

CANADIAN

ARCHITECT AND BUILDER



VOL. XI



1898:

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NUMBER '98



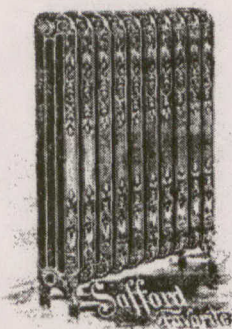
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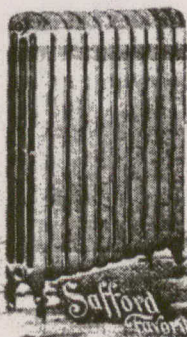
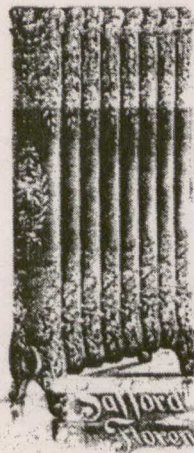
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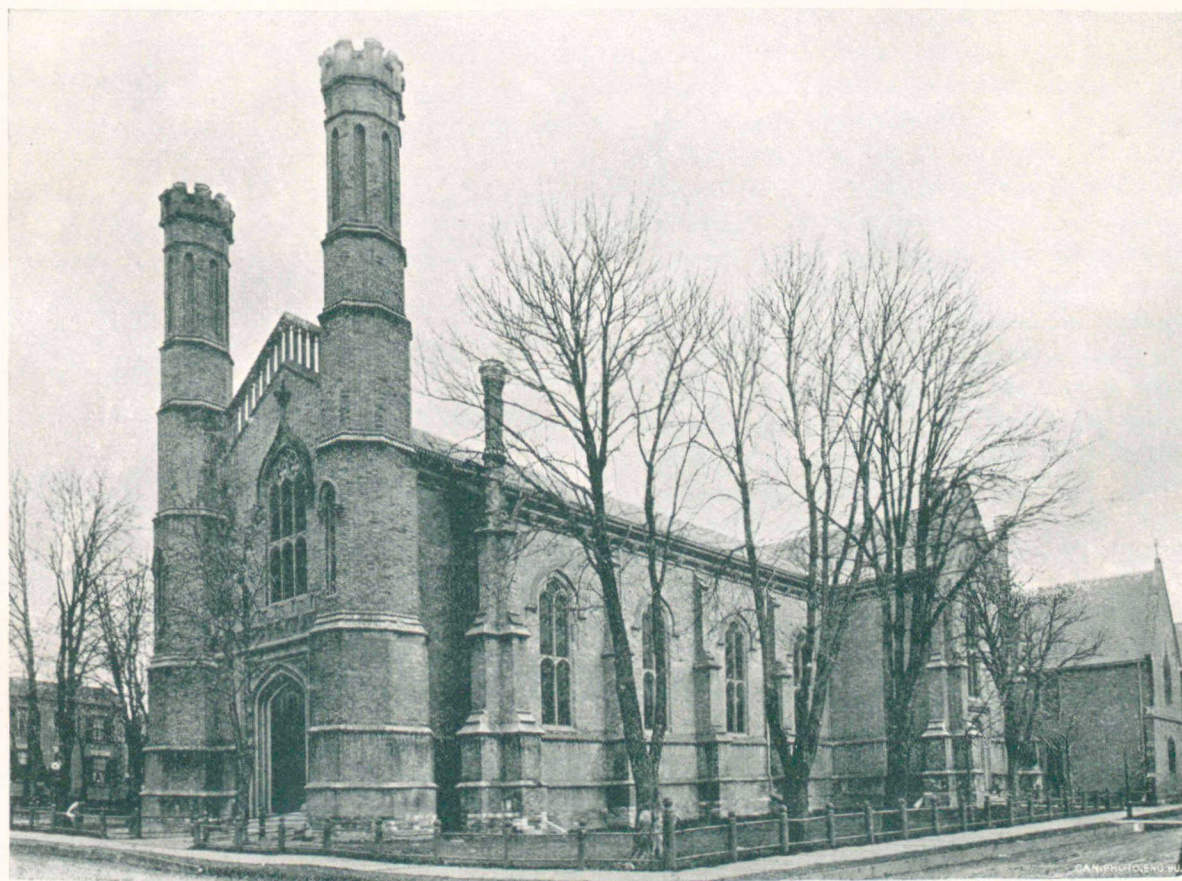
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The Proposed Victoria Square.

THE proposition which has been made to establish a public square opposite the new municipal buildings, Toronto, has been referred to on several previous occasions. If the favorable conditions which at present exist for carrying out the scheme are allowed to pass, a golden opportunity of increasing the attractiveness of the city will have been forever lost. In the hope that the newly installed City Council may be induced to turn their attention to the project in a practical way, we publish a perspective view which in a measure serves to show the great improvement which would be effected by thus establishing a public square in the heart of the business portion of the city, and removing the unsightly structures which at present render it impossible to obtain a satisfactory view of the new City Buildings. We trust that the recently organized Guild of Civic Art, and all other persons interested in the attractiveness and welfare of the city, will unite in an endeavor to have this necessary improvement carried out.

In presenting to our readers this New Year number, we desire gratefully to acknowledge our indebtedness to the gentlemen who have given us valuable assistance in its preparation. These include Mr. T. R. Johnston, of New York, author of our cover design; Mr. Keele, of the School of Practical Science; Prof. Capper, of McGill University; Mr. G. A. Reid, R.C.A., of Toronto; Mr. Fred. T. Hodgson, Collingwood; Mr. Ormsby Graydon, City Engineer, London, Ont., and the various manufacturing and supply companies, for photographs from which the group of portraits in our illustrated pages is reproduced. It is a matter of regret to us, as it certainly will be to our readers, that our persuasive ability proved unequal to the task of securing photographs of two or three of the larger concerns, whose modesty is only equalled by their enterprise. The amount of space required for the report of the proceedings of the O. A. A. convention has necessitated postponement of the publication of specially prepared and interesting articles designed for this number. For the same reason we are compelled to defer publication of the interesting papers submitted at the convention. We are pleased to be able to present brief biographical sketches and portraits of the executive officers of the newly organized Builders' Exchange of Montreal, and to be able to state that the new association is now in working order, and to all appearance is destined to be a potent factor in promoting the welfare of the building interests in the metropolitan city of Canada. Architects, builders, manufacturing and supply firms, and all who in any way are connected with the building interests, are congratulated on the promising outlook for the new year.

THE LONDON BUILDING DISASTER.

WE publish herewith a photographic reproduction, showing the interior of the Assembly Hall in the City Hall at London, Ont., the floor of which collapsed on January 3rd, resulting in the death of 23 persons and injury to upwards of 70. On next page is given a structural plan, on which are marked the dimensions of joists and of the beam, the failure of which was the immediate cause of the disaster. The area of broken floor was 22 x 28 feet = 616 square feet. The supporting beam was 12" x 14", made up of four pieces (3" x 12") spiked together with ordinary cut nails. The depth was 14", width 12", encased with 1" sheeting. The beam was not supported in the centre, but rested on the brick walls at each end, and had a bearing of 12" at each end. The clear span was 21' 1 1/5"; there were brick walls on the four sides. The estimated number of people on the floor at the time of the accident was about 250.

With the aid of the plan and figures, it becomes an easy matter to figure out the strength of the structure, and we shall be pleased to publish the views of architects and others on this point. It is [our] purpose

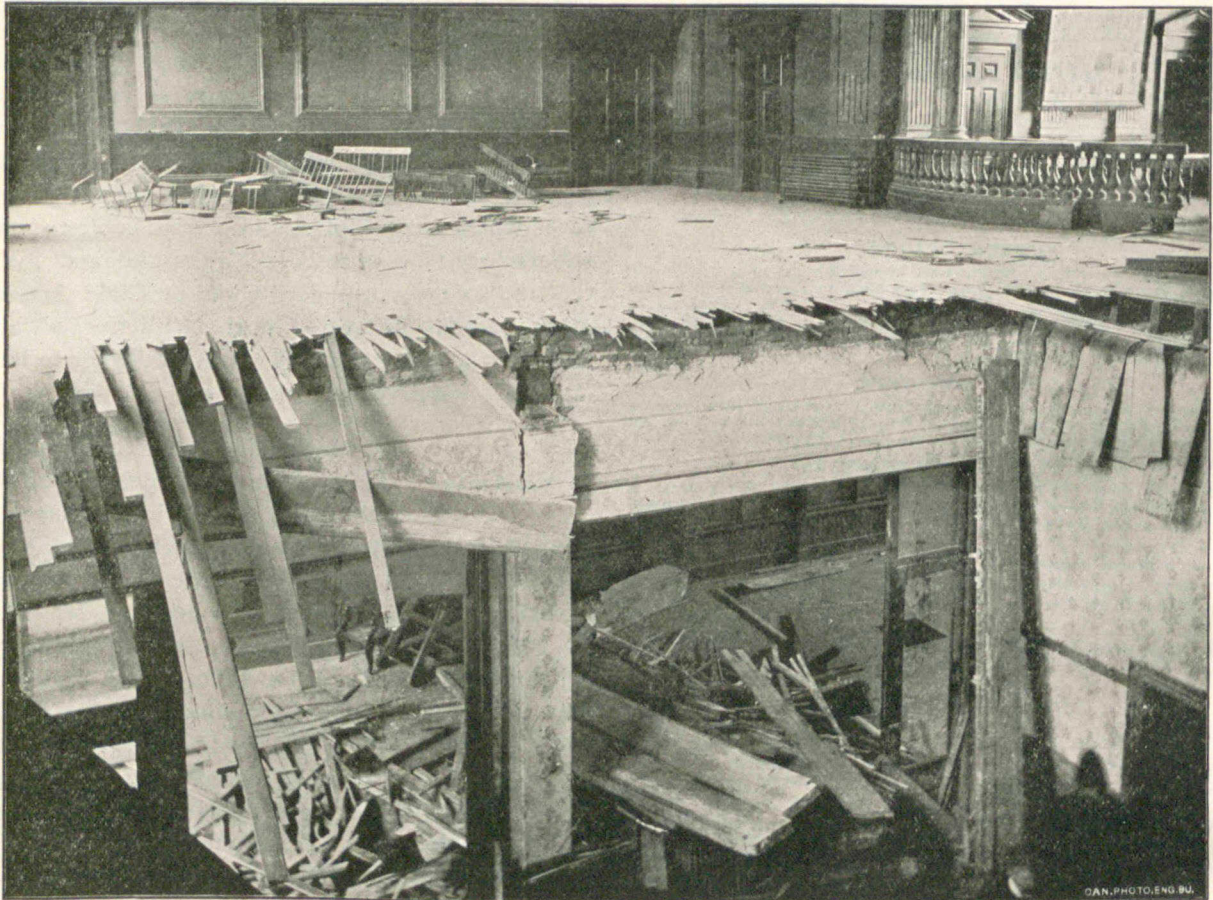
superimposed load on 600 square feet of floor, divided by 2, or a little more than 23 lbs. per square foot—about one-half what good practice demands for the floor of an ordinary dwelling house.

But the evidence shows that the beam was not sound. Engineer Graydon in his evidence says: "The effective strength of the beam is reduced one-fifth to one-quarter by knots and other defects," while another witness puts the loss from this cause as high as 1/3. Assuming 1/4 to be correct, the amount of the safe load available for the support of the superimposed load is reduced to about 3,100 lbs., or a little over 10 lbs. per square foot, and yet this enlightened Jury finds, "that the said occurrence was purely accidental," and "that more than ordinary care was used" in the construction of and selection of the material for the beam.

Is it not time that the public was protected from a system of dealing with our public buildings, in which "more than ordinary care" produces such results? Other buildings in which the public assemble in large numbers, and which have been built and altered much in the same manner as the London City Hall, exist all over the country. What guarantee is there that many of them are not in a similar condition?

Possibly there may be a case in which the officials, in making some similar alterations, have used only "ordinary care." If so, to what extent would it be safe for to use it at all?

That grave danger to life exists in many of the buildings in which large meetings are held, and that year by year this danger is becoming greater, must be apparent to all who have given the subject any scientific study. It therefore becomes the duty of such papers as yours to push these facts home to all public



PHOTOGRAPHIC VIEW OF THE RECENT BUILDING DISASTER AT LONDON, ONT.

in a future issue to consider at greater length than the space available in this number will permit, this and other phases of this important matter. Meanwhile, we direct the attention of our readers to the subjoined letter of Mr. S. H. Townsend.

spirited men in every way possible, and to urge upon them the vital necessity of immediately taking such steps as may be necessary to insure such a standard of scientific knowledge in those entrusted with the erection and maintenance of buildings of this nature, that the recurrence of such disasters will be an impossibility.

S. H. TOWNSEND,
Architect.

Toronto, Jan. 20th, 1898.

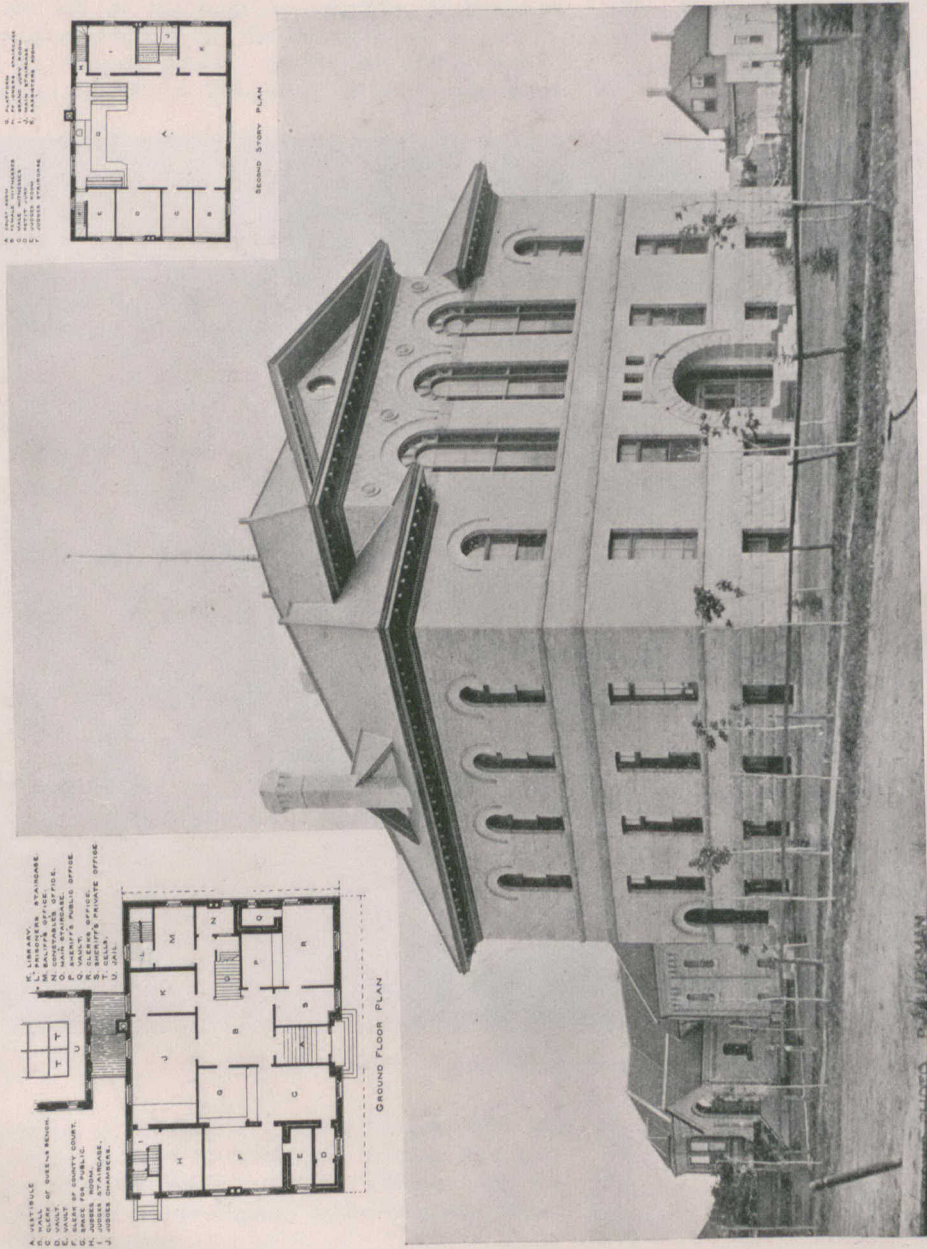
To the Editor of the CANADIAN ARCHITECT AND BUILDER.

SIR,—Apropos of the verdict of the Coroner's Jury in the London City Hall disaster, will you permit me to ask through the medium of your valuable journal what constitutes "ordinary care" in the construction of floors of public buildings, as understood by this Jury? The practice in most of our leading offices would place the maximum safe load for a sound pine beam, 12 inches by 14 inches and 22 feet bearing, at about..... 15,000 lbs.
Deduct from this amount the weight of floor and ceiling—600 square feet divided by 2 = 300 sq. ft., at 25 lbs. per square foot..... 7,500 lbs.
And of the beam itself, 12 inches by 14 inches by 22 feet, equals 25 1/4 cubic feet, at 25 lbs. per cubic foot, a total of..... 640 lbs.
8,140 lbs.

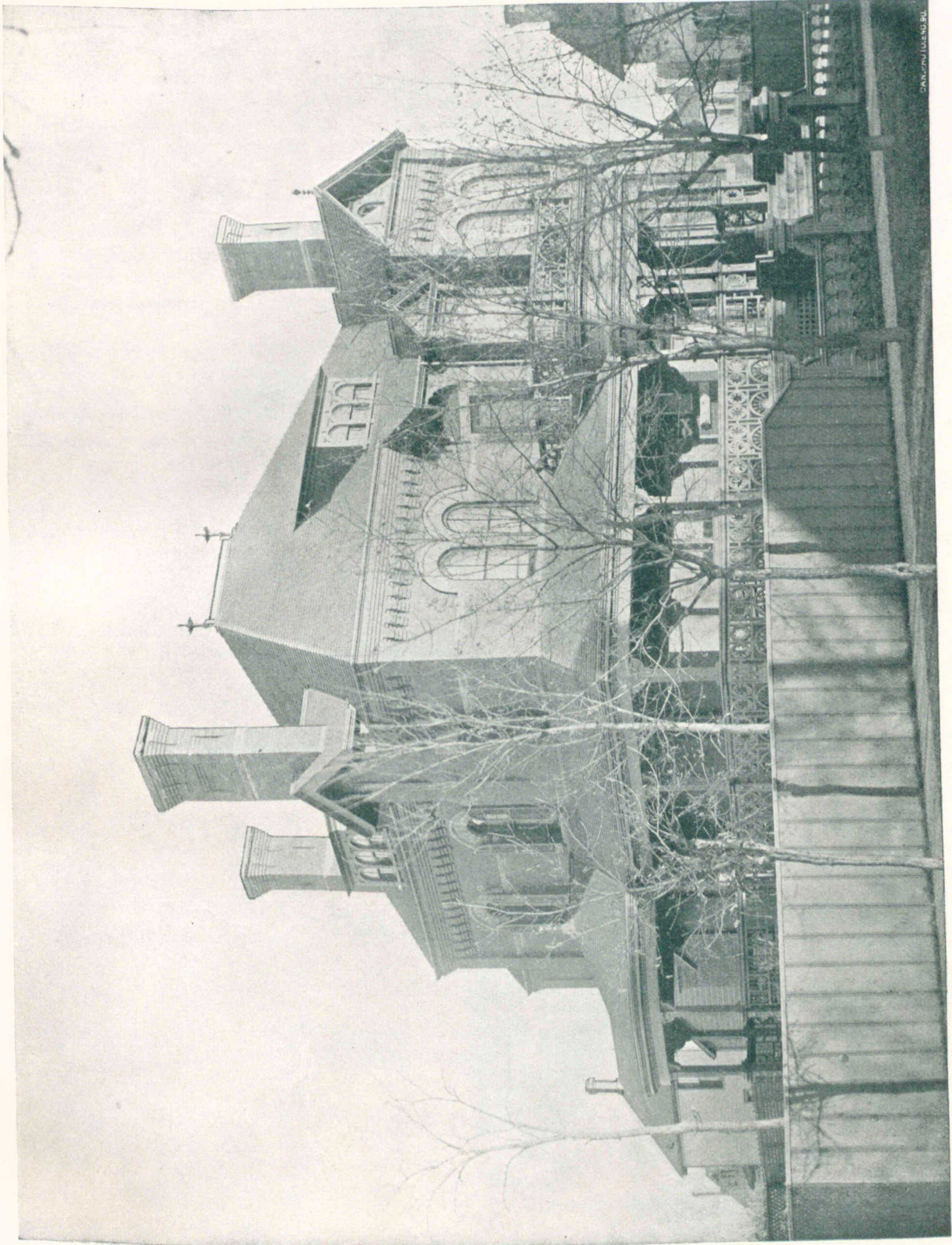
And there remain..... 6,860 lbs.
or say, about 7,000 lbs. of the safe load available to carry the

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COURT HOUSE, PORTAGE LA PRAIRIE, MAN.
GEORGE BROWNE, ARCHITECT.



RESIDENCE OF HON. HUGH JOHN MACDONALD, WINNIPEG, MAN.
CHAS. H. WHEELER, ARCHITECT.

ILLUSTRATIONS.

ST. JAMES' METHODIST CHURCH, MONTREAL, QUE.—A. F. DUNLOP, ARCHITECT.

TRINITY CHURCH, TRINITY SQUARE, TORONTO.—HENRY C. LANE, ARCHITECT.

COURT HOUSE, PORTAGE LA PRAIRIE, MAN.—GEORGE BROWNE, ARCHITECT.

SOME PROMINENT CANADIAN MANUFACTURERS OF BUILDING MATERIALS AND APPLIANCES.

THE MOLSONS BANK (ORIGINALLY RESIDENCE OF MR. CAWTHRA), TORONTO.—JOSEPH SHEARD, ARCHITECT.

PERSPECTIVE VIEW SHOWING EFFECT OF PROPOSED VICTORIA SQUARE, OPPOSITE NEW MUNICIPAL BUILDINGS, TORONTO.

EXTERIOR AND INTERIOR OF TRINITY CHURCH, (ANGLICAN) ST. JOHN, N. B.—W. T. THOMAS, ARCHITECT.

This church, in the Early English Gothic style, was erected in 1877, to replace Old Trinity, destroyed in the great fire. Old Trinity was originally built by the Loyalists, the founders of St. John, in 1783, and is claimed to have been the first church with a chancel in British North America. The dimensions of the present building are: Length, 150 feet; breadth, 62 feet; depth, of chancel, 40 feet; height of tower and spire, 210 feet.

BAPTIST CHURCH, RAT PORTAGE, ONT.—BURKE & HORWOOD, ARCHITECTS.

The site is of peculiar form and cramped dimensions, dictating the plan adopted, and necessitating a basement school room. The basement is built of granite, while the superstructure is frame, cased with brick.

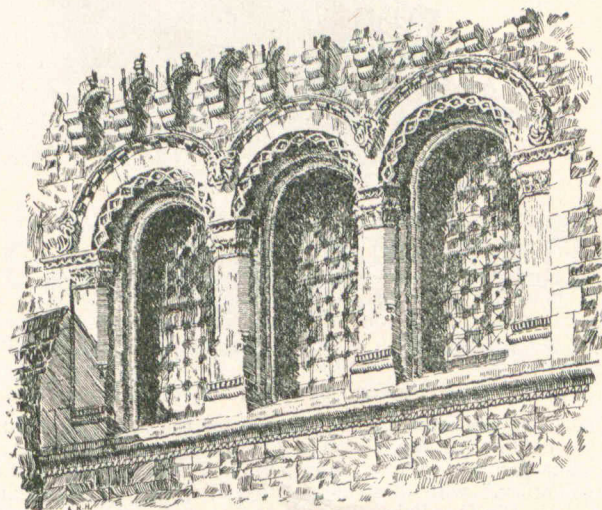
RESIDENCE OF HON. HUGH J. MACDONALD, WINNIPEG, MAN.—CHAS. H. WHEELER, ARCHITECT.

This building, which is situated on Carlton street, just south of Broadway, in the best residential part of the city, is built of red pressed brick with Calgary bluish

elaborate. The house is heated with hot water. In the roomy basement are laundries, drying room, w. c., wine and other cellars. Gas, bells, electric fittings throughout. Cost about \$10,000.

QUESTIONS AND ANSWERS.

Mr. Walter Alford, Belleville, Ont., writes: "Kindly inform me what is the safe weight of a floor composed

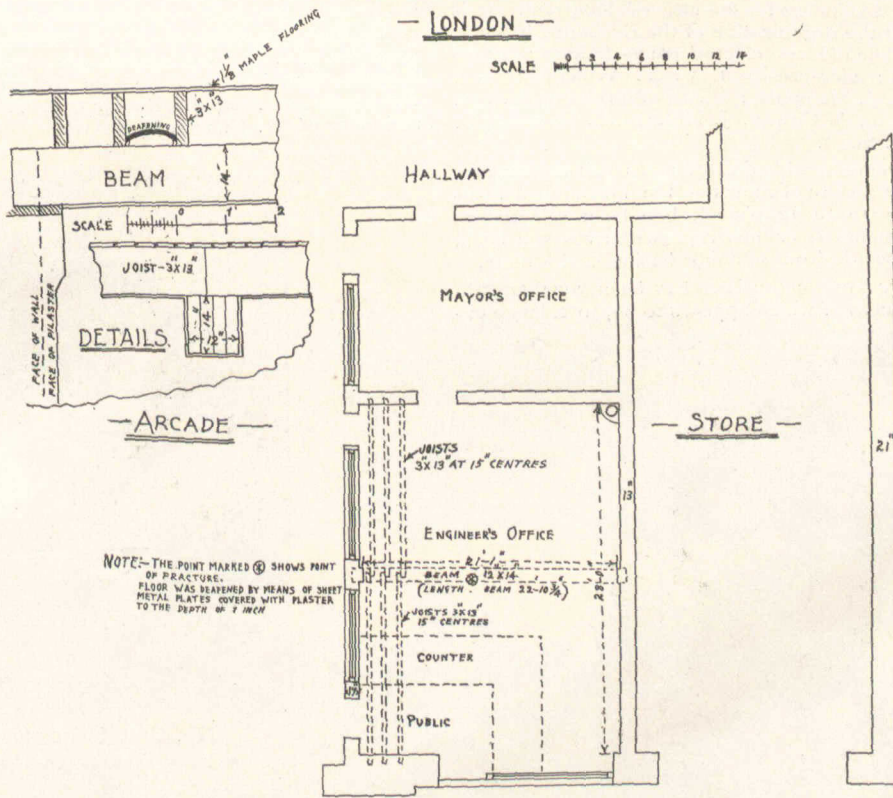


DETAIL—TORONTO UNIVERSITY.

of white pine joists, 2" x 10", 17' long, set 12" centers having one row of bridging, and covered with 1 1/4" matched flooring? What margin of safety is necessary over the safe weight for public buildings, &c."

ANSWER.—A floor composed of 2" x 10" joists placed at 12" centers and having a span of 17', would carry safely, with a factor of safety of 3, 111 lbs. per square

PLAN OF CITY ENGINEER'S OFFICE



PLAN

THE LONDON BUILDING DISASTER.

gray sandstone dressings, with local stone basement. Entrance hall and dining room are finished in quartered oak, floors, wainscot and ceilings, drawing room and best bedroom in cream enamel, smooth finish—the rest of the woodwork in British Columbia cedar. A very handsome stained glass window adorns the stair hallway. The bath room is fitted with enamelled baths, etc., with cream colored hall tiles. All plumbing is

foot. The floor of a public hall should be made to carry 125 pounds per square foot, including the weight of the materials in the floor, and the factor of safety should not be less than 4, and in some instances 5. You should make your joists at least 2" x 12", when your floor would carry, with a factor of safety of 3, 159 lbs. per square foot, or with a factor of safety of 4, 119 1/2 lbs. per square foot.



(Correspondence of the CANADIAN ARCHITECT AND BUILDER.)

PROVINCE OF QUEBEC ASSOCIATION OF ARCHITECTS.

THE usual winter course of lectures of the above association will be held in the Art Gallery, Phillips Square, Montreal, as follows:—January 27th, at 8.15 p.m., "Pompeii: A City of the First Century," with illustrations, by Prof. Frank D. Adams, M. A., Sc., Ph. D. February 24th, at 8.15 p.m., "Brunelleschi," with illustrations, by Prof. C. W. Colby, M. A., Ph. D. March 29th, at 8.15 p.m., "Ancient Rome," with illustrations, by Prof. S. H. Capper, M. A.

Through the influence of Mr. A. T. Taylor, Hon. Secretary R. I. B. A. O., the Province of Quebec Association of Architects has received the documents, models, programmes, etc., for the international competition for the Phoebe Hearst architectural plan of the University of California. These documents, etc., are exhibited in the rooms of the association, New York Life Building. Architects have been invited to call and inform themselves on this important matter.

THE BUILDERS' EXCHANGE.

SOME particulars were given in the ARCHITECT AND BUILDER for December of the preliminary steps taken in the direction of organizing a Builders' Exchange for the city of Montreal. It is gratifying to state that the organization of the Exchange has now been accomplished. The officers elected are as follows: President, James Simpson; vice-president, C. T. Williams; hon. secretary-treasurer, G. J. Sheppard; board of directors, Messrs. James Simpson, P. Lyall, A. Cowan, J. McLean, F. Fournier, C. T. Williams and W. P. Scott.

The directors have rented and had fitted up to suit the requirements of the Exchange a suite of rooms in the Mechanics' Institute Buildings. From 10 to 12 o'clock has been selected as 'Change hours, when members or their representatives will be in attendance to meet those desirous of doing business with them.

A great deal of interest and enthusiasm has been awakened in the movement, the success of which appears to be, to a large ex-

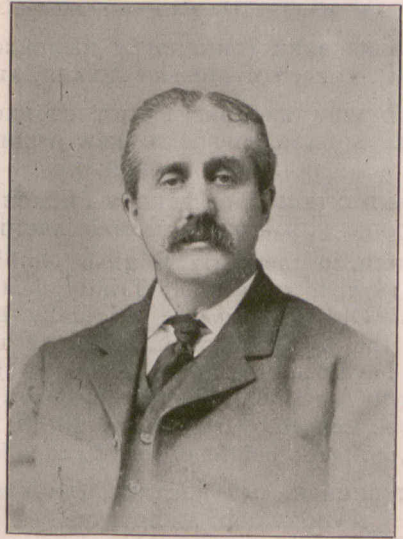


MR. JAMES SIMPSON,
President Montreal Builders' Exchange.

tent, already assured. The management has been placed in competent hands, and there is reason to hope that the Exchange will rapidly grow in membership and influence.

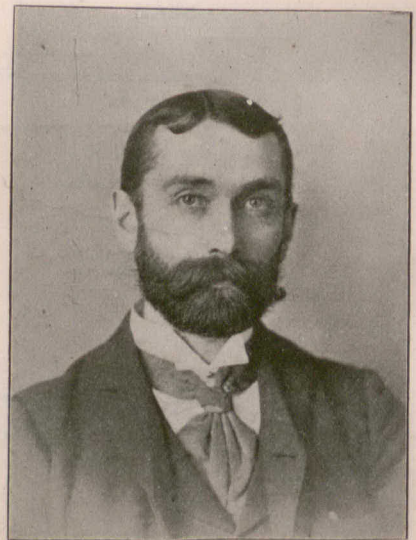
Printed herewith are brief sketches and portraits of the president, vice-president and hon. secretary-treasurer, upon whose energy and ability the prosperity of the new organization must largely depend.

Mr. James Simpson, first President of the Montreal Builders' Exchange, is senior member of the firm of Simpson & Peel, carpenter contractors. He is a native of Montreal, and to the manner born, having succeeded to the business of his father, the late James Simpson, Sr., who was its founder half a century ago. That Mr. Simpson is a thorough master of his trade is evidenced by the creditable work performed under his direction in such buildings as the New York Life Building, on Place d'Armes, the Imperial Building on St. James street, the Bank of Toronto Building, the Royal Victoria Hospital and many handsome residences.



MR. C. T. WILLIAMS,
Vice-President Montreal Builders' Exchange.

Mr. Charles T. Williams, Vice-President of the Builders' Exchange, was born in New England in the year 1845 and had his early business training in the near neighborhood of Boston. Coming to Canada in the spring of 1874, he formed the acquaintance of Mr. Geo. W. Reed, the well known roofer of that city, with whom he soon became associated in business. For several years past he has had the entire management of the business, and in January, 1897, bought out Mr. Reed's interests and assumed the entire control, but retaining the firm name of George W. Reed & Co. The house has a large business in roofing and roofing materials, asphalt, galvanized iron piping, &c., and has lately added the agency for the Boston Blower Co., heating and ventilating engineers, to the lines formerly carried. Excellent examples of artistic workmanship in copper carried out under Mr. Williams direction, may be seen by examining the roof of the McDonald and Redpath Buildings at McGill University and the residence of Mr. Duncan McIntyre.



MR. GEO. J. SHEPPARD,
Secretary-Treasurer Montreal Builders' Exchange.

Mr. George J. Sheppard, who was by an unanimous vote elected to the position of Hon. Secretary-Treasurer, has been largely instrumental in getting the Builders' Exchange started. He has for some years been connected with his father, Mr. Charles Sheppard, in the brick and tile manufacturing business. Founded upwards of 39 years ago, the business has grown and developed to a remarkable degree. The extensive plant and works are located at the head of DeLorimer, Parthenais and Fullmor streets, and comprise seventy acres of land. The equipment is modern in every respect. An idea may be gained of the large capacity of these works when it is estimated that their aggregate output has been over 300,000,000 of bricks in the city of Montreal. Mr. George J. Sheppard is well and favorably known in Montreal and vicinity, where he is regarded as one of the rising and promising commercial men.



DETAIL—TORONTO UNIVERSITY.

THE AMERICAN TALL BUILDING.

Some Notes in Criticism by Professor S. H. Capper.

[IN our October issue we gave an abstract of the paper read by Prof. Capper, of McGill University, at the session of the Province of Quebec Association of Architects; the following is the full text of the greater part of that paper, which Prof. Capper has kindly revised for publication in the CANADIAN ARCHITECT AND BUILDER.]

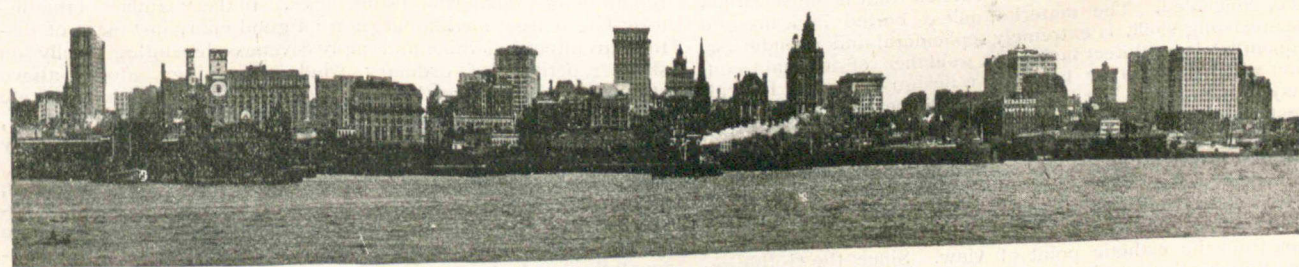
Probably to most of those who are sufficiently interested in architecture to take heed of contemporary work, the "tall buildings" of New York and other cities embody America's chief contribution to modern architectural advance. They have led to new and complicated problems of construction, solved, doubtless, with all the energy, the boldness, and the address characteristic of American engineering. They also present esthetic problems of considerable importance and interest, the solution of which is, perhaps, not so apparently ready or convincing. At any rate in New York itself, where these "tall buildings" are already numerous, the divergence of design, not merely of ornamental detail, but of radical conception as a whole, is very marked. All is tentative, and all (one might almost add) attempted; for much is extravagant, tried (it would seem) if haply the result may justify the trial with a success which sometimes aims at rather the clamour of advertisement than the excellence of studied and achieved design.

The problem asking for solution is an eminently modern one. Architecture cannot, on pain of proving untrue to her traditions as a living art, refuse to entertain it, to grapple with it, and eventually to reach a satisfactory solution. We must, I hold, put definitely aside the criticism so often heard: "These tall monstrosities are not architecture at all; they are only engineering, with a stone veneer." They are buildings of our modern city streets; and if these be not architecture, where indeed is modern architecture to find her place? She is bound to find her own solutions for novel problems, however difficult, and to achieve a harmony between the requirements of to-day and the accepted

the necessity for these tall buildings. But in an able "rejoinder" Prof. Hamlin has pointed out that the special reason for their prevalence in America and their absence from European cities is rather to be found in the fact that "the 'sky-scraper' is a huge labor-saving and time-saving device"; their origin, therefore, is to be "sought in the drive and hurry of American business life, and in the accompanying American propensity to save time and labor."

Whether the financial problem or this American need for concentration be the determining factor, extension by way of height is the solution practically arrived at in these "tall buildings." Excessive height, however, creates at once constructive difficulties. These are being met and satisfactorily disposed of by the many expert engineers who have so brilliantly worked out the various novel methods embodied in the construction of the tall buildings. New methods of foundation have been evolved, apart from which the main factor in construction is the steel-skeleton structure. The requirements of floor space (dictated by financial needs) rigidly limit the supporting and enclosing walls to the least superficial area compatible with safety and stability. Further, the need for the maximum of light in the interior equally leads to the reduction of wall thickness and external piers, while it forces the engineer to find a substitute for the ordinary diagonal bracing and cross-ties, which are incompatible with windows. With these complicated restrictions, the architect has to design his building, fettered and hampered, or, on the other hand, inspired, it may be—for restriction is ever a fertile cause of happy ingenuity and an occasion for success. Moreover, be it remembered, the architect has here artistic opportunity in height before undreamed of, and quite beyond his reach without the steel-framed structure, which is the essence of his building.

In the first place, the buildings have the very great advantage of being isolated above street level. They can, therefore, be designed, as complete in themselves, in a way that no ordinary street building permits. But they are seen all round, and must be designed as a building in three dimensions, not as a mere street front. In spite of this self-evident fact some glaring instances to the contrary are in painful evidence. The St. Paul building in



LOWER NEW YORK, AS SEEN FROM THE HUDSON RIVER.

The upper view was taken about 1891, while Trinity Church Spire was still the culminating point of the sky line. The lower view was taken in the spring of 1897, and shows the church engulfed in the surrounding high buildings

canons of artistic sense. It is essentially in responding to the needs of modern complex life, in interpreting and meeting them, that the art itself is modern and living.

The problem is undoubtedly difficult. As usual, it reaches the architect in a somewhat advanced and complicated stage; he has to grapple with it with many data already definitely fixed and binding his design. On a restricted site of enormous initial cost, a building has to be erected of sufficient cubic capacity to "pay." It is the heavy cost of building sites to which is usually ascribed

Broadway at present is so indescribably maimed in this respect that it can, presumably, be but partially complete. As it stands, a more striking instance hardly could be found of designing a front without locking round the corner, in this case the neglected "round the corner" being considerably more in evidence than the columned stories of the front itself. But any possible design would have been irretrievably ruined by the utter hopelessness of this site in shape and superficial area.

This isolation is, of course, a permanent advantage, for the

buildings, to achieve their object, must remain isolated and apart; if crowded up, their lower storeys become correspondingly reduced in value. It is said that this is an economic factor that has already made itself felt; and it is quite conceivable that in self-defence the tall buildings will surround themselves with shorter neighbors, or, in other words, will come to be designed as only the central portions of a larger, lower block. If so, their design will be a good deal modified, probably in marked improvement. At present the lower stories are said to be in little demand, and, as the streets, which are darkened by these buildings, are generally too narrow, it is possible that an expedient may be found corresponding somewhat to the arcaded streets of old Bologna, some portion of the ground space being given in compensation to the darkened streets, to the no small gain of the jostled foot-passenger. This would not necessarily cause the buildings to appear propped up on stilts; it would be more likely to add to the importance of the lowest storey by the pillared complexity introduced.

In the second place, where so great height is *de facto* attained, it seems unnecessary unduly to emphasize it in exterior design. A good many of the buildings are designed on the principle of strongly vertical lines carried through many storeys. This I venture to deem in some measure a mistake. It is right for a comparatively slender tower, undoubtedly, where the sole object is height; every one will recall the noble campanile of St. Mark's at Venice (in the lower and comparatively early portion), as well as many others. These tall buildings, however, in spite of their tallness, are by no means towers; they are spacious and habitable buildings; to design them as towers is a twofold mistake, both practical and esthetic; it is their

of honesty above reproach. Whether stone is a wholly legitimate substitute for a plastic material thus required to case it in is a good deal more open to question. It is certainly more costly and more difficult to handle; above all, it is a less natural material when so used. We are all so thoroughly accustomed to stone, "solid stone," as a material for the most durable, the most massive, and the most solidly constructed buildings, that it is certainly a shock to see it cramped on to a steel backing, treated like a veneer, pared down and pinned and bolted into place. This is certainly not material used in its natural way; it is so unnatural, and shocks so irretrievably, that I very much doubt if it can be accepted esthetically as so satisfactory as a wholly plastic material. On the other hand, it may be legitimately contended that with stone one can get both color and texture, which are not to be had in any terra cotta or similar material. These are the two sides of a controversy upon which dogmatic decision is, perhaps, impossible.

In the third place, much and lavish exterior ornament seems wholly out of place. The buildings are themselves so large and so imposing that they do not require enrichment to give them interest; mere surface ornament becomes unmeaning and superfluous; when used on so large a building it becomes mere frittered labor, painful from its ineffectiveness. Many of the "tall buildings" of New York are rather lavishly ornamented, but the ornamentation is ultimately felt to detract from, not to enhance, their size. The truth is that, in a very large building, an almost monotonous repetition is of potent artistic value. Of this the Flavian Amphitheatre at Rome, the so-called Colosseum, is a well-known instance. The steady repetition of the same architectural motive, in an apparently endless series of arcades with engaged columns



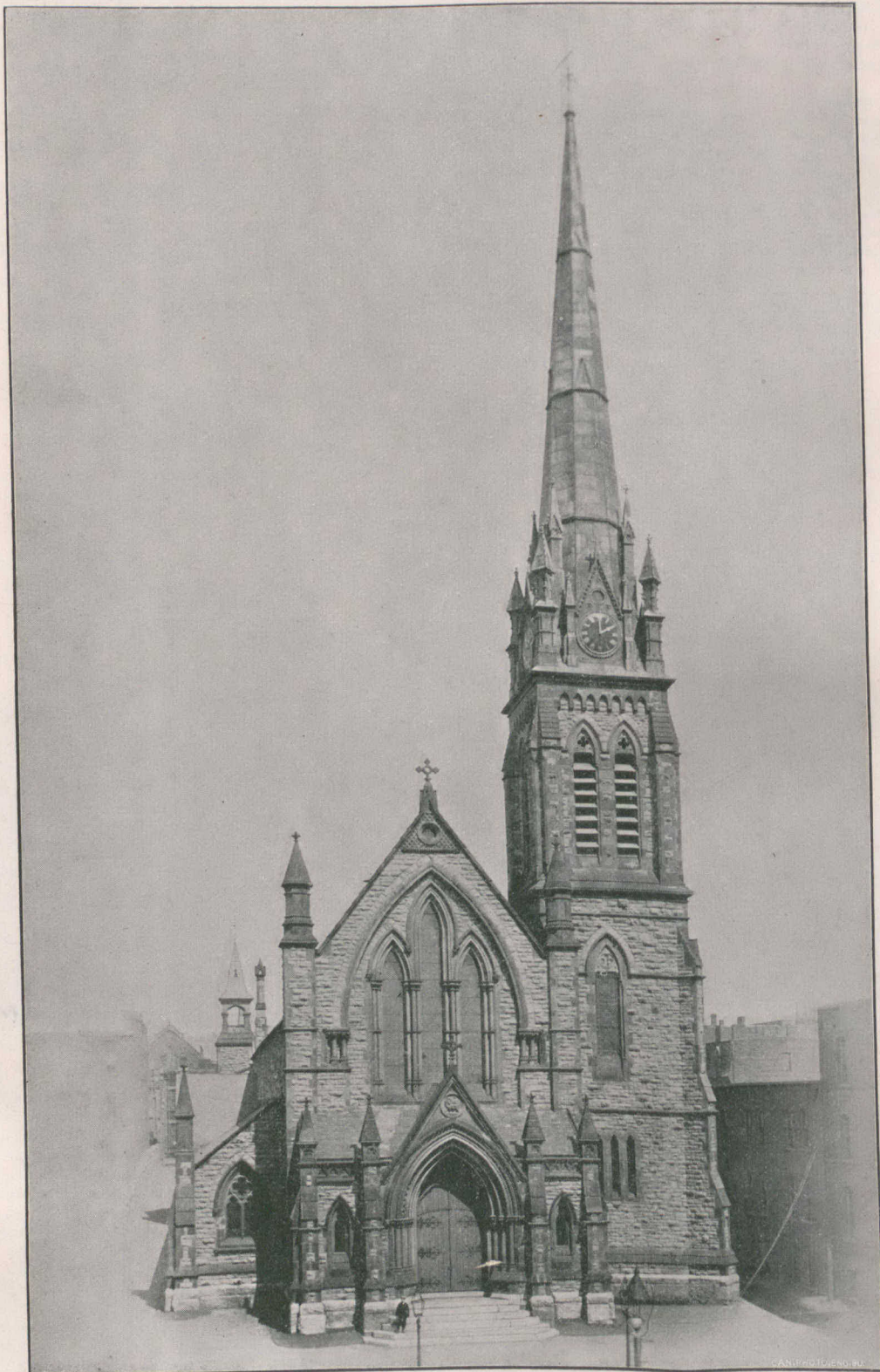
ST. PAUL'S, LONDON.

openness, their brilliant lighting, their spaciousness, that should be emphasized, and that can best be done by horizontal treatment of the storeys. Moreover, such a treatment would be, perhaps, more in accord with their construction. It is one of the misfortunes of their steel-skeleton construction that it must all be, perforce, concealed. The material, unless buried in a fire and weather-resisting shell, is extremely ephemeral and unenduring. Consequently, the architect lacks that guidance of dominant construction which goes so far to make a design coherent, logical, and easy to interpret. Yet it is a fact that these great buildings are erected in horizontal stages, comprising, it may be, several storeys each, but still well-defined platforms, or stages. And these should surely be seized upon, if practicable, and interpreted in the exterior design. It seems to me that in this way the buildings would very greatly gain in meaning and expression.

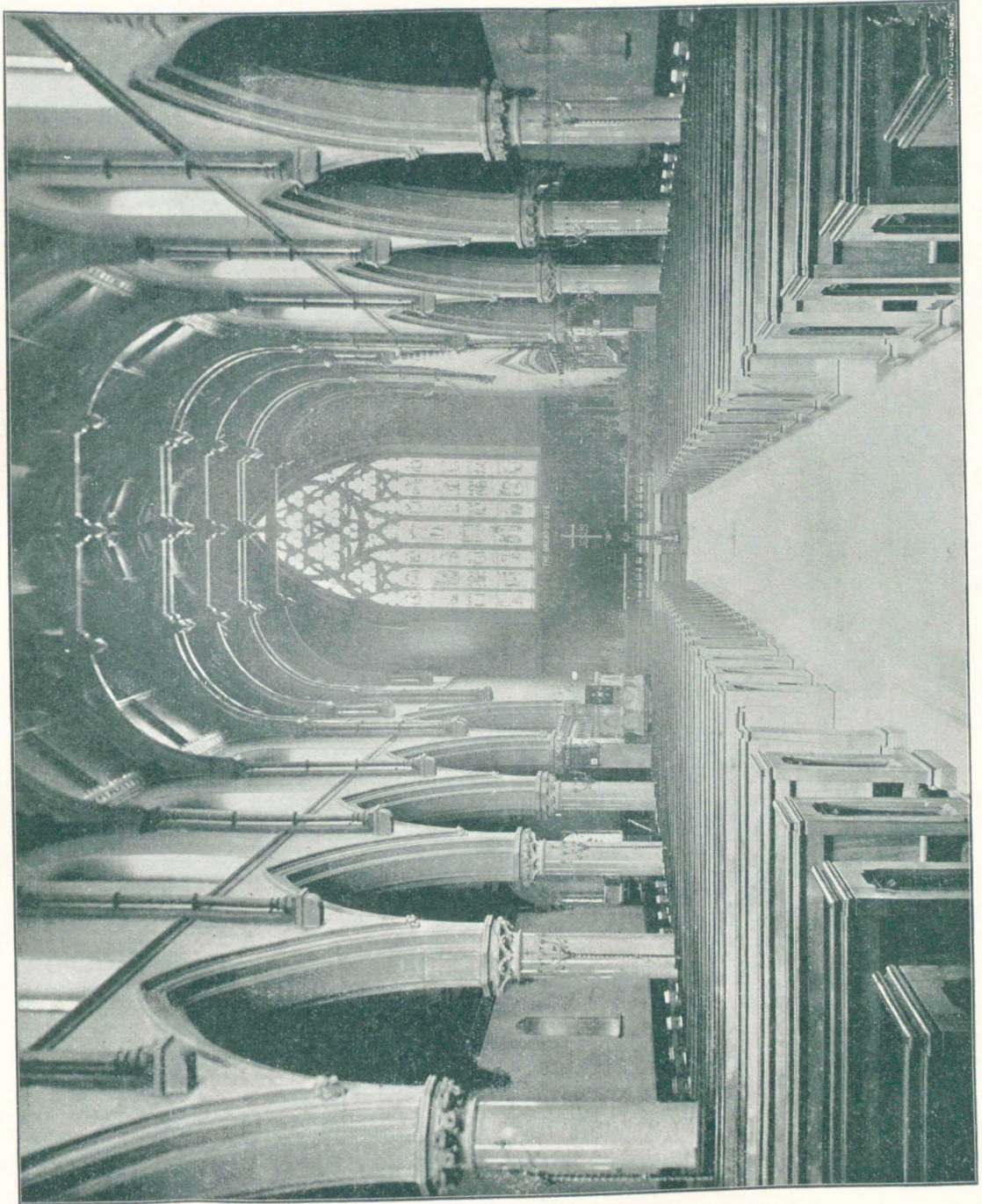
A word or two may here be suggested in regard to this construction from the esthetic point of view. Since the Gothic revival, with its battle-cry of "ornamented construction" and its decry of "constructed ornament," it is natural and inevitable, and surely right, to seize first on genuine construction to be interpreted and expressed in a design. Where, then, is there room for this totally concealed construction? Some would, of course, deny *in toto* its right architecturally to exist; metal cased in stone, they claim, is a quite illegitimate method of architectural construction, being a sham of the most flagrant kind. To deny, however, to iron and steel the position they have conquered in the world of modern construction is, of course, wholly futile. But from their perishable nature they must be hidden away for their own protection. How, then, are they to be dealt with? The most obvious method is to case the metal in some form of plastic material, such as terra-cotta; steel construction, thus treated, is quite capable

between, impresses the beholder with an irresistible majesty. It is true that here the individual features are themselves of large, even colossal, scale; but something of the same effect seems not wholly unattainable in these tall buildings, with their monotonous repetition of similar window openings. In the "lands" of the historic High street of Edinburgh are a good many instances of distinct architectural value and impressiveness depending wholly on sheer repetition of ordinary window openings, storey above storey. It is noteworthy, moreover, that these comparatively "tall buildings" of old Edinburgh, somewhat famous in their way, are totally devoid of architectural ornament, though singularly effective in the fair city architecture of the "Modern Athens."

In the enormously larger "tall buildings" of American cities, superfluous ornamentation tends rather to disturb the resulting impression of solidity and power and scale. The most recent type of the "tall building" in New York seems to relegate the ornamentation to the base storeys just above the street, and to the top, or crowning, storeys. As has been mentioned, the lower storeys are said to be of inferior letting value, and are not, therefore, very naturally selected for extra cost in execution. But probably the temptation to enrich the storeys within fair reach of the eye from the street-level is strong, and artistically is defensible. Above all, the main entrance naturally calls for emphasis and enrichment; one does not expect to enter so imposing a building by any mean or insignificant doorway. The cornice is a great difficulty; it has not, it seems to me, as yet been adequately studied out. In so huge a block of building it should have a projection unattainable in practice. In Florence the Strozzi Palace (though only a portion of the grand cornice has ever been completed) is a very fine example of a simple cliff-like facade crowned by a rich and noble cornice. In Rome one turns naturally to the grand cornice of the



TRINITY CHURCH, ST. JOHN, N.B.
W. T. THOMAS, ARCHITECT.



INTERIOR OF TRINITY CHURCH, ST. JOHN, N.B.
W. T. THOMAS, ARCHITECT.

Farnese Palace, in competition for which Michael Angelo waxed so mightily indignant. Both these are classical examples, to which might be added, in more recent times, the Arc de Triomphe at Paris. But beyond this limit it is not possible to go in stone. What, then, are the designers of those "tall buildings" to do? The course generally adopted has been to use metal in place of stone; but the result is necessarily either fraudulent, in so far as the change from stone to metal remains undetected, or hybrid, as a patchwork of materials; neither alternative is satisfactory. I venture to suggest that it is preferable to abandon the attempt (which must be futile) to obtain exaggerated overhang, and to substitute therefor vertical depth; by restudying the cornice in this sense, including a storey or more in the depth of the cornice and its members, I believe a more satisfactory and a wholly legitimate result would be obtained. For this, too, we have an eminently successful classical example. The famous cornice of Vignola, with its deep consoles, will be readily recalled. Vignola, on a small scale, had the same problem to solve, and he solved it most judiciously by increasing his cornice in vertical depth without exaggerating the overhang. Modifications of this cornice are constantly used in modern French street architecture with happy effect; and, if a leaf were taken from the old Italian's book, though not without much study, there could doubtless be evolved a more suitable cornice for a "tall building" than by flying to metal and treating us to gilded gingerbread and tinsel two hundred and fifty feet above our heads.

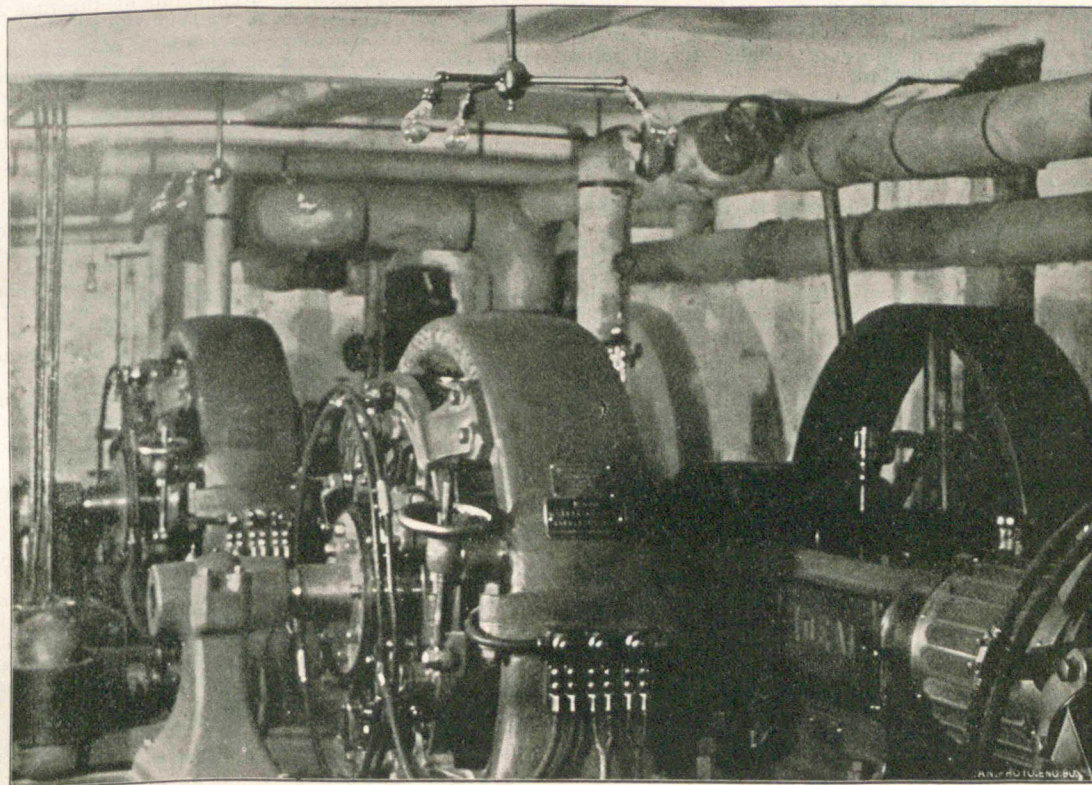
It remains to add a word in regard to the effect of these "tall buildings" upon the appearance of the city as a whole. So long as they are few in number, they are said to have given New York a very ragged sky-line, unkempt, so to speak, and displeasing.

so fair, sleeping under Giotto's campanile and Brunelleschi's dome, were she to awake and find her Duomo dwarfed and thrown into the shade by a ring of New York tall buildings of the latest type, or of Chicago sky-scrappers! Wren's noble dome, though somewhat dwarfed in height by its modern surroundings, nevertheless still floats in fair serenity, majestically crowning murky London. I cannot think that "tall buildings" are actually wanted in any of these cities; sufficient unto America be the "tall buildings" thereof.

THE ELECTRIC LIGHTING PLANT, TEMPLE BUILDING, TORONTO.

OUR readers, especially architects, will no doubt be interested in the accompanying illustration and particulars of the plant which has recently been installed for the purpose of lighting with electricity the newly completed Temple Building at the corner of Richmond and Bay streets, Toronto.

The room containing the generating apparatus is 50 x 32 feet in size. The contract for engines and electric generators was carried out by the W. A. Johnston Electric Co., of Toronto. Three direct-current 50-kilowatt Walker generators, for which the above company are Canadian representatives, are direct-connected to "Ideal" engines, 12 x 12, the latter manufactured by the Goldie & McCulloch Company, of Galt. One of these generators is wound for 250 volts, is running at 275 revolutions per minute, and is supplying current for motors and electric elevators. The motors drive the fans for ventilating purposes, and will also be required for other power service. The other two generators are wound for 125 volts, and are furnishing current for electric light-



ELECTRIC LIGHT PLANT, FORESTERS' TEMPLE, TORONTO.—VIEW OF GENERATORS.

Now that they are fairly numerous, this seems no longer the case. The general raising of height—a result of modern city development by no means confined to New York—has necessarily tended to submerge many a worthy building that formerly rose tall and stately above its surroundings. An extreme case is Trinity Church, New York, a very sober and quiet study in perpendicular Gothic, the graceful spire of which formerly rose clear, a notable landmark of the city. It is now completely submerged and lost, rising, as it were, in slender effort, stifled in a sort of well. But this is painfully true of other cities, too. All visitors to Paris know how the Church of the Madeleine is now felt to be too low for its surroundings; how much it would gain by being raised above the houses that hem it in! In London, also, many of Wren's fine steeples are now almost equally engulfed and lost.

Nothing can excel the noble approach to New York; it is undoubtedly one of the fine harbors of the world. But the city itself is totally destitute of "heights." This lack the modern "tall buildings" certainly go some way effectively to make good, and I cannot but feel sure that in sky-line and general appearance from the harbor New York has gained from them.

That such would be the case elsewhere is not so certain; New York, from its original flatness, is perhaps a special case. It is comparatively easy to dwarf nature; and one of these tall buildings, judiciously planted so as to spoil a natural landmark, could achieve without difficulty total and fatal ruination of a noble scene. It is dreadful, for instance, to imagine the Acropolis of Athens girt around with buildings like those in Broadway. Imagine Siena, her valleys enriched with "tall buildings" sprouting high above that fair Duomo which so nobly crowns her highest rock! Imagine Florence, nestling by the Arno under the heights of Fiesole and the distant girding Apennines,—imagine Florence, now

ing throughout the building, which is wired for a capacity of 2,800 16 c.p. lights. In addition to these generators there is a motor generator of 80 lights capacity, built at the works of the W. A. Johnston Electric Co. This machine takes current from the power generator and supplies lighting during the day-time. This portion of the installation has many points of merit, the three direct-connected generators only occupying a space of about 12 by 33 feet. The economy in space by means of the direct-connected generators is a great consideration in plants of this character. The running of the engines and dynamos is practically noiseless. They are also perfectly dry, and persons can place their hands on any part without feeling the least current. This plant is said to be of larger capacity than any isolated plant yet installed in Canada.

Mr. Thomas Weston, Secretary-Treasurer of the Hamilton Bridge Co., died last week at his residence in Hamilton, aged 44 years.

The Mackey Stained Glass Co., Toronto, have recently published a catalogue, showing designs for ornamental glass for a variety of purposes, and prices.

The National Supply Co. have succeeded to the building supply business formerly carried on by Mr. E. D. Morris, and have erected commodious premises at No. 1111 Yonge street, Toronto.

At the late municipal elections, Mr. Bowman, the popular representative of the Don Valley Pressed Brick Co., was elected as alderman for the sixth ward, receiving the largest number of votes of any of the candidates.

ONTARIO ASSOCIATION OF ARCHITECTS.

Proceedings of the Tenth Convention.

THE tenth Convention of the Ontario Association of Architects was held at the School of Practical Science, Toronto, on Tuesday and Wednesday, the 11th and 12th of January, the President, Mr. J. W. Power, of Kingston, Ont., in the chair.

The minutes of the last annual meeting having been read and confirmed, the President's address, which elicited hearty applause, was read as follows:

PRESIDENT'S ADDRESS.

GENTLEMEN:—As President of the Ontario Association of Architects it affords me great pleasure to welcome you to this, the seventh annual convention of this association since incorporation, and wish you a prosperous new year. During the year my great inability to fill the office of President as it should be and has been by those who have held the position before, has been very forcibly impressed upon me. I can but feebly express my appreciation of the honor conferred upon me by electing me to the position which I occupy to-day as President of this Association. Living, as I do, outside the city of Toronto, I have been in some respects greatly handicapped, and in this connection I would offer my thanks to the Toronto members of the council for the efficient transaction of so much of the business.

I am sorry to have to record the loss by death of one of our oldest members and a former member of council—I refer to the late F. J. Rastrick, of Hamilton, Ont.

It is not my intention to weary you with a review of architectural progress during the year, especially in view of the continuance of the hard times of the past three years and the slight foundation at present existing upon which to build our hope of improvement. The pages of the CANADIAN ARCHITECT AND BUILDER and other architectural and engineering journals have no doubt kept you informed regarding works of any importance.

As to the proposed amendment to our act, we have but little new to report since our last convention. We will no doubt have a report from the Legislative Committee, but as a connecting link, I might state that at the time we were before the Bills Committee we had hopes that they might recommend that the question of examinations be taken up by the House as a government measure. If this recommendation has not been made—and I very much doubt if it has—I feel that we could very properly, after trying for nearly eight years to work and educate our students under an unworkable act, petition the Minister of Education to take up and carry on this portion of the work in connection with the School of Practical Science, and establish a professional degree, along the same lines as the professional degrees in engineering.

I would further strongly advise this convention to take up the scheme laid before us at the last convention by our then president Mr. H. B. Gordon, as to the grading of members, on the lines of the Royal Institute of British Architects. I will now read his remarks and proposals on this subject, but before doing so, let us dwell for a few moments on the subject of education, and go back to the days of Vitruvius. Writing on the subject of architecture and architects, he says of the former that 'practice and theory are its parents. Practice is the frequent and continual contemplation of the mode of executing any given work, or of the mere operation of the hands for the conversion of the material in the best and readiest way. Theory is the result of that reasoning which demonstrates and explains that the material wrought has been so converted as to answer the end proposed. Therefore the mere practical architect is not able to assign sufficient reasons for the forms which he adopts, and the theoretical architect also fails, grasping the shadow instead of the substance. He who is theoretical as well as practical is therefore double armed—able not only to prove the propriety of his design, but equally so, to carry it into execution. A student should be apt and ingenious in the acquisition of knowledge; deficient in either of these qualities he cannot be a perfect master. He should be a good writer, a skilled draughtsman, versed in geometry and optics, expert at figures, acquainted with history, informed on the principles of natural and moral philosophy, somewhat of a musician, not ignorant of the science of law and physics, nor of the motions, laws and relations to each other of the heavenly bodies. By means of the first-named acquirement he is to commit to writing his observation and experience in order to assist his memory. Drawing is employed in representing his designs. Theory is common to and known to all, but the result of practice occurs to the artist in his own art only. Practice also can lead to excellence in any one art: That architect therefore is sufficiently educated whose general knowledge enables him to give his opinion on any branch when required to do so.'

It is manifest that since the days of Vitruvius both the knowledge required and the functions to be discharged by an architect have enormously increased in volume and complexity. To realize this, one has only to glance, among other things, at the many styles which have arisen and had their vogue since Vitruvius' day, with all of which some acquaintance is supposed to be necessary for the development of modern methods of construction, sanitation, decoration and what not. To put it shortly, a young man having acquired the knowledge implied by the passing of an examination such as we have been considering will have a

well laid foundation for his training, but the superstructure must be built up by practical experience under others. All this is in keeping with our act, and if the examinations were conducted by the Department of Education through the School of Practical Science, the degrees and all the conditions would be precisely similar to those laid down by the School for the establishment of the following degrees, namely, Civil Engineer, Mining Engineer, Mechanical Engineer and Electrical Engineer. Furthermore, the School is thoroughly equipped in every particular. The staff is beyond question, the apparatus and machinery are of the best, and the library by all odds the best in the Dominion, excepting only the Parliamentary library at Ottawa, and that for this particular branch may be also inferior. Under such conditions the taking over of these examinations would be a boon alike to the Public, the Profession and the School.

Mr. Gordon's scheme is outlined by him in these words:

"Meantime we might consider whether the gaining of some present title of distinction indicating educational standing and proved architectural ability, might not be a desirable stimulus to those in the Association. In the Royal Institute of British Architects there are three grades of membership, namely, Fellows, Associates and Honorary members. The first two (except in special cases) have to pass examinations before they are privileged to use the title of distinction. Thus the affix of A.R.I.B.A. means something to a British architect and gives him a definite standing before the public. Possibly it might be well for us to make a distinction in our membership. For instance, it seems but reasonable that those young men who have passed the Association's examinations should be placed on a higher level than those who have come in merely because in some manner or other they have been practising architecture at the time of legislative action. It is also evident that young men who have only recently passed their examinations should not be placed in a higher grade than older men who have spent a score or more years in the honorable practice of their profession, and whose works are a testimony of their ability. The inauguration of any system of degrees is beset by difficulties, but if the general idea met with approval, no doubt some practical method of arranging the matter will be suggested. It might be possible to have the ordinary members designated by a simple O.A.A. Those who have passed the examinations and thus become graduates, distinguished by G.O.A.A., while the older men, whose work and position in the profession justifies the honor, might by a recommendation of the council and vote of the convention, be elected to the position of Fellow, with the right to add F.O.A.A. to their names. I would suggest that it be referred to a committee or the council for consideration and report, to be presented here tomorrow."

As Mr. Gordon points out it is but fair that those young men who have lately passed and are now studying, together with those who have worked hard for nearly nine years, devoting their time and money in trying to educate students and raise the standard of the profession, should get some recognition. The distinction may not be recognized by the general public, but it is gratifying to know that it is a fact nevertheless, as is attested by the frequent letters asking for information—the last that came under my notice being dated Dec. 14th, from one of the Library Committee of the Underwriters' Association at San Francisco, asking for a copy of Mr. Burke's paper on slow burning construction, which the writer had heard of as a most valuable contribution to the subject. I mention this as but one of many instances that go to show that we are making headway—slowly you may say—but, nevertheless, surely.

Take for instance the class of buildings going up to-day in many of our towns and cities (by this I mean buildings of similar size, height and cost) and compare them with those of but eight years ago. The difference is quite evident to the ordinary eye, not to mention the vast improvement in detail, sanitary matters and construction. I would here suggest that the circular letter request added: "that it be read before the Council or other body to whom it may be addressed," for there are buildings erected and others in course of construction which many of us know are not as they should be, and while not perhaps dangerous, are fast becoming so, and from other causes than decay. If copies of the circular were sent out now, just after the terrible London disaster, they might help to open the eyes of the public to the grave responsibility resting upon municipal bodies and officials.

We are often struck with the absurdity of some of the remarks made at meetings of some of the Boards of Health, as to causes, complaints and remedies in such cases. The standing committee on building by-laws or city improvement might consider the advisability of suggesting the class of available men for such boards, as in some cases the choice seemingly gets little consideration.

I am very much pleased to hear of the great success and good work being done by the local or Toronto Chapter of this Association, and can only hope that it may continue.

You will see by the agenda that the time usually devoted to paper reading will on this occasion be taken up by practical talks. We may consider ourselves particularly fortunate this year in having so many subjects of importance brought before us by practical men; I trust the discussion may be full and all the points brought out.

We are all pleased, I am sure, to see the marked headway which the Province of Quebec Association is making, and the vigorous steps taken in its interest by the Council. The State of Illinois is also to be congratulated on the admirable bill they have been granted by General Assembly.

Many of us no doubt have read the discussion which a short time since was going on in Montreal, as to the strength or carry-

ing capacity of an 8½ inch porous terra cotta wall, which was eventually taken to the courts and there decided. The judgment I think from actual facts might not have resulted the same. We in this province are in much the same dilemma for the want of a standard test of these materials. It might be wise for this convention to consider the advisability of asking the government to make an official test of our Canadian materials—stone, timber, cements, &c. Such tests could be conducted by the School of Practical Science and a co-operating committee of this Association. One of the best works done by this Association was the publication, a few years ago, of tests of Canadian building stones, the only trouble being that they did not go far enough.

The Treasurer, Mr. Edmund Burke, then read his report of the finances of the Association for the year, which, on motion by Mr. Siddall, seconded by Mr. Gregg, was received and adopted.

THE TREASURER IN ACCOUNT WITH THE ONTARIO ASSOCIATION OF ARCHITECTS.

1897.	Dr.	
Jan. 1.	To balance from 1896.....	\$1,276 43
Dec. 31.	Members' annual fees.....	112 00
	Members' registration fees.....	15 00
	Students' registration fees.....	17 00
	Students' examination fees.....	5 00
	Sale of examination papers.....	25
	Library fines.....	20
	Interest on Treasurers' bank account....	38 90
		\$1,464 78
1897.	Cr.	
Dec. 31.	By W. A. Langton, salary for the year.....	\$300 00
	W. A. Langton, general disbursements..	15 04
	Printing reports, circulars, etc.....	52 81
	C. H. Mortimer, subscription for CANADIAN ARCHITECT for 1897, sent to three British and one American Architectural Association.....	9 50
	C. H. Mortimer, reporting Convention...	12 50
	Harry Webb, Convention lunch.....	14 00
	Caretaker School Practical Science, re Convention.....	5 00
	Refund, one examination fee.....	1 00
	Books added to Library.....	4 00
	Jos. W. Power, expenses in connection with Legislation and Council meetings.	29 15
	Total disbursements.....	\$ 443 00
	Balance on hand.....	1,021 78
		\$1,464 78

We have examined the books, vouchers, etc., of the Association, and certify that the above is a correct statement thereof.

(Signed)

HENRY LANGLEY }
WM. R. GREGG } Auditors.

The Treasurer, in submitting the accompanying statement, begs to report that all the outstanding accounts for the year have been paid. The expenditure (\$443.00) is \$130.32 less than last year, which was \$573.32, after deducting \$165 which should have been paid in 1895. The receipts, including bank interest, are \$181.60 less than last year. There has been a serious falling off in the payment of members' annual fees, being \$159.00 less than 1896. The amount received for fees for 1897 is only \$31.00. It is obvious that, unless this condition of things is remedied, the Association will in a very few years be unable to meet its current expenses. Our balance in the bank last year was \$368.37 less than in 1895, while this year it is \$254.65 less than in 1896. At this rate of decrease the Association will be without funds in less than four years.

Respectfully submitted,

EDMUND BURKE, Treasurer.

The registrar then read the following report, which, on motion of Mr. Gray, seconded by Mr. Gregg, was received and adopted:

REPORT OF REGISTRAR AND LIBRARIAN AT THE ANNUAL MEETING ON JANUARY 11TH, 1898.

MEMBERS.—The number of members on the roll is 132, the same as in the previous year; there being one death, but also one registration.

STUDENTS.—There have been three students registered. The examinations were held in March. The Board of Examiners was the same as in 1896, viz., Prof. Galbraith (Chairman), Messrs. C. H. C. Wright, M. B. Aylsworth, R. J. Edwards, W. R. Gregg, Grant Helliwell, W. L. Symons, S. H. Townsend and A. F. Wickson. There were two students examined: one for the First Examination, who passed, after a supplemental examination; and one for the Second Examination, who was plucked.

LEGISLATION.—The Bill to amend the Act of Incorporation was introduced again in the Legislature, and was referred to a special committee composed of the same persons who had constituted the special committee to which the Bill was referred in the previous year. On this occasion the Bill was supported by a well-signed petition which had been circulated throughout the province by the Legislation Committee, and also by letters from prominent builders in the country, and by a resolution of the Federated Council of

the Building Trades of Toronto. The Trades and Labor Council appeared before the committee to oppose the Bill, but withdrew their opposition on learning that the Association had no desire to control the examination of students. The Bill was opposed by counsel representing two architects; one a member of the Association, whose objection was said to be that there would be an undue increase in the number of architects if the Bill were to pass; the other, not a member of the Association, who objected that he would be compelled to pay an annual fee to continue a right which he already possesses, that of calling himself an architect. The special committee showed a hostile majority unchanged in opinion from the previous year, and it was necessary to withdraw the Bill again, and, as regards this Parliament at least, finally.

LOCAL CHAPTER.—Pursuant to the Chapter by-law passed at the last annual meeting of the Association, a local chapter was formed by members of the Association in Toronto.

THE LIBRARY.—Kidder's Building Construction and Superintendence, Vol. I., has been added to the library. There have been 52 lendings.

The Secretary also read the report of the Local Chapter, which was as follows:

REPORT OF TORONTO CHAPTER.

TORONTO, January 10th, 1897.

Pursuant to motions made at meetings of Toronto architects held in the office of W. A. Langton on Dec. 9th and 30th, 1896, also Jan. 10th, 1897, and with authority obtained from the Ontario Association of Architects at the annual convention held on Jan. 12th, 1897, a Toronto Chapter of the said O.A.A. was formed and held its first monthly meeting in School of Practical Science on Feb. 8th, 1897, with an executive committee, composed of Mr. W. R. Gregg, chairman; A. F. Wickson, vice-chairman; J. W. Gray, F. S. Baker, G. W. King, and Henry Simpson, secretary-treasurer.

The names of twenty-eight city architects are enrolled as regular members of the Chapter.

At the regular monthly meetings the following papers were read: Feb. 8th, 1897—"Sunday School Planning," by A. F. Wickson; "Objects of the Chapter," by W. R. Gregg. March 8th—"Modern Methods of Electric Wiring," by H. T. Strickland; "Stereoptican Exhibition of Architectural Views," by Mr. Keele. April 12th—"Contracts," by R. J. Edwards. Nov. 8th—"The Nature of Architectural design," by W. A. Langton. Dec. 13th—"Pneumatic Foundations," by H. T. Laing; "Foundations," by A. F. Wickson.

HENRY SIMPSON, Sec.-Treas.

Mr. Gregg thought that the constitution drawn up for the Toronto Chapter might be found of service to those desiring to institute Chapters in other places if printed so as to be available for this purpose, and in moving that the report be received and adopted would make this suggestion. The report was received and adopted.

Mr. Siddall asked if it was not intended that there should be a report from the Committee on Degrees?

The Registrar stated that the Council had desired him to report that they had not been able to give so large a matter sufficient consideration to justify them in presenting a report.

NEW BUSINESS.

Mr. Gordon inquired if the Council had anything to present, by way of suggestion or otherwise, as to the future action of the Association. As the treasurer had pointed out, in a short time, at the present rate, the Association would find itself without funds. It was evident that there was a lack of interest somewhere, and something must be done to stimulate interest in the Association and promote a healthier state of affairs than now existed.

The President said the matter had been brought up and talked over in the Council, but, while all agreed that the present state of affairs could not be allowed to continue, nothing definite had been arrived at as to the course to be taken, and, as he had made a suggestion in his address, the Council had thought it well to see what action the Association would take on the lines suggested.

Mr. Burke entirely concurred in the tenor of Mr. Gordon's remarks, something must be done or the Association would find itself going back. As stated in the report, at the present rate in four years the Association would have no funds. Therefore some means would have to be devised to promote greater interest in the Association and increase the payment of membership fees, as well as to induce a better attendance at the conventions.

Mr. Dick said he was sorry to be unable to offer any advice. He fully appreciated the difficulty of the situation, but it was one thing to do that and another to

suggest the remedy. It certainly looked as if a majority of the members were not much interested, when they neither contributed their fees nor attended the Convention. He did not see anything to be aimed at except to get the government to take over the examinations. The examinations were the one thing of practical good they could point to as having been accomplished by the Association. He thought it would be a great pity if they were allowed to drop, but the Association could not carry them on without funds. He therefore thought it was desirable that the government should be induced to take them up, and did not see any reason why they should not, as they could be carried out in connection with the work of the School of Practical Science, which had all the necessary machinery for carrying them out.

The President said that to stand still meant practically falling back, and unless some effort was made at progress they would certainly find themselves dropping out of existence in a little time, and it would be a great pity that all the energy and effort hitherto expended should come to nought. If the examinations were not maintained the charter might lapse, and they would then be in a worse position than at the time of the Association's inception. He therefore agreed with Mr. Dick, that steps should be taken to keep matters going and have the examinations held. He thought there was reason to believe that, if asked, the government would be willing to take over the examinations. If they did so it would facilitate the plan of having degrees granted which has been proposed.

Mr. Kennedy (Barrie) reminded his hearers that Rome wasn't built in a day. While the Association had not done all that had been anticipated, yet he thought it had achieved much of good. Public notice had been drawn to the profession, and membership in the Association did confer a better status on an architect. He had noticed that in the law courts, when giving testimony, architects were asked if they were members of the O. A. A., and if they were it added to the weight of their testimony, and he thought that was a good deal.

Mr. Aylsworth expressed himself as being in harmony with Mr. Kennedy's views. He did not believe in giving up all effort to have the act amended, but if that could not be accomplished they might endeavor to get the government to carry on the examinations and conferring of degrees. But even if that could not be done they might do what had been done in England, where more use was made of their title than was done here, and make use of the title granted by the act, of Registered Architect. He thought it would be a great mistake to let the Association lapse altogether, for there was no knowing what good it might, in the future, accomplish.

The President said he hoped his suggestions would not be interpreted as intended to take the place of the first aim of the Association, viz., the improvement of the Act; they were merely intended to keep up the courage of members for the present, and hold them together. If the government assumed the examinations and granted a degree, he hoped that plan might, so to speak, be welded together with Mr. Gordon's idea, and the degree conferred by the government form one of the degrees contemplated by his scheme. In a conversation with Professor Galbraith he had learned that the position they desired to assume was quite in accord with what was being done with the civil engineers at the present time. The civil engineer might, on the one hand, engage in office work, and then go to the government university and by his experience in practical work obtain the title of C. E. On the other hand, he might attend the School of Practical Science for three years and at the end of that time get a degree, but he had then to engage in practical work, to show that he had done actual work, and he could then go back to the university for its degree. He thought that was exactly what the architects wanted; that, at all events, would be preferable to the present position. If the government took up the examinations they would be carried on in the manner provided for by the Act; students could study the stipulated number of years in an office and pass the examination, or attend the School of Practical Science for the necessary period and afterwards

take up the office work, take the examination and get the diploma or degree. He thought this would prove an incentive for the students.

Mr. Burke said that Mr. Aylsworth and some others seemed to have formed a wrong impression of the position he took. So far from advocating the giving up of the Association, while there was an association of half a dozen members he might be counted on as one of them, but he called the attention of the members to the fact that the funds were decreasing year by year. No business house would go on year after year with an increasing deficit, but they would cast around to discover the cause of the decline. That was what the Association should do, they should look around for the cause of the apathy and lack of interest and endeavor to devise some means which would result in a more general contribution of fees. He thought members who did not pay their fees should have their names dropped from the roll, because they were availing themselves of the benefits accruing from membership without giving any equivalent for it. It was surely worth something to a man to be able to use the title conferred by membership in the Association.

Mr. Gregg said that he was prompted by Mr. Burke's remarks to move that a committee be appointed to consider the suggestion made of having the Provincial government take over the examinations, and to report tomorrow morning. Professor Galbraith, the Principal of the School of Practical Science, was a member of their board, and had always shown sympathy with them, and the committee he proposed might confer with Professor Galbraith and, if possible, with Dr. Ross, the Minister of Education, and would be able by the morning to have a pretty good idea as to the feasibility of the proposal. He thought the suggestion in regard to the examinations was a good one, and there was no reason why time should be lost if the matter could be put in shape now. He therefore moved for the appointment of that committee.

Mr. Siddall said that while he had listened very attentively to everything that had been adduced, he did not feel at all convinced that the adoption of the course suggested was desirable. Although the feelings expressed by members seemed almost unanimous in favor of the motion, he thought the proposed action was going against first principles. He thought the control of the education of the students should be in the hands of architects, and if the examinations were handed over to the government, as suggested, one of the principal objects of the Association would be gone; it would have less to do than heretofore, which he thought was not a good thing. Indeed, he believed that one reason the Association had not gone ahead more was that it had not enough to do; a meeting had been held once a year, and that was about all that was generally known about the Association. He thought a new spirit needed to be infused into the Council, that some of the younger members, those who had not practised ten years, ought to be made eligible to serve on it. For these reasons he was not inclined to support the resolutions before them.

Mr. Gregg said he had not suggested any names for the committee, but he would now suggest that Mr. Siddall be a member of it.

The President said it was a misapprehension to think that if the examinations were taken over by the government the Association would not have anything to do with them. They would be controlled and carried out under the act just exactly as they are now, and the government would appoint architects as examiners.

Mr. Siddall remarked that if the Association once surrendered its control of the examinations there was no telling what might happen in the future, the government might appoint any examiners they liked.

The President replied that they were governed by the act.

Mr. Kennedy thought handing over the examinations to the government would place them in a position too much subject to political influence.

Mr. Curry said it was impossible to continue carrying on the Association as it had been conducted in the past;



PERSPECTIVE VIEW SHOWING EFFECT OF PROPOSED VICTORIA SQUARE, OPPOSITE THE NEW MUNICIPAL BUILDINGS, TORONTO.

it was evident members were not prepared to pay the fees necessary to continue it in that way. The question was, how long are we going to continue going to the parliament buildings looking for legislation? In his opinion it was perfectly hopeless, as there was a feeling abroad among the members of the Legislative Assembly that no more so-called class legislation should be enacted, or anything tending to the creation of close corporations, and however wrongly, the amendment sought by the Association had been regarded as of that description. He thought the only thing they could do was to curtail the expenditures and put things on such a financial basis as would render possible the carrying on of the Association; it would not do to go on eating up the surplus as has been done, until now little more than \$1,000 was left of it. He saw no reason, however, for abandoning the Association. The duties of the registrar had been onerous in the last few years, mainly by reason of the extra work devolving upon him in connection with the attempts to secure amendment to the act of incorporation, and the cessation of those attempts would make possible a reduction of expenditure. He thought there was no reason why they could not continue as a voluntary association, without regard to the Act, which had really given them nothing. They had conducted the examinations under it, and what had it all resulted in? Students seemed not to think it of sufficient advantage to induce them to register and pass the examinations, knowing quite well that they were not debarred from practising by neglecting to pass the examinations; and he was not sure that it was advisable that they should be debarred in this age of competition. In regard to the suggestion that the examinations should be handed over to the government, he thought it would be wise to ascertain whether there was any inclination on the part of the government to assume them before spending time in discussing it. He did not see the analogy between the work of an architect and a civil engineer or an electrical engineer. The profession of an architect covered a very wide field, a man might be a poor constructionist and yet a very good designer, and capable of doing work in one or two divisions of his calling, not upon constructional lines or the lines upon which he would be examined. In the case of an engineer, it was essential that he should be thoroughly versed in that one particular line. Passing the examinations would not necessarily make an architect of a man, although it was no doubt a good thing to have as many architects as possible know as much as possible about construction and sanitary science, but that alone would not make an architect; a man who chose to call himself an architect had so many different lines upon which he could make a living that he was not forced to depend upon any degree to enable him to do so.

Mr. Gordon said it seemed to be assumed by most of those who had spoken that it would be a desirable thing to have the examinations taken over by the government but he had not heard the first reason assigned for that opinion, while many reasons occurred to him why that course was not to be desired, even if the government were willing, which he ventured to doubt very much. The only objection raised to retaining them was on the score of expense, but he had ascertained from the treasurer that a ten dollar bill would more than cover the expense of the last examination, which was a mere bagatelle. It was true this was effected only by the self sacrifice of the examiners, but no complaint had been heard from them, indeed he had heard it remarked by some of them that acting in that capacity was a good thing for them, because the study it necessitated was beneficial, though there was no financial recompense. The holding of the examinations was the central point in the act of incorporation, and something they ought not to be willing to abandon until good reasons were given for such action. He agreed with Mr. Siddall when he said that in order to increase interest in the Association it was necessary that they should do not less than they had been doing, but more. He thought that was perhaps, one of the best things that had been said in the meeting. It had been running through his

mind, and evidently through the mind of the President also, and perhaps others, that there were many ways in which interest might be created apart altogether from the question of legislation. If it was thought that through lapse of time such changes would take place in the government as might at a future period place them in a better position to advance their aims in that direction he had no objection to waiting. The object sought was very important, and if anything could be gained by waiting they could well afford to do so. In the meantime they must not neglect more immediate improvements, or disregard the necessity of stimulating the interest of the members, and he heartily endorsed what had been said by the President about placing before the young men some incentive. Their object should be to adopt such means as would give them a standing before the public, as compared with those who did not belong to the Association. It had been pointed out that the standing conferred by membership was becoming recognized in courts of law, and further advance might be made along that line. He did not wish at the present time to bring up the broad question in regard to degrees, but, speaking to the present motion, he thought that the inauguration of some such system of conferring a certain position in the Association would do a great deal towards increasing membership. It had been said that many were in the Association only looking to see what there was in it for them. Unfortunately that selfishness was an element in all human nature, and the degree would give a status which to some extent would carry with it a financial interest. If any such scheme as that were adopted it would be desirable that they should have control of the examinations, because the one must of necessity work in with the other.

Mr. Baker said that before Mr. Gregg's motion was put he wished to say that he felt sure none of the members were surprised at the somewhat despondent view taken by the Council of the result of their efforts. He felt sure all most thoroughly appreciated the work they had done, and he wished more power to their elbow. But in every undertaking there were stages when things looked at their worst, and it was then that they began to improve. Was not this the time for all to take hold with a will and pull the Association out of the hole it was in? They must not be too despondent. He did not think the attendance had been so bad at the local chapter as some thought, and he believed that it was going to be a success. He thought Mr. Gregg's motion might be enlarged so as to include within its scope the whole question of reducing expenses. In regard to the examinations, he thought they should only be held in the event of there being a reasonable number of applicants. Certainly no government would think of holding an examination where only one in each class presented himself for examination, as was the case at the last one held.

Mr. Gregg expressed an entire willingness to change his motion in the way suggested, but in that event thought there should be further discussion of the financial question. He would change the motion and make it read: "That there be a committee appointed to report to-morrow upon the present state of this Association with regard to examinations, finances and membership, and to see what can be done."

Mr. Gray thought the questions proposed to be amalgamated in the one motion were too wide to be properly dealt with by one committee in the short time at its disposal. The questions of finance and keeping up interest in the Association seemed to him very much wider in range than the mere question of handing over the examinations to the government. Then he thought if there was to be any system of conferring degrees the Association must necessarily retain control of the examinations. In regard to the question of expenditure, he thought that was not so much in connection with the examinations, but in the management of the library and the registrar's fees. While he in common with all the members fully appreciated the excellent service given by the registrar, he thought some reduction in that direction was necessary. He thought it would be a good

MURAL DECORATION.

By G. A. REID, R. C. A.

WHEN we contemplate in its complex manifestations that constant tendency of man to decorate and embellish every object connected with his existence, we are confused and perplexed on every hand by the theories of life and of use and beauty which are prevalent. It is therefore with the greatest difficulty in the expression of our ideas concerning the beautiful that we make ourselves understood, and to realize the nature of the problem it is necessary to simplify it to the greatest possible extent to obtain the key which will unlock its mysteries.

If we had not been able to look into the past by the aid of archaeology and history it would still have been possible for us to study the progress of civilization by comparisons drawn from the various races having separate social development, which exist at the present time. To simplify this question of the art impulse with satisfaction, we should observe with care the earliest

them, that we have come to draw dividing lines between the arts where no differences exist except in degree, and in the poverty of our philosophy, or our means of expression, we represent the stimulating and progressive elements of art activity as not being useful or necessary to the life of man. We speak of certain things as being necessities of life, and of some of the primary arts as the useful arts, until our age has come to think of them as being entirely apart and separate from the fine arts, whereas the fine arts should be regarded as the crowning glory of all the arts, equally necessary and useful to man, who in his desire to reach the perfect existence, with the joy of life as the spring of his impulses, draws from nature about him every element possible which will contribute to his pleasure and satisfaction.

At the period that history begins, and we are able from actual examples of decoration to study and compare, we find that art has on all sides been highly developed in Egypt, Assyria and Greece. Egypt is taken to be the oldest civilization, and the enduring nature of



ART.—By E. WYLY GRIER, R.C.A.

SKETCH FOR PROPOSED DECORATION IN C

attempts man has made to satisfy his wants, and by wide and extended comparisons to notice how, step by step, the simple has become complex. The limitations of the present article will allow, however, but a glance into the remote past.

The first picture our minds can form of primitive man must include the social relations—because no state ever existed except by misfortune where man was alone. Subsisting in a precarious manner, having only a rudimentary language largely made up of mimic signs, writing by means of pictures, using color and sound to terrify or attract, storing food, plundering neighboring tribes, these and many other activities in simultaneous development, acting and reacting, show us how the observation by the primitive man of cause and effect, constantly forced him to proportion the means to the end in his efforts to satisfy his desires. Art in such a state could not have had any other purpose than the production of what was useful, and what we find to be the impulse of humanity in the primitive forms of society, we must conclude to be the same in the civilized state. Such, however, has been the difficulty of making distinctions and expressing

its work and the faithfulness with which its artists depicted the various phases of the life of the people enable us to become well acquainted with their manners and customs and their arts. The pyramids, temples, palaces, tombs, obelisks and statues stand as the silent witnesses of an almost incredible power, and though we may marvel and admire the wondrous design, the gigantic scale, the expressive beauty of their art, and its exquisite finish, we should not make the mistake of thinking that either enduring quality or scale are necessarily the signs of a great art. But it is a fortunate thing for our age that the conditions have been such as to preserve almost without damage such a quantity of art treasures.

The character of the decoration used by the early Egyptians was of a very primitive order, and was profusely spread over every part of the surface of the walls, pillars and ceilings of their buildings, being mostly outline figures, and hieroglyphics deeply cut and highly colored, having a wide range of treatment from the realistic to the symbolic. Intimately related to Egyptians with their colossal works of art and hieroglyphics or picture writing, were the Chaldeans, the Assyrians,

Hindoos, and many other interwoven nationalities.

The ideal age of decorative art as well as of architecture is generally said to belong to Greece. The conditions which produced its civilization were such that art became freed from being the mere glorification of dynasties and was the expression of individual freedom and of a self-governing people, and this is the spirit which, surviving every dark age, returns and shows itself in the revival of the arts. It is a vivid realization we receive of the myriad forms of Greek art at the time of its becoming fused with that of Rome when we visit the museum of Naples, where are kept the vast quantities of objects of familiar use—statues, bas reliefs, bronzes of all sorts, and wall paintings dug from the ruins of Pompeii and Herculaneum—and great as our interest always is in works of art separated from their original surroundings, when we walk the streets of Pompeii and notice the ruts worn by the wheels of the chariots, and the myriad feet that have trod the stone sidewalks until they hollow away from the walls of the houses; when

is making itself felt among painters and sculptors and is directing their attention towards the more adequate decoration of architecture. This movement among painters is shown in the permanent wall decorations of all classes of buildings, but mainly of those of a public nature, their purposes requiring a more heroic treatment. That the more enlightened architects have also felt the movement has conclusively been shown in that dream-like wonder, "The White City," which sprang up in a place the name of which has almost become the synonym of the sordid and ugly, and that the conception of such a congruous art creation was possible in such a commercial age and in such a place should raise our hopes for the future and stimulate us to work for the higher possibilities of all phases of art.

When it had been determined that the treatment of the site, architecture and decoration of the World's Fair should be an attempt to obtain a harmonious effect, instructions were given the architects in general charge to call a meeting of the principal architects of the United States, together with engineers and landscape gardeners,



DOOR OF NEW CITY BUILDINGS, TORONTO.

SCIENCE.—By G. A. REID, R.C.A.

we walk through the dwellings, factories, bakeries, shops, temples, and up the worn stairs to the high seats of the theatre, we begin to form such a picture of the art and life of that remote time that enables us to take in its meaning and realize their vital connection. Art had even then begun to wane; it was a foreign element, though produced in Rome. The Greek artist had been transplanted and was a hireling—and if we would believe Pliny, painting was a dying art.

Throughout the different periods of art, whether it is the heroic age of Greek architecture and sculpture, which the Parthenon and its decorations represent, or the golden age of painting developed by Christianity, of which Michael Angelo and Raphael are the leading exponents, it is as we have already seen, only the rebirth in art of that spirit which alone gives it vitality—that it should express the life, not only of the individual, the community, the nation, but eventually become the expression of the aspiration of all humanity.

As there have been from time to time revivals of art activity of various kinds and degrees, due to enlightenment and the development of an individual and national spirit, so in our own time has arisen a movement which

to discuss a rough plan. When this was adopted the work, which was to follow a general style, was allotted. Chiefs of decoration in sculpture and painting were then appointed who employed the first sculptors and painters of the country to execute decorations which in most cases could have only a temporary existence. We all know what a success this union of the arts was, and there can be no doubt of the effect of it on the minds of all who saw it. The results of it are being seen now on all hands. New York has realized that to protect itself from the erection of all kinds of inartistic monuments and public buildings, and to unite the arts in the process of beautifying the city, a board of art commissioners is necessary, and a federation of all societies of artists, sculptors and architects has been formed, which nominates these commissioners. Boston also has its commissioners, and other cities are moving in that direction. For many years France has had its Minister of Fine Arts, and a special budget which belongs to that department, and the city of Paris has its own art officials. Among the many cities making efforts to attain to a high ideal of civic adornment, Toronto has taken her first step, and an organization is at work in our midst

helping all worthy efforts to improve municipal art and which is alert to seize any opportunities that offer themselves where a body of art loving citizens, artists and architects can initiate projects intended to beautify the city.

Of the recent examples of mural decoration which



WORK—(Puvis de Chavannes)—MUSEUM OF AMIENS.

might be cited, the number is so great that but a few can be noted. Standing out prominently are those to be seen in Paris, in the Pantheon, the Sorbonne, the different mairies of all the arrondissements, in many institutions and churches, and in the Hotel de Ville, which upwards of ninety artists have decorated with mural paintings, the subjects of which commemorate the history and progress of Paris. Many of the French cities possess decorations by the first painters of the day, and throughout Germany, Italy, Switzerland and other parts of Europe much of the same kind of work is being done. In England and Scotland the movement is on broad lines, and the recent arts and crafts exhibitions show that England takes the first place in the world in design. The decorations by Leighton at the South Kensington Museum and Ford Maddox Brown in Manchester are triumphs of English art. The works by Puvis de Chavannes, the great French decorator, John S. Sargent and Edwin A. Abey, recently placed in the Boston Public Library at a cost of upwards of \$100,000, distinguish Boston as the first city on this continent to place in a public building decorations of high artistic merit. The new Library of Congress at Washington is perhaps the first public edifice erected on the principle laid down at Chicago for the building of the World's Fair, some sixty sculptors and painters having been employed to do the decorations under special heads appointed for both sculpture and painting. The total amount paid for this part of the work was about \$300,000.

The method employed in modern decorations is almost entirely that of oil painting on canvas, with a wax medium which gives that flat surface seen in the frescoes of the old masters. The painting having been brought almost to completion, is fitted to its place and laid in a bed of composition which prevents any effect from dampness or chemical action. In the case of stone walls having to be treated, the stone surface is heated part after part to a high degree, and the pores filled with wax, when the same process of mounting the canvas is carried out. It is, however, possible in cases where a concave or convex surface has to be decorated to paint directly on a prepared ground of wax. This process of wax painting is allied to the encaustic painting practiced by the ancients, which it is believed possesses superior qualities of durability to that of fres-

co. For the use of modern artists, painting on canvas has the great advantage of being similar to the ordinary methods in which they have been trained by the painting of the easel picture. The fresco, as used by the old masters, while it had advantages and charms, seriously handicapped the artist, as he was obliged to paint each day a completely finished part, and as the work dried very much lighter than it appeared at first, one can imagine the mechanical difficulties that had to be dealt with.

The ordinary term fresco, meaning fresh, indicated the nature of the work, as it was painting done on fresh plaster, and the degradation of the method to the painting on old or dry plaster with colors mixed with glue size to make them adhere, caused the use of the term buon fresco, meaning real fresco. Thus it is a mistake to speak of most modern wall paintings as fresco; mural decoration, which is the general term including all methods, is being now more generally used.

The revival, therefore, of mural decoration is not a revival of methods but of the spirit which produced the great works of the old masters, and it is this which gives us the hope that it is permanent. The examples of mural decorations on this continent seemed to fully justify the efforts of a group of artists who four years ago prepared the foundation of the movement in Toronto, beginning with a proposition for the decoration of the council chamber of the new city buildings. That their efforts have been welcomed from all sides has been gratifying, and though there has been some criticism and condemnation, it does not in the least affect the proposal or the motives of those making it, the objections offered being based on entire misconceptions. Suffice it to say that the group of artists who first conceived the idea and determined on a plan to carry it out have found no reason to abandon any part



DANIEL—(Michael Angelo)—LISTINE CHAPEL.

of it as far as the principle is concerned, but the work they began is now on the wider basis of a citizens' organization, whose objects have been recognized by the civic authority.

Besides this organization, which is incorporated under the name of the Toronto Guild of Civic Art, another much needed society, calling itself the League of School Art, has sprung up, whose purpose it is to provide reproductions of well-known and original works in sculp-

ture and painting for the decoration of the walls of our public schools. The benefits accruing will largely outbalance any possible mistakes.

This is too plainly a sketch of the subject of mural decoration to require the attention to be called to it as such. The points to be emphasized in any treatment of mural painting are its wide scope and great power as a form of art expression; its philosophy and history cover the whole domain of art, and as in music the symphony

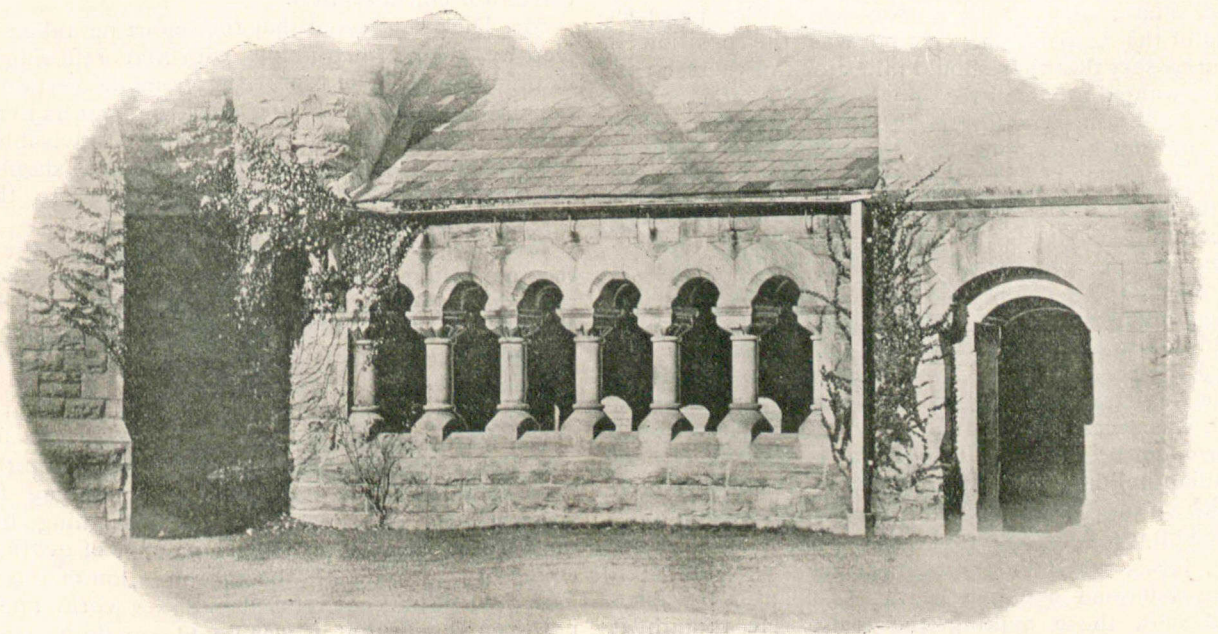


SCHOOL OF ATHENS—(Raphæl)—VATICAN.

ture and painting for the decoration of the walls of our public schools. Such efforts are additional evidences of the revival of the art instinct among us, showing the realization that is felt of the necessity of surrounding our lives with all that is beautiful.

There are dangers arising out of organization which will have to be met, but if due care is taken so that order may not become monotony, and enough attention

is the most elevated form, or in literature the epic poem is its supreme effort, so decoration is to the arts of form their crown. While all art is but the expression of human desires and needs, the avenues of impressions through the senses subdivide it in subtle ways, the subdivisions becoming more and more ramified as each sense comes to the aid of the other, and as all the branches of art are interwoven to form the great fabric of expression.



DETAIL—TORONTO UNIVERSITY.

ONTARIO ASSOCIATION OF ARCHITECTS.

(Continued from Page 11.)

thing if some kind of affiliation with the Canadian Institute could be arranged and the library removed there. This would enable the registrar to control the really necessary business of the Association at a moderate cost.

Mr. Dick said the members must not delude themselves with the idea that the examinations could be carried on at a cost of ten dollars or any such sum. By the courtesy and good nature of the gentlemen who had conducted them that had been rendered possible, but it was not to be expected that that could continue; it would be an imposition on good nature.

Mr. Burke remarked that in the English association the work of the examinations was conducted gratuitously by some of the busiest men in the profession.

The Registrar pointed out that the printing of the examination papers alone cost \$25, and that when the examinations were held at the School of Practical Science the remuneration for the necessary attendant was two dollars per day for the five days. Last year the examinations had been held in his office, and there was no printing done, because only two students were examined.

The President said that in making his suggestion he had not thought so much of the actual expense of carrying on the examinations, but of giving the students something to work upon in the way of a diploma or degree.

Mr. Aylsworth thought it would be productive of better results were the work divided among three committees.

Mr. Gregg, in order to simplify matters, put his motion in this form: "That a committee be appointed to consider the suggestion made by the President in regard to the government taking over the examinations, and to report to-morrow."

Mr. Siddall moved in amendment, that in addition to the subject mentioned in the President's address, the whole future conduct of the Association be also included.

Mr. Burke said he would be very glad to support Mr. Siddall's motion if he would separate it from the other. Mr. Siddall said that would meet his views just as well.

The President then put Mr. Gregg's motion to the meeting as follows: "Moved by Mr. Gregg, seconded by Mr. Jarvis, that a committee be appointed to consider the suggestion made by the President with regard to the government taking the examinations, and to report to-morrow." (Carried.)

Messrs. Gregg, Jarvis, Siddall and Baker were appointed as the committee.

Mr. Siddall then said the committee he wished appointed was one to consider the whole future of the Association, and to bring in recommendations for improvement or any other recommendations they may think desirable. It had been stated that things were not in a proper state, and that there was very little prospect ahead of the Association. If that was the position it was necessary that they should take stock of themselves, and he wanted a committee appointed to do that.

Mr. Baker, in seconding Mr. Siddall's proposal, asked if it could not be accomplished by adding two members to the committee already appointed.

After some further discussion as to the desirability of one committee considering all the matters referred to, on motion of Mr. Siddall, seconded by Mr. Baker, it was resolved that Messrs. Aylsworth and Gray be added to the committee already appointed, and that it consider in addition to the question already submitted the question of the position of the Association and its finances.

The Registrar then moved the following resolution, which was seconded by Mr. Curry: "That the Ontario government be requested to make a systematic test of Canadian building material, the test to be conducted by the School of Practical Science, assisted by a committee of the Ontario Association of Architects."

Mr. Jarvis asked if it would not be advisable to add to that that some members of the Association be associated with those making the tests. He thought it ought to be seen that the piers or materials on which the tests were conducted were not much better in ma-

terial or construction than those in every day use for building construction.

The Registrar said it was intended that these should be Association tests made by the government machinery but with the co-operation of the Association.

The resolution was carried.

The convention then adjourned until 10.30 on Tuesday morning.

SECOND DAY.

The proceedings of the convention were resumed at 11 o'clock on Wednesday morning, the President in the chair, when Mr. Edmund Burke read a paper opening the discussion on "Steel and Iron Construction." [This paper, with the discussion thereon, will be printed in a future issue.]

REPORT OF SPECIAL COMMITTEE.

The report of the Special Committee appointed to consider the question in regard to examinations, the position of the Association and its finances, was then read by Mr. Gray as follows:

JANUARY 12, 1898.

Report of Committee appointed by the Convention of the Ontario Association of Architects to consider the following questions, viz.,

- 1st. The question of Examinations.
- 2nd. " " " the Finances of the Association.
- 3rd. To consider the future working of the Association.

Your Committee met and beg to report as follows:

RE EXAMINATIONS.—Your Committee beg to recommend that the suggestion of the President, re Examinations, Degrees, etc., be referred to the following Committee, viz., Messrs. Gordon, Wright, Wickson and Siddall, to confer with the Council and to report at next meeting.

FINANCES.—This Committee beg to recommend to the Council that clause No. 1 in the by-laws under the heading "Salaries of Officers" be altered to read as follows: "The salary of the Registrar shall be fixed by the Council from time to time," and also recommend that the salary shall not exceed \$100 for the duties of Registrar and Librarian. The Committee strongly recommend to the Council that the Registrar be instructed to make every effort to collect the membership fees outstanding; and that clause No. 4, on page 5, under the heading "Members Fees," be enforced after this effort has been made.

THE FUTURE WORKING OF THE ASSOCIATION.—While the results from the untiring efforts made by the present and past members of the Council and Registrar, to further the objects of the Association, have been in some respects disappointing, this Committee would urge that those efforts be not relaxed, until they are rewarded by success. Your Committee would recommend that the word TEN in clause No. 2 of by-laws passed by the Association at the annual meeting be struck out, and the word FIVE be substituted. Your Committee strongly recommend the united effort of the members of the Association to encourage and maintain by their counsel, advice and personal attendance the local chapters inaugurated by the Association.

Signed, on behalf of the Committee,
J. WILSON GRAY, Secretary.

On motion of Mr. Gregg, seconded by Mr. Siddall, it was resolved that the Report of the Committee be received for consideration.

Mr. Dick suggested that the report be taken up subject by subject, beginning with that referring to the examinations. The report simply made certain recommendations, without giving any argument as to why the course recommended was thought advisable. He thought the Chairman of the Committee should state the reasons which induced them to come to the conclusions expressed.

Mr. Gregg moved that the first clause of the report, recommending that the matter of the examinations be referred to the Council, be adopted, and that Messrs. Wright, Gordon, Wickson and Siddall be appointed a committee to act with the Council in carrying out the recommendations of the report.

Mr. Gray seconded the motion.

Mr. Curry said he did not see any necessity for such a motion as the one before them. The committee had been appointed for the purpose of bringing forward some scheme of action, but the only thing they had done was to recommend that a number of gentlemen be added to the Council in the consideration of the matter. The Council had not refused to do its work, and it had not been shown that it was unable to do it, and under the circumstances he thought the motion was rather a peculiar one to be made.

Mr. Gregg explained that no slight whatever was intended toward the Council, indeed he thought they had been careful to guard against even the appearance of such a thing.

Mr. Curry said there was not the slightest objection to the Council conferring with the gentlemen named in regard to this matter, if desired, but the request should be made in a regular and proper manner.

Mr. Gregg thought the committee would be quite willing to change the wording of the motion, so that it should read: "That the subject be referred to the Council with a request that the following committee be consulted."

Mr. Curry said that in that form he had not the slightest objection to the motion. He was not raising any objection except on purely technical grounds, as to the way in which the matter was put. He also wished to remind them that there would be three new members appointed to the Council at the present meeting, which afforded an opportunity to place on the Council some of the gentlemen with whom the committee recommended that the Council should act. He felt sure the Council was willing to receive suggestions from any member, their only desire was to carry out the will of the majority of the Convention.

Mr. Gregg then changed his motion to the following: "Your committee beg to recommend that the suggestion of the President, re examinations, degrees, etc., be referred to the Council, and that the Council be respectfully requested to consult with the following members."

The motion in the amended form, being seconded by Mr. Gray, was then carried.

Mr. Gregg read the clause of the report dealing with finances, as follows: "This Committee beg to recommend to the Council that Clause No. 1 in the by-laws, under the heading 'Salaries of Officers' be altered to read as follows: 'The salary of the Registrar shall be fixed by the Council from time to time, and also recommend that the salary shall not exceed \$100 for the duties of Registrar and Librarian. The Committee strongly recommend to the Council that the Registrar be instructed to make every effort to collect the membership fees outstanding, and that clause No. 4 on page 5 under the heading, 'Members Fees' be enforced."

Mr. Dick pointed out that while the report recommended the reduction of the salary of the Registrar it made no provision for lessening his duties, but, on the other hand, rather added to them because they urged that no relaxation be made in the efforts of the Council to procure legislation, and also recommend further effort in getting in the outstanding fees, which, of course, meant an increase of correspondence, etc., for the Registrar. He could only say if there was any member of the Association who, for the sum of \$100 per year, was willing to undertake duties hitherto devolved upon Mr. Langton as Registrar, that member would have to be prepared to make very great sacrifices.

Mr. Curry agreed that there ought to be no cutting down of the Registrar's remuneration without a corresponding reduction in the volume of his work, which, in connection with the efforts to secure legislation had been tremendous.

Mr. Wickson thought it was quite likely the work of the Registrar for the coming year would be comparatively light, and as the Council would be fully informed of the nature of the duties performed by him he thought it would be well to leave the matter in their hands—that the salary of the Registrar be fixed by the Council.

Mr. Kennedy said he felt sure the efforts of Mr. Langton had been very highly appreciated by those who, like himself, lived in places outside of Toronto, and he deprecated the idea of any reduction being made in his salary, at all events for the present year.

Mr. Baker explained that the members of the committee recognized as fully as anyone the value of the past services of the Registrar, and the sum of \$100 had only been inserted in the report after much deliberation on the part of the committee. The intention had been to place the members on their honor to make an effort to extricate the Association from the position in which it was, and the committee had thought there would not

be wanting members who would be willing for a year or two to sacrifice their time in carrying on the duties of the Registrar. With practically no examinations and a small membership they would for a time be not very heavy.

Mr. Gregg said that in order to save time and simplify the matter the committee would strike out the recommendation as to the amount of the Registrar's salary, and leave it as follows: "That the salary of the Registrar shall be fixed by the Council from time to time." That would make the three clauses in the by-laws in regard to salaries of officers all read alike.

The President thought that would have to be put in the form of a notice of motion.

Mr. Gray pointed out that the clause in question was only a recommendation to the Council to consider the matter of salary.

Mr. Curry said it was not within the power of the Council to change the clause in the by-laws referred to.

The President thought it could be done in the way proposed, as a recommendation to the Council. The Council could report at the next meeting and take a vote of the convention.

Mr. Burke said that part of the difficulty could be eliminated. That was with the library. He felt sure there were a dozen members in Toronto who would undertake the labor incident to the small number of lendings of books and the care of the library. He felt sure the Council would loyally endeavor to carry into effect the wishes of the convention. He had no doubt Mr. Langton himself would be willing to continue the duties of librarian gratuitously. That would obviate the difficulty at least to the extent of \$100.

Mr. Curry said if the futile efforts at securing legislation were abandoned, which were the source of so much labor for the Registrar, in the way of preparing reports and dancing attendance at the Parliament Buildings, the salary might be reduced, but not otherwise.

The clause as amended was then carried, unani- mously.

Mr. Gregg then read the next clause: "The committee strongly recommend to the Council that the Registrar be instructed to make every effort to collect the membership fees outstanding, and that clause No. 4 on page 5 of the by-laws, under the heading 'Members fees,' be enforced."

Mr. Wickson called attention to the fact that if the proposed action were taken at least two thirds of the members would be stricken from the roll. Although it might be advisable to have a temporary cessation of the attempts to procure amended legislation, it did not follow that the effort was to be finally abandoned, and in any future efforts, if the proposal of the committee was adopted, there would be a very small membership and a by no means unanimous spirit in the profession to support it.

Mr. Gregg pointed out that the recommendation did not call for immediate action, but only that after every effort to collect the outstanding fees had been made clause 4 of the by-law on members fees should be enforced. The Council might give any length of time they thought proper.

Mr. Dick thought that clause in the report ought to be made more specific. If the Registrar had repeatedly written to the delinquents and his letters had been unanswered, what further efforts were proposed? Then they ought carefully to consider what would be the effect of the proposed action. There were now 132 members; if they dropped the 100 and retained the 32 what would be the position of the Association?

Mr. Siddall said that in most cases the notices sent out by the Registrar were laid aside and lost sight of, though members were willing and meant to pay. He thought if it could in some way be impressed upon members that if these notices were not attended to they would be dropped from the Association, many of them would pay up. He knew that in his own case that was the position, and he had no doubt there were many others the same. He thought in some cases a personal application would be successful.

The President said he did not think the Association

would like their Registrar to go round collecting fees in that way. The clause of the report might be added to the effect that if after a certain time the fees were not paid the member's name would be dropped.

Mr. Curry said the matter had been considered by the Council, and it had been found difficult to do anything. It was not desired to drive people out of the Association, and yet they did not pay their fees. He thought for the time being they would have to be simply a nominal association. He would propose an amendment to the clause under discussion, which he thought would answer the purpose: "The committee recommend to the Council that all members in arrears for more than three years shall be dropped from the list after notification by registered letter, but with the understanding that such member will be reinstated on the payment of all past fees."

Mr. Gordon seconded the amendment, remarking that it appeared to him to be the wisest course.

Mr. Burke also expressed himself as in favor of Mr. Curry's amendment.

Mr. Gregg stated that the committee willingly accepted the amendment, which was then declared carried.

An adjournment was then had for luncheon, which was served in the building.

AFTERNOON SESSION.

Proceedings were resumed at 2.30 p.m., when that part of the report of the committee dealing with "The Future Working of the Association," was taken up for discussion.

Mr. Gregg explained that the first clause under this head might be regarded merely as a preamble, it was merely giving credit to the Council for work done in the past under adverse circumstances, and expressing the opinion of the convention that they should not be discouraged but continue in their efforts. He moved the adoption of the clause.

Mr. Siddall, in seconding the motion, said that it was felt by the committee that while it was not desirable to abandon altogether the idea of securing the legislation to amend the charter of the Association, yet it was not necessary that object should be immediately pushed forward. By too much persistency in an indiscriminate manner the Association might make itself a nuisance, and it might be better to cease action in that direction for a period, until at some future time, under improved conditions it might be pushed to a successful conclusion.

The President suggested that as the clause was, as Mr. Gregg had said, merely a preamble, a separate motion was not necessary, but it might be taken in connection with the next clause, and the two passed under one motion.

Mr. Gregg assented to the proposition, and proceeded with the next clause of the report: "Your committee would recommend that the word 'ten' in clause No. 2 of the by-laws passed by the Association at the annual meeting be struck out, and the word 'five' be substituted." He explained that this would make a member who had been five years in practice eligible to a seat on the Council.

Mr. Dick said he had been looking over the by-laws, and found there was no provision for amending them.

The Registrar, having been asked whether any amendment had hitherto been made to the by-laws, stated that in 1895, just before the election of officers, the President presented a recommendation from the Council that retiring members be not eligible for reelection for one year, and this recommendation was passed at the same meeting as a by-law.

Mr. Curry, while personally in favor of the proposed change felt it would be a mistake to alter a by-law at a meeting when notice had not been given to all members of the proposed amendment. He thought the proper course was to give notice of motion now and let the matter go to the Council.

Mr. Gray explained that it was simply a recommendation to the Council, and the committee had not expected that the by-law would be changed at the present meeting.

The Registrar explained that it was not within the scope of the Council's functions to deal with this portion of the by-laws, which were passed by the Association in convention.

The President suggested that the clause be amended by adding: "And that this recommendation stands as a notice of motion to be discussed at the next convention."

Mr. Gregg having accepted the amendment suggested by the President the clause was then adopted.

Mr. Gregg then proceeded with the last clause of the report: "Your committee strongly recommend the united effort of the members of the Association to encourage and maintain by their counsel, advice and personal attendance, the local chapters inaugurated by the Association."

This clause was adopted without discussion, and on motion of Mr. Gregg, seconded by Mr. Gray, the report as a whole, as amended, was then received and adopted.

On motion of Mr. Wickson, seconded by Mr. Dick, a vote of thanks was then passed to the committee which prepared the report.

On motion by Mr. Gordon, seconded by Mr. Curry, the Committee on Building By-Laws was reappointed, the members being Messrs. Gordon, Burke, Pearson, Dick, Hall, Strickland and Wickson.

Mr. Gregg said that, referring to the Committee on Municipal Adornments, he observed that there was now a committee in Toronto for that purpose, and he would move that that committee of the Association be dropped.

The Registrar said he had been requested by the Advisory Board of the Toronto Guild of Civic Art to extend an invitation to any Toronto architect to become a member of that guild. The treasurer was Mr. James Bain, Public Librarian, and anyone who desired might become a member by sending his name to that gentleman, together with the sum of one dollar, the annual subscription fee. The Advisory Board of the Guild of Civic Art consisted of nine laymen and three architects, and had been accepted by the City Council of last year as an independent body that might be referred to in the appointment of experts, or to act with a committee of their own members in judging of competitive drawings and assisting in the decoration of the new City Hall. The guild was an absolutely independent body, and under its rules no member could receive in any form any emoluments for his services.

Papers were then read by Mr. Wickson on "The Supporting Strength of Different Kinds of Soil; by Mr. Pearson on "The Supporting Strength of Stone Rubble and Brick Walls; by Mr. Curry on "Deterioration as Affecting the Value of Buildings," and by Mr. Gordon on "Wooden Posts and Beams." Reports of these papers and of the discussions following will appear in the CANADIAN ARCHITECT AND BUILDER later.

In concluding his paper Mr. Gordon moved the following resolution:

Whereas there exists no satisfactory compilation of the results of tests of Canadian building materials. And whereas no exhaustive or even relatively complete system of tests has been made of Canadian woods used in building. And whereas the architectural and engineering professions are thus left without accurate information about the materials they are constantly required to use. And whereas the safety of the public and economical use of our native building materials require that such tests should be made. And whereas the Ontario Legislature has emphasized the importance of this matter by providing the School of Practical Science with expensive and efficient testing apparatus. And whereas the benefit of having such apparatus is largely nullified by lack of funds to select and prepare suitable specimens and carry on a complete system of tests.

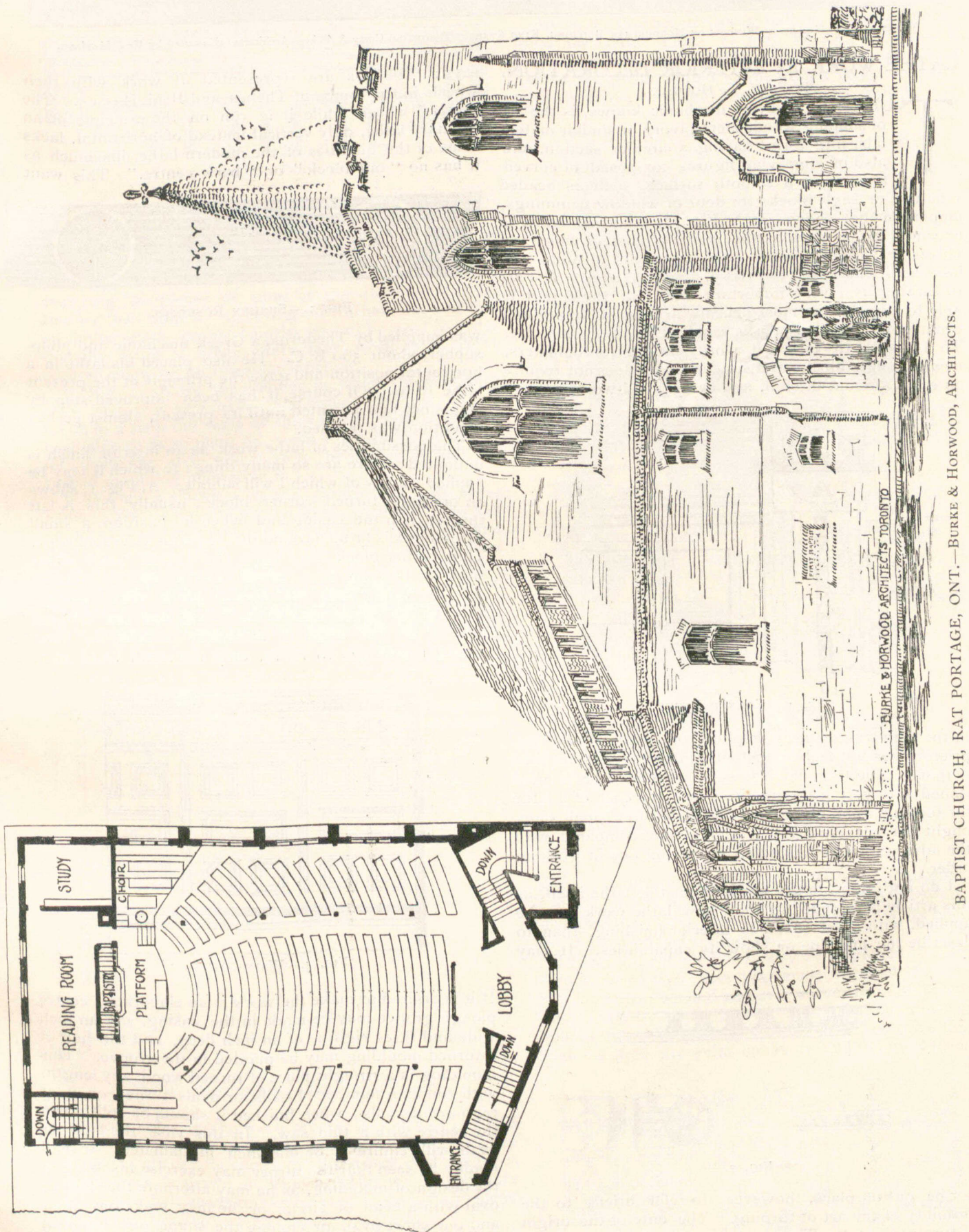
The Ontario Association of Architects in annual convention assembled respectfully petitions the Ontario Government to place at the disposal of the School of Practical Science an adequate fund for the purpose of selecting and preparing specimens of Canadian building materials and making extended tests of the same for the purpose of preparing reliable data for use in the building trades. And the convention is of opinion that a sum of not less than \$5,000 should be given to institute such tests.

It was pointed out that a motion to the same effect was carried on the previous day, but the mover of the previous resolution (Mr. Langton) said that Mr. Gordon's resolution was more exhaustive, and he would second Mr. Gordon's motion as a substitute for his own. The motion was carried.

The election of officers then took place. Of the four members elected in the previous year, viz., Messrs. Bell, Curry, Darling and Dick, one had been elected to supply the place of Mr. Alexander, of Ottawa, who resigned at that time with one year of his councillorship to run; but no distinction had been made in the election so as to define which of the four councillors elected

The ballot for new members of the Council resulted in the election of Mr. J. E. Belcher, of Peterborough, and Messrs. S. H. Townsend and A. F. Wickson, of Toronto.

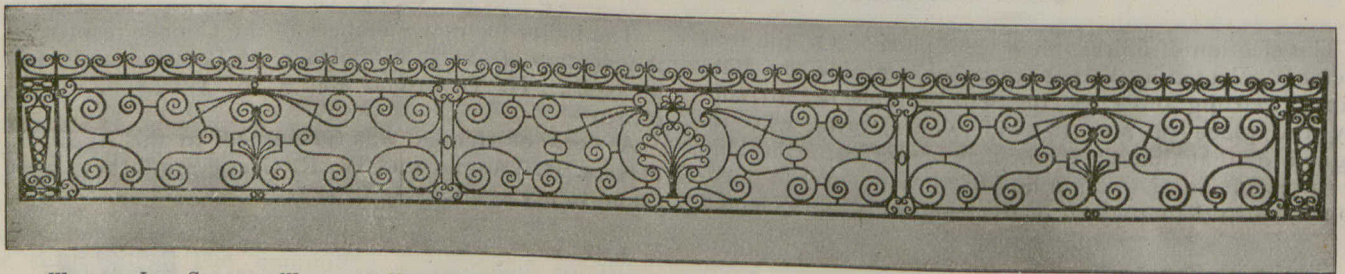
A vote of thanks was presented to the Auditors, Messrs. H. Langley and W. R. Gregg, and they were asked to act again.



BAPTIST CHURCH, RAT PORTAGE, ONT.—BURKE & HORWOOD, ARCHITECTS.

as Mr. Alexander's substitute, and therefore now to retire. It was decided that Mr. Bell should continue in the Council to preserve the balance of members not residing in Toronto. The three Toronto members then drew lots which should retire, with the result that Mr. Curry was drawn to retire.

Votes of thanks were passed to the readers of papers, to the Hon. Minister of Education for allowing the use of the building, and to Prof. Galbraith, Messrs. Wright and Keele and other members of the School of Practical Science for their kind assistance. The convention then closed.



WROUGHT IRON GRILLE IN WINDOW OF NORDHEIMER BUILDING, KING STREET, TORONTO.—Curry & Baker, Architects.—Executed by Geo. Meadows.

LATHE WORK IN INTERIOR DECORATION.

By FRED. T. HODGSON.

TURNING, as every mechanic knows, is the art of shaping wood, metal, ivory or similar materials, into forms having a circular section, and also of engraving figures composed of curved lines upon a smooth surface, such as beaded rosettes, or angle blocks for door or window trimmings, similar to that shown at A, Fig. 1. Turned work is executed on a machine the working part of which revolves very rapidly when used for wood turning, and less rapid when used for ivory, brass or iron. The art of turning is a very important one, and the expert is able to execute the most delicate articles of luxury and ornament, as well as works required for every day use. To be able to turn out work suitable for balusters, newels, angle blocks and similar work, does not require an extra amount of skill, and every wood-working shop

says: "Potters are represented at work with their wheels in the tombs of Thebes and Beni Hassen. The potters' wheel, while it is run on the principle of an ordinary lathe, only vertical instead of horizontal, lacks some of the qualities of the modern lathe, inasmuch as it has no "tail block" or "back centre." This want

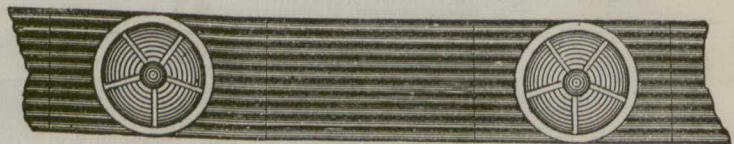


FIG. 1.—SUNKEN ROSETTES.

was supplied by Thedorus, a Greek mechanic and philosopher, about 560 B. C. He also placed his lathe in a horizontal position and gave the principle of the present lathe to us. Of course it has been improved step by step since first invented until its present, almost perfect condition was reached.

The possibilities of lathe work as an interior finish is unlimited; there are so many things to which it may be applied—a few of which I will submit. A, Fig. 1, shows an ordinary turned corner block; usually this is left thicker than the casing and when in position a small moulding x is broken round the frame on its vested edge. This corner block may have the turned work either sunk or intaglio, or a turned rosette may be planted on. In either case the turned block adds considerably to the appearance of the work, and the labor in putting on the finish is materially reduced as there are no mouldings to mitre, only the small band at x.

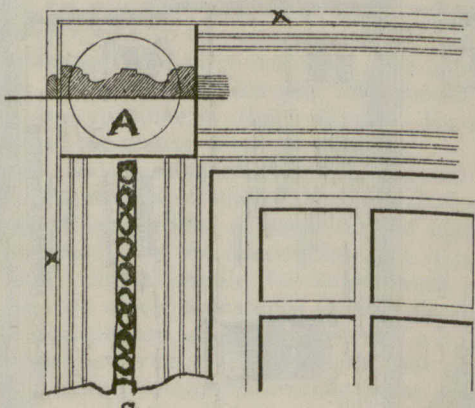


FIG. 1.—CORNER BLOCK.

in the country generally employs one man—if the proprietor does not feel competent himself, or has no time—that is able to make just such work as I have mentioned with very little practice; and the cost of a lathe for turning wood alone, and one suited to a small shop, ought not to exceed \$75, a trifling sum compared with the advantages to be gained by having one in working order.

I do not intend to say much about the lathe itself, as this article is intended to show how lathe work may be applied, with good effect, to interior finishing, than to describe the machine or show its capabilities. It may

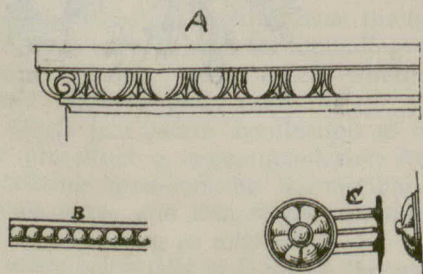


FIG. 2.

not be out of place, however, to refer briefly to the antiquity of the art of turning. The date of the origin of turning is lost. The art was probably known long before historians began to write, as the oldest Egyptian monuments had representations of the potter at work with his lathe, and in Scripture history we have in Jeremiah a distinct allusion to the potter and his wheel; this date is about 500 B. C. In Wilkinson's "The Manners and Customs of the Ancient Egyptians" he

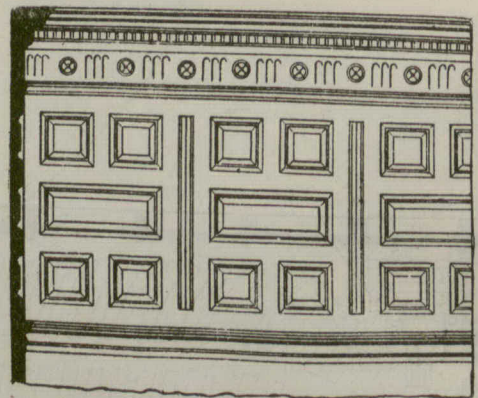


FIG. 4.—WAINSCOTING.

If it is desired to make the work more elaborate a centre plough groove may be made in the casing, say an inch wide and three eighths of an inch deep, and the half of a turned moulding may be planted in the groove. This moulding is a straight piece of turned wood, any length, with simply a number of balls or ovals turned on it at regular intervals; when finished it should be split down the centre with a thin saw. In this case the balls or ovals will require to be one inch in diameter. It will readily be seen that the turner may exercise his taste in the design of moulding, as he may alternate the ball or oval with a bead or angle, or he may make one long and one short oval, or change the shape one hundred ways. As a trick of the turning trade, I might first say, that the professional takes two pieces of stuff, joints them to right dimensions, then glues another piece of stuff on the paper. He then centres his work on the line of the paper joint, and when finished in the lathe he forces the blade of a knife or a chisel in the joints and the paper splits and separates nicely and

truly. This method of ornamentation may be applied to a thousand things. The bottom rails of parlor sashes, rails of doors, base, rails of wainscoting or mantels and other fittings.

Fig. 2 shows three methods of using turned work. A shows what is known as egg and angle. The corner piece is, of course, carved and the angle in this case is

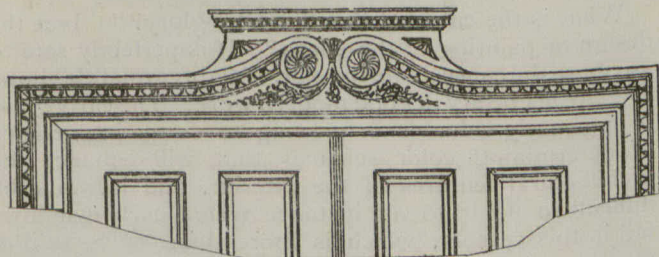


FIG. 5.—SLIDING DOOR FINISH.

also "trimmed out." The whole of this is wrought in the lathe in suitable lengths and is then quartered, so that one length of turned work makes four lengths of moulding. This should be glued together in four pieces with paper between the joints and care must be used in centring the pieces or some of the quarters will be smaller than others. In laying out turned work of this or similar kind, proper lengths should be used in order that the mitre or other joints may work in all right without showing an irregular junction.

B, Fig. 2, shows the manner in which the moulding at S, Fig. 1, is arranged. Sometimes this moulding is made in a strip the same as shown at B, with a fillet on each side so as to plant on some work prepared for it. Of course the strip will have to be ploughed, and the turned moulding planted in it.

C at Fig. 2 shows a raised rosette and section of same. This is first turned to shape, with the little ball in the centre as shown, and then it is lined off and carved. Any joiner or turner can carve these rosettes after half an hours' practice. These little ornaments may be used in many ways for decorative purposes. A good way to use them or any other rosette is to have them made all to one size and then, with an expansion

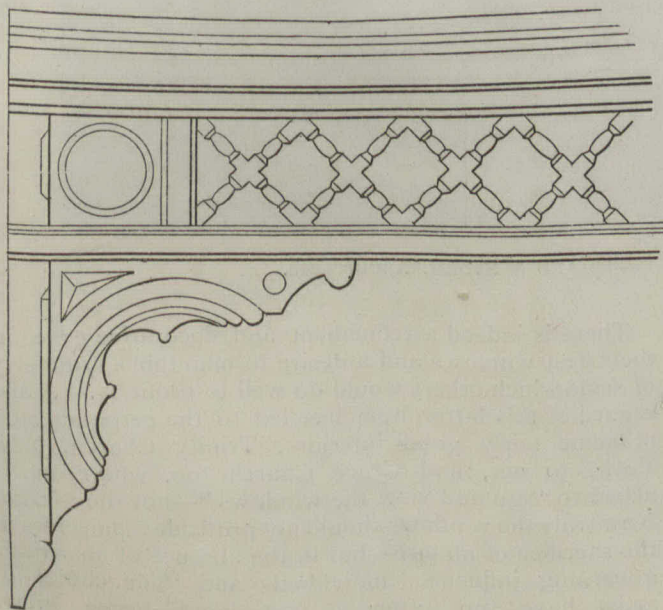


FIG. 7.—DESIGN FOR ARCH ACROSS HALL.

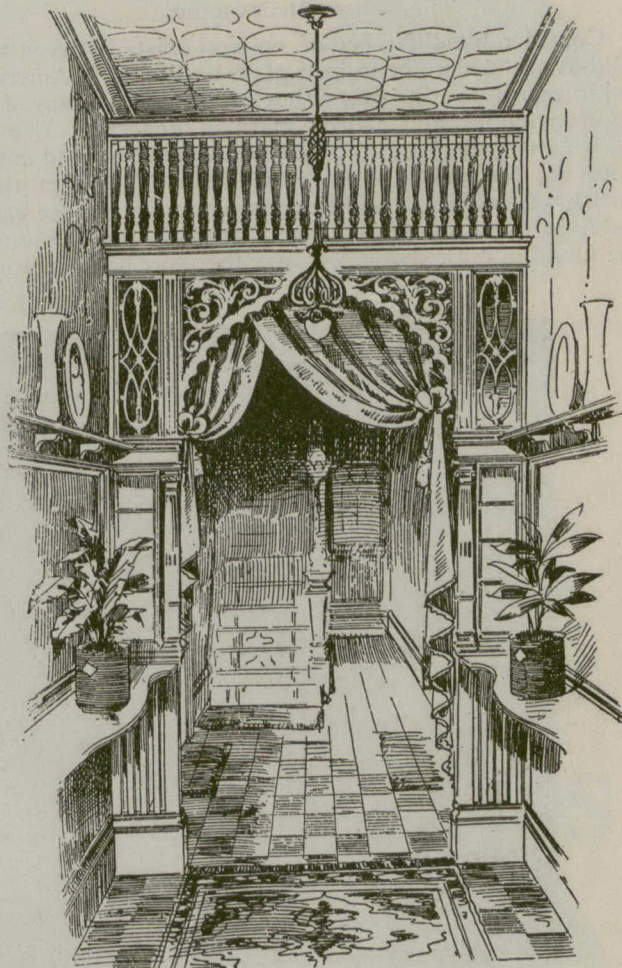
bit, bore holes in the work where they are to go, and drop in the rosette until it is flush with the face of the work. This can be done even if the face of the work is beaded, as is shown at Fig. 3, when the rosettes are flat with small beads turned on their faces to correspond with the work into which they are inserted.

At Fig. 4 I show a portion of panelled wainscoting in which are inserted rosettes in the freize at regular intervals. The cornice or top finish consists of several members, and the reader, if he follows this design may substitute the "egg and angle" for the dentils; indeed it would look much better if the latter were employed.

Fig. 5 shows how the egg and angle moulding and

rosettes may be applied to the finishing of doors or windows. This is especially designed for a pair of sliding doors, but it will answer equally well for single doors or for a window. The rosettes are carved and are planted on. They may be simply beaded like those in Fig. 3, or they may be made like C, Fig. 2. The carving underneath the rosettes may be dispensed with if the workman has not sufficient skill to cope with it, though I have seen many country joiners who would have no trouble in doing this carving.

An arch thrown across a hall or passageway is a good decorative idea. It may be simple and easily made as Fig. 6, or it may be elaborate and assume the nature of a grille, similar to the design shown in Fig. 7, which is taken from the London Cabinet Maker. The



A NARROW HALLWAY TREATMENT.

FIG. 7.

idea is, of course, capable of considerable extension, as it also is of limitation, and though the design before us may seem very costly, as a matter of fact it is not beyond the reach of moderate means.

Turned or spindle work may be employed to advantage in the construction of screens for windows or for grilles over nooks and corners where it is intended to hang curtains. Shelves over doors and windows with spindle railing make both a useful and decorative finish. Such features are quite common in France, Germany

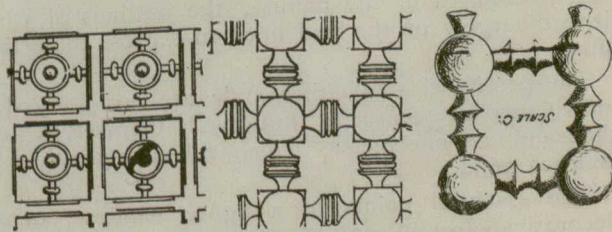


FIG. 8.—DESIGNS FOR SPINDLE WORK.

and some parts of England, in middle class houses. To give the operator an idea as to the manner of making grilles, screens or spindle work, I submit a few designs, Fig 8, from which he may gather sufficient

data to enable him to make work from these designs or invent more suitable ones, and I am sure the country builder, who is left to his own resources to ornament and beautify the houses he builds, will be able to find many places that will be greatly enriched by the introduction of appropriate lathe work.

I have made no reference to balusters or newels, knowing that every builder must have some knowledge of these, and with this knowledge and the hints given herewith he will be able to elaborate and vary his work in such a way as to make it handsome and in good taste.

THE DETERMINING QUALITY IN STAINED GLASS WINDOWS.

By ROBERT McCausland.

Considerable difference of opinion exists between the Old-World artists in stained glass and those in America with regard to the glass that should be employed in figure windows and church glass in general. Also as to whether painting, to any great extent, should enter into the formation of such windows. The fact that artists of undoubted ability conscientiously oppose each other in these matters is proof that good qualities are to be found in both styles. It may therefore be interesting

early glass, which, though often grotesque in detail, is charming in its color values.

"Lo! as at Dawn the Eastern windows glow
With miracles of color and tracery fine,
While all the west is cold; till soft and long
The deepening shadows in the chancel grow,
And the day wanes—then like a flood of fire
The Great West Window all aflame doth shine,
And lends a mystic glory to the song
That floats from out the dim, half-lighted Choir."

What is the cause of this "mystic glory?" Is it the design or painting of the glass? It is perfectly safe to attribute the cause alone to color. All three qualities however are necessary in good modern work. The early glass is immensely valuable in proving to us the importance of determining color schemes that will enhance the architectural features of the interior, and it would be difficult to point to an instance where early windows fail in this respect, which is more than can be said of much recent work, the cause of which will be referred to later.

In the best modern English windows the designing, working cartoons, arranging the coloring and painting of the glass, are the work of carefully trained artists, each stage of the work receiving equal care and skill. The result under these conditions is invariably satisfactory and fulfils its purpose to a degree worthy of the closest observation.



REAR VIEW TORONTO UNIVERSITY.—CUMBERLAND & STORM, ARCHITECTS.

to note the points which constitute these qualities, and make both, to a greater or lesser degree admirable, though so widely different. The English method consists of painting with a brown enamel and amber stain on various colors and gradations of glass, technically known as "antique." The American method consists of a series of inlays of "opalescent" glass without painting, except in the flesh portions, which are usually executed in semi-natural enamel colors and afterwards backed, or plated, with a pale film of smooth opal glass, thus bringing the flesh into harmony with the draperies and accessories of the picture, the outlines of which depend largely on the lead lines to express the artist's aim.

The possibilities of either style are not gauged by individuals or centuries but lend themselves to a thousand and one phases which will always allure the creative mind.

The essential points of a figure window, or any decorative effort in stained glass, are 1st, color; 2nd, design; 3rd, painting. If the color scheme is satisfactory, one may forgive inferior design; on the contrary, however excellent the design or painting, if the distribution of color be inharmonious, the result is disappointing. This is forcibly illustrated in much of the

There is indeed a refinement and decorative grace in their best windows and a desire to maintain a symmetry of scale which others would do well to profit by. A disregard of this latter item has led to the perpetual ruin of some fairly good interiors, Trinity Church, New York, to wit, and Grace Church too, where one is asked "go and view the windows"—not the church. Now truly the windows should not protrude themselves at the sacrifice of all else—but in the absence of an artistic governing influence, individuals and their choice of artist have too often a free hand—hence many churches contain a great variety of "specimens of memorial windows."

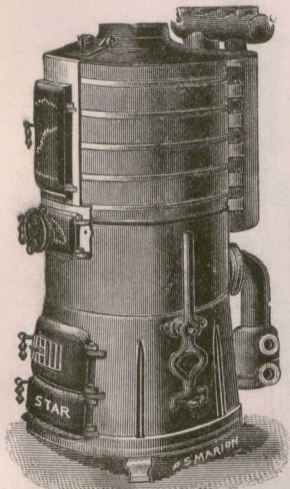
The importance of an equality in scale, therefore, as well as a continuity of design and studied color scheme throughout, must be apparent. It was this very principle that brought about the effects we so much admire in early glass.

Allow me to say in conclusion: opalescent glass is undoubtedly a fascinating medium. It possesses a kind of hypnotizing influence, not always soothing, but even in its most fantastic vagaries there is a certain charm about it which one can scarcely escape.

The question is, "Is it the true principle?" Let us consult our forefathers!

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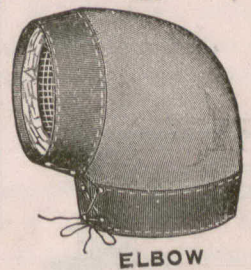
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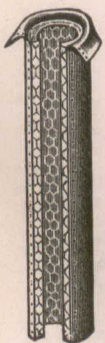
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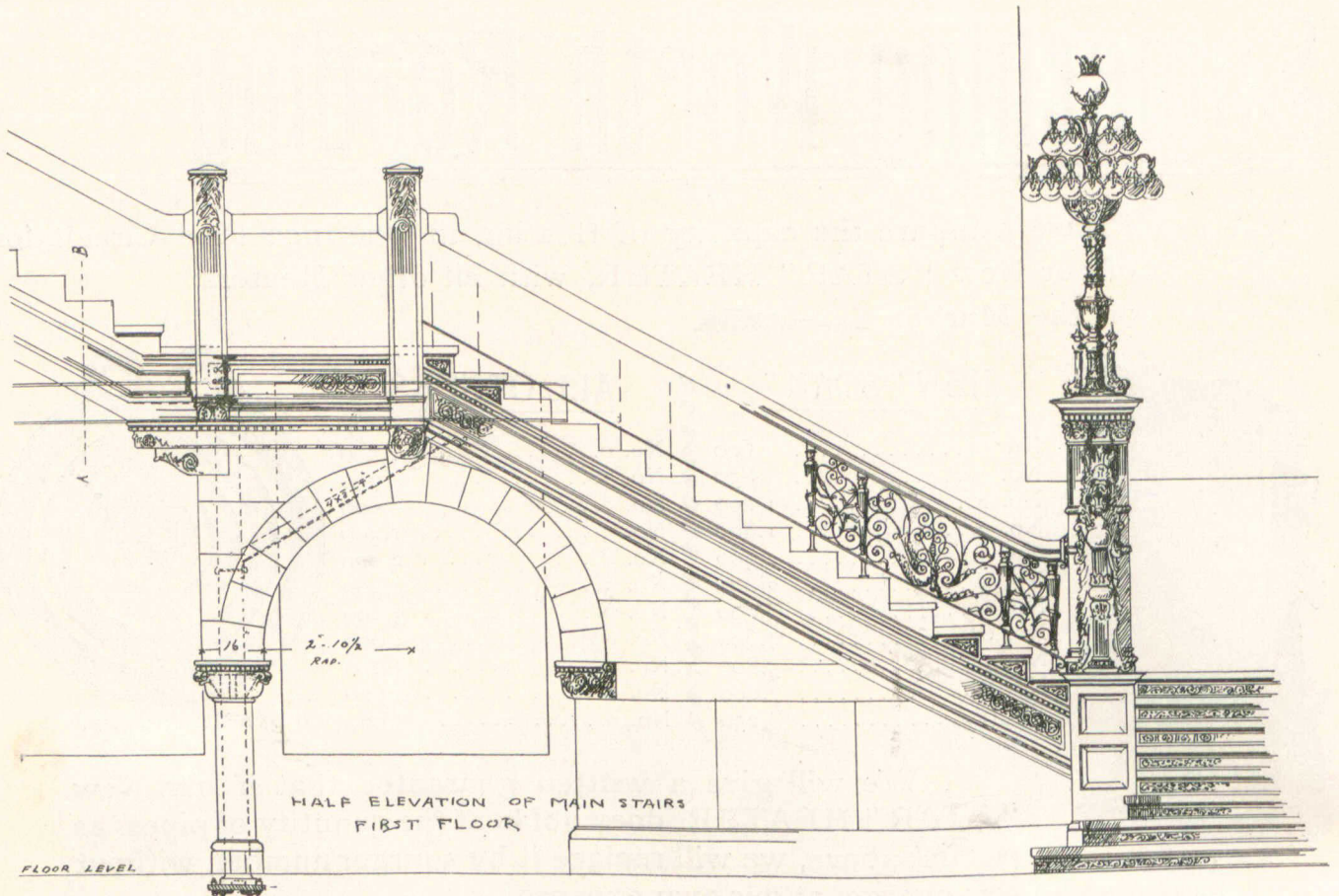
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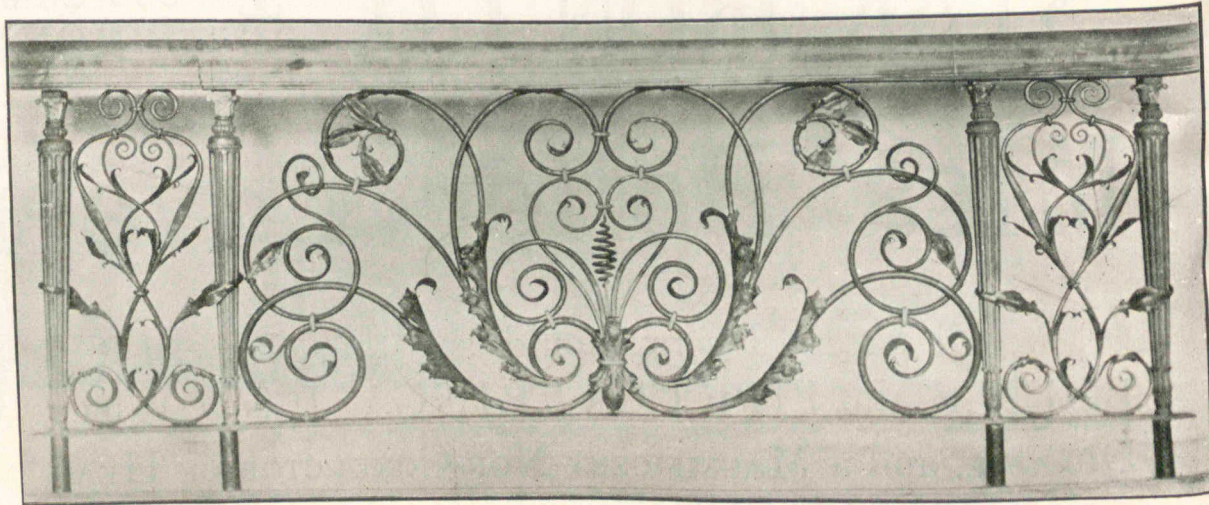
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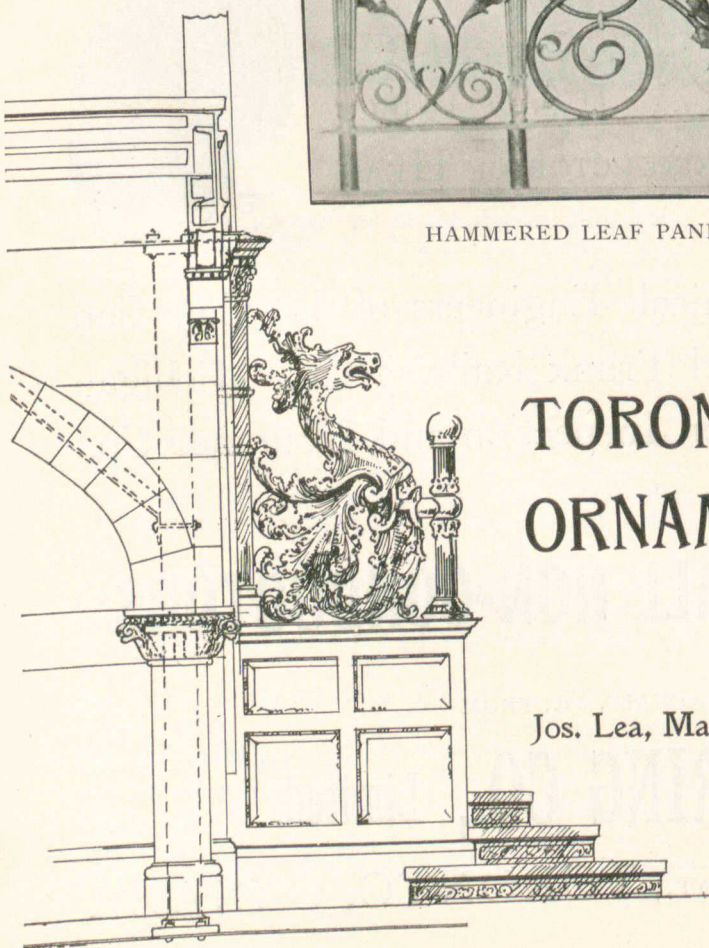
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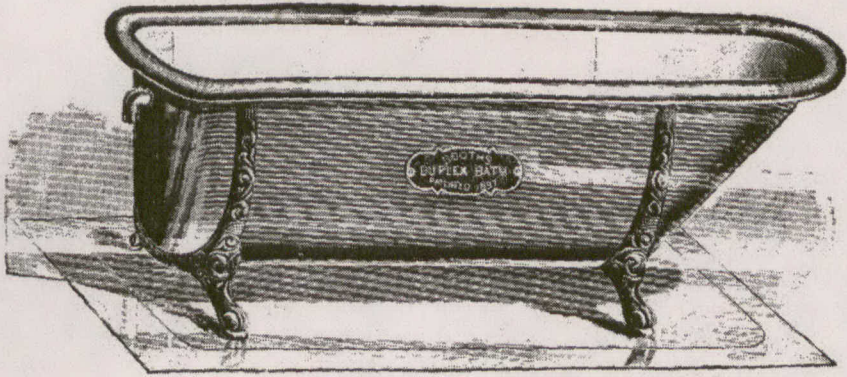
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