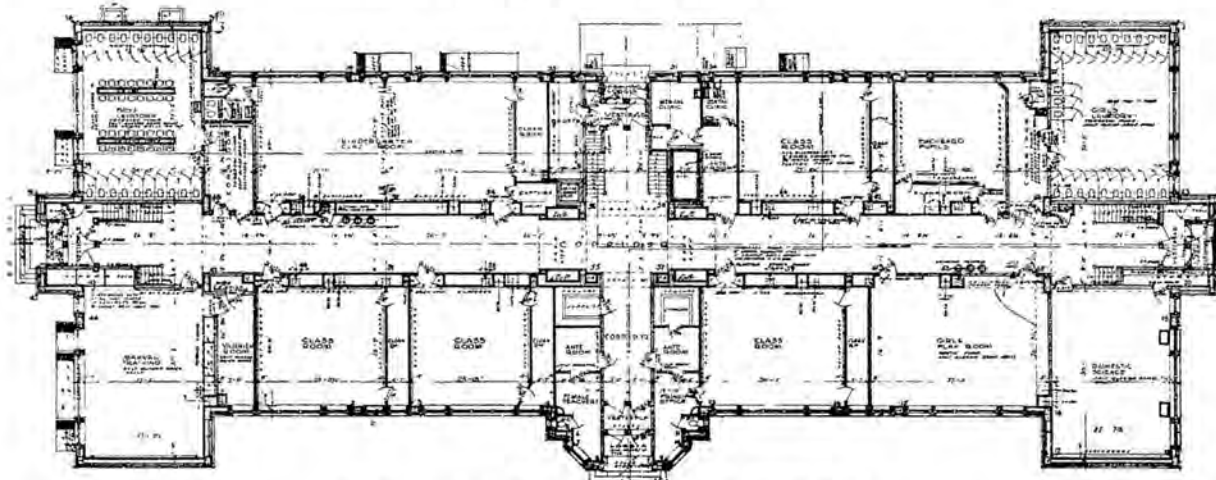


Fig. 26—GROUND FLOOR PLAN—A THREE STORY SCHOOL WITHOUT BASEMENT, HAMILTON, ONT.

W. Grayson Brown, Architect

stration steps with guardrail, a teacher's desk and chair, a table 48" x 30", with unfinished top, and two chairs.

Gymnasium.—The question of the necessity of a gymnasium or an Auditorium in Elementary schools has received a good deal of attention, but a room for assembly purposes is needed so infrequently that the advantages have not usually warranted the heavy outlay. For this reason many schools have been fitted up with a room which can be used both as a gymnasium and an Assembly Hall, with floor level, no fixed seats, ceiling sufficiently high for a gymnasium and of sufficient size for basket ball. In cold climates the need of a gymnasium will doubtless be

will not be exceeded and that the economy, or otherwise, of the type selected will warrant that particular design.

It is generally conceded that the ideal Elementary school is built on either one or two floors, but in the congested districts of our larger cities this has been found oftentimes impracticable, but wherever possible the two-story structure should not be exceeded with the upper grades on the top floor. For the school with eight or more classrooms, the two story type is less costly both in construction and in upkeep, but for the smaller school the one-story building with a minimum basement (Figs. 9 & 18) and the composite two and one-story type erected

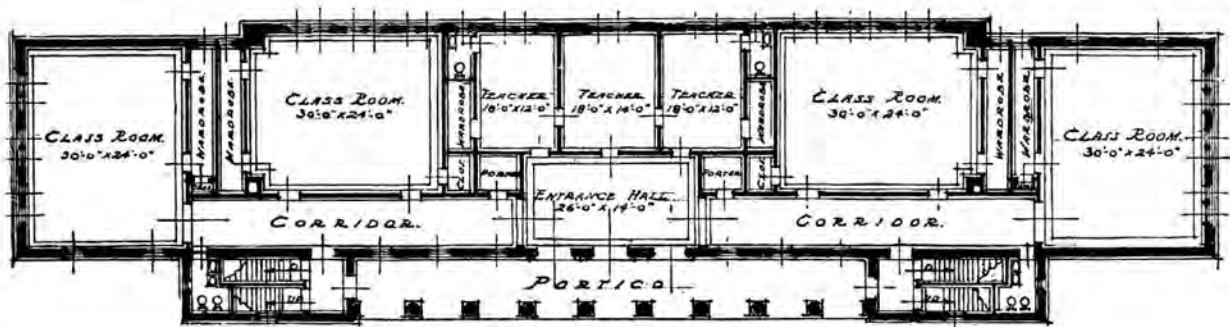


Fig. 27—FIRST FLOOR PLAN, THE ABERDEEN PUBLIC SCHOOL, ABERDEEN, NORTH CAROLINA
Aymar Embury II, Architect

on a sloping lot is admirably adapted for Elementary schools. In these types a visible roof is usually preferable and some very pleasing designs have been erected (Figs. 13 & 21). If a Gymnasium or Assembly Hall or a combination of both is required, the plan must adapt itself and in certain cases it may be advisable to design the school so that a Gymnasium or Hall can be added later. The tendency appears to favour the increasing use of the public schools out of school hours for community purposes and as they are provided from public funds there seems no justifiable excuse why they should not be used to their full capacity.

The type of plan will vary considerably; the open type with ample window area to corridors has many advantages but has proved to be expensive, so that the closed plan, i.e., with classrooms on either side of the corridor and windows only at the ends has been used to a very considerable extent. There is, of course, a combination of the two types, i.e., with rooms opposite one another over a portion of the corridor but the balance as in the open type.

The cost of schools has been figured in many ways, the cubic foot as a unit being the most reliable; the cost per classroom and per pupil being uncertain unless a standard basis of calculation is agreed upon. Possibly the better way is to standardize the pupil

capacity on either the area or the cubical contents of the instruction rooms which include Classrooms, Vocational Rooms, Gymnasium and Auditorium, based on either 16 sq. ft. or 200 cu. ft. per pupil. Then, if say, 700 c. ft. and \$250.00 are allowed per pupil a standard is obtained by which to compare any school.

Thus if a standard school is rated at 1,200 pupils it will contain 1,200 x 700 or 840,000 cu. ft. and will cost 1,200 x 250 or \$300,000. The figures taken are merely used to show the method and may be changed to suit local conditions and prices.

If school boards and architects will calculate the pupil capacity of schools on the above basis and then compare the cubic contents and price per pupil of their own schools and well-known schools in other cities the variation in the figures will show plainly the efficiency or otherwise of any plan. Unless this is done great care must be taken in making comparisons between two schools as sizes of classrooms vary and one school may have a Gymnasium or an Auditorium while the other has none.

This question of cost is most important when designing school buildings as it is necessary for the architect to keep within the appropriation, for no matter how much the extra amount may be it has to be voted, and this is rarely wise. It must be

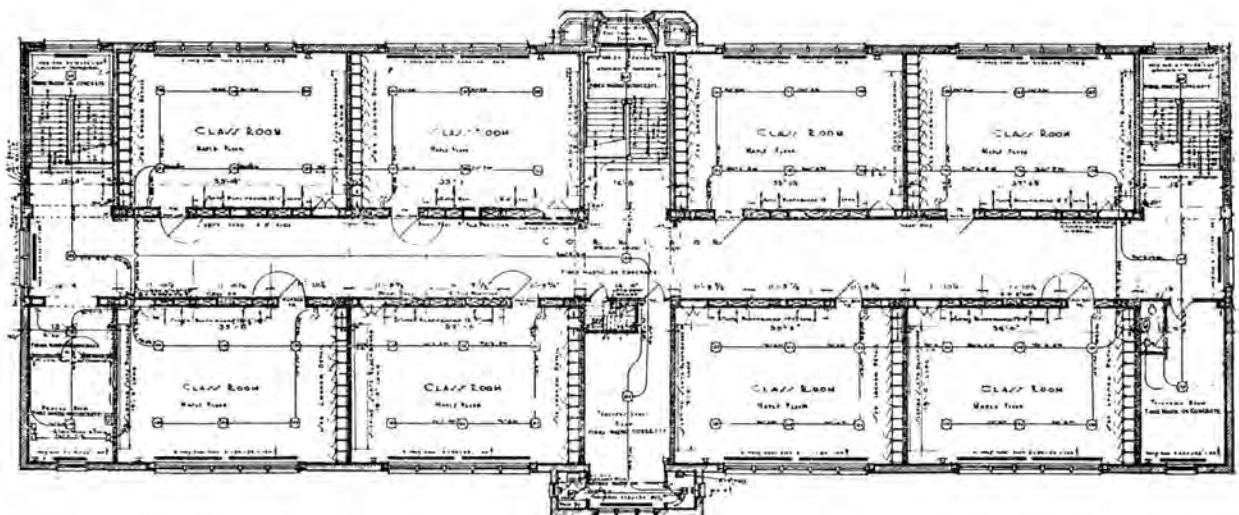


Fig. 28—SECOND FLOOR PLAN, ROSE AVENUE SCHOOL, TORONTO
C. E. C. Dyson, Architect

remembered that schools are subjected to extremely hard usage so that construction must be of the strongest and best otherwise the upkeep charges will be high and deterioration rapid.

Let us take two schools, one in Boston the other in St. Louis, with 24 classrooms in each; the cube of the first is 748,519 c. ft., of the other 977,200 c. ft. The first school is a three-storey building of the closed type, while the latter is a two-storey structure of the open or extended type. Should these two schools be figured at 35 cents, the total cost of the first would be \$261,981 and of the other \$342,020 or a saving of over \$80,000 on the first building. If these classrooms have a seating capacity of 42 pupils the school in each case will hold 1008 students making the cost per pupil of the first school \$260.00 and of the latter \$339.00; a very considerable difference. These figures are not given in criticism of the two types but merely to show the difference in the cost of two schools with the same accommodation.

As the Editor has arranged for articles on Canadian schools, which will illustrate the excellent work

being done by Canadian Architects in the different provinces, the examples chosen for this article have been selected chiefly from the schools erected in the United States, thus giving readers the opportunity of comparing the methods of the two countries.

Heating, ventilation and electric wiring are often left in the hands of Engineers appointed by the school board, who take over the responsibility of these items, in consultation with the architect. The discussion of these subjects has been promised in a separate article.

Let the architect in designing a school use every effort to secure the best results with a full realisation and appreciation of what a modern school can accomplish, not forgetting that the mere absorption of facts and figures is far less important than the development of individuality and character and that the physical fitness of the child will oftentimes bring better results in life's struggles than passing through school at the head of the class. The physical and moral side can be developed better on the playing field, the mental in the classroom but for the full development of man the two should go hand in hand.



FIG. 29—WASHINGTON IRVING SCHOOL, BOSTON, MASS.—COMBINATION ASSEMBLY HALL AND GYMNASIUM

C. Howard Walker & Son, Architects

Editor's Note—The first of the series of articles on Canadian Schools, referred to by Mr. Gardiner above, will appear in our July issue. It will deal with Public Schools in Ontario, and will be contributed by Mr. Cyril E. Dyson, Architect for the Toronto Board of Education.

CORRESPONDENCE

"PRESENT DAY METHOD OF TENDERING"

The Editor,
The Journal, R.A.I.C.

Your article in the March number of the Journal, "Present Day Method of Tendering," has been read by me with much interest, having experience in the building profession for many years, both in England and Canada, and, while I would hesitate to question the authority of a Past President of the Royal Architectural Institute of Canada, I consider the practice of supplying quantities, when calling tenders, most just and fair to all concerned.

For every building erected someone must take off quantities of the materials and labor required, before an estimate of the cost can be made, and when a number of contractors are competing, each must or should do this work, and, I have no doubt, if it were possible to compare all the sets taken off, many deviations would be found.

At the start of a commission an Architect can only make an approximate estimate of the cost of a proposed building, based on his previous experience of a building of similar construction, and I do not see the advantage of inviting a number of contractors, to submit estimates, not to exceed a maximum sum, as each contractor would have to take off quantities, while it is admitted only one can get the work, and most probably, the contractor whose figure was lowest under the maximum sum, as the building owner will still be human.

The points upon which your author proposes to base the contract are in my opinion, as daring, as they are unique, and seem to favor the cost plus system. I fail to see where the spirit of gambling is removed, except from the builder's on to the owner's shoulders. The builders compensation or profit is to be fixed. What about anything unforeseen such as accidents to workmen, etc.? The cost of the building may be increased to a limit of 10%, this I presume refers to matters unforeseen, and not changes desired by the owner. All sub-contracts and purchase of materials to be submitted to the Architect for his approval, would this relieve the Contractor from liability in case of defective, sub-contractors work or materials? A qualified checker of accounts and vouchers to be employed on the work. An additional expense, which, in my opinion, would be better spent towards preparing quantities.

Payment to be made direct to sub-contractors and material men by the owner, a questionable point as to who ordered the work and material and who is responsible for payment to the sub-contractors and material men, and much trouble and possible annoyance to the owner.

So far as I know, building contracting is the only occupation where goods or buildings are sold before they are manufactured or built, and it is only fair while a contractor is expected to assume all risks his compensation should be in proportion to the risk taken. I consider the preparation of a bill of quantities by a qualified man the best solution, each contractor tendering, knows what material and labor he will be expected to provide to complete the structure, and, if a priced bill of quantities is deposited with the Architect on signing the contract, the owner will be charged or allowed the contract price for any work added to or taken out of the contract. This priced bill can be kept sealed if desired. Any special work for which quantities cannot be taken off, at the time of tendering, or work of specialists being included as a provisional sum.

Your author suggests that an inaccurate bill of quantities might land the owner in insolvency, but I submit there are possibilities that may lead the owner to the same destination under your author's suggested points of basing the contract. I have experienced keen, liberal and fair quantities, and know of a case where a keen quantity surveyor (who in this case was the architect for the building) landed his client with a large legitimate bill of extras at the conclusion of the contract, all of which could have been avoided had he been less keen in his measurements, while I know of other buildings completed, to the satisfaction of all concerned, for less than the original estimate and this without any work being omitted.

Quantity surveyors, if in doubt as to the Architect's intentions usually consult him, and should he be uncertain as to the construction of any particular piece of work, a provisional sum is included, or sufficient material and labor (provisional) to cover the item included in the bill, the

work being measured either during or after construction, so that the contractor and owner are both protected.

The payment of the cost of preparing the quantities, in addition to the absence of qualified quantity surveyors seem to be the obstacle in Canada, but as in every other case the buyer pays whether direct to a surveyor or through the contractor, and, as nearly all quantity surveyors first get their experience with the builder, I am sure there are some of these qualified men, who would start in the profession as Quantity Surveyors, if assured of the support of the Architects, and I believe with the practice of supplying quantities once started, neither contractors nor Architects would desire to revert to the contracts being based on plans and specifications only.

Trusting the above may be of some small assistance in solving this very difficult problem.

Yours respectfully,

HENRY WILSON, Prince George, B.C.,
Member, British Columbia Institute of Architects.

* * *

The Editor,
The Journal, R.A.I.C.

I read with great interest, the article by Mr. John S. Archibald, on "Present Day Method of Tendering" in the March issue of The Journal, and your invitation in the footnote, for correspondence from members of the Institute, upon the subject.

As this invitation has not been responded to in the April issue of The Journal, I have been wondering whether you would consider correspondence from a reader who is not a member of the Institute.

As an engineer with some architectural training and experience, I have given the subject much thought, and the same difficulties and objections occur, though perhaps in a somewhat lesser degree, in calling for tenders on engineering projects when the basis is that of "Competitive Lowest Cost".

There is nothing new in this suggested method of "Maximum Cost plus a Fixed Sum" but it is so rarely used, that the presentation of facts of the case, boldly stating its advantages and disadvantages with the laudable object of urging the general adoption on important works, of a method that will ensure the greatest security to all parties of a contract, eliminate most of the elements of gambling on unforeseen issues, and obtain dollar for dollar value of work and remuneration, is to be welcomed, and we are grateful to Mr. Archibald for his endeavours to accomplish this.

The suggested method of "Maximum Cost plus a Fixed Sum" does not relieve competing contractors from the necessity of preparing quantities for their tender, so as the establishment of the status of "Quantity Surveyor" appears to be the only remedy for this, and as there appears to be so little hope for this to become possible in the near future, we must reluctantly leave this condition as it is.

This method does not protect the Contractor from errors in his tender, but it facilitates the Architect's task of discovering discrepancies as it separates the profit from the actual cost.

The first essential for the intelligent preparation of a tender, to eliminate substitution of inferior materials or methods, is a very full and strict specification without vague or ambiguous clauses, which leaves little or nothing to the option of the Contractor, as regards quality of work and materials. Some contractors and estimators are accustomed to skimming through specifications when preparing tenders, and extracting from the clauses, what they judge is the meat for the basis of tendering, and passing over the other parts as so much verbiage, included as a time honoured custom, not to be enforced or insisted upon, if the work proceeds half decently.

Another essential is the issuing of sufficient detailed drawings, with the working drawings and specifications for the preparation of tenders, to obviate the necessity of gambling on the full meaning of an item; sometimes the words "To large scale details, to be issued later" are misleading, and these details when issued, after the contract is signed, may be very different from the conception of the contractor at the time of tendering.

Some specifications contain too many vague instructions such as "As may be necessary", etc., and the plans, specifications and details should be as harmonious as possible. The writer has seen a clause in the "General Conditions" part of a specification which read "Figured dimensions shall be taken in preference to those obtained by scale and if any discrepancy exists between plans and specifications, then the latter shall be taken as being correct, but large scale details, shall supersede either". This emphasizes the necessity of very full specifications and detailed drawings, being issued for preparation of tender, so that future large scale details shall only be necessary to elaborate the minor portions, (not minor in importance but minor as a proportion of the whole) which have already been generally indicated on the previous drawings.

Of course the Architect is arbiter of the meaning of his own specifications, up to a certain point, when another architect or legal exponent has to be called upon to arbitrate (according to conditions of contract) but the fewer opportunities for misunderstanding there are in the data upon which the tender is to be based, the better, as some contractor during the carrying out of his contract, may be looking for just such loopholes, through which to drag an anemic deficit and convert it into a healthy profit.

There is generally a clause in the notice calling for tenders, informing all and sundry, that the lowest or any tender will not necessarily be accepted.

This puts squarely up to the contractor the fact that he must be prepared to shoulder the cost of quantity taking, pricing and preparation of tender (which preparation may cost from \$50.00 to \$500.00 for each job he tenders for) and charge it to overhead expenses, which his successful contracts must pay for. Any fixed lump sum profit placed on a tender under the method we are discussing, must include for this and other head office overhead expense, which is apart from the expenses of the field organization.

Prices can be obtained and a period of protection arranged (until orders are placed) for most materials in a building contract, and as soon as the contract is signed, the contractor can protect himself on these prices, so that apart from strikes, or embargoes on transportation of materials, the big element of gambling that enters into a contract will be the amount of work performed by the individual artisan or laborer, which has always been, is now, and always will be as long as human nature is what it is, a variable quantity, governed by many factors, chief of which are the driving power of the task masters, and the abundance of work which may cause a scarcity of labor. Under the latter condition, contractors eager to fulfill their obligations, have been known to offer financial inducements to obtain and retain labor, and labor being human, occasionally relaxes its efforts.

It seems to me that the chief causes of extreme variation in a set of tenders, other than that of contractors' errors in quantities or billing, are the amounts added to cost for profit and overhead, and for possible unforeseen circumstances or contingencies; so with the profit and overhead segregated as a stated fixed sum, and the contingencies taken care of by an allowable 10% maximum cost, the percentage of difference in tenders of cost should be very low and a difference due to errors in quantities or billing would be sharply defined.

For the purpose of analyzing the cost still further and rendering the detection of errors yet more easy, why not insist upon detailed tenders, with the sub-contracts separate from the General Contract, and the name of the sub-contractor and the amount of his tender, which would narrow down the field of errors and protect the general contractor to a certain extent, as the Architect would then have before him the prices of several sub-contractors, to scrutinize for possible errors when the tenders are opened. It might also be possible, if this suggested method became more general, to accept separate tenders for the larger sub-contracts, such as the mechanical trades, plastering, etc., in like manner of maximum cost plus fixed sum, if by so doing it would not conflict with the General Contractor or lessen his responsibility for the whole.

Of course those sub-contracts which necessitate a large proportion of the work being done in factories away from the job, would not be in line for this, so we will leave the sub-contracts out of the question for the present, and consider them as purchases to be made by the General Contractor and shown in his detailed tender as suggested above.

Any authorized variation from plans in these sub-contracts which results in extra work, would have to be ad-

justed on the day work basis of net cost time and materials plus a percentage to cover overhead and profit, this percentage being agreed upon and incorporated in the first contract.

These additional costs would have to be borne by the 10% margin allowed for contingencies and be charged to the cost of the job, so there would be cause for friction here, it being to the sub-contractor's interest to get as much as he can for this work, and against the General Contractor's chance of bonus for bringing the cost of job below his tender of maximum cost; but probably these little points could be settled by mutual agreement.

As Mr. Archibald states, that with this Maximum Cost plus Fixed Sum method, "We have the following checks to safeguard the Owner's interest:

- (a) The Architect's estimate.
- (b) The estimate submitted by the lowest contractor.
- (c) The average estimate of the combined figures of the others".

We have the same checks in the prevailing method of competitive lowest cost, but by far the best safeguards to the interests of all parties to the contract, are the principles embodied in this Maximum Cost plus a Fixed Sum method, outlined hereunder.

The contractor upon the successful completion of his contract, is rewarded by his agreed fixed sum for profit and a bonus (as a percentage, or other scale as may have been pre-determined) upon every dollar that he lawfully saves the owner, by executing the finished contract at a price under the 10% margin below the estimated maximum cost. Any authorized omission of any part of the work would of course show in the cost, and would be partly or wholly absorbed in the 10% margin, beyond which the contractor would receive bonus as a saving on contract.

We penalize the contractor for extra cost above his estimated maximum cost, when it exceeds a 10% margin over that estimated cost, such margin being intended to take care of any rise in market prices not insured against, and authorized extra work. Any bona fide extra work which taken together with the above mentioned rise in market prices, causes the finished cost to exceed the 10% margin would be paid for by the contractor by a pre-arranged method.

The "Fixed Sum" should include the desired net profit on the contract which is the subject of the tender, and a certain amount of head office overhead expense which cannot be handled by the organization in the field, or on the job, which latter is included in the estimated maximum cost and can be checked by the Owner's resident representative. All plant and machinery may be charged to the contract either as a lump sum expense, or upon a unit rental basis, and perishable tools and scaffolds, may be charged to the job at new or second hand prices as the case may be, and salvage value if any, credited at completion of contract.

If the above remarks are at all helpful, or become the means of stimulating further discussion, I shall feel very gratified.

Yours very truly,

JOHN HOLE,
Reg'd. Civil Engineer, Toronto, Ont.

* * *

The Editor,
The Journal, R.A.I.C.

The article on Tendering in the March issue of the Journal is most interesting, in that it deals with a very important element in the process of building, and also because its author, Mr. Archibald, is one who can speak or write with much authority on such a subject.

I must confess, however, to discovering nothing very far wrong with the present methods; neither do I think they are as wasteful as would appear at first sight. The estimating costs in contractors' offices cannot be a very large proportion of their operating expenses. A small firm, doing a business of say \$100,000.00 a year, would not employ a salaried estimator. This work would be done by the boss himself. When the business reached a \$300,000.00 figure, an estimator would probably be necessary, at a salary of something like \$3,000.00 a year, and it seems to me that the estimating expense would progress in an almost direct ratio to the yearly business, and would probably run to one per cent on this yearly figure. Now, if the architect had to make the estimate, he would expect to be paid for it by an increase in his fee of at least one per cent. The proprietor, therefore, would save nothing by the change recommended. Mr. Archibald's proposal as to estimating is not quite clear to

me at least. Does the contractor figure on the architect's estimate, or does he still make his own? If the latter, where is the possible saving?

Further, I do not find that whenever a contract is let, the successful bidder has "bought something". Even in the most intricate jobs the tenders are very closely grouped, a condition which reflects most favourably on the skill of the estimator. Of course, there are always high figures which suggest that the firms submitting them have sufficient work on hand, but very rarely do two or three tenderers at the bottom of the list not find that they can do the job at practically the same price.

I heartily subscribe to the theory of a limited number of bidders. Under present conditions it would be difficult, in any Canadian centre, to select more than seven of equal ability on any class of work, and if they are not of equal ability they should not be invited on the same job.

As to the cost plus basis of building, I hope it will not become general until the proprietor is willing to pay the architect a decent increase in his fee to cover the extra trouble involved; and if the profit-sharing feature is included, one feels that the friendly offices of the architect will be invited by the contractor almost to the same extent as in the case of a threatened "crucifixion".

Yours truly,

G. T. HYDE, Montreal,
Member, P.Q.A.A.

* * *

BUILDING LOANS

The Editor,
The Journal, R.A.I.C.

The suggestion contained in this letter cannot be considered as sponsored by the Saskatchewan Association of Architects. It is offered for your consideration, and in hopes that it will arouse some interest in the various Associations throughout Canada. By co-operation and an exchange of ideas, a much better method of accomplishing the same result may be evolved.

It is the man who holds the purse strings who finally decides whether or not a building project will go ahead. In these Western Provinces, and I presume the same holds true throughout Canada, we have our fat years and our lean years pretty much as did the Egyptians of old in the time of Joseph.

It has been the custom of companies to loan indiscriminately in the "Fat" years, which may account for the lack of money a few years later when it is often impossible to obtain a reasonable loan on a very attractive proposition.

At the present time in Saskatchewan, money can be borrowed on almost any building project, and loans are often made far in excess of the amount justified. It is reported that a loan of \$25,000 was recently obtained on an apartment block, the total value of the building and land being in the neighborhood of \$34,000. The building was erected without the services of an architect and many of the suites have been severely criticized by persons in search of accommodation. When the housing problem is less acute the fate of these suites is apparent. Every architect can recall instances of a similar nature.

In the United States some loan companies refuse to make loans in unzoned areas. In the City of Detroit I have seen one of the officers of a loan company make periodic visits

to an office, and refuse to advance money on an apartment block until the plans were made to embody certain features which he considered necessary for the success of the undertaking. This goes to show that in some localities, financiers realize that the actual cost of a building is not the basis on which to gauge its value, but that location, economic planning and attractive appearance play a large part in determining its true worth. This may be also true in some parts of Canada but it is often overlooked in localities with which I am familiar.

My idea would be to bring to the attention of companies making loans on buildings in Canada, that they are not getting proper security for their investments on buildings built in a haphazard way without supervision and without plans, or with amateur plans from which contractors cannot make accurate competitive bids. Any action taken by the large corporations would soon be followed by the trustees of private funds.

If proper plans and specifications were demanded before loans would be considered, the promoters would naturally turn to those sources from which proper plans and specifications can be obtained, and a large volume of work now lost to the architect would pass through his office to the mutual benefit of the owner, the mortgagee, the better class of contractor and the architect.

Personal interviews with directors of loan companies, by architects who know them well enough to call them by their first names, would accomplish more than reams of typewritten propaganda which would likely follow the shortest route to the waste basket.

Then a series of sketches augmented by pertinent facts which could be digested at a glance, neatly lettered on tracing linen post card size, and blueprinted, could be mailed periodically to the head offices or wherever they would do most good. To the average layman a blueprint is something mysterious, and will attract his attention where an ordinary card would not. Most of the prints would be dropped in the waste basket, but an occasional one with a particularly good sketch might find a place on his card rack. Constant dripping will wear away a stone, and our efforts if persisted in would bring results.

Suitable sketches could be traced from magazines without any great artistic skill, and there are cartoonists in every office. Ideas and prints could be exchanged by Provincial organizations, so that sufficient material for a campaign of a year or more could soon be procured. As the mailing list in each Province would be comparatively light, the expense of carrying out the idea would not be prohibitive. The head offices naturally control the policies of their branches so a great deal of the missionary work would have to be done in the East.

Concerted action will accomplish a great deal. A visitor to an insane asylum saw one attendant in charge of about twenty patients. He asked the attendant if he was not afraid the patients would organize, act together and kill him. He replied: "If they had the ability to organize and act together they would not be here." We're in a different class to the patients. We have organization. Let's act together.

E. J. GILBERT, Regina, Sask.,

Member, Saskatchewan Association of Architects.

Ed.—The Journal will be pleased to receive further correspondence on this subject.

EDITORIAL

(Concluded from page 163).

tried on several occasions in Canada, without much success, and although its advantages greatly outweigh its disadvantages, yet it does not seem to have aroused the responsive interest that one would expect. While it is true that Quantity Surveying has met with considerable success in great Britain, this has been due to the official recognition that it has received. Whether such recognition can ever be secured in Canada is questionable, and because it appears impracticable at the moment, we must surely be able to find a fairer and more equitable system than exists at the present time. If Mr. Archibald has done nothing else, he has at least furnished the

basis for a discussion which may result in the adoption of a better system. Our readers are invited to give expressions of their opinions through the columns of the Journal.

A NEW SERVICE FOR MEMBERS OF THE R.A.I.C.

With prospects for increased building construction in Canada brighter than ever, members of the Architectural Profession find themselves unable to secure the necessary assistance, and in order that it may be possible for architects to get in touch with any available draftsmen, the Journal has been authorized to establish in its columns a free employment service for draftsmen. It is expected that draftsmen wishing to secure a position will send in particulars of their experience and qualifications, so that they can be listed under this heading.

COMPETITIONS

SHAKESPEARE NATIONAL MEMORIAL THEATRE, STRATFORD-ON-AVON

THE Governors of the above invite architects to submit designs for the Shakespeare National Memorial Theatre, Stratford-on-Avon.

The competition will be open to architects of the British Isles and America. It will be in two sections—a preliminary competition for sketch designs only, from which six designs will be selected by the assessors; each of the selected competitors will be paid £100 premium towards the cost of preparing a further more detailed design, which will form the second half of the competition.

The selected architect will be paid in accordance with the Schedule of Charges sanctioned by the Royal Institute of British Architects.

Conditions of competition, with site plan, etc., can be obtained from the Secretary, Shakespeare Memorial Theatre, Stratford-on-Avon, on payment of a deposit of £1 1s. (which will be refunded should the conditions be returned within one month).

Preliminary designs must be delivered to Stratford-on-Avon not later than 15 June, 1927.

The Governors of the Shakespeare National Memorial Theatre have appointed the following architects to act as Assessors for the Competition for the new Shakespeare National Memorial Theatre, Stratford-on-Avon:—Mr. E. Guy Dawber, President R.I.B.A., and Mr. Cass Gilbert, President of the National Academy of Design of America (who will both act in an honorary capacity), and Mr. Robert Atkinson, F.R.I.B.A.

UNIVERSITY OF WESTERN AUSTRALIA

Competitive designs are invited from Architects in the British Empire for buildings to cost £150,000; the buildings to include great hall, offices, etc. Three premiums will be offered of £300, £200 and £100 respectively. Closing date, August 24. Conditions can be obtained from the Journal Office.

A COMPETITION FOR DESIGNS FOR JUBILEE COINAGE

The National Committee for the Celebration of the Diamond Jubilee of Confederation, invites designs for the reverses of the following Canadian coins:

Bronze... One Cent.

Nickel... Five Cents.

Silver... Ten Cents and Twenty-five Cents.

A premium of \$500.00 will be awarded to the best design for each coin mentioned, provided that such design is considered of sufficient merit to be recommended by the Judges to the Minister of Finance.

The Competition will close on June 15th, conditions may be secured from the National Committee, 106 Wellington Street, Ottawa.

CITY OF BIRMINGHAM, ENGLAND, CIVIC CENTRE

The Corporation of the City of Birmingham invite Town Planning Experts, Architects and Surveyors to submit Designs for the planning of the Civic Centre, Birmingham.

A premium of £1000 will be awarded to the design placed first, and a further sum not exceeding £1000 will be divided between the authors of other designs approved by the Assessor, Mr. H. V. Lancaster, F.R.I.B.A.

Conditions of competition, instructions to competitors and plan of site may be obtained on application to Mr. Herbert H. Humphries, M.Inst. C.E., the City Engineer and Surveyor, on payment of a deposit of £1 1. 0 (which will be returned after receipt of a design or the return of the documents supplied).

Designs in sealed packages endorsed "Design for Civic Centre," must be delivered to Mr. Herbert H. Humphries, M.Inst.C.E., Council House, Birmingham, not later than 30 June, 1927.

The Architect's Fifty-Seven Varieties

(An Architect's re-action to "The Fifty-Seven Lamps of Architecture" which appeared on page 27 of our January Issue).—Ed.

Books of plans sold in scores of designs
Are consulted, perused and admired.
Each acquaintance is asked what he would advise,
Till the overtaxed brain becomes tired.
A visit is made to this town and that;
Each type of dwelling is scanned,
The suggestions thus gained are fully absorbed
And now the new home is quite planned.
A visit is made to "our" Architect,
And the matter is now before him.
A bay window like Brown's,
An oriel like Smith's,
And an entrance just like the Bett's.

A stairway that occupies no space at all
Yet with plenty of room overhead,
Rooms planned in corners without an exit
With cupboards that are much under fed,
A doorway just here and an inglenook there
A built-in ironing board too
A jumble of schemes that they simply must have

No wonder the Arch-itect's blue.
They ask for a mansion the size of a cot
Arranged in the late Fordor Style,
The space they desire, can not be put in
There isn't a chance by a mile.

But it's the Architect's lot to deal with all this
He bows out his client with smiles,
To bring order from chaos he spends long weary days
And often works far into night.
At last it's accomplished, the residence built
He eases his over tried sight.
Through mutual kind friends he then hears reports
"We planned it ourselves, don't you know,
The Architect put it on paper because
We had not the time, oh, dear no."
Except when one dares to just criticize
And then, the reply comes at once
"That's the Architect's fault, we didn't want that
But, what can you expect from a dunce?"

—F.C.B.

Activities of Provincial Associations

EDITOR'S NOTE

Secretaries of Provincial Associations and Ontario Chapters will please be advised that all reports of their activities to be inserted in the next issue of the R.A.I.C. Journal must be mailed to the office of publication, 160 Richmond St. West, Toronto, not later than May 30th, 1927.

The Ontario Association of Architects

Secretary—R. B. Wolsey, 96 King St. west, Toronto.

Mr. Gladstone Evans, with Messrs. Sproatt and Rolph, has just been elected to membership in the O.A.A.

John M. Lyle, who was elected first Vice-President of the Association, has resigned, and his place has been filled by E. L. Horwood of Ottawa. James C. Pennington of Windsor becomes second Vice-President, and C. E. Cyril Dyson, architect to the Toronto Board of Education, has been elected to the Council.

The following Standing Committees were struck at the meeting of the Council on March 19th:—

Board of Examiners—A. H. Chapman (Chairman), R. K. Shepard, W. N. Moorhouse.

Architectural Competition Committee—A. H. Gregg (Chairman), Mackenzie Waters, D. J. Cameron, W. B. Riddell, John M. Moore, E. L. Horwood.

Exhibitions Committee.—Martin Baldwin (Chairman), F. H. Marani, William Ralston, Geo. T. Evans, Vicar Munro, B. Evan Parry, H. H. Madill.

Fees Committee—Gordon M. West (Chairman), G. Roper Gouinlock, John M. Lyle, C. J. Burritt, D. J. Cameron.

Delegates to the R.A.I.C.—E. L. Horwood, John M. Moore, J. P. Hynes, John M. Lyle, A. H. Gregg.

Arch. Guild Prize Fund—W. L. Somerville, C. H. Mitchell, C. H. C. Wright.

The following representatives were appointed:—

A. Frank Wickson to the Canadian National Exhibition.

William Rae to the Art Gallery of Toronto.

F. H. Marani to the Ontario College of Art.

A. Frank Wickson to the Construction Apprenticeship Council.

A. H. Gregg to the Board of Trustees G.W.V.A. Club House Fund.

W. Ford Howland to the Special Botanical Garden Committee.

C. V. McGiffin to the H.E.P.C. Committee on Rules and Regulations.

TORONTO CHAPTER O.A.A.

Secretary—F. Hilton Wilkes, 96 Bloor St. W., Toronto

The Annual Meeting of the Toronto Chapter was held on Tuesday evening, March 29, 1927, at which the following officers were elected for the ensuing year:

Chairman William Rae
Vice-Chairman . L. C. Martin Baldwin
Secretary F. Hilton Wilkes
Treasurer R. W. Catto
Executive Members, A. S. Mathers,
F. H. Marani, A. H. Gregg.

Following the Dinner, which was held in conjunction with the meeting, Mr. A. H. Gregg, the retiring Chairman, outlined the activities of the Chapter during the past year, he stressed the importance of the Chapter's Exhibition, and expressed the thanks of the members to Mr. Baldwin for his work in connection with the Exhibition. He also thanked the retiring secretary, Mr. I. Markus, for his services in the past.

The "Medal of Honor", awarded at the recent exhibition to Messrs. Marani & Paisley for their St. Andrew's College at Aurora, was presented to Mr. F. H. Marani. The report of the exhibition, as presented by Mr. Baldwin, showed an income of \$511.00, and expenditures of \$749.40, leaving a bal-

ance to be paid by the Chapter of \$238.40. Mr. Catto presented the Treasurer's report showing a net surplus at the end of the year of \$627.79.

Following the meeting the entertainment committee put on a programme of entertainment which was enjoyed by all members present.

The new Executive Committee for the year 1927-1928 held their first meeting on April 5th, at which the following committees were elected:—

Committee on By-laws—Convenor, F. H. Marani; R. W. Catto, H. Moore.

Exhibition Committee—Convenor, Martin Baldwin; A. S. Mathers, W. L. Somerville.

Publicity Committee—A. S. Mathers, F. H. Marani.
Entertainment Committee—E. W. Haldenby, Mackenzie Waters.

Membership Committee—F. H. Wilkes, R. W. Catto.

The advisability of holding the Exhibition and a Costume Ball on alternate years was discussed and the Exhibition Committee and the Entertainment Committee are looking into these events respectively and will also consider holding both the Exhibition and the Fancy Dress Ball each year.

At the last meeting of the Executive on April 19th, the Committee on By-laws reported that as much information as possible was being collected regarding the By-law on Apartment Houses in the leading cities of the United States in order to make a clear comparison with the recent By-law for Apartment Houses in Toronto. As soon as this is done they hope to obtain a hearing before the authorities.

Copies of all new By-laws are being forwarded

by the Secretary to each member of the Chapter upon receipt from the City Hall.

The reports of the other committees have not yet been received, but it is safe to say that great interest is being taken by all concerned in the Chapter to encourage a hearty Esprit De Corps in the Profession, as well as endeavoring to voice the opinions of the Chapter in matters of vital interest to it, and above all educating the public to a better knowledge and an increased desire for good architecture.

OTTAWA CHAPTER O.A.A.

Secretary—B. Evan Parry, Federal Department of Health, Ottawa

The activities of the Chapter may be said to have been in co-operative efforts to educate the public upon architecture.

The Architects Club of Ottawa recently organized, and, which membership constitutes the allied arts of Sculpture, Painting, Literature, etc., arranged for a lecture by Mr. Philip Turner, F.R.I.B.A., the subject being Liverpool Cathedral, and the Chapter attended en masse.

The lecture was most enthusiastically appreciated by the representative men and women of Ottawa,

as felicitously expressed by the Hon. Martin Burrell and Bishop Roper, who stressed the value of such lectures to the community.

The Chapter is optimistic for the future inasmuch as a programme is now being discussed for the ensuing year whereby architectural subjects will be presented to the public at the Victoria Museum, Ottawa (where, by the way, Mr. Turner's lecture was given) in such a manner that the public may be educated upon aesthetic and economic values of architecture.

BORDER CITIES CHAPTER O.A.A.

Secretary—H. P. Sheppard, Equity Chambers, Windsor, Ont.

A meeting of the Border Cities Chapter was held in the office of Messrs. Nichols, Sheppard and Masson on February 15th. Most of the members were present, and a discussion took place as to the advisability of forming an Architectural Club to include all employees in the Architects' offices resident in the Border Cities. The possibility of arranging an Architectural Exhibition was also discussed, and it

was decided to have the Executive Committee go into these two matters and bring in a report at the next meeting. The following officers were elected for the ensuing year:

- Chairman J. C. Pennington
- Secretary Treasurer. H. P. Sheppard
- Executive Committee, D. J. Cameron,
A. S. Allaster, G. Y. Masson.

Free Employment Service

We are pleased to announce that the columns of the Journal will be open to all Architectural Draftsmen requiring positions. Those seeking positions must state their age, experience and qualifications.

This service has been authorized by the Executive Committee of the Institute, so as to enable its members to communicate with a central office when requiring draftsmen. In the same way, this service will assist the unemployed draftsmen in securing a position.

NOTES

Mr. Forsey Page, Architect, of Toronto, announces the removal of his office from 12 Weybourne Crescent to 57 Queen Street West. Mr. Page has formed a partnership with Mr. Harland Steele, and the firm in future will be known as Forsey Page and Steele.

* * *

H. J. Burden, of Toronto, who has been studying at Cannes, France, for the past year, is leaving there on May 1st for a tour of Italy, Switzerland, France, England and Scotland, returning to Toronto about 1st July.

* * *

The international Jury of Architects appointed to make the awards in the Competition for the League of Nations Building at Geneva, met on March 25th, under the presidency of M. Horta (Belgium). Altogether 375 competitive designs have been received, and the Jury's examination is expected to last three or four weeks. Sir John J. Burnet, representative of the R.A.I.C. on the Council of the Royal Institute of British Architects, is the British member of the Jury.

* * *

The sixtieth Annual Convention of the American Institute of Architects will take place in the auditorium of the Chamber of Commerce, Washington, D.C., on May 11th, 12th and 13th.

* * *

The Annual Conference of British Architects, postponed in 1926 on account of the General Strike, will take place in London from June 20 to 25 (inclusive).

All members of the R.I.B.A., the Architectural Association, and the Allied Societies in Great Britain, Ireland and overseas are invited to take part in the conference.

A complete programme with full particulars will be issued in the near future to all members of the bodies mentioned above.

* * *

At a meeting of the Executive Committee of the American Institute of Architects, held in New York on February 25th, it was learned with much regret, that an impression appears to have gained ground that the Institute has the intention of abolishing the Journal, and that another privately owned Architectural publication was to become the official organ of the Institute. The Executive Committee have therefore instructed the Secretary of the Institute to request that the publishers of all Architectural publications be requested, through their columns to inform their readers that these rumors are without the slightest foundation. On the contrary, the Board of Directors are planning to enlarge and expand the Journal, so that it may become of even greater usefulness to the Institute and the profession.

* * *

In the Preliminary Competition for the War Memorial at Providence, Rhode Island, 98 competitors submitted designs. The following three have been

selected to participate in the second stage of the Competition: Parry, Heburn and Shaw, of Boston; Paul Cret, of Philadelphia; and Clark and Arms, of New York.

* * *

Earl C. Norris, of Denver, Colo., is the winner of the 1927 Le Brun Travelling Scholarship Competition, a major award in United States architecture. The subject of this year's competition was "A Community Mausoleum." The scholarship, valued at \$1,400, was founded in 1910 by Pierre L. Le Brun, architect of the Metropolitan Tower, in memory of his brother. The beneficiary will spend six months in study abroad.

* * *

The American Society of Mechanical Engineers has accepted the custody of Seventeen Thousand Five Hundred Dollars (\$17,500), offered by the Lincoln Electric Company, of Cleveland, Ohio, to be awarded by the Society in a world-wide competition for the best three papers disclosing advancement in the art of arc welding, presented under the rules of the competition. Three prizes will be awarded—\$10,000, \$5000 and \$2500—provided the papers are of sufficient importance and value to justify, in the opinion of judges appointed by the Society, the awarding of such prizes.

The conditions for this competition can be secured from the American Society of Mechanical Engineers, 29 West 39th Street, New York City.

* * *

A report has just been received of an invention by a Norwegian Engineer, of a process for impregnating wood, with a substance that renders it absolutely fire proof. The report states that in order to test its efficiency, a building composed of timbers of impregnated wood was erected near Oslo, the Norwegian Capital, and all efforts to set it afire failed.

* * *

The Portland Cement Association has just issued a special bulletin of interest to architects, on the proper water-cement ratio for concrete. The bulletin emphasizes the importance of fixing the amount of water used in mixing. It points out that specifications which give the proportions of cement and aggregate, but ignores the ratio of water to cement, must be superseded by more modern ones in which the number of gallons of water to be used with each sack of cement are definitely stated.

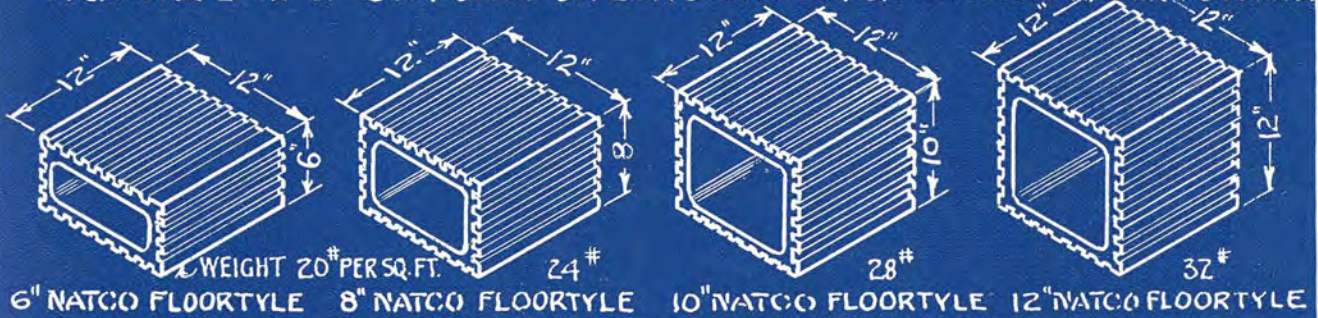
The British Architects Registration Bill

The Architects' Registration Bill recently presented to the House of Commons, has been given its second reading. It will now be sent to a Selected Committee who will probably hear from all parties interested, so that they will be in a position to go into details before sending it back to Parliament. Considerable discussion took place at the second reading of the bill, in which a number of Members of Parliament took part. Many of the members expressed themselves in favor of the principle of registration, but pointed out the difficulties of devising a system of registration that would include the great variety of qualifications requisite to the practice of Architecture.

NATCO HOLLOW TILE

DETAIL FOR CENTERING IN NATCO HOLLOW TILE AND REINFORCED CONCRETE FLOOR CONSTRUCTION

FORMS SHOULD BE OF SUCH SIZE AS TO PREVENT DEFLECTION UNDER THE WEIGHT OF THE WET CONCRETE, AND SHOULD BE PROVIDED IN SUCH QUANTITY AS TO PERMIT OF SPEEDY WORK. MAINTAIN A CENTRE LINE OF SUPPORTS ON LONG SPANS FOR 3 WEEKS AFTER POURING.



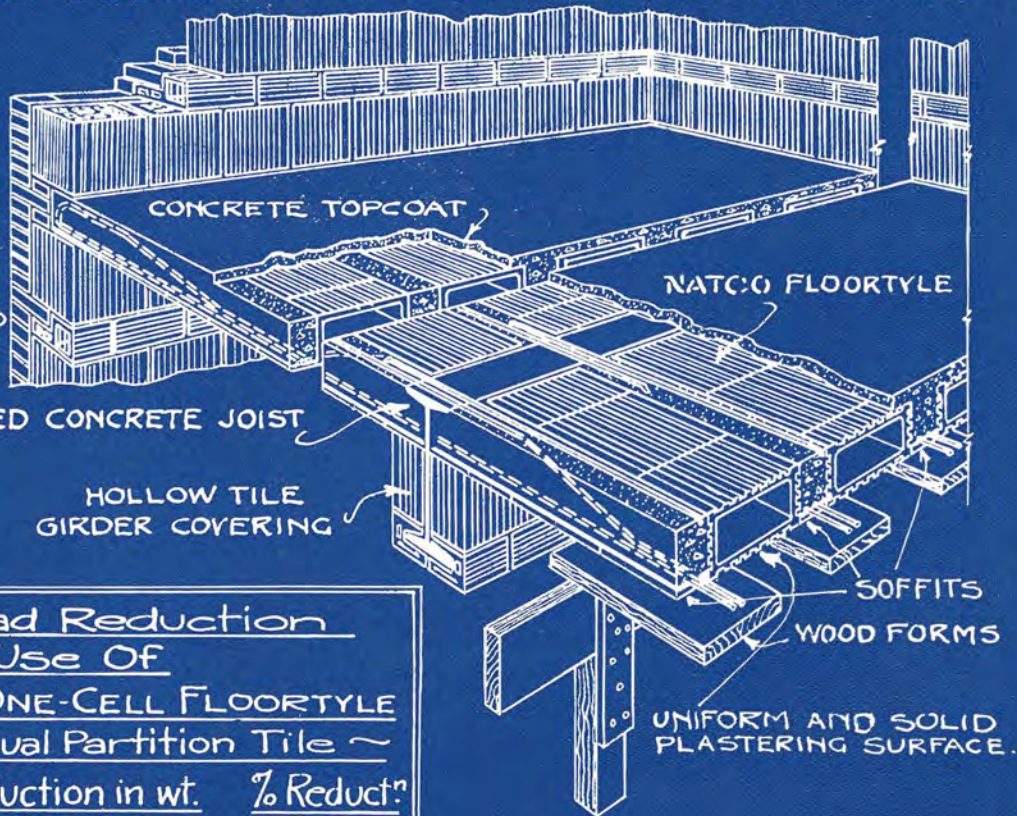
DETAIL OF NATCO SOFFIT TILE



SOFFIT TO BE PLACED IN POSITION BEFORE CONCRETE JOISTS ARE POURED.

REINFORCED CONCRETE JOIST

HOLLOW TILE GIRDER COVERING



Dead Load Reduction By Use Of NATCO ONE-CELL FLOOR TILE Instead of Usual Partition Tile ~

Size	Reduction in wt.	% Reduct ⁿ
6"	1½# PER SQ. FT.	2½%
8"	4½# " " "	6⅜"
10"	6# " " "	7⅓"
12"	7½# " " "	8⅛"

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BOOKS REVIEWED

PUBLISHERS' NOTE:—We wish to remind our readers that any books reviewed in these columns, as well as any of the Architectural books published by the Press of the American Institute of Architects, can be secured through the Journal of the R.A.I.C., at the published price, carriage and customs duties prepaid.

"DETAILS OF SCOTTISH DOMESTIC ARCHITECTURE," with introductory and descriptive text by James Gillespie, Architect. Published by The Edinburgh Architectural Association. Price £3.3.0, plus postage.

The book is a record, mainly all illustrations of the Scottish Domestic work of the sixteenth century. The leading details of the buildings of this period were in almost every case developments of the features formerly built for defensive purposes. With stone on every hand the buildings were almost always built of that material and look as if they were intended to withstand severe climatic conditions. Development is always interesting and in this case the introduction of lowland features and English renaissance as time went by is quite interesting.

The style gives instructive examples of the introduction of ornament in small quantities and naturally almost always included coats of arms.

There are some good examples of heraldic panels also numerous illustrations of interesting plaster work and good wrought iron work as well as a number of examples of strap hinges and other door furniture.

The furniture illustrations indicate quite plainly the influence of the Dutch with whom the people of that time had considerable business intercourse. The small scale illustrations are scarcely as well drawn as the details which accompany them. The closing pages of the book have some photographic reproductions of considerable interest. The book in all contains one hundred and twenty-four plates of measured drawings, six plates of Colotype reproductions of photographs and about forty pages of text.

—A. Frank Wickson.

"DETAILS OF SCOTTISH DOMESTIC ARCHITECTURE" Une série d'exemples choisis de travaux en pierre, en bois, en plâtre et en métal des Seizième et Dix-septième siècles. Introduction et descriptions par James Gillespie, Architecte. Publié pour "The Edinburgh Architectural Association" par George Waterson & Sons, Ltd., Edingburgh. Ecosse. Prix: 3 pounds and 3 shillings, port en sus.

Il y a environ quatre ans le "Edinburgh Chapter of the Incorporation of Architects in Scotland" commença la préparation d'un volume sur l'Architecture Domestique en Ecosse. A feu Sir R. Rowland Anderson, LL.D., F.R.I.B.A., etc., est dû la conception de cet ouvrage et son aide généreux et son dévouement ont rendu possible la publication de ce livre que nous avons eu le plaisir et la satisfaction de parcourir. Les détails charmants et intéressants de l'architecture écossaise durant les seizième et dix-septième siècles sont suggestifs pour être adaptés à l'architecture actuelle. Ce volume contient un grand nombre de détails à l'échelle faits avec soin d'ouvrages en pierre, en bois, en plâtre et en métal, ainsi que de meubles. Cet ouvrage contient cent vingt-quatre planches de dessins et six planches de reproductions de photographies. Le volume est 10 x 14 pouces richement relié en percaline.

—Alcide Chaussé.

"LES VIEILLES EGLISES DE LA PROVINCE DE QUEBEC, 1647-1800", Publié par la Commission des Monuments Historiques de la Province de Québec, Hôtel du Gouvernement, Québec, Qué.

Le dernier rapport de la Commission des Monuments Historiques de la Province de Québec est un volume de 324 pages rappelant à notre souvenir trente huit "vieilles églises", c'est-à-dire des temples catholiques et protestants élevés dans la province de Québec avant 1800. Cet ouvrage est illustré d'une reproduction en couleurs d'une peinture de Maillard, de la Chapelle de Tadousac, et de cent quatre vingt photographies sur papier glacé d'extérieurs, d'intérieurs et de détails de nos églises historiques, avec description et notes historiques. Environ la moitié de ces églises remontent au régime français. Cet intéressant

(Concluded on page xxviii).

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