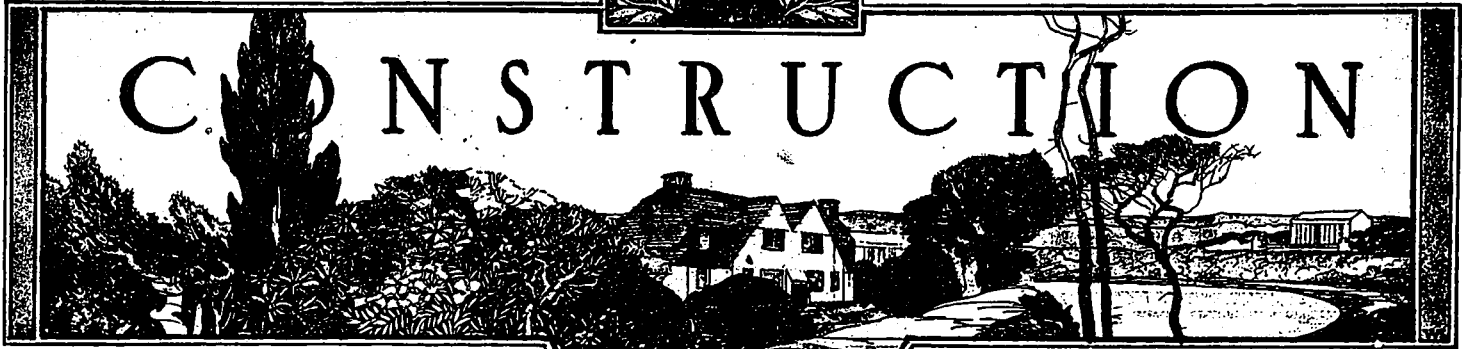


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CONSTRUCTION



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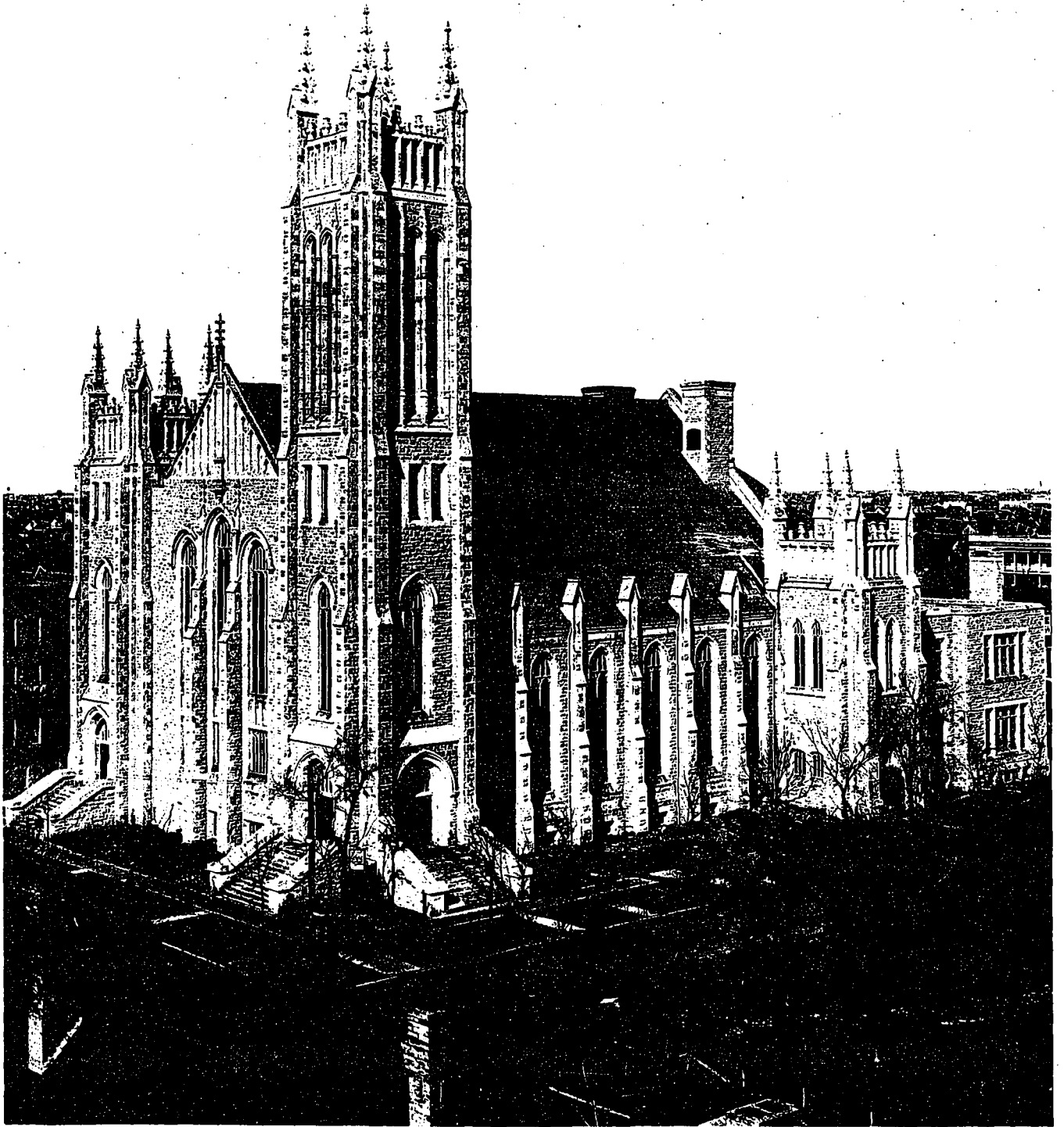
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BRANCH OFFICES

MONTREAL

NEW YORK



NEW KNOX PRESBYTERIAN CHURCH, WINNIPEG.

J. H. G. RUSSELL, ARCHITECT.



NEW KNOX PRESBYTERIAN CHURCH, WINNIPEG

J. H. G. RUSSELL, Architect

The problem in mind in designing this church was to produce a scheme adaptable to the site, ideally located on the northwest corner of Qu-Appelle avenue and Edmonton street, and overlooking the Central Park. The Early English Gothic character of the exterior shows but little use of ornamental detail, the whole scheme depending largely for effectiveness upon its simplicity of treatment, and the judicious use of the Tyndall stone facework, which shows to advantage in the perpendicular lines throughout, and is especially exemplified in the towers.

The main tower rises to a height of approximately one hundred and forty-six feet above the sidewalk, and from the entrance arched doorways to the large louvred arched openings around the belfry, terminating with pinnacled embattlement at the roof, the severe detail has been maintained throughout.

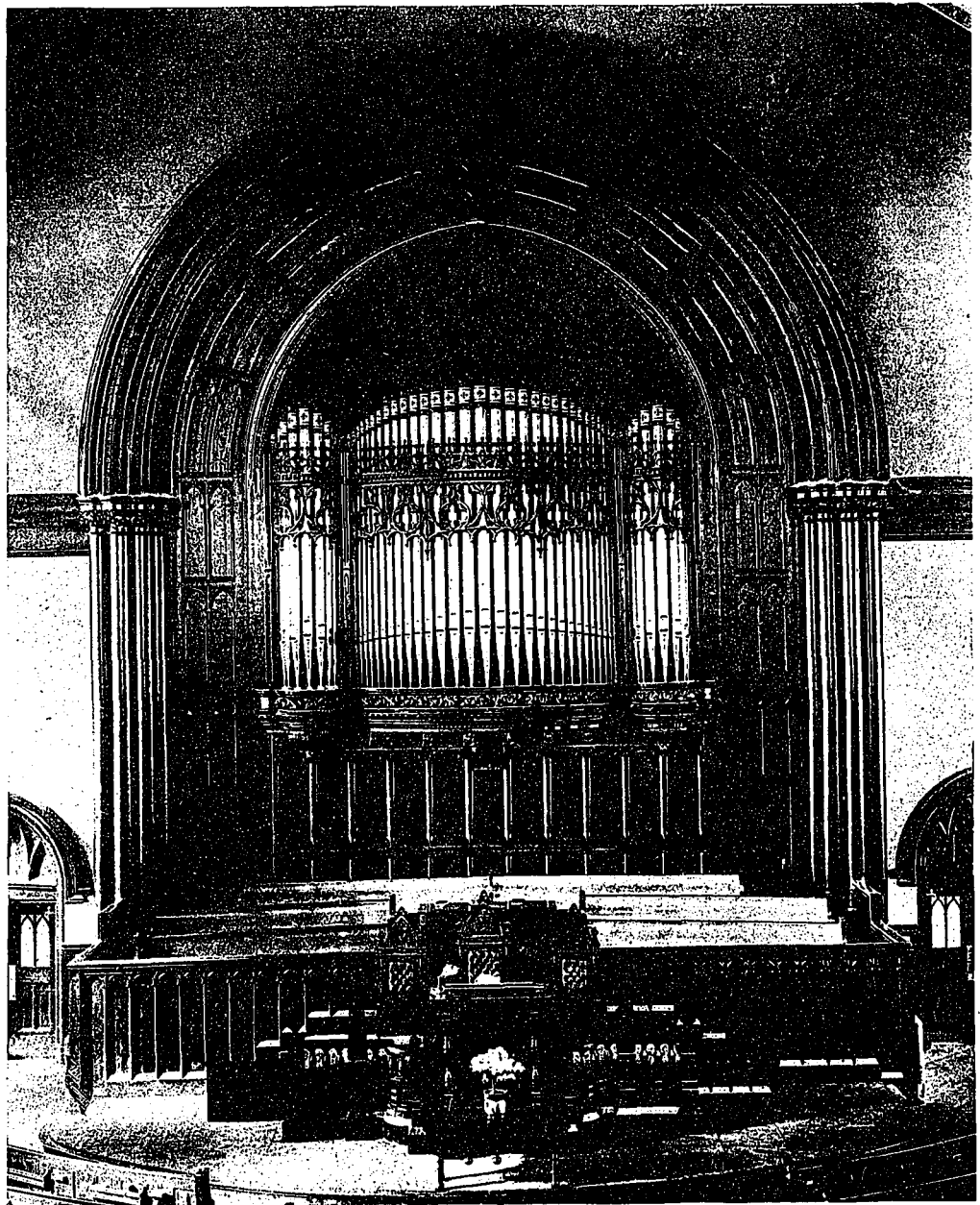
The interior construction of the church is of reinforced concrete, and the roof is carried on steel trusses. The interior finish is of birch, stained in walnut; the vestibules and foyer have tile floors with marble base, and the stairs to gallery are of reinforced concrete, with marble tread risers and strings.

Broad flights of stone steps lead up to the entrances, that open into spacious vestibules, through which one passes into the foyer, which is large and comfortable and warm, and cheerful in color treatment, and is more than a passageway to and from the auditorium; it is also a gathering place after services and provides the means for social intercourse inside the church building, and nowhere is this more exemplified than in the arrangement of the gallery stairs. The

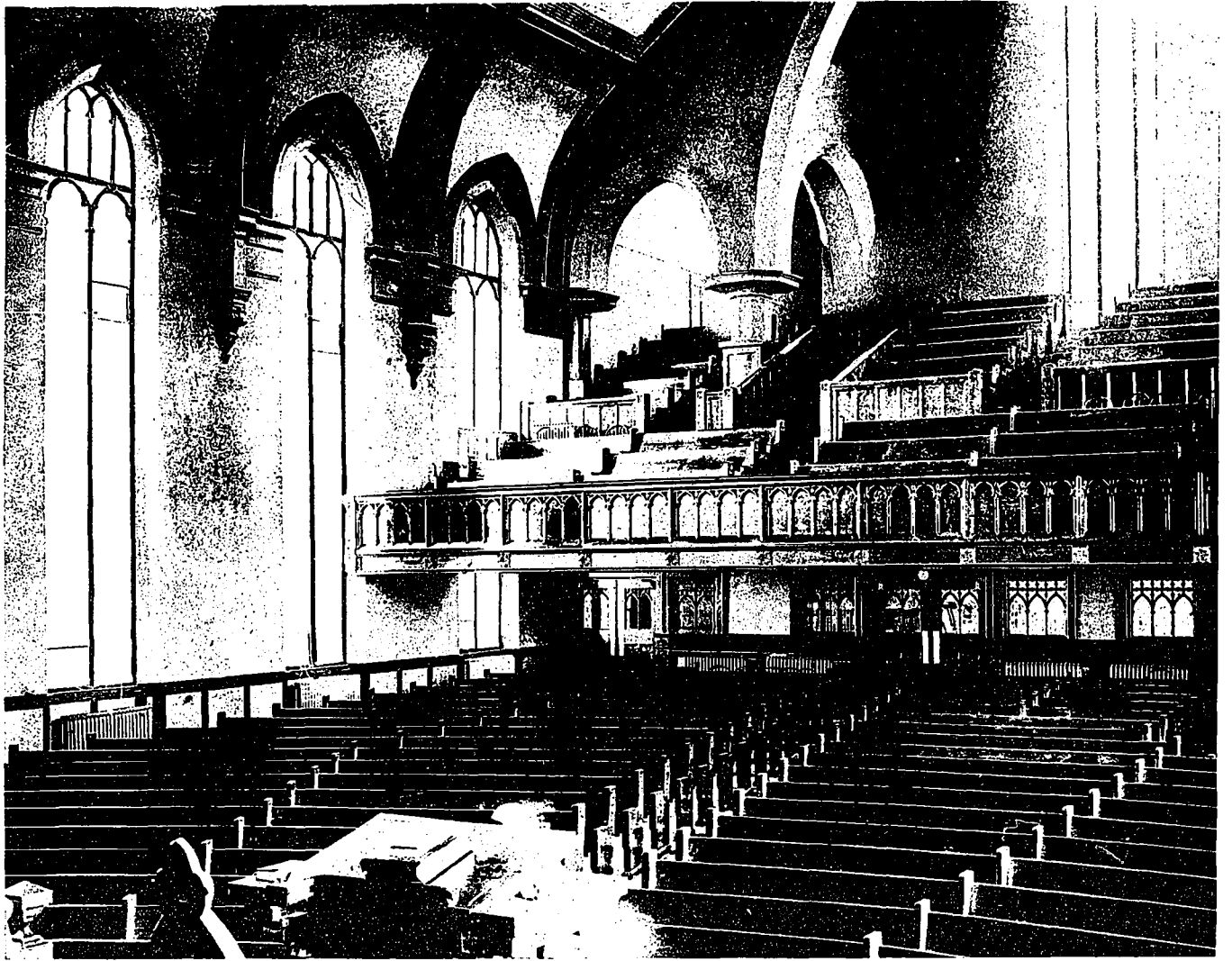
dominant feature of the foyer is the Gothic screen, through which five sets of double doors give access to the main auditorium, eighty feet wide, and with a seating capacity for eight hundred and ten persons. The seats are run on a curved radius, set on a bowled floor, which allows of a clear vision to every occupant.

The gallery has a seating capacity for an additional four hundred and twenty persons, and is of reinforced concrete construction, supported by large cantilever beams, which eliminates the necessity of columns to support its eight-foot span over the auditorium.

At the north end of the auditorium a recessed apse encloses the organ, which was removed from the old building and rebuilt in new position. At each side, incorporated in the organ enclosures, are entrances to the choir, which is enclosed all round by a Gothic panelled rail. Another link with old associations is the re-erection in the new building of the pulpit from the old



DETAIL OF PLATFORM AND ORGAN, KNOX PRESBYTERIAN CHURCH, WINNIPEG.



AUDITORIUM, KNOX PRESBYTERIAN CHURCH, WINNIPEG.

church, with its rails complete, this pulpit platform being surrounded by a raised dais for communion table, and seats for elders.

The walls of the auditorium are broken up into vertical panels by large Gothic windows, through which a flood of light in mellowed tones of cathedral colored leaded glass adds brightness to the general design. The large triple windows on the south elevation are a special feature, and will admirably allow of memorial decorations in rich effect, without sacrificing the volume of light.

The arched ceiling of the auditorium rises to a height of approximately fifty-seven feet to apex, and the disposition of the ceiling ribs and main trusses is such as to produce a panelled effect well calculated to carry attention, the main rib terminations being incorporated in the cornice running around the church, with cast figure trusses.

The towers are carried by arches on octagon columns over galleries, thus giving a clear sitting area at these points, and obviating any break in the whole area of seating.

The lighting is derived from diffusers in ceiling panels carrying powerful reflectors. A ne-

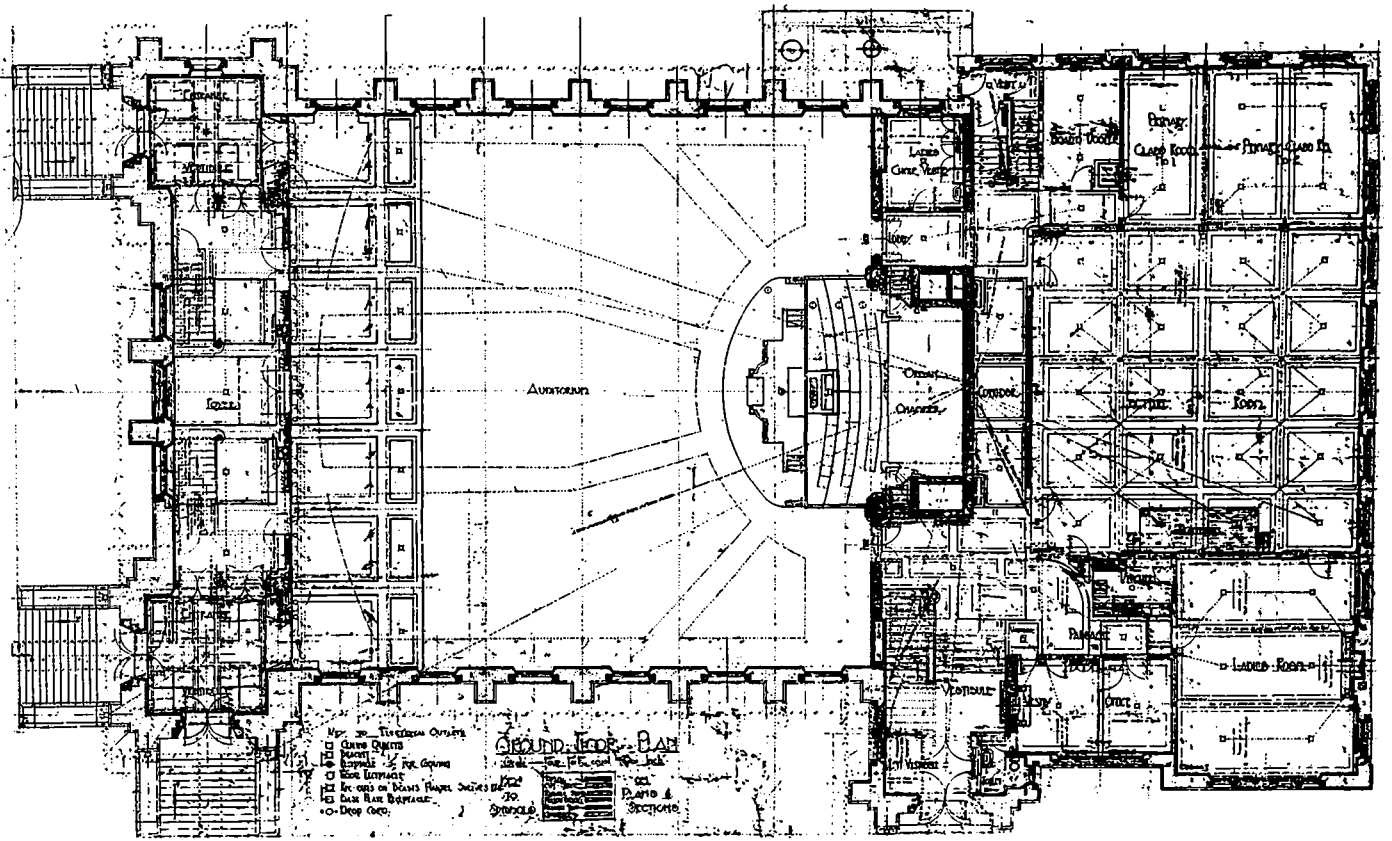
cessary amount of semi-indirect light is provided under the gallery and in other parts of the church.

The Sunday school building is laid out to suit the special requirements of the organization, is easy of access, and, with a view to economy in working effort, from the close proximity of the choir vestries to the church to the privacy afforded the vestry and office, everything was planned to effect the purpose for which it was intended.

A large lecture hall on the ground floor can be augmented by taking in the two large primary class rooms, separated from each other and from the lecture hall by rolling partitions, thus providing a larger or smaller hall, as the occasion demands.

Adjoining the Sunday school is the girls' club room, with kitchenette, and a large committee room, while the school library is also on this floor. The uses for which the various rooms are intended naturally dictate their furnishings, which are simple throughout.

For social purposes, the basement portion of the Sunday school building is equipped with a large kitchen and servery, adjoining the social



GROUND FLOOR PLAN, KNOX PRESBYTERIAN CHURCH, WINNIPEG.

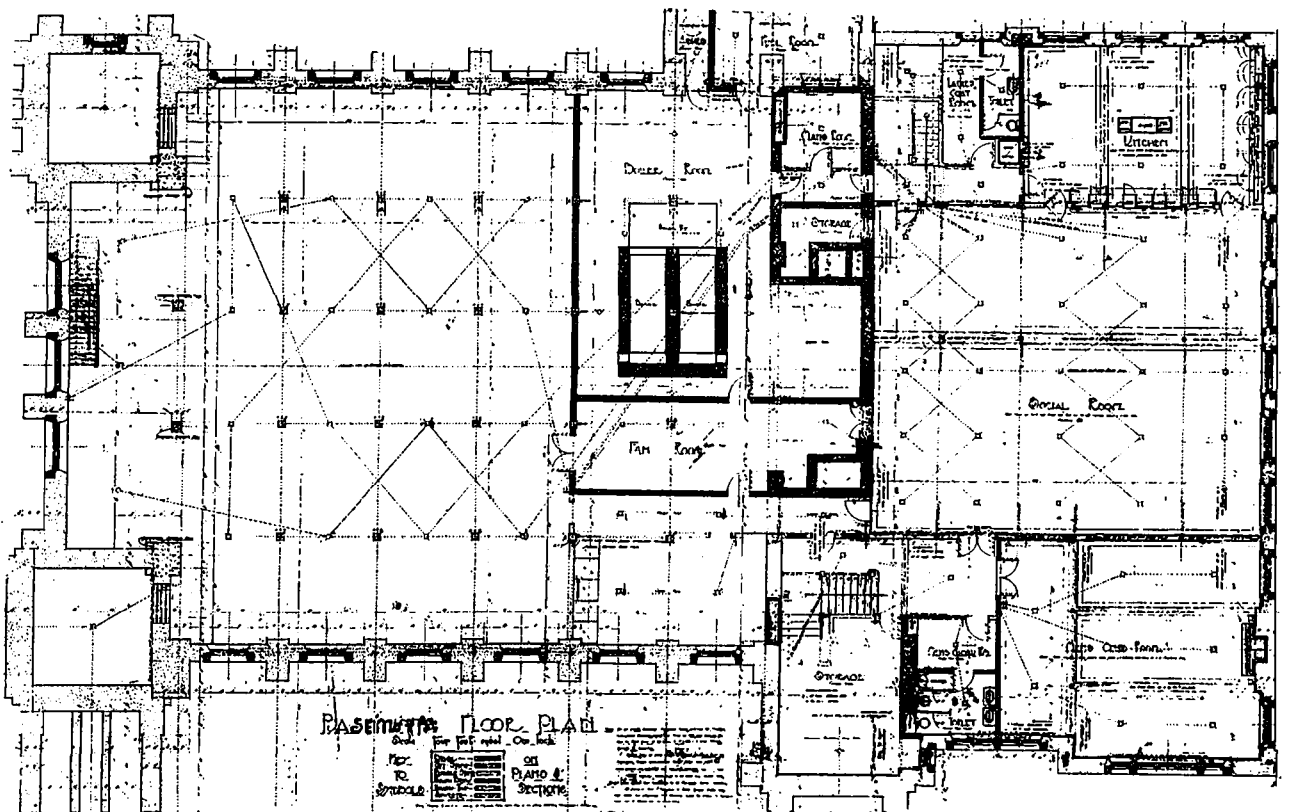
hall, suitable for supper parties or other social functions. The men's club room is also located on this floor.

The heating apparatus and the ventilation systems are under the church auditorium, with fuel storage and ash bin with hoist, provision for shower baths is also made in this portion of

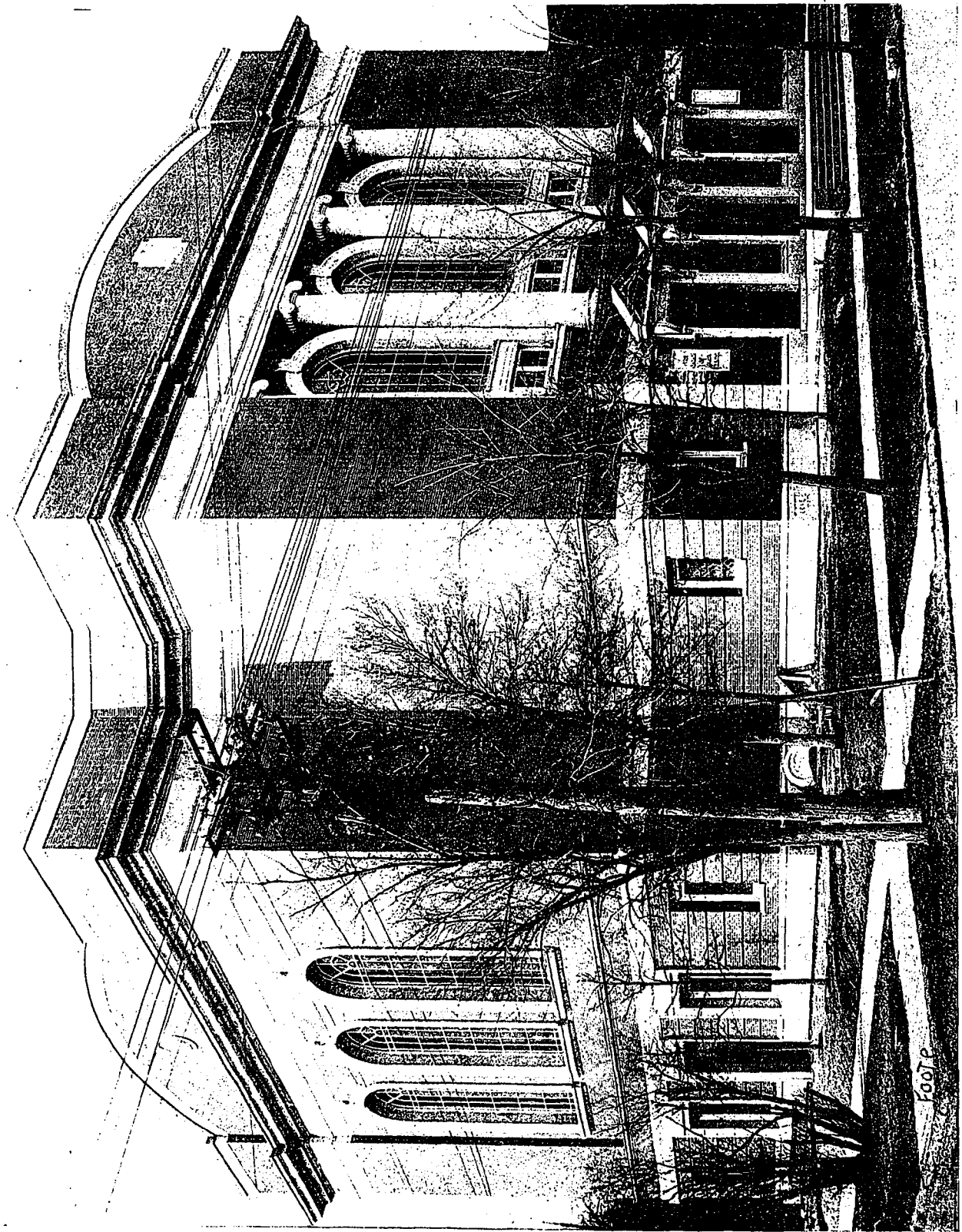
the basement, the balance of this area being held over for sport activities.

Cloak and toilet rooms are provided on the different floors, and a system of semi-indirect lighting illuminates the building throughout.

The cost of the structure, exclusive of organ, seating and furnishings, was about \$240,000.

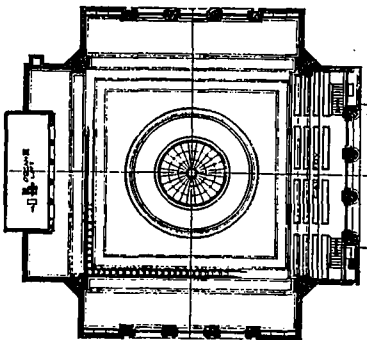


BASEMENT, KNOX PRESBYTERIAN CHURCH, WINNIPEG.

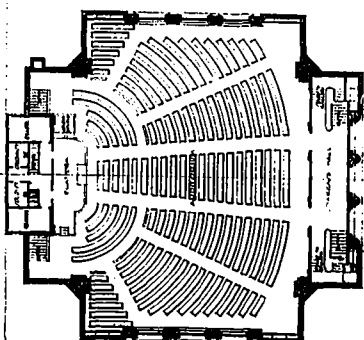


JORDON & OVER, ARCHITECTS.

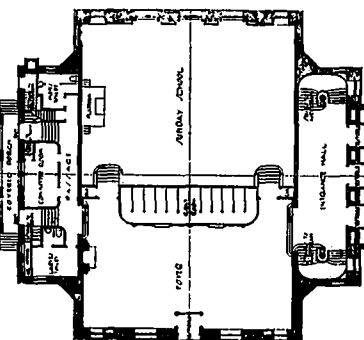
FIRST CHURCH OF CHRIST SCIENTIST, WINNIPEG.



CEILING PLAN.



UPPER FLOOR PLAN.



GROUND FLOOR PLAN.



FOYER, FIRST CHURCH OF CHRIST SCIENTIST, WINNIPEG.

JORDON & OVER, ARCHITECTS.

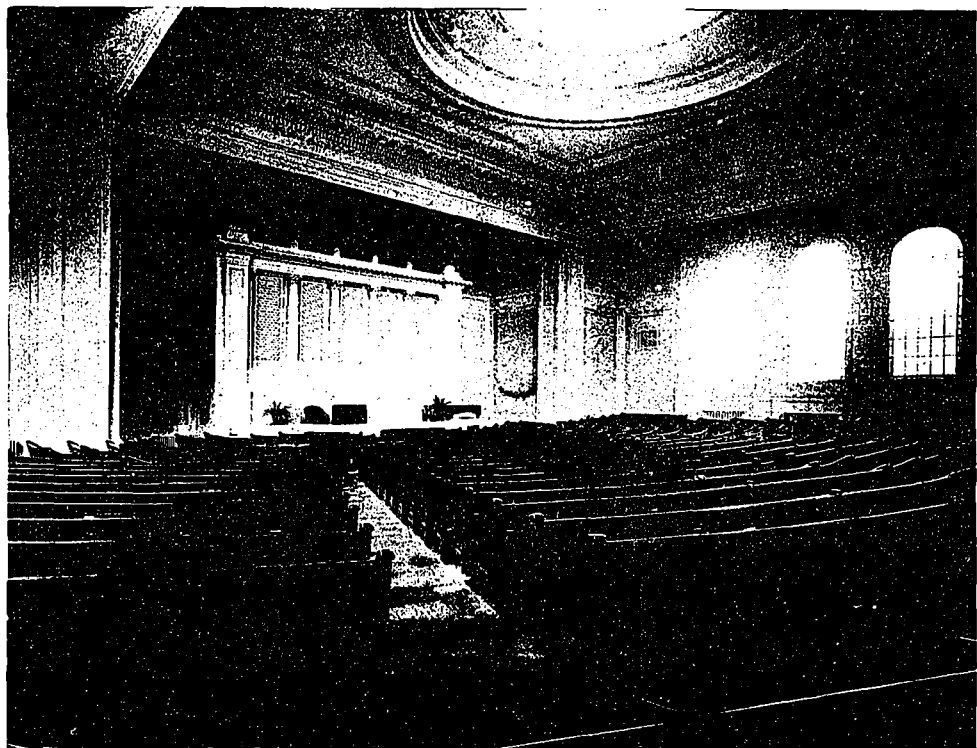
FIRST CHURCH OF CHRIST SCIENTIST, WINNIPEG

JORDON & OVER, Architects

In plan this building forms a Greek cross, the extreme dimensions of which are ninety feet. The main entrance hall is twelve by sixty feet, extending transversely, with stairs at either end leading to the auditorium above. Direct access is given to a spacious foyer, forty by sixty feet, which, together with the large Sunday school room, fifty by sixty feet, takes up practically the entire ground floor. Seating accommodation is provided in the Sunday school room for three hundred pupils. The foyer has also a separate carriage entrance and a large cloak room with racks for four hundred hangings. Additional access to the auditorium is obtained by stairs leading from the corridor in the rear, and along which are situated retiring rooms for men and women, together with a general committee room. There is also a private staircase communicating with the readers' room above, in addition to stairs leading to the boiler room in the basement, and emergency exits opening onto a covered porch at the rear.

In the auditorium on the upper floor the seating area takes up a space of

approximately sixty by ninety feet. In addition to this there is a gallery fifteen by sixty feet, situated over the main entrance, and which increases the seating capacity to a total of about eleven hundred. Immediately behind the readers' platform there are four private rooms for use of the readers, organist and soloist. Entrance from these rooms is gained by doors at the rear of the platform which form part of the panelling. The organ loft, which is immediately above, is twelve by thirty-four feet, the front being enclosed by a colonnade with open grille panelling between the columns concealing the organ from view.



AUDITORIUM, FIRST CHURCH OF CHRIST SCIENTIST, WINNIPEG.

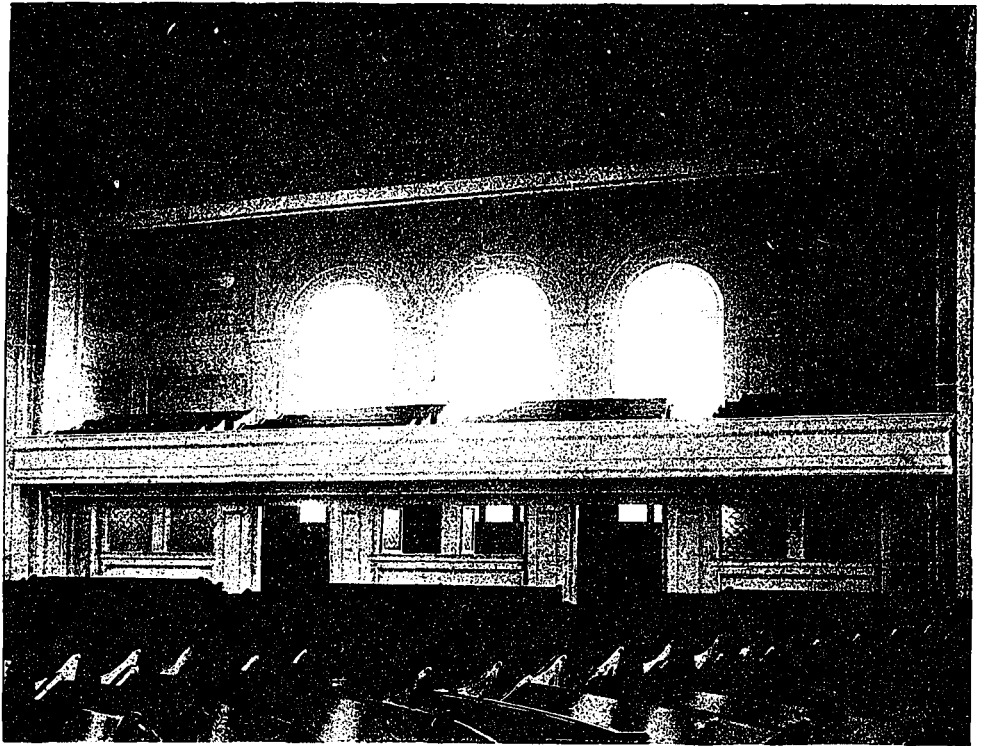
The exterior walls above the grade are faced with light buff pressed brick of Roman shape, with Tyndall stone trimming. The interior division walls are also of brick, and the partitions are of wood studding covered with metal lath and plaster. Furring and plaster board are used on all outside walls as a base for the plasterer. The interior trim throughout is of birch finished in ivory enamel, with the exception of the doors, which are of mahogany. The walls and ceiling are decorated with light, warm tones, with panels brought out by relief bands of darker harmonizing colors. The pews have mahogany finish and rolls, with birch backs and seats finished to match.

The heating is by a low pressure steam gravity system, with direct radiation. The building is ventilated by means of an electrically driven blower, which draws air in from outside and delivers it to all parts of the building through a system of metal ducts. The air can either be drawn into the building direct, or conducted through a special furnace for the purpose of moderately warming it before being delivered to the various rooms. This system is arranged so that it can be used to supply fresh air, or recirculate the air already in the building and heat the building in moderately cold weather.

The auditorium is electrically lighted by means of nine five hundred watt nitrogen lamps in single unit fixtures distributed on three sides of the room near the outside walls, three over the gallery and three at each of the two sides, adjacent to the gallery.

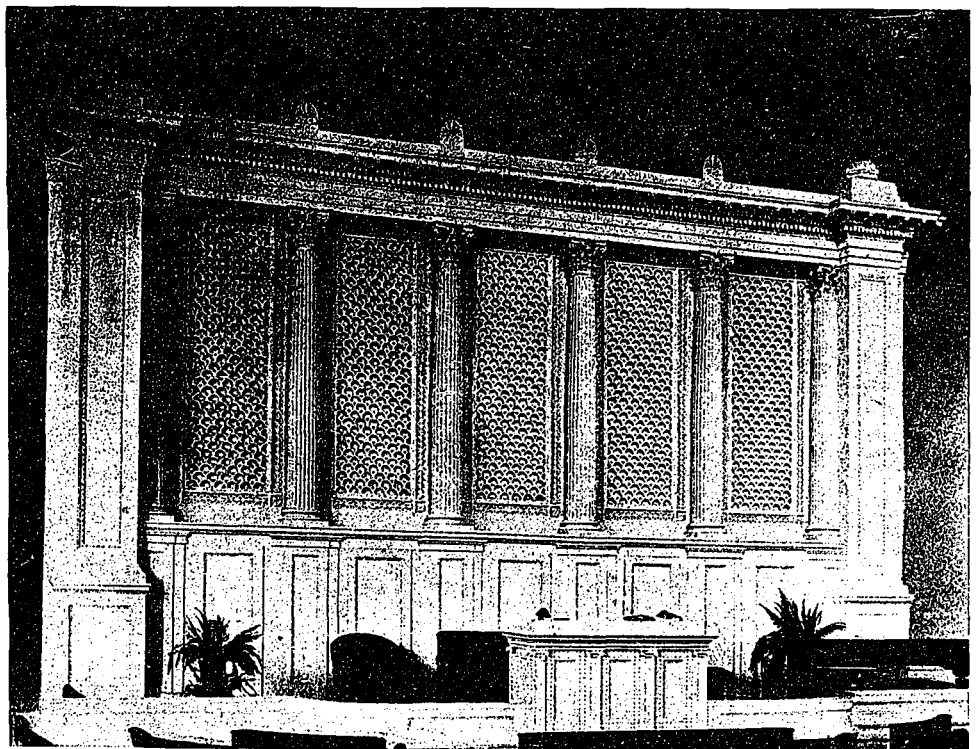
The cost of the building was approximately one hundred thousand dollars.

The spiritual welfare of the community forms a distinct part of the housing scheme of the Govern-

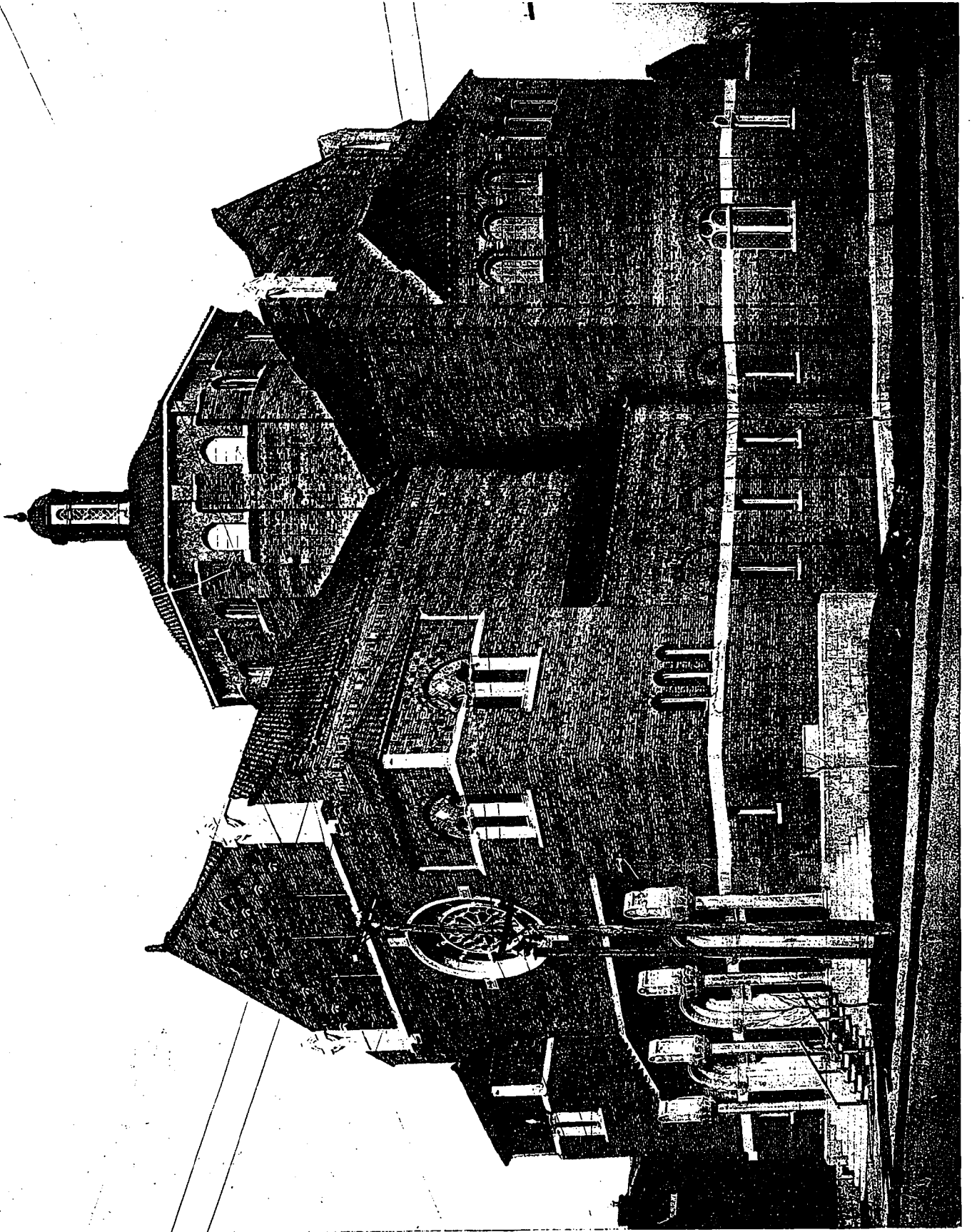


VIEW TOWARDS GALLERY, FIRST CHURCH OF CHRIST SCIENTIST, WINNIPEG.

ment of New South Wales, which has set aside three hundred and thirty-seven acres of Crown land in the suburbs of Sydney for the erection of workingmen's cottages. Reservations have been made for roads, parks, and religious purposes, also for police stations, administrative buildings, etc. Two hundred and eleven acres are reserved for building sites, on which cottages are being erected, seven to the acre. This will provide a total of 1,437 cottages and forty shops. Already two hundred and forty cottages and six shops have been completed.



READERS' PLATFORM AND ORGAN SCREEN, FIRST CHURCH OF CHRIST SCIENTIST, WINNIPEG.



STANLEY PRESBYTERIAN CHURCH, MONTREAL.

HUTCHISON, WOOD & MILLER, ARCHITECTS.



VIEW TOWARDS ENTRANCE, STANLEY PRESBYTERIAN CHURCH, MONTREAL.

HUTCHISON, WOOD & MILLER, ARCHITECTS.

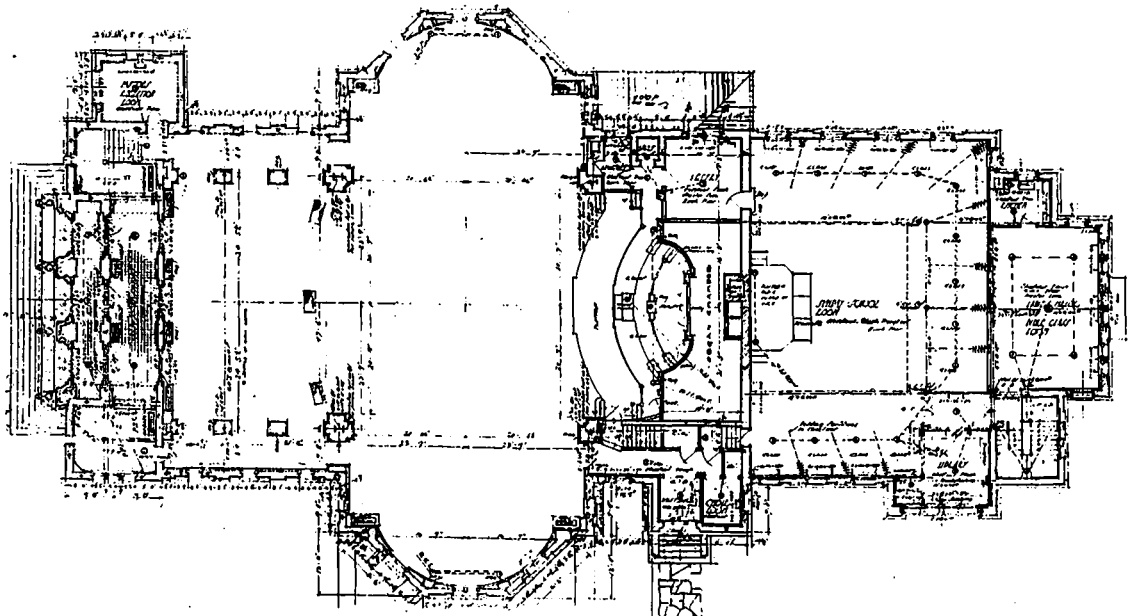
THE STANLEY PRESBYTERIAN CHURCH, MONTREAL

HUTCHISON, WOOD & MILLER, Architects

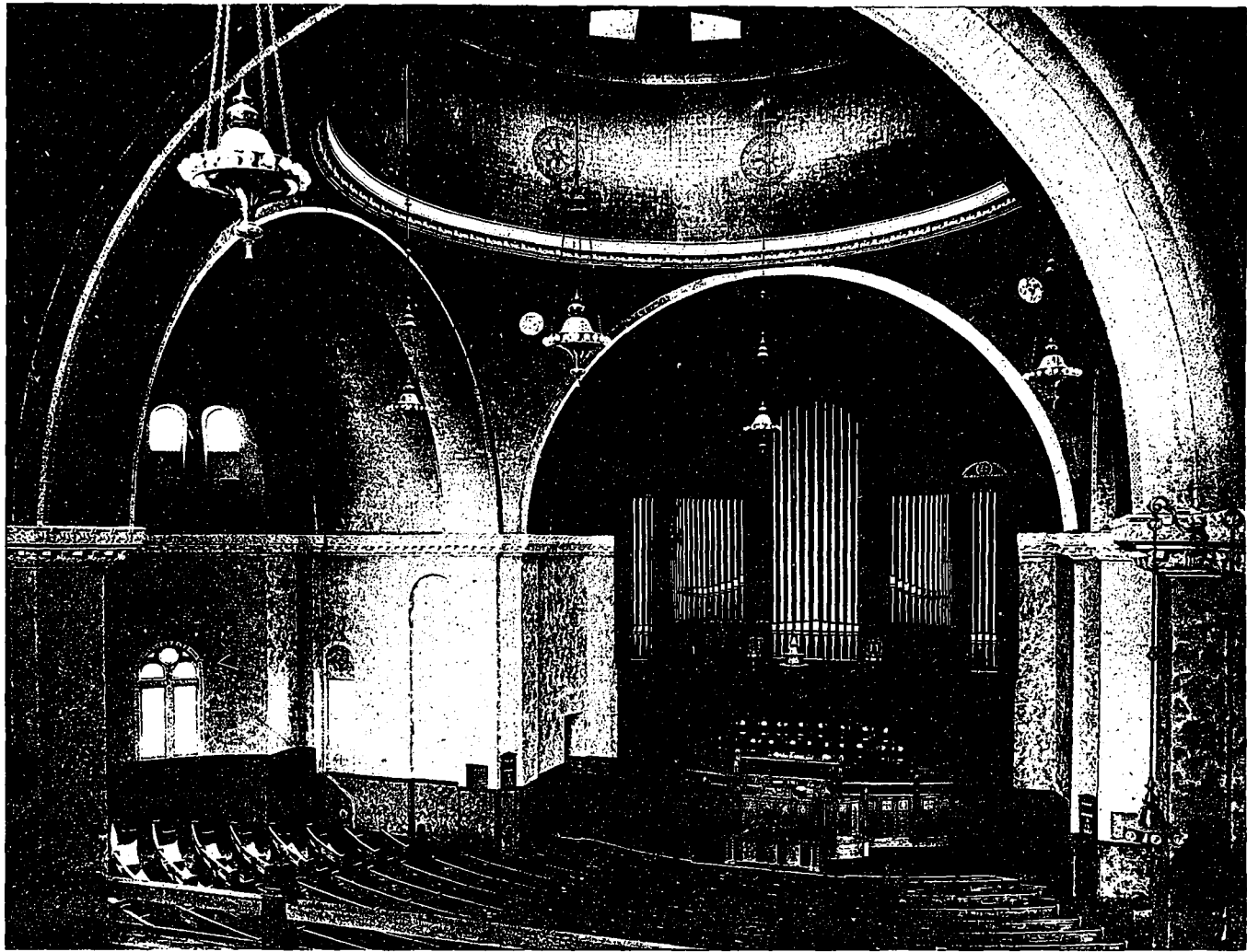
No type of ecclesiastical work is better adapted to show the effective use of brick than that designed in the Lombard style characteristic of the twelfth century in northern Italy; and an especially interesting modern example is the Stanley Presbyterian church on Westmount avenue, Montreal. Two tones of Scotch fire bricks are used, set up in uneven courses of from four to six courses for each band, and harmoniously blended

so as to produce an attractive and artistic exterior. The trimmings are of Bath stone and the roof of deep red tile.

The plan is cruciform, with a slight variation from the usual in that the transepts are finished octagonal on the outside, but showing a circular wall on the inside; the dome being the full size of the crossing of nave and transepts.



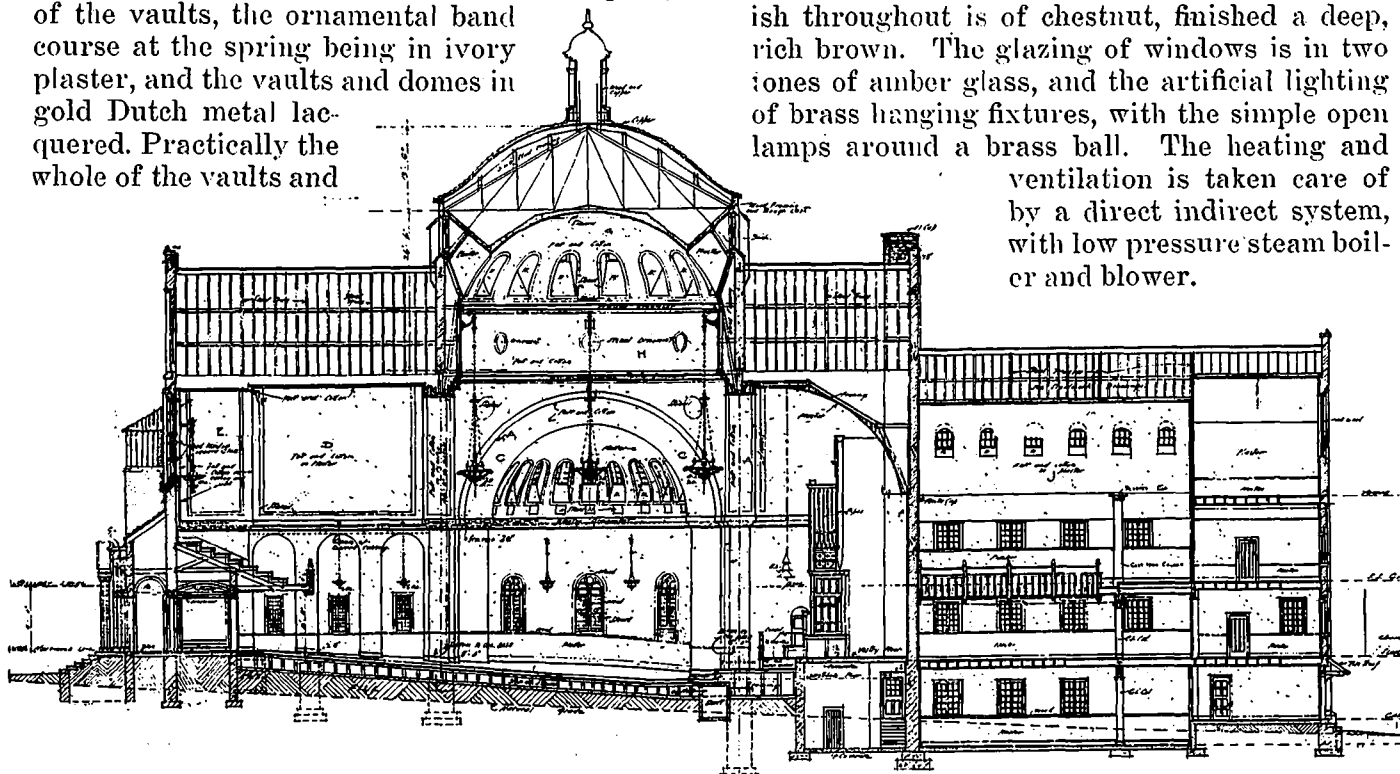
GROUND FLOOR PLAN, STANLEY PRESBYTERIAN CHURCH, MONTREAL.



LOOKING TOWARDS CHANCEL, STANLEY PRESBYTERIAN CHURCH, MONTREAL.

The interior finish is very simple in treatment, the walls being in sand-finished plaster, treated in a soft French grey up to the spring of the vaults, the ornamental band course at the spring being in ivory plaster, and the vaults and domes in gold Dutch metal lacquered. Practically the whole of the vaults and

domes are in cotton applied over heavy hair felt, this giving practically perfect acoustical properties to the auditorium. All the wood finish throughout is of chestnut, finished a deep, rich brown. The glazing of windows is in two tones of amber glass, and the artificial lighting of brass hanging fixtures, with the simple open lamps around a brass ball. The heating and ventilation is taken care of by a direct indirect system, with low pressure steam boiler and blower.



LONGITUDINAL SECTION, STANLEY PRESBYTERIAN CHURCH, MONTREAL.

HUTCHISON, WOOD & MILLER, ARCHITECTS.

The building has, at present, a small gallery at rear, capable of seating about one hundred, with provision made for future galleries in the transepts; the seating facilities in the auditorium accommodating between eight and nine hundred.

The total cost of the church in itself (the Sunday school not having been built as yet) was in the neighborhood of \$114,500.

FIRST PRESBYTERIAN CHURCH, MONTREAL

HUTCHISON, WOOD & MILLER, Architects

An exterior view of this edifice was shown in this magazine on a previous occasion, and the object of the illustrations presented herewith is for the purpose of showing the interior treatment, which, owing to the lack of photographs was impossible at that time.

The arrangement is carried out so as to give an unobstructed view, from any sitting in the church, of the platform and organ; the general lines and decorative scheme producing a dignified and restful effect. The walls are of a sand-finish plaster, tinted in deep green, which harmonizes with the dark brown given the chestnut pews and woodwork used throughout. The ceiling plaster is grey, and the glass is simple amber quarries. The artificial lighting comes from ten fixtures suspended from brackets, each one containing eight candle lights. In addition there are side brackets of similar design.

Seating accommodation is provided for eight hundred and fifty

on the ground floor, and for one hundred and fifty in the gallery over the vestibule. The plans also allow for possible future side galleries in the transepts, which will give accommodation for an additional two hundred.

At the rear of the building are the Sunday school quarters, consisting of an auditorium with galleries on three sides, accommodating about six hundred. This is lighted partly from the side and partly from a skylight over the auditorium. Adjoining is the church parlor and other similar offices.

The heating of the church proper is by forced air, over pin radiators, placed immediately under each outlet duct. The air, driven through the pipe duct by motor-driven fan, is perfectly tempered by the heat from steam pipes, which also run in this duct, and finally heated when



PLATFORM AND ORGAN, FIRST PRESBYTERIAN CHURCH, MONTREAL.

HUTCHISON, WOOD & MILLER, ARCHITECTS.



VIEW TOWARDS ENTRANCE, FIRST PRESBYTERIAN CHURCH, MONTREAL.

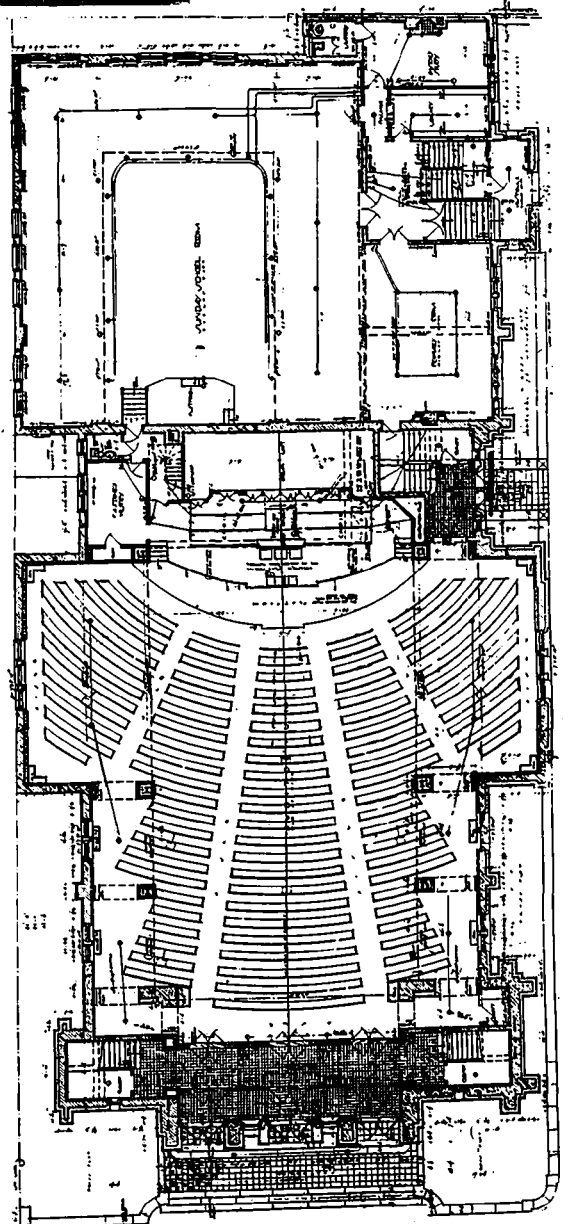
passing through the pin radiators. During warm weather the fan can be used for introducing fresh, cool air into the building. The air in the auditorium, if comparatively fresh, can be used by recirculation system back to the fan, or can be expelled through a vent shaft, and perfectly fresh air introduced into the auditorium. The steam heating is supplied by a cast-

iron steam boiler, while that of the Sunday school is altogether by hot water. The exterior of the building is faced with mixed blue and green sandstone, cut rock face, and trimmed with the same material toolled. The roofing is of slate.

One should perhaps consider recent ecclesiastical work not so much in comparison with old world edifices so generally the criterion of the student; but rather from the viewpoint as to what has grown out of the immediate past, and as to what the present tendency indicates as to the future.



DETAIL OF TOWER, FIRST PRESBYTERIAN CHURCH, MONTREAL.



GROUND FLOOR PLAN, FIRST PRESBYTERIAN CHURCH, MONTREAL.

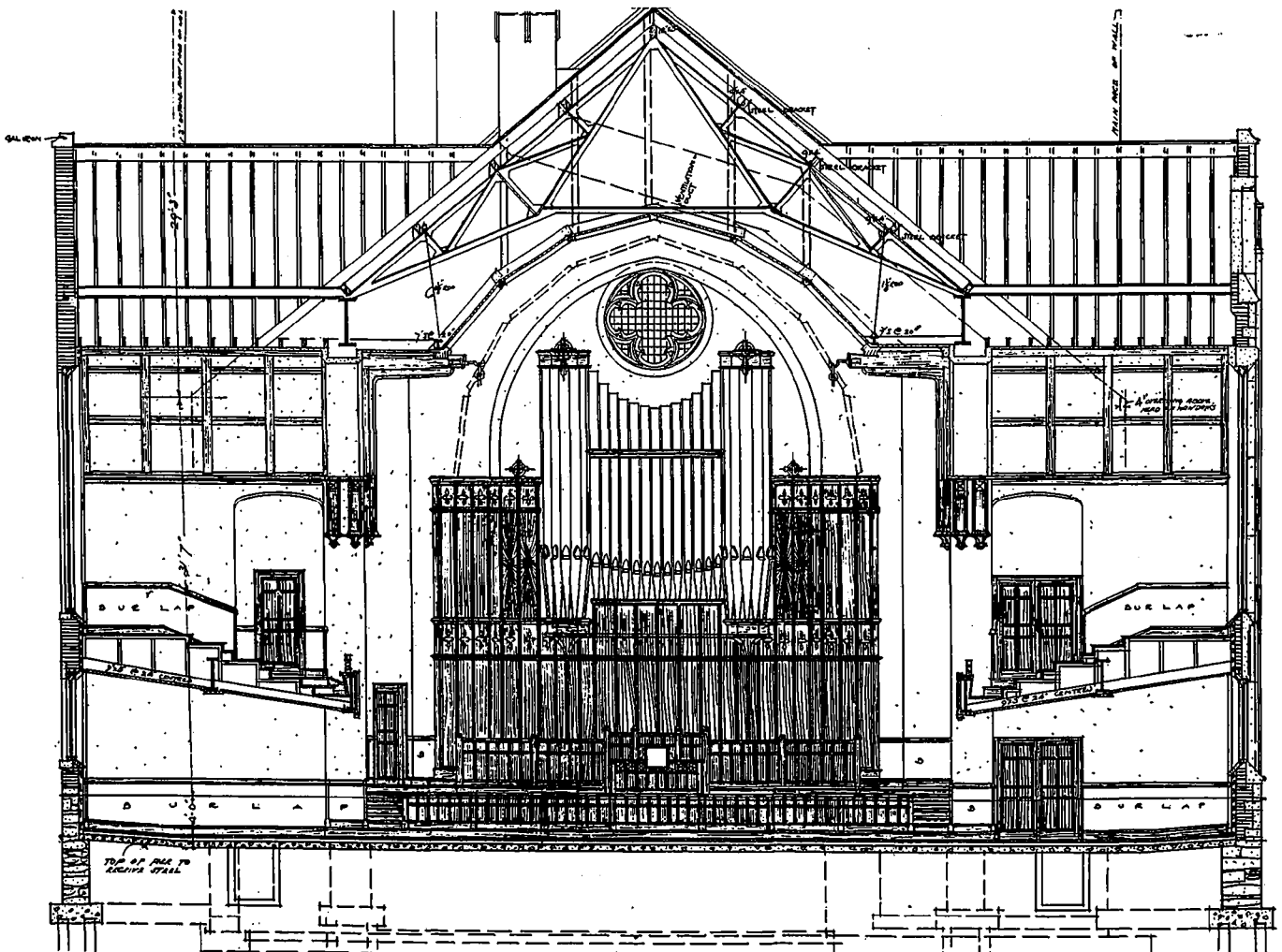


GENERAL VIEW OF AUDITORIUM, FIRST PRESBYTERIAN CHURCH, MONTREAL.

Of course, it is not to be understood that this is intended to minimize the value of notable examples which will always remain a source of inspiration and traditional guidance to church

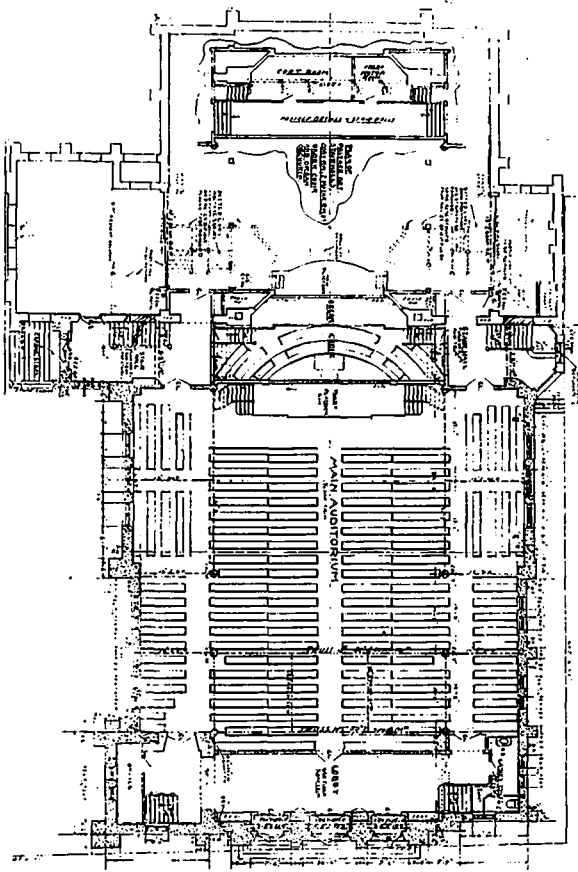
designers; but it is more the spirit of the masters which brought these beautiful forms into existence, rather than the forms themselves, which should most forcibly impress us. Form in itself too often leads to assimilative architecture, while sincerity of purpose results in understanding and creative power.

Assuming the basis of examining the present accomplishments against our previous efforts, there is at least substantial ground for encouragement and an outlook which is most hopeful and promising. One observes in the newer churches less chicanery, less deception, and a more sincere adherence

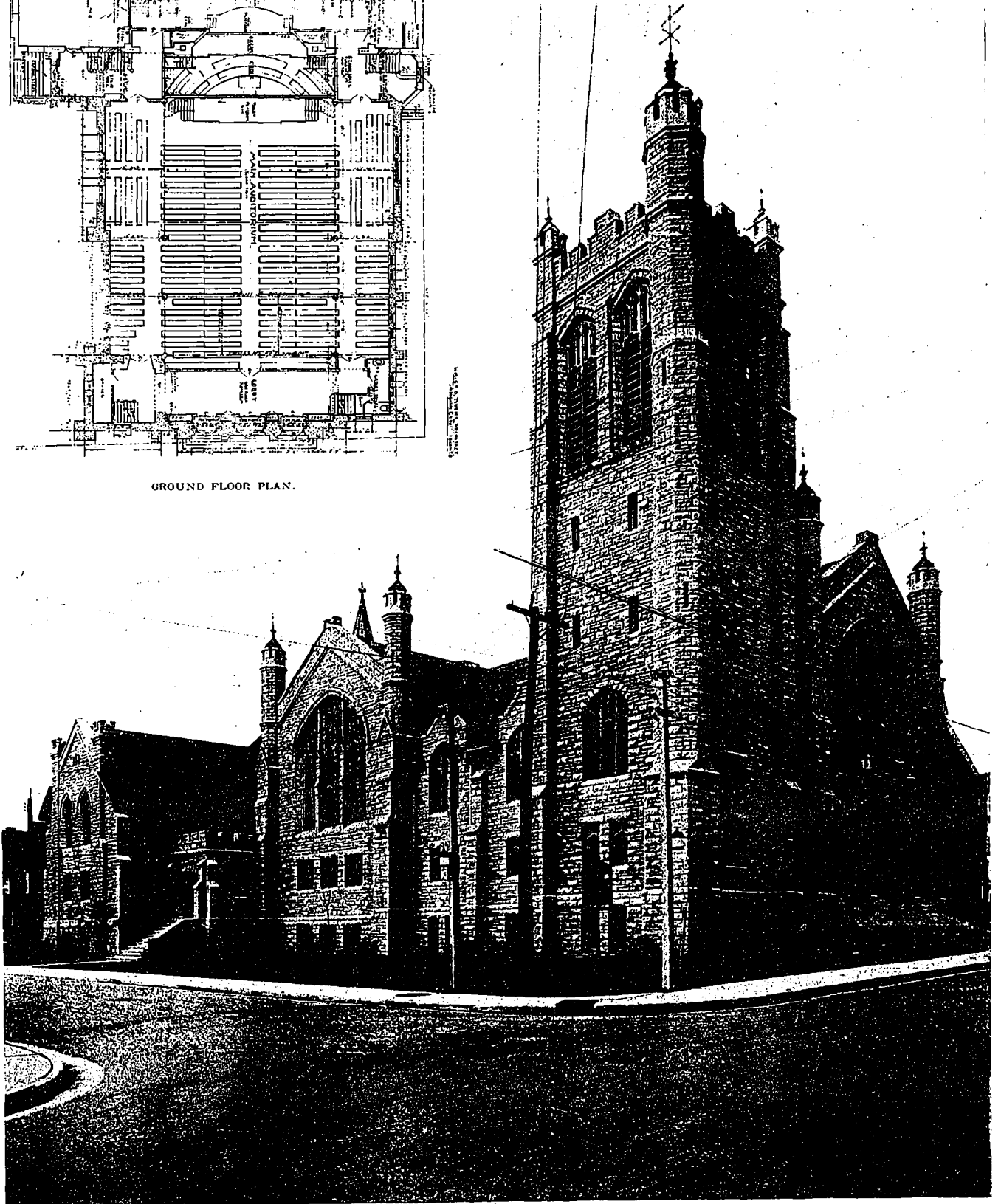


TRANSVERSE SECTION FIRST PRESBYTERIAN CHURCH, MONTREAL.

HUTCHISON, WOOD & MILLER, ARCHITECTS.

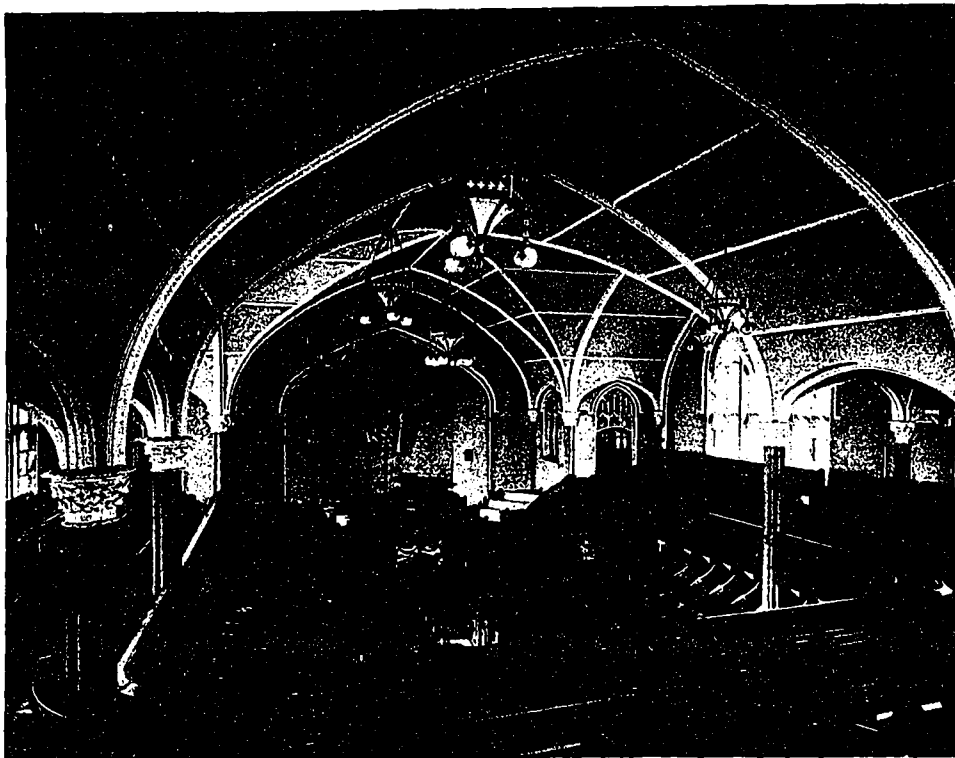


GROUND FLOOR PLAN.



HOWARD PARK METHODIST CHURCH, TORONTO.

T.M. GEORGE BURNS, ARCHITECT.



AUDITORIUM, HOWARD PARK METHODIST CHURCH, TORONTO.

HOWARD PARK METHODIST CHURCH, TORONTO

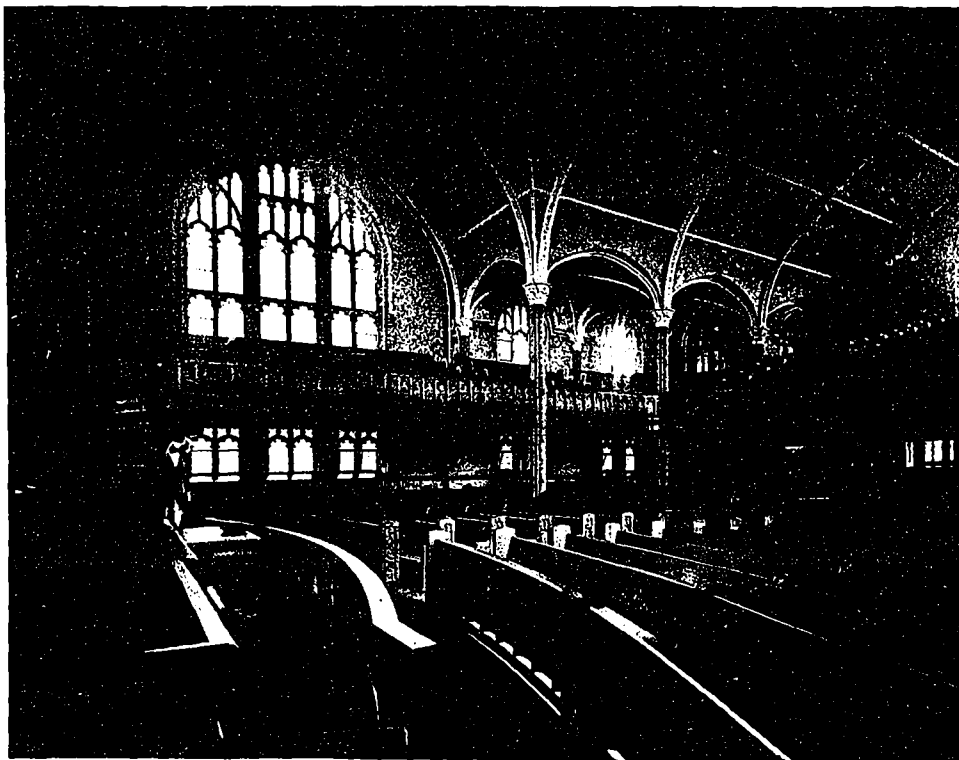
WM. GEORGE BURNS, Architect

One of the comparatively recent edifices erected in Toronto is the Howard Park Methodist Church, on the northwest corner of Sunny-side avenue and Marmaduke street, designed in Perpendicular Gothic style. This structure is built of St. Mary's limestone, and has a seating capacity of a little over twelve hundred in the

church proper, and about seven hundred in the Sunday school section. The tower and the large tracery windows in transepts are perhaps the most outstanding features of the design, the tower rising to a height of ninety feet, and lending dignity to the whole structure. In plan the auditorium follows the usual cruciform arrangement, with large cement columns supporting the vaulted ceiling. The trim throughout is quartered cut oak, the pulpit, furniture, choir front and pews all being specially designed as part of the interior scheme. The entrance to the auditorium is through a large lobby or foyer, tiled in Welsh quarries, and with a staircase at each end leading to the gallery above. An interesting feature is the partition separating the foyer from the auditorium. Instead of a solid wall or partition, as is usually the case, the upper portion of the partition consists of a number of heavy bevelled glass plates, which enable one to see into the auditorium before entering.

The Sunday school section is finished in ash, and is divided into class rooms on both the ground and first floors by a series of sliding doors or partitions. The extension to the south of the Sunday school is used in the basement for kitchen and cloak rooms; and the floors above for Bible class rooms and board room.

The basement of the Sunday school also provides a room which is used for social purposes and for the primary department. The gymnasium, about seventy feet square, is situated under the main body of the church, and has a clear floor space of forty-two by seventy feet between columns for basket ball and other games, with locker rooms and shower baths attached.



VIEW LOOKING TOWARDS SIDE GALLERY AND TRANSEPT, HOWARD PARK METHODIST CHURCH, TORONTO.

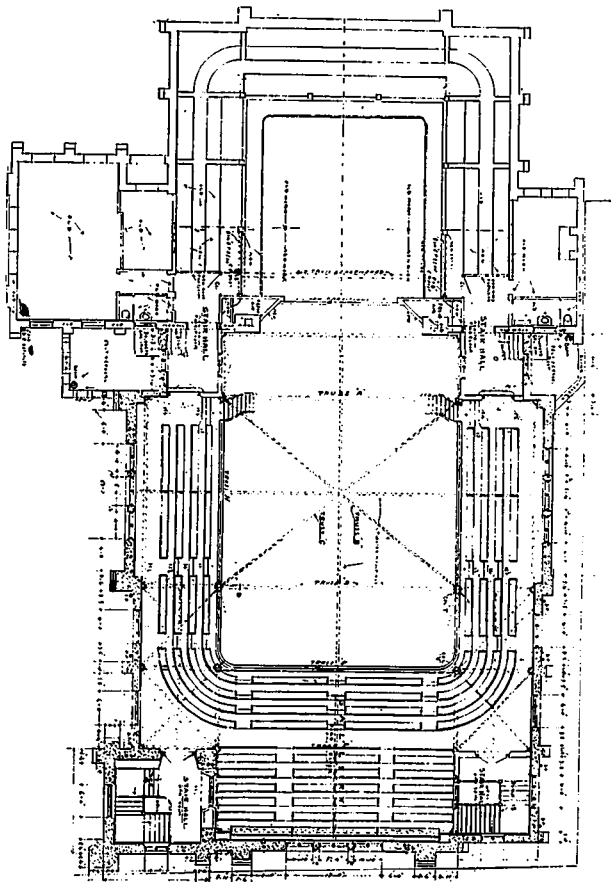
THE DOME IN ARCHITECTURE

The dome is one of the most interesting of all architectural forms, and is more expressive of magnificence and grandeur than any other of the structural features of architectural expression. While the vault conveys the impression of mystery and sublimity, often aided by partial darkness, the dome gives an impression of serenity and light. The arch and lintel grew out of practical necessities, and are used in the humblest structures erected by mankind, though they have their place in more ambitious structures, but the dome is pre-eminently the expression of the "Grand Manner" in architecture, and fails in effect if used on too small a scale, except as an occasional internal decorative feature. The history of its development is that of a feature which was first conceived for internal purposes, but which in the progress of time has become more and more often used as a means of obtaining exter-

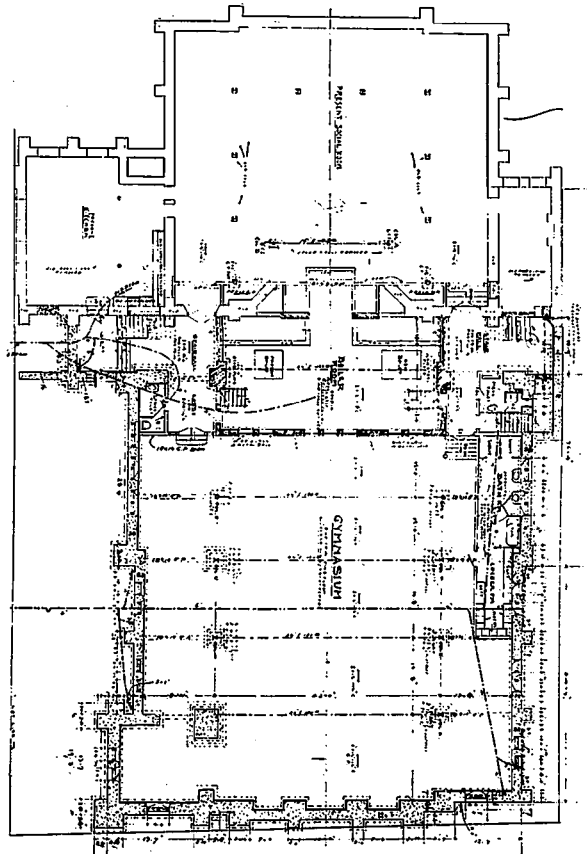
nal architectural effects. The Romans and the Byzantines used it as a constructional feature of internal architecture, but it became in the hands of the Renaissance architects the culminating means of external display. In the Pantheon it is only internally that the dome is clearly expressed, at Hagia Sophia the same holds true, and in Byzantine churches its form is more



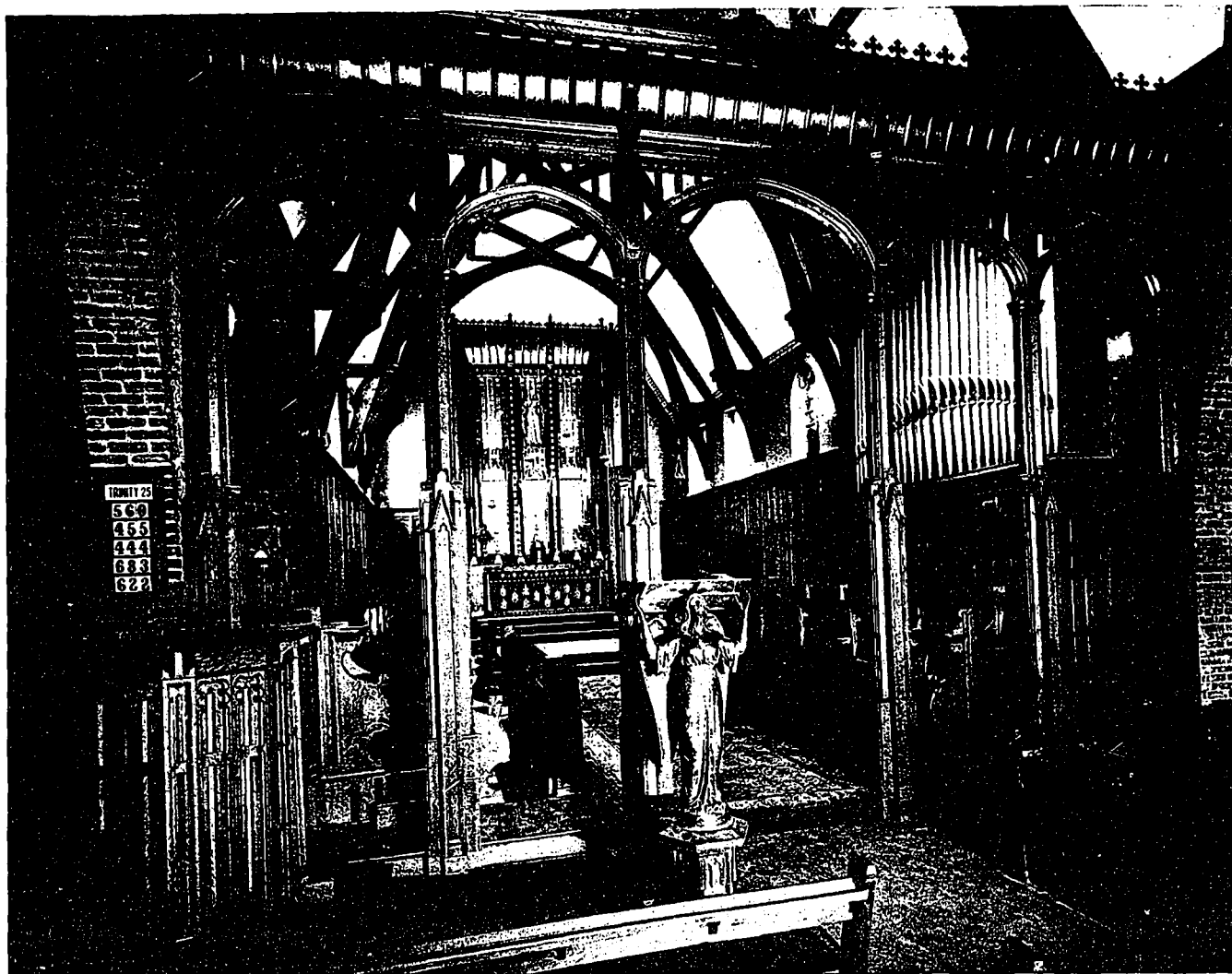
FOYER, HOWARD PARK METHODIST CHURCH, TORONTO.



GALLERY, HOWARD PARK METHODIST CHURCH, TORONTO.



BASEMENT PLAN, HOWARD PARK METHODIST CHURCH, TORONTO.



REMODELLED INTERIOR OF ST. THOMAS' ANGLICAN CHURCH, TORONTO.

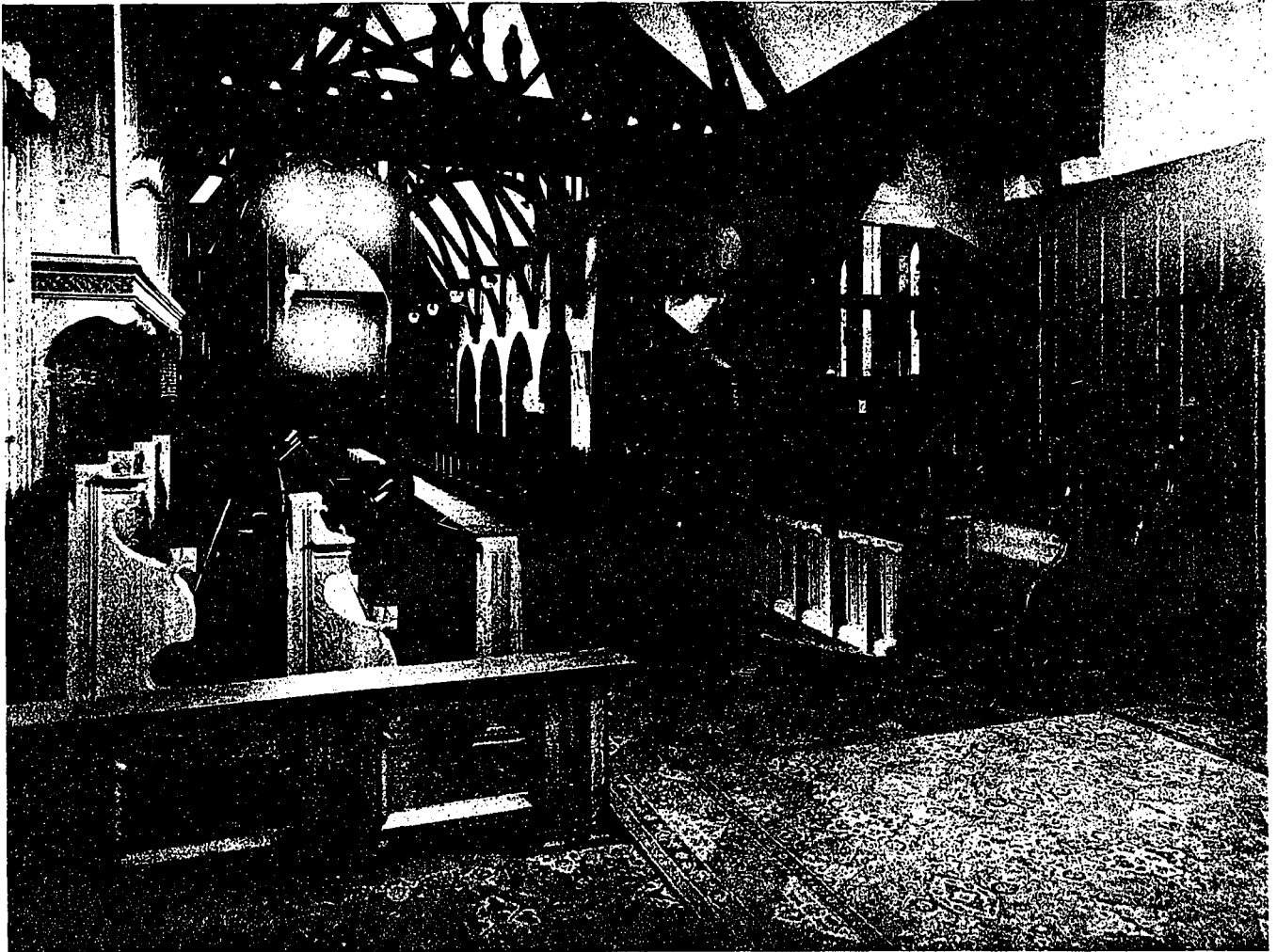
EDEN SMITH & SONS, ARCHITECTS.

often than not entirely concealed beneath a tiled roof of flat pitch. In St. Mark's, at Venice, the same is true, for the domes which show externally are a later timber and lead erection, in no way conforming to the internal lines of the structure beneath.

Compared with such buildings, the use of the dome in many later Oriental buildings, and in almost all Renaissance ones, seems almost entirely dictated by the desire to employ an effective external feature which might in many cases be obliterated with actual advantage to internal effect. It is strange that many who have belittled Roman architecture have failed to perceive in it the frankest recognition of the wants and habits of mankind which the world has ever seen. Criticism has been so exclusively concentrated on the meaning of detail—often arrived at by unjustifiable assumption—that it has missed the cardinal fact that the Roman builders, even in their most magnificent constructions, were less concerned with outward show than with considerations of internal convenience. There is nothing in Roman architecture which can be held to be so purely decorative as the turrets, towers and spires of many of our mediæval buildings, or the manner in which steeply pitched roofs were often used when

flatter ones would have afforded a readier way of covering space. Certainly both Roman and Byzantine builders were content to use the dome for purely practical internal objects, leaving their outward form uninfluenced; and compared with such examples the Renaissance dome so often used in connection with churches, becomes a mere external lantern which interrupts, when placed centrally, a range of vaulting. For strictly ecclesiastical purposes it may be held that the dome is a mistake when used in the centre of a Latin cross, as it breaks up a vista and dissipates interest, which should be concentrated in the culminating point of design, the east end. The usual form of the Renaissance dome surmounted by a lantern is also a bad form constructionally, since it throws weight on the weakest point of the whole structure, a fact which in St. Paul's has necessitated much ingenious construction, and in addition supplied arguments to those who maintain that in all good architecture the structural means should be apparently displayed. And it must be admitted that the dome of St. Paul's is only by a degree separated from the emphasis given to the crossing in a Gothic plan.

The dome as used by the Renaissance architecture is a feature which replaces the tower,

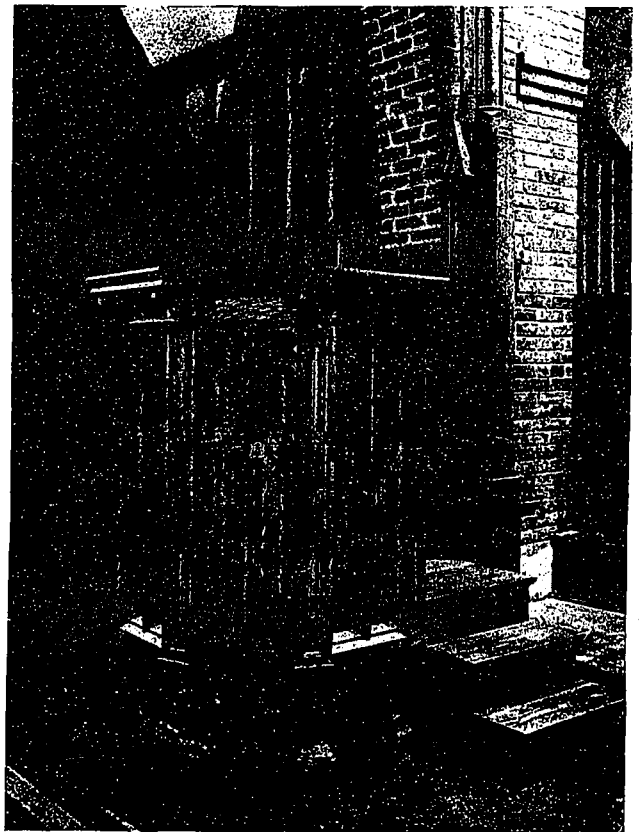


REMODELLED INTERIOR OF ST. THOMAS' ANGLICAN CHURCH, TORONTO.

EDEN SMITH & SONS, ARCHITECTS.

and, as in the case of the tower, an internal effect is seldom obtained; for the great height and limited positions from which a dome employed in this way can be readily seen, largely do away with its value, and the effort to reconcile diametrically opposite functions finds its expression in a most interesting series of examples in which the external covering is carried out by ingenious and complicated hidden construction. In the case of the vault the difficulty of appreciating enormous heights is done away with because we can usually obtain one long vista, but the difficulty is apparent in some comparatively short and enormously lofty churches on the continent. In Wren's rejected design for St. Paul's he succeeded more nearly than any of the architects of the Renaissance in producing a design giving effect to the internal expression of the dome, but even here the domical idea is less clearly expressed and emphasized than we find it in Byzantine architecture, entirely dominated as it is by the desire to obtain the fullest value out of a feature which affords unusual possibilities of effect.

We are far from wishing to see the dome used in the earlier constructive sense alone; but it is to be regretted that it is not more often used as an inner covering of great space.—*The Builder*.



DETAIL OF PULPIT, ST. THOMAS' ANGLICAN CHURCH, TORONTO.

Co-Operation in Design

By A. R. JEMMETT

Paper read before Royal Institute of British Architects.

THE principle of intelligent co-operation between those concerned in actual building operations — between the architect and the decorator, the architect and the craftsman—is now fully recognized; but the way in which this principle should be put into practice appears to be a question on which there is more to be said. I hope it will be said by those better qualified than I am to say it.

This is one aspect of co-operation, and a very important one; but that to which I would draw attention is the need for closer and fuller co-operation between architects themselves during the conception and development of their designs before building co-operation has a chance to begin. More particularly would I point to the immense value of a real spirit of co-operation and mutual assistance; to its widening effect on the mental outlook, its stimulating effect on the imagination, and its general tendency towards raising the standard of architecture and the repute of those who practise it. I submit that the possibilities of this form of co-operation have not been sufficiently explored. This may be partly due to racial characteristics, and partly to the fact that we are just emerging from a period of unrestricted individualism in design, and may be still susceptible to its influence. During this period genius dwelt apart, and wrought in splendid isolation, jealously guarding its trade secrets, as deeds of apprenticeship testify. Each designer was a law unto himself. Everyone went his own way simply because it was his own way, indifferent, apparently, to his destination, and priding himself on the fact that, whatever else his work might or might not be, at least it was his own. "A poor ill-favored thing, sir, but mine own." The mere fact that it was entirely "mine own" down to the last cupboard-door handle or casement fastener was evidently considered ample excuse, or even justification, for its poverty and ill-favor. Each man for himself and the devil take the hindmost adopted as a rule of artistic conduct created an atmosphere of mutual jealousy and veiled hostility in which it was actually possible to refuse to publish one's drawings for fear that others might learn something from them. So was knowledge spread and architecture advanced.

The perverted morality of this golden rule need not detain us. Obviously the devil would take the foremost, not the hindmost, by any ethical standard conceivable now. What concerns us, however, is the lack of intelligence that failed to perceive that we are all members of the same body, and cannot flourish individually unless the whole body flourishes collectively, and that if we fail to support the body we ourselves

must ultimately perish. It concerns us because we are faced with the result, the inevitable reaction of the lowered vitality of the ill-nourished body upon the health of its individual members.

Granted that we now breathe a more congenial atmosphere, and that a more enlightened self-interest has taught us that we can best serve our own interests by serving those of the body to which we belong, that the more we give the more we receive; but are we yet fully persuaded that isolation is mental and spiritual starvation, and that the quality of a design is of more importance than its authorship?

To those who still hold the opinion that each man's design is, and must be, entirely his own this question of co-operation may present some difficulty. The mere idea of a collective concept, or of co-operating to produce a concept, may suggest a paradox or a contradiction in terms. I think it is March Phillipps who points out that architecture is the most intellectualized of all the arts. If, bearing this in mind, and accepting the view that it is also a communal product expressing certain aspects of communal life, we examine the nature of our work, the conditions under which it is carried out, and the mental processes involved, the difficulty may, perhaps, disappear. We may even arrive at the conclusion that no man's design ever is, or can be, entirely his own, or, to be more precise, that no architectural design ever is, or can be, the outcome of a single mind.

We have to remember that, although under the impulse to create we may all visualize castles in the air, yet that as a matter of fact such personal mental concepts rarely materialize. It may be possible to suddenly create, to visualize instantaneously, and straight away to go and build just the one building that can express the mood of the moment—it may be possible, but the point is, we don't do it. We do not get the chance. We may have the impulse and the vision, but not the opportunity. A procedure allowed to the poet or the musician is denied to the architect. He can only design the buildings that other people require, and when they require them. He finds his opportunity for self-expression limited by the fact that both the impulse to build, the nature of the building and the germ of the idea for its design originate with those who need the building, not with those who build it; as well as by the further fact that accommodation, site, cost, and so forth, are all predetermined and presented to him as factors in a problem he is called upon to solve. Regarding our work from this point of view—the solution of a given predetermined problem—we may be disposed to ad-

mit that co-operation in its solution is possible.

There may be buildings so small and so simple that the solution of any problem they present is obvious, but there are others so large and so complex that it can only be arrived at slowly by analysis leading to synthesis, a process of gradually building up or evolving a mental concept which must be not only complete in itself but the one that presents the right solution of the particular problem in hand. When we consider the nature and the amount of the preliminary analytic work required before we are in a position to proceed to a synthesis; the danger of a premature synthesis, under pressure of the time limit; the number of possible solutions that present themselves, and the amount of judgment required to choose between them, we may be prepared to admit that co-operation is not only possible but desirable. Indeed, when we further consider the rapid advance of knowledge, the growing complexity of society, the increase of the factors with which we have to deal, the new problems involved in the tendency to build ever larger and more complex buildings, to bring groups of buildings, and even whole towns, within the scope of a single architectural synthesis; when we realize, in short, that architecture is an art that is only in its infancy, we may be willing to admit that co-operation is not only desirable but necessary—if only by way of division of labor.

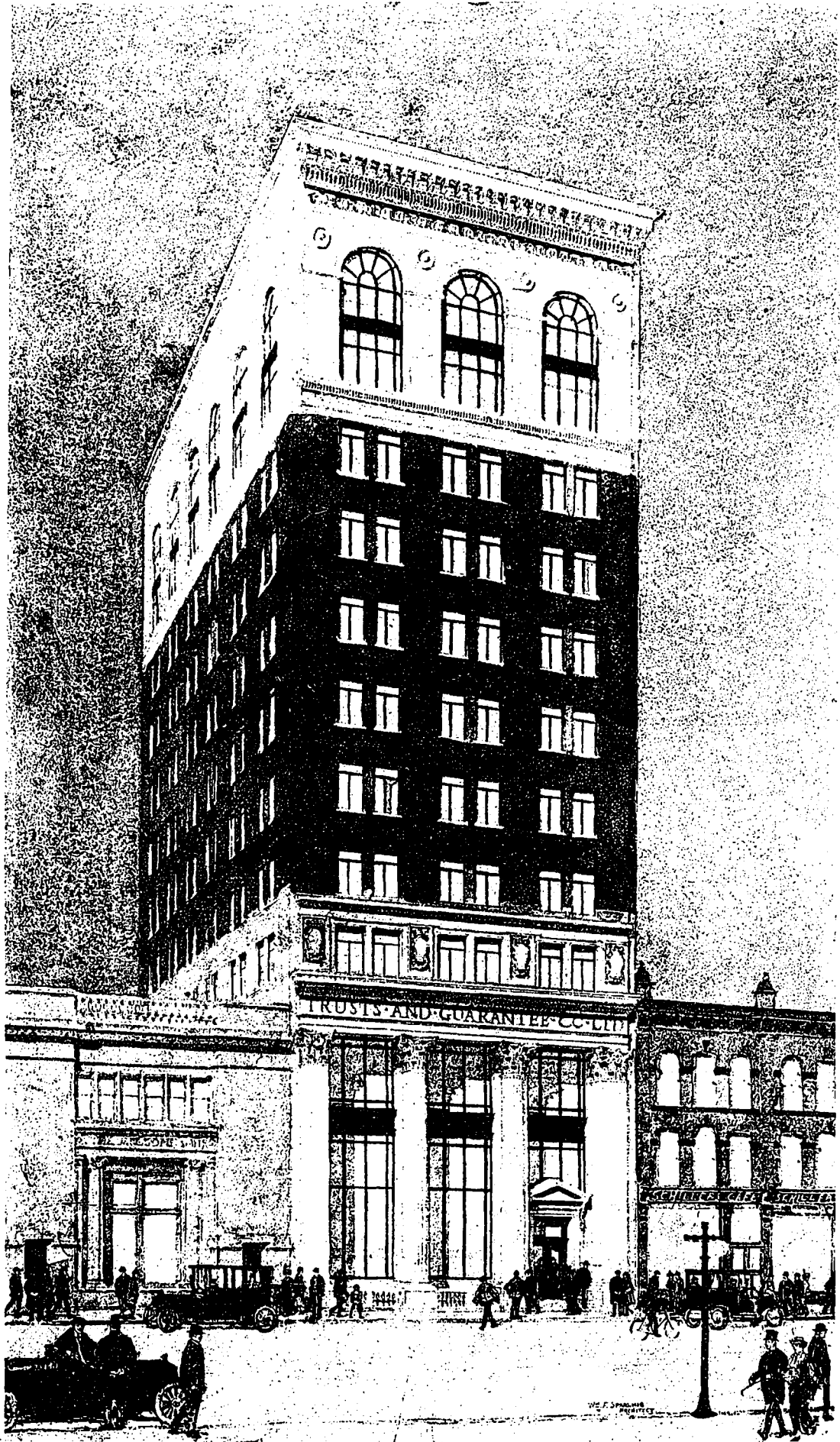
The practical advantages of division of labor are obvious. Considerable progress has been made, particularly in America, by the association—in partnership or otherwise—of men of different aptitudes, each of whom specializes on his own branch of the problem, but I am more interested for the moment in those who combine to study every aspect of the problem together, and to produce a joint solution. When two or three are gathered together, sharing the same mental outlook or attitude towards their art, and work together to the same ends, they mutually strengthen, stimulate and inspire one another, and personalities seem to mingle, melt and fuse into a something greater than any one of them, a collective personality—the personality of the group. This joint personality appears able to produce a complete mental concept—a joint solution of the problem which is not that of any one member of the group, which is different from that which any one member would have produced alone, and which, in my view, may be, should be, and generally is, better than that which any one member could have produced alone. A design embodying such a concept seems to reflect the collective personality of the group, not the individuality of any one person, and to be governed by a dominating idea, not by a dominant mind.

This suggestion of a collective personality

may appear fantastic and quite unnecessary to those who hold that a design must be the outcome of a single mind. They may prefer to take the view that any such group of men is sure to be dominated by one individual, the real creator of the design, to whom the others are really assistants; and that any improvement in the quality of the design would be due to their influence, which seems to point to the value of assistance, provided it is co-operative.

We never seem to have considered how far our work may be simplified and its quality improved by sympathetic and intelligent co-operative assistance. We do not know how to use our assistants. If we do not exploit them we still continue to regard them too much as draughtsmen, or even as clerks, and too little as assistant designers. Instead of taking them into our confidence, opening our minds to them and discussing the problem with them as man to man—recognizing that our greater experience may be our only claim to lead—instead of using them to help us to analyze the programme, study the various factors of the problem, examine the potentialities of various possible solutions, and generally assist us in clarifying and arranging our ideas and arriving at our general concept of the scheme, we bring them in as draughtsmen when the general outline of the scheme is completed and the chance for co-operative assistance is passed. I wonder if we quite realize how much we lose by this procedure, and how much the younger generation loses. The study of completed results may be advantageous to the student, but it is not the same thing as watching and taking part in the mental processes whereby they are obtained. The assistant, either as ghost or draughtsman, must disappear, and be replaced by the assistant architect, trained in the schools to co-operate, if we are to pass on our knowledge, build up a tradition of method, and arrive at that general mental outlook in common so necessary to the advancement of architecture.

Possibly this brings us to the real reason why we do not co-operate more often. Not because we will not, but because we cannot, because we have no traditional method of working and no mental outlook common to us all. We cannot walk together cheering and sustaining one another by the way, because we walk in different ways. Small groups, perhaps, go the same way—possibly arm in arm, co-operating as they go, but these groups have not yet agreed on any one way in which they can all walk together. This way must be found, even if we all have to modify our views, and trust less to our own unaided sense of direction in order to find it; for it is the way of progress by co-operation in design.



TRUST AND GUARANTEE BUILDING, TORONTO.

WM. F. SPARLING, ARCHITECT.

New Trust and Guarantee Building, Toronto

AS the centre of Toronto's financial district, Bay street occupies the same relative position that Wall street does to New York, and Lombard street to London, England, only, perhaps, on a slightly more varied scale. It boasts of several of the principal banks, the Toronto Stock Exchange, the National Club, several trust and mortgage companies, the head offices of two large insurance companies, and various brokers' offices, in addition to the City Hall, which forms the terminus at the head of its somewhat short thoroughfare.

To these has recently been added the new Trust and Guarantee Building, which is entirely in accord with the better class of financial houses on this street, as well as a forerunner of other contemplated buildings of importance which are still to be brought to a point of development. While only seven of the twelve stories provided in the plan have been erected up to the present time, the monumental entrance and architectural treatment indicates the general effect of the design as it will appear when the building is

entirely completed. The extra stories will not likely be added until after the war.

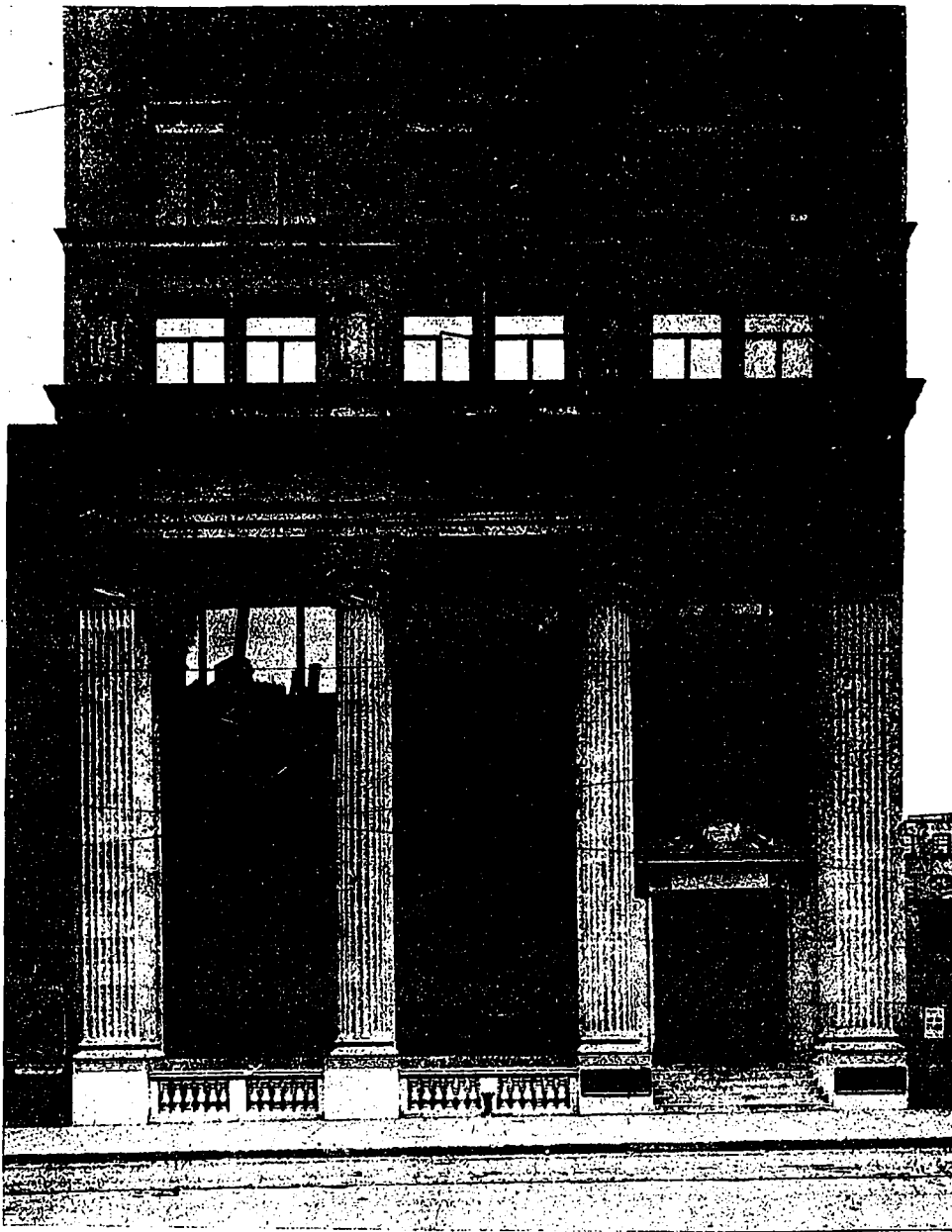
The present structure, aside from providing the owner with spacious and modernly appointed quarters, also allows for a source of revenue from the rental of offices on the five upper floors. The construction throughout subscribes to the most approved fireproof methods. Not only is the framework and floor system built of reinforced concrete, but additional precaution has been taken to eliminate from the concrete all limestone and other aggregates which are known to disintegrate under the action of great heat and water.

A special feature of the structural work is the five large reinforced concrete girders which will support the entire upper ten floors. These girders have a 50 ft. span and a depth of 14 ft. 6 in., and their use which give a clear span of 45 ft. 8 in., has made it possible to keep the main banking room entirely free from columns, thus providing an interior that is lofty and spacious in general appearance, besides giving the maxi-



MAIN BANKING ROOM. TRUST AND GUARANTEE BUILDING, TORONTO.

WM. F. SPARLING, ARCHITECT.



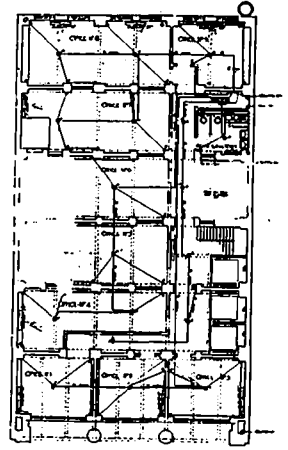
DETAIL OF LOWER FACADE, TRUST AND GUARANTEE BUILDING, TORONTO.

num of light and working space. This banking room, which occupies the entire width and depth of the building, 50 x 90 ft., is walled and floored in Tavernelle marble, with an enriched plaster ceiling contributing to the general effect. Marble is also used for the elevator enclosures and the monumental spiral staircase leading from the right of the public space to the floors above. All metal work on this floor is done in bronze, and the furniture is of a rich mahogany. The absence of partitions of any kind is an interesting, if not an entirely original feature; resulting in an open banking room scheme, with the elevators and staircase to one side, instead of the usual separate hall entrance which is customary in most plans. Another feature of note is the mezzanine, 12 ft. 6 in. wide, which extends for an unsupported length of 55 ft., being carried by cantilever beams off the outside columns. In addition to providing desk space for a large number of the staff, the mezzanine also gives accommodation to the Board Room, which is dec-

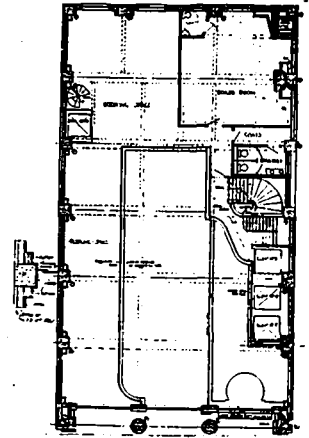
orated and furnished in keeping with the main interior, having a directors' table 8 ft. 6 in. in diameter, made from the architect's design.

The book vaults are situated on the third floor between the heavy reinforced concrete trusses which carry the upper stories; these vaults being accessible only from the main banking room.

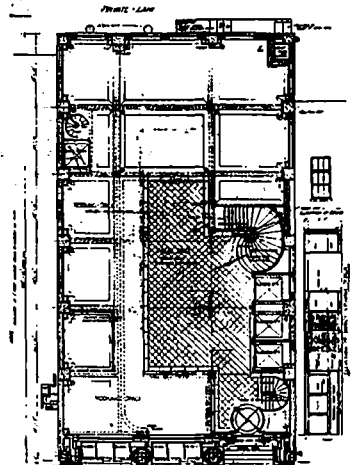
The remaining portion of the building above is entirely laid out in modernly-equipped offices



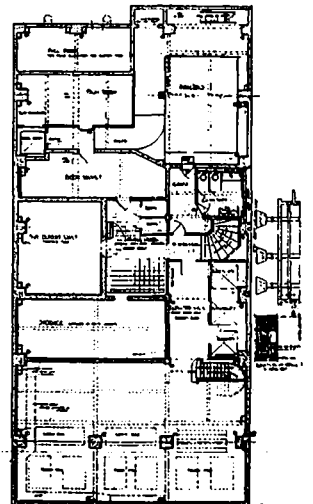
TYPICAL UPPER FLOOR PLAN.



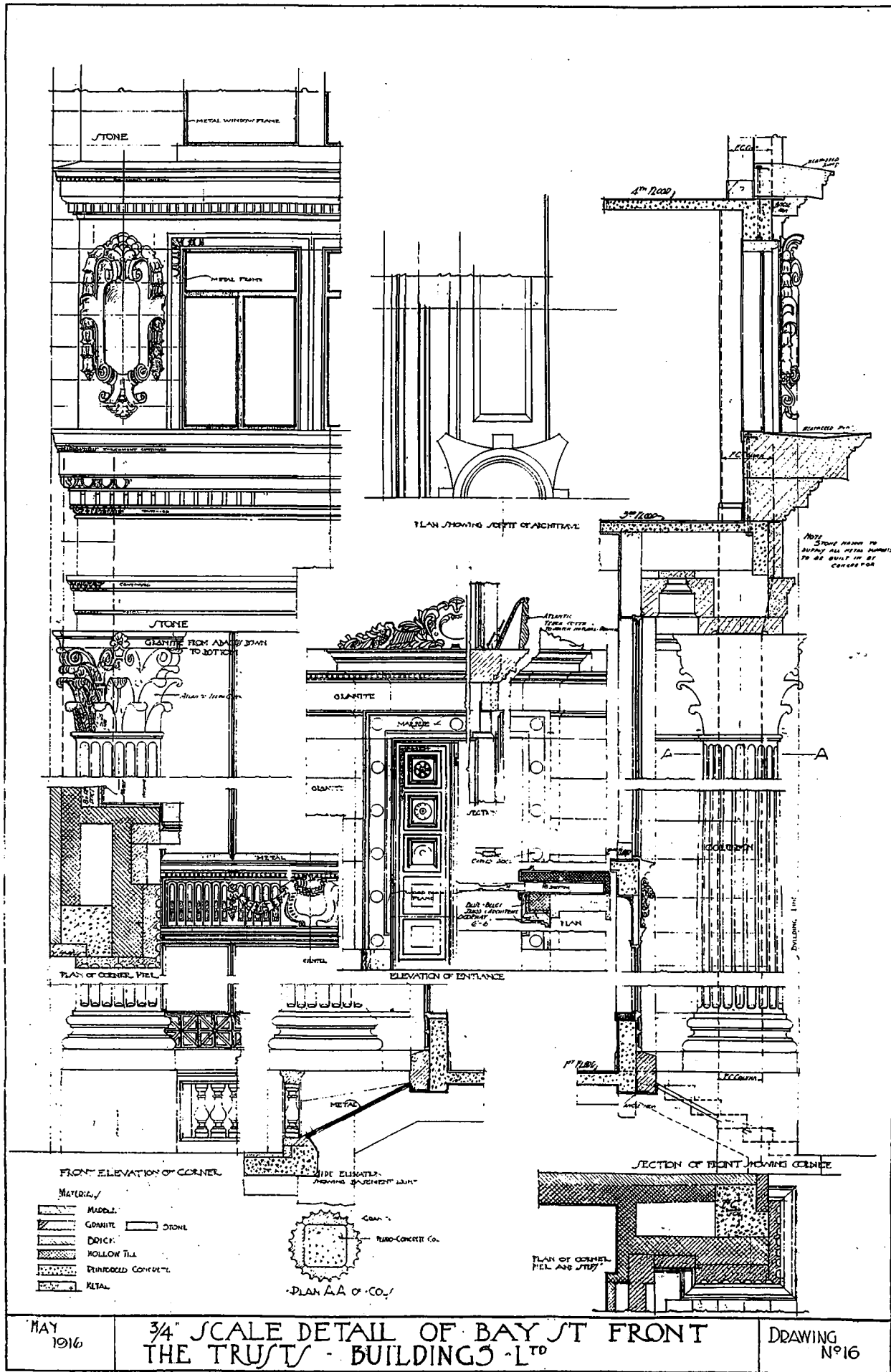
MEZZANINE FLOOR PLAN.

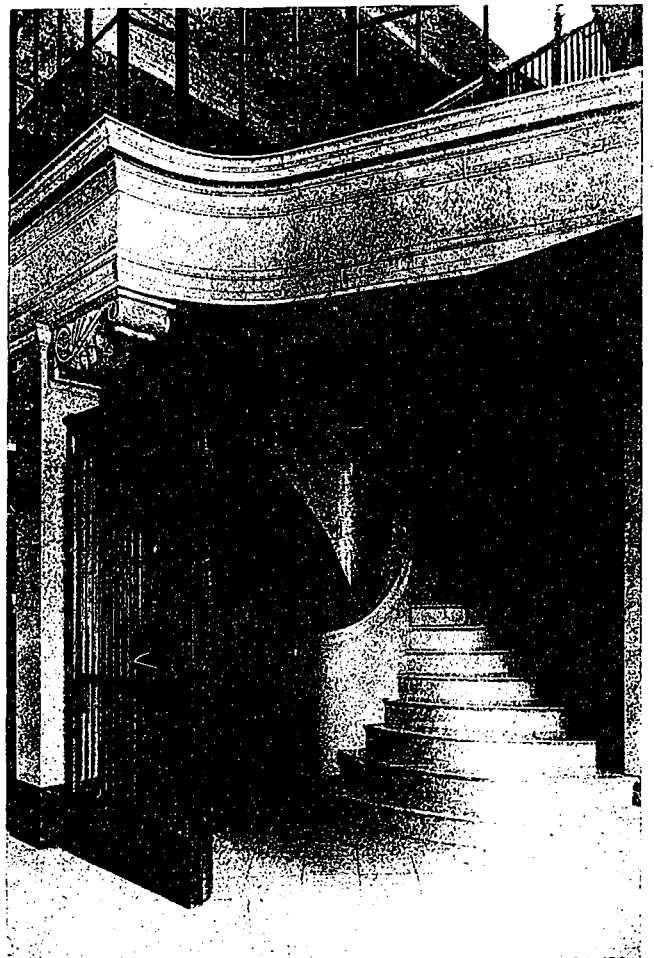


GROUND FLOOR PLAN.



BASEMENT FLOOR PLAN.



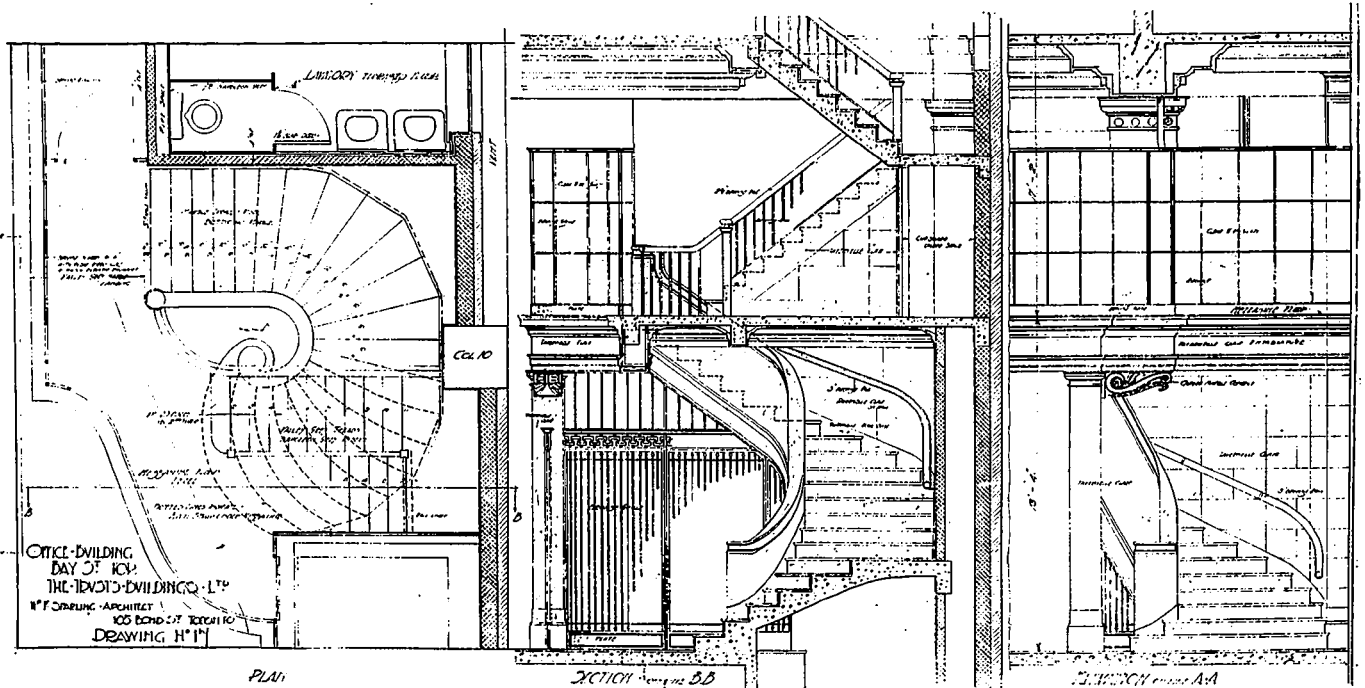


ELEVATOR ENTRANCE AND STAIRS, TRUST AND GUARANTEE BUILDING, TORONTO.

for rent. Three large electric elevators serve the upper floors, while the company's own staff are provided with a special automatic electric elevator to the mezzanine and third floors. Each floor has commodious vaults, lavatories and ample natural light, supplemented by a system of semi-indirect lighting. Cork linoleum is used on all floors throughout.

The front of the building is of Indiana grey stone, the four huge columns forming the entrance resting on a heavy granite support. The side and rear walls are of grey stock brick, backed with hollow tile, while the foundations, which are of concrete, extend down to bed rock 40 ft. below the street level.

In the basement are modern safety deposit



DETAIL OF STAIRCASE, TRUST AND GUARANTEE BUILDING, TORONTO.



CEILING OF MAIN BANKING ROOM, TRUST AND GUARANTEE BUILDING, TORONTO.

vaults, to which access is obtained from the main banking space, as well as from a separate entrance leading from the lower corridor.

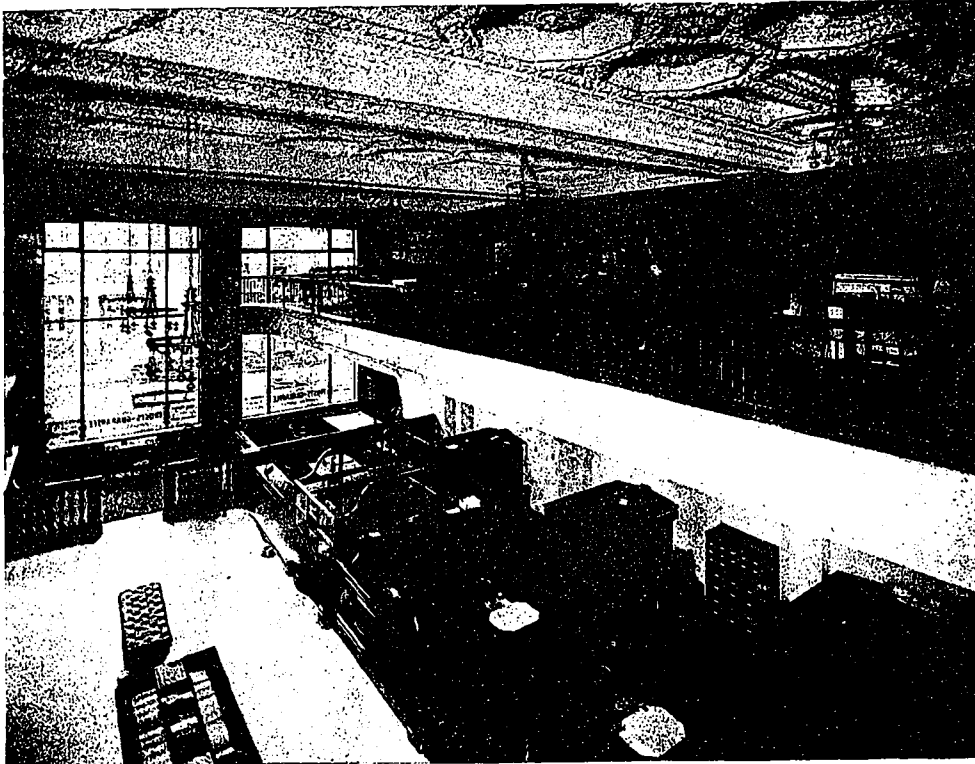
The building is equipped with two large down draft smokeless boilers, which serve the steam heating system. The ventilation is along approved lines, the air being taken from the out-

side of the building at the rear, and washed and heated before being forced through the building.

COLOR HARMONY

The restless modern mind, eager for new fields of conquest, has turned from problems

whose solutions were imperative to the conscious search for new problems with which to do battle, eager to try its powers, like the knights of old. Thus the acute problem of the academic decadence brought forth the corrective movement of the Impressionists, who saw that beauty did not lie in the object, but in the perceiving mind, and that thus any object was food for the creative artist. The success of this solution was followed by a conscious attempt on the part of later men to find new problems whose solutions in turn would make them, too, conquerors in art. And so we get the various movements which are



VIEW FROM MEZZANINE, TRUST AND GUARANTEE BUILDING, TORONTO.

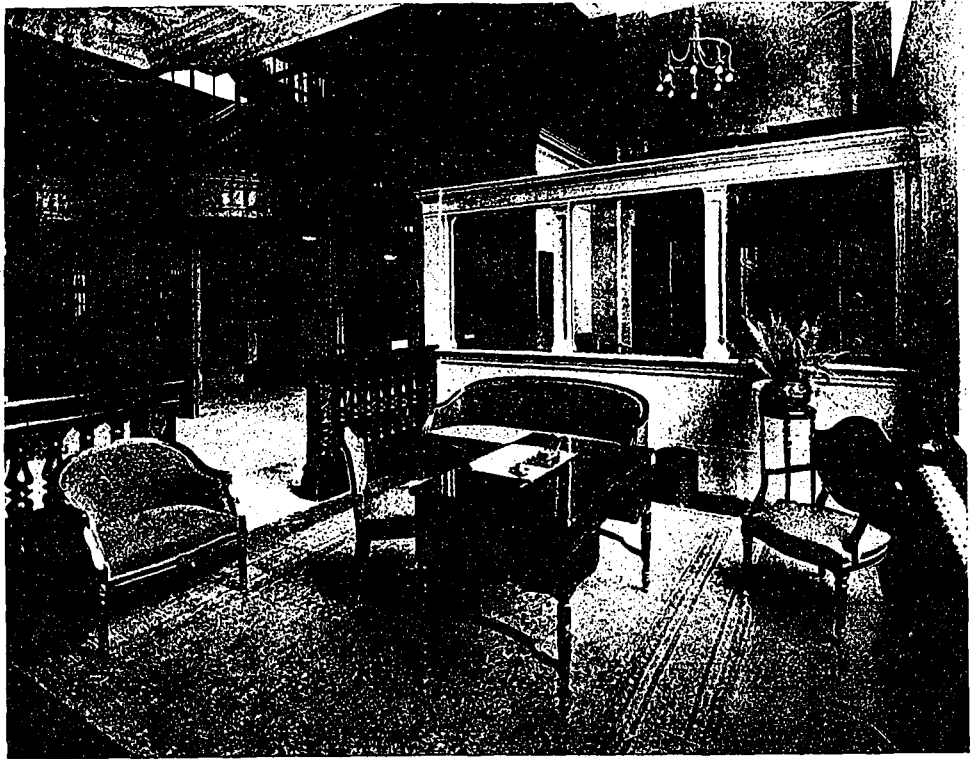
known to the average person by the inclusive term of Cubism.

Now, from these various movements there has arisen another: an attempt to correlate design with music, that purest and most abstract of arts, and to thus make it more pure; and we get the movement which has formed an analogy between colors and sounds, so that we now have color harmonies based upon those of music. The spectrum is made to correspond with three octaves of music, divided into thirty-seven shades, each of which corresponds to a half tone on an instrument, and by arranging these shades to correspond with chords in music, they get harmonies of color instead of sounds. They say also that these color combinations really are harmonious when tried, and, based on this analogy, they hope to open vast fields of unexplored aesthetic territory and to produce a new and more abstract art.

There are, however, certain objections to this theory, arising from the physical and philosophic nature of the problem. In the first place, the whole gamut of colors forms only a portion of one real color octave instead of three, and any analogy by octaves is thus purely arbitrary.

But the great fallacy in this theory lies not in the nature of color design, but in the nature of a chord of music. Years ago there were certain combinations of notes that were called (and still are called) harmonies, and others that were called discords. Then, little by little, more of these so-called discords were introduced into music, until now there is probably no combination of notes that has not been used effectively by some great modern master of the art.

Where the whole of music is possible beauty it is nonsense to say that only combinations of color bas-



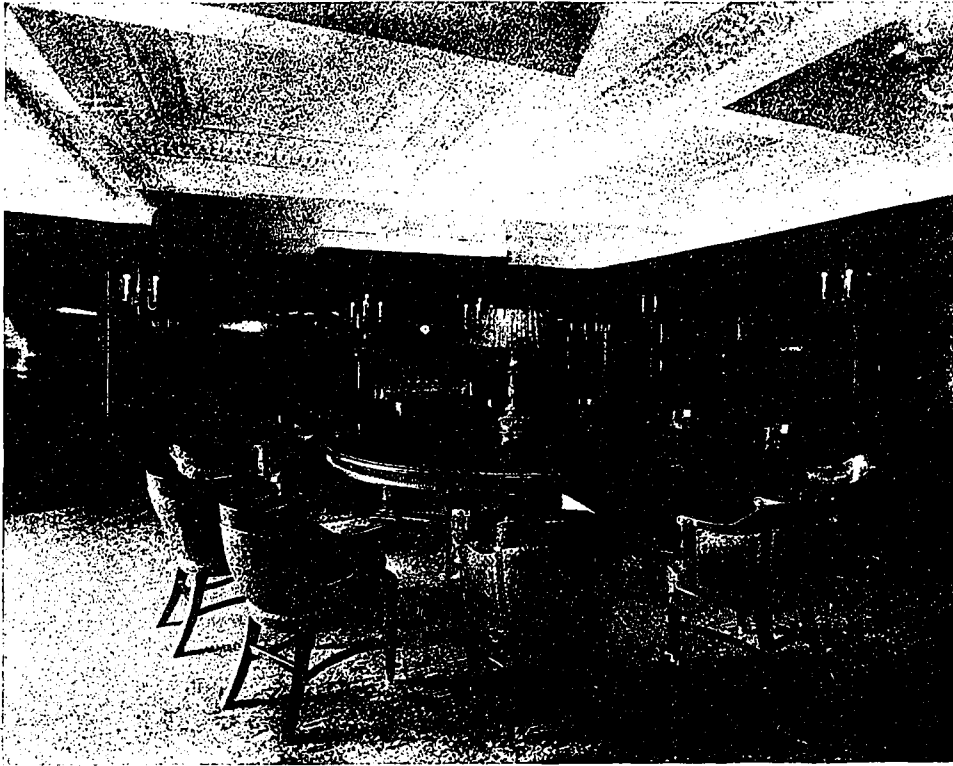
LADIES' ROOM, TRUST AND GUARANTEE BUILDING, TORONTO.

ed on the so-called harmonies shall be beautiful, and all else ugly, for that is what music-color harmony amounts to. To the great master, all is harmony in music, though some combinations are easier to understand than others, and so these new-found color harmonies must be, after all, only accidental, and this new field of exploration shrinks to nothing.

After all, taken from the physical point of view, the difference between these different chords is simply due to the degree of complexity



DETAIL OF COUNTER, MAIN BANKING ROOM, TRUST AND GUARANTEE BUILDING, TORONTO.



BOARD ROOM, TRUST AND GUARANTEE BUILDING, TORONTO.

of the sound wave-front produced. When the wave-front is simple we get harmony, easy beauty. When it is complex we should expect more difficulty of appreciation, and we do, in fact, get so-called discord or difficult beauty. But with colors the case is totally different, for here we get the beauty of harmony and also real ugliness of discord, for here in certain cases expectations are aroused and are not fulfilled, and

this gives us the only possible case of positive ugliness.

There is a peculiar fact about colors that seems to have been discovered by the exponents of the more modern movements, namely: that certain colors take a certain apparent distance from the eye, regardless of their actual placements, so that to get a perfect appearance of spatial integrity, the colors must be very carefully related, often in contradiction to the actual colors in nature, for space is a greater factor than color, and we cannot always get both. This phenomenon seems due partly to the association of certain colors with certain distances, and partly to subtle rela-

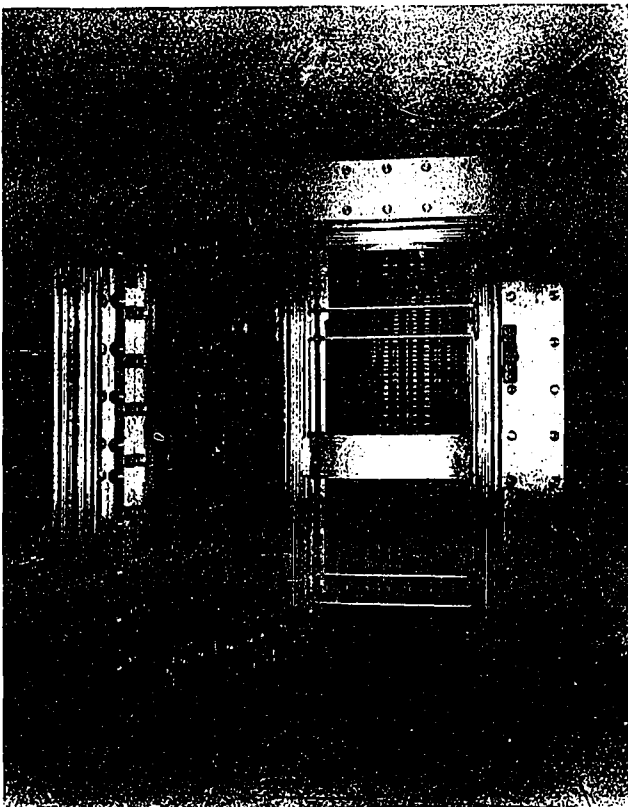
tions between the colors themselves. But most of all it is dependent upon the pigments used in painting, for these assume distances of their own, entirely regardless of what their color may be. Lead white will stand off the canvas, while zinc white will recede, but both are white. And it is in this way that the Post-Impressionists have achieved their wonderful feeling for spatial values.

Color harmony is dependent on this placement of colors, for when all the colors in a picture are so organized as to give us a feeling for logical space relations entirely apart from their positions on objects which would otherwise determine them spatially, we get a wonderful sense of harmony. We see the space as shown graphically. We also perceive the space directly from the colors, and this logical co-ordination of what we see with what we know gives us truth and beauty.

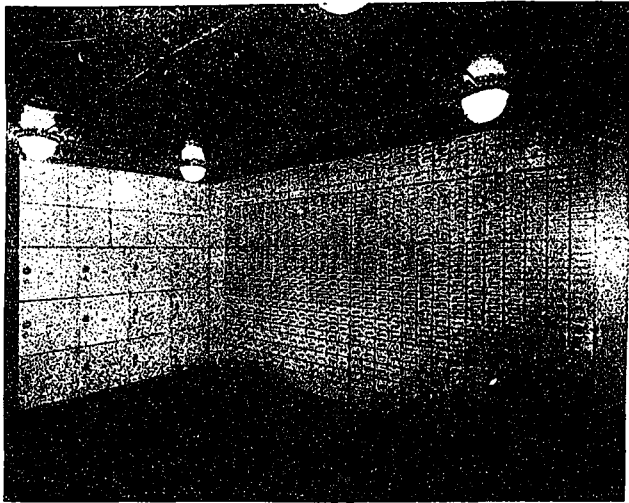
But when some object is out of "tone" and stands apparently free from all that to which it should hold fast, we feel the lack of logic and it gives us discord.

Ordinary wall paper will perhaps give us the best example of this. We know, of course, that it is on a flat surface from the very nature of it, but by actual appearance the figures stand out from the background, giving us two planes where we know there is one. We expect one plane; there appears to be two planes, and because our expectations are aroused and not satisfied, we get positive ugliness.

Color harmony comes, then, when the colors are so related that the direct spatial color perception agrees with the actual or portrayed



VAULT, TRUST AND GUARANTEE BUILDING, TORONTO,



SAFETY DEPOSIT BOXES, TRUST AND GUARANTEE BUILDING, TORONTO.

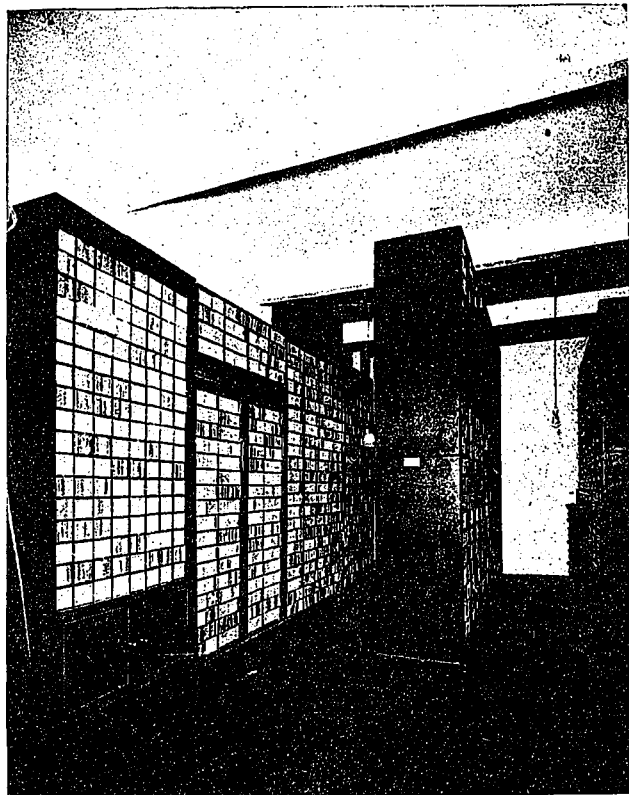
space relations. We get discord when the spatial logic is violated. And by varying the pigments to vary the apparent distance of the colors, probably any color scheme could be made either harmonious or discordant, and a color chord could easily be changed into a discord.

But is there not still a ray of hope for color music? Can we not try some other analogy that may bring us nearer the mark? Surely there must be some way out of this quandary, and perhaps a little deeper inquiry into the nature of music may give us a fresh start.

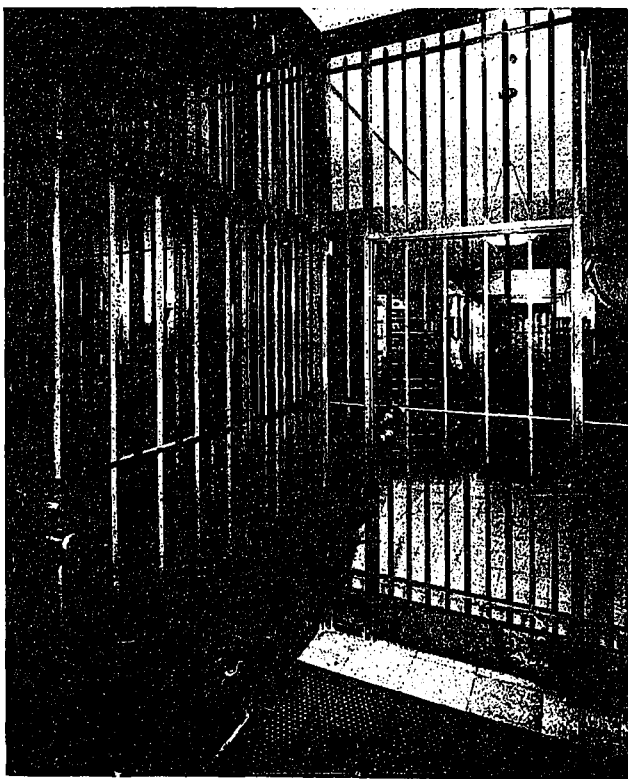
Whatever the notes employed, the time element in music is paramount. Destroy the rhythm and you get chaos. And so we should employ the time element in our color music to get a true analogy. That this is really within the range of possibility is easily seen, for we

have all, as children, been fascinated by the toy kaleidoscope, in which we have watched form merging into form, color into color; where patches appeared, spread, and broke into a living design in which a myriad of moving forms played and danced in precise regularity before our eyes. What could be more delightful to watch!

Now, what the eye can see can be projected upon a screen, and so the way is clear to develop this changing and interweaving of shape and colors into some tangible system of themes and airs, on which in turn the various forms of mu-



FILING SYSTEM, TRUST AND GUARANTEE BUILDING, TORONTO.



SAFETY DEPOSIT VAULTS, TRUST AND GUARANTEE BUILDING, TORONTO.

sic could be built, giving us in color instead of sound the counterparts of the song, rondo, fugue and sonata; actual color music. And this is not so impossible, for a passage once introduced could be contrasted with another to imitate the rondo, one movement could be made to chase another as in the fugue, and we have endless possibilities here before us. It will take much labor and time to develop the keyboard for this new music, but, once established, there is no limit before it. The actual emotional effect of a color or sound, quite contrary to the general conceptions, is of no consequence to art. If the purpose of art is to arouse emotions it must take forever an inferior place, for an emotion is always a reaction, a mechanical product. And though it may be the accompaniment of an action it is in itself inferior to the thing which brought it forth. It is the action, the conscious doing that counts in life, not the emotional reactions that follow and are beyond our control.—

Edwin S. Parker.

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The Halifax Disaster

The disaster at Halifax caused by the explosion of the munition ship *Mont Blanc*, is one of those overwhelming calamities which fate now and again deals from an entirely unexpected source. Its totally destructive character, involving an enormous death toll and great loss of property, has both shocked the entire continent and quickened a sympathetic response from all of Canada and the Eastern States in hastening to the assistance of the afflicted population. Supplies of food and clothing are already pouring into the stricken city in generous quantities from every quarter, but more than food and clothing will be required to approach anything which will give even a fair measure of relief. One of the most urgent needs will be for materials and building equipment to provide shelter for the homeless thousands, and for re-establishing the devastated area of the business and manufacturing section. Already the authorities with commendable enterprise have entered upon the task of organizing towards this end, and the tremendous work before them is best realized when one considers the estimate given in the press of the destruction of twenty-five thousand homes alone. This does not take into account the many large industrial plants, such as the Arcadia

Sugar Refinery, the Hollis Foundry, and other large enterprises, including commercial and public buildings, which have been wrecked and damaged. The loss on schools, churches, etc., is likewise heavy. A message sent out by the Catholic diocese and which affects one denomination alone, reads as follows: "Terrible loss, church, rectory, hall, schools, absolutely demolished. Not one family intact in parish."

All this points to the great suffering and destitute circumstances to which Halifax has been reduced, and how necessary and urgent it is for every section of the Dominion to lend a helping hand. Much of the rebuilding of the city will have to be done quickly, and may, perhaps, to an extent be of a temporary character, although it is definitely announced that the authorities have in mind a plan of reconstruction which will give a great improvement over the physical aspect of things as they existed heretofore. A report, in fact, has already been submitted by Thomas Adams, town planning expert of the Conservation Commission, and the Board of Control has decided to request Premier Murray to call a conference of the City Council, the Board of Trade, the Provincial Government, the Federal Government, the Executive of the Relief Committee, the Town Planning Board, and the Naval and Military authorities, with a view to having a permanent Commission appointed to deal with the problems now confronting the city.

In the meantime the building fraternity can possibly do a great deal by co-operating fully with the authorities in fulfilling every demand for materials and supplies, and by giving every assistance required. That there will be some very interesting data gathered as to the effect of the explosion on certain structural elements is altogether probable, and together with observations of sanitary and other conditions, will eventually give architects and engineers much information of value and assistance.

Saskatchewan Association Elects Officers

The following officers were elected for the ensuing year at the annual meeting of the Saskatchewan Association of Architects, held recently at Regina: President, R. G. Bunyard, Moose Jaw; vice-presidents, J. H. Puntin, Regina, and N. L. Thompson, Saskatoon; secretary-treasurer, Francis B. Reilly, Regina; members of council, Professor Greig, Saskatoon; A. J. Creighton, Prince Albert, and W. G. Van Egmond, Regina.

The business of the meeting was chiefly routine. Mr. Reilly, the secretary, reports that the war has curtailed building operations in the province, but that general business conditions are improving and will tend to stimulate activities in this line. The membership roll of the association includes a list of fifty enlistments.

Canadian Building and Construction News

BUSINESS BUILDINGS.

Toronto, Ont.—Plans have been completed for store alterations at 87 Yonge street, for the Sparrow Estate, 199 Church street. J. Francis Brown, Board of Trade Building, architect.

Toronto, Ont.—Work is in progress in repairing fire damage to the drug store of Liggett Company, 106 Yonge street, which entailed a loss estimated at from \$15,000 to \$25,000 on building and fixtures.

Toronto, Ont.—Architect, P. H. Finney, 79 Adelaide street East, has completed plans for a public garage and repair shop to be erected on Broadview avenue, for M. J. Mitchell, 9 First avenue. The building will be of brick construction and cost \$10,000.

Toronto, Ont.—General interior alterations are being made to the branch of the Bank of Hamilton, at the corner of Yonge and Gould streets. Work is being done by day labor and will cost \$4,000. Wm. F. Sparling Company, 120 Bay street, are the architects.

Waford, Ont.—Tenders have been received for a two-storey brick building, 30 x 40, to be erected here for the Merchants Bank of Canada. Sheppard & Calvin, Excelsior Life Building, Toronto, are the architects.

CHURCHES AND SCHOOLS.

Belleville, Ont.—The city has authorized the purchase of land as a site for rebuilding Albert College. The sum of \$20,000 or more will be expended on the building. Work may not start until after the war.

Cobourg, Ont.—Plans have been completed for rebuilding school at this place recently destroyed by fire. Chapman & McGiffin, 95 King street east, Toronto, are the architects; the principal trades will be done by local contractors. Cost \$60,000.

Hamilton, Ont.—Work is in progress on a hall of frame construction for the Roumanian Greek Church. Milburn & Armes, 585 Bold street, are the contractors. Cost \$3,000.

Hamilton, Ont.—The following contracts have been awarded for the erection of a Parish Hall of brick construction, at the corner of Grey and St. Joseph streets, for the Polish Church. General contractor, J. J. Giles, 451 Aberdeen avenue; mason, W. Inrig, 140 Flat avenue; concrete work, Lewis & Midgley, 25 Lotteridge street.

Mount Dennis, Ont.—Plans have been completed for a six-roomed brick school addition to be built for School Section No. 28, Mount Dennis. Ellis & Ellis, Manning Chambers, Toronto, are the architects.

New Richmond, Que.—Architect, P. Levesque, 115 St. John street, Quebec City, is preparing plans for a presbytery to be erected for Rev. C. Michaud, New Richmond. Cost \$8,000.

Toronto, Ont.—Tenders have been received for a twelve-roomed school annex to be built in connection with Queen Alexandra School. Cost \$60,000.

Toronto, Ont.—The Board of Education, 155 College street, has received tenders for the erection of a nine-roomed addition to Perth Avenue School. Cost \$60,000.

Toronto, Ont.—The Holy Rosary Parish has requested the Separate School Board to erect a new school at the corner of St. Clair and Kendall avenues. Estimated cost \$8,000.

CLUBS AND HOSPITALS.

Chatham, Ont.—Robt. Gray, a prominent citizen of Chatham, has purchased the Algonquin Hotel and will entirely renovate and equip same for Y. M. C. A. purposes.

Ottawa, Ont.—A by-law authorizing \$40,000 for the erection of a club building for the Great War Veterans' Association, will shortly be submitted to the ratepayers.

London, Ont.—Tenders will shortly be called for the new Military Hospital to be erected on the O'Dell property, Westminster Township, to cost \$150,000. The buildings will be of white brick construction and modern in their equipment throughout.

Toronto, Ont.—Alterations for club purposes are being made to the residence at the corner of Burnaby street and Oriole road, which will be occupied by the Pine Grove Hunting and Riding Club. The work will cost between \$3,000 and \$4,000.

Toronto, Ont.—The proposed soldiers' hospital to be built in High Park for the Military Hospitals Commission, will comprise four or five buildings connecting with an administrative building, and give accommodation for one thousand beds. Estimated cost \$300,000. It is understood that plans have been completed.

CIVIL ENGINEERING.

The Hydro Electric Commission has decided to proceed at once with improvements to obtain an additional 25,000 H. P. The extensions will be made in connection with the Ontario Power Company's plant controlled by the Commission.

Omeme, Ont.—The ratepayers will vote on a by-law at the January election to raise \$9,000 for the erection of a hydro electric power house.

PLANTS, FACTORIES AND WAREHOUSES.

Beamsville, Ont.—Work is in progress in clearing site for the new aviation buildings to be built here for the Royal Flying Corps. It is understood that the erection of structures will be started very shortly.

Brantford, Ont.—Tenders have been received for alterations and additions to the factory of the Steel Company of Canada, located on Oxford street. W. C. Tilly, Temple Building, is the architect.

Galt, Ont.—The following contracts have been awarded for the erection of a one-storey brick and steel addition, 180 x 140, to the factory of the Canadian Machinery Corporation. General contractor, P. H. Secord & Son, Brantford, Ontario; steel work, Hamilton Bridge Works, Hamilton, Ontario. Cost \$30,000.

Hamilton, Ont.—Work is in progress on a factory and office building of brick construction for the Canadian Shovel & Tool Company, Imperial street. Geo. E. Mills, 614 King street, is the contractor.

Owen Sound, Ont.—A site has been selected for the proposed \$75,000 factory to be built for the Steel Screw Company. Work will start as soon as final arrangements are completed. J. H. Cole is one of the interested parties.

Port Arthur, Ont.—It is the intention of the Canadian Northern Railway to rebuild elevator "B" during the coming months. Cost \$500,000.

Port Arthur, Ont.—Tenders have closed for a grain elevator of reinforced concrete construction to be built for the Saskatchewan Co-Operative Elevator Company, Grain Exchange Building, Winnipeg. C. O. Howe & Company, Port Arthur, are the engineers. Cost \$450,000.

Toronto, Ont.—S. F. Bowser & Company, 66 Fraser avenue, is erecting a factory addition to cost \$5,000.

Toronto, Ont.—The Dunlop Tire & Rubber Company, 244 Booth avenue, are erecting a brick addition to their power house. Cost \$5,500.

Toronto, Ont.—The Cluff Ammunition Company, 27 Atlantic avenue, are rebuilding their plant recently destroyed by fire. Cost \$20,000.

Toronto, Ont.—The Canadian Aeroplanes are erecting an additional storey to their building at Dufferin street and Lappin avenue. Cost \$27,000.

Toronto, Ont.—The Bond Engineering Works, foot Cherry street, have taken out a permit for the erection of an addition to foundry on Villier street, to cost \$8,000.

Toronto, Ont.—Plans have been completed for alterations to the warehouse of M. Rawlinson Ltd., 610 Yonge street. Wickson and Gregg, Kent Building, are the architects.

Toronto, Ont.—Heppburn & Disher, 18 Van Horne street, are building a storage of steel and galvanized iron construction for the Canada Metal Company, Fraser avenue. Cost \$6,000.

Toronto, Ont.—Architect B. Swartz, 30 Centre avenue, has completed plans for a brick warehouse to be built on Walseley street, for Brenzel & Weintraub, 145 Elizabeth street. Cost \$10,000.

Toronto, Ont.—Plans have been completed for a building of brick construction to be built on Tuttal place, near Elizabeth street, for the New System Laundry. B. Swartz, 30 Centre avenue, is the architect. Cost \$3,000.

Toronto, Ont.—A lease on a fifteen-acre site in the vicinity of Spadina avenue and Queen's wharf has been ratified by the Harbor Commission for the proposed plant of the Dominion Shipbuilding Limited. It is understood that work is to be started at once.

Toronto, Ont.—An additional floor is being built to the cooler building of the Swift Canadian Company, St. Clair avenue, at a cost of \$20,000. Concrete, brick and steel are the materials being used. Archibald & Holmes, Excelsior Life Building, are the contractors.

Toronto, Ont.—Construction is being carried out on a brick addition to the concentrator building and laboratories of the British Acetones Limited, 2 Trinity street. James A. Wickett Ltd., Bank of Hamilton Building, has the general contract and the Dominion Bridge Company the contract for steel roof.

Toronto, Ont.—Architects Sproatt & Rolph, 36 North street, have awarded the following contracts for a stable and delivery warehouse to be built for the T. Eaton Company, 190 Yonge street. Mason, Thompson Bros., Ryrie Building; steel work, McGregor & McIntyre, 1129 Shaw street. The structure will be of brick, steel and concrete and cost \$65,000. It will be located on Coxwell avenue, north of G. T. R. tracks.

Wallaceburg, Ont.—The Dominion Sugar Company intends to immediately rebuild their warehouse and drying factory recently destroyed by fire at a loss of \$100,000.

Weston, Ont.—Work is in progress on a one-storey brick factory, 70 x 150, for the K. & S. Canadian Tires Limited, 527 Yonge street, Toronto. The work is being done under the supervision of Wm. F. Sparling Company, architects, 120 Bay street, Toronto. Two additional storeys are to be built at a future date.

MISCELLANEOUS.

Coniston, Ont.—Work is in progress on a dry house to cost \$30,000, for the Mond Nickel Company Limited, Coniston. The construction will be of brick and steel and the equipment will include shower baths, tile walls, etc.

Guelph, Ont.—The following contracts have been awarded in connection with a one-storey building of fireproof construction to be erected on Wyndham street, for the Guelph & Ontario Savings' General contractor, Johnston & Williams, Woolwich street; concrete and plastering, J. J. Mahoney, Kent street; carpenter, Victor Sheppard, 72 Oxford street; painting and glazing, W. Cook, Quebec street; roofing, Frank & Schmitt, 92 McDonnell street; electric wiring, Stephenson & Malcolm, Quebec street; heating and plumbing, Mahoney Bros., Quebec street. Cost of building \$7,000. W. A. Mahoney, Woolwich street, is the architect.

Toronto, Ont.—Work has started on alterations to stable and garage of J. H. Doane, 621 Yonge street. Cost \$7,000.

Toronto, Ont.—The Board of Control has authorized Works Commissioner Harris to invite tenders for installing air chambers at the new pumping station. Cost \$50,000.

Toronto, Ont.—Geo. M. Garton, 120 Victoria street, has plans completed for a brick apartment house to be built on Bloor street, near Glendowynne avenue. Cost \$15,000.

Toronto, Ont.—Work has started towards repairing fire damage to offices in Aberdeen Chambers, recently damaged by fire. The building is owned by T. W. Hollway, 41 Victoria street, and the work will cost \$20,000. Wickson & Gregg, Kent Building, are the architects.

Toronto, Ont.—Tenders will be received by the Board of Control until January 15th, 1917, for the construction of drainage system (wrought iron pipes) for Don Bridge, Bloor street Viaduct. Specifications may be obtained at the Bloor street Viaduct, Field Office, 59 Castle Frank crescent.

Toronto, Ont.—Plans have been completed for brick stores and apartments to be built on St. Clair avenue near St. Clair gardens, for Calderone Bros., 1248 St. Clair avenue. Owner has not decided whether to proceed with work now or wait until spring. Geo. N. Williams, 415 Keele street, is the architect. Cost \$18,000.

RESIDENCES.

Brantford, Ont.—Architect Frank Nicolls, Temple Building, has completed plans for a residence of stucco and tile construction to be built on Echo place, for Fred Webster, 80 Erie avenue. Cost \$10,000.

Dundas, Ont.—P. H. Secord & Sons, Brantford, Ontario, have been awarded the general contract for rebuilding the residence of Col. Gwynne, of this place, which was recently destroyed by fire. The reconstruction of the building will cost approximately \$14,000.

Hamilton, Ont.—G. E. Gaylord, 54 Lamoreaux street, is erecting two brick residences on Province street, to cost \$5,000.

Hamilton, Ont.—R. Tope & Sons, 191 Robinson street, have the general contract for the erection of a three-storey brick residence for J. G. Milne, 32 Mountain avenue.

Hamilton, Ont.—Work is in progress on a \$6,000 brick residence on Fairleigh crescent, for Mr. Kent, Main street East. J. Bryers, 36 Gibson avenue, has the general contract.

Hamilton, Ont.—The Frid Construction Company, Sun Life Building, have the general contract for \$30,000 brick apartment house, to be built on King street, for W. T. Dymont. F. W. Warren, Bank of Hamilton Building, is the architect.

Hamilton, Ont.—Work has started on two brick residences to be built on Stirton street, for W. R. Bennett, Victoria Apartments. Mason, J. Tope, 191 Robinson street; plastering, W. Bayliss, 372 Beach road; painting and glazing, Mr. Haywood, 178 Stirton street; electric wiring, L. H. Landers, 15 King street East; heating, H. Day, 34 Huron street. Cost \$5,000.

London, Ont.—John Putherbough, 1006 Wellington street, is erecting a brick residence to cost \$4,000. Hyatt Bros., 288 Egerton street, have started work on several brick residences to cost from \$2,000 to \$4,000. It is also their intention to build several new houses in London East.

Oakville, Ont.—Alfred Raynor, 244 Broadway avenue, Toronto, has the general contract for the construction of a chauffeur's cottage at this place, for Col. Henry Brock. Denison & Stephenson, 28 King street West, are the architects. Cost \$8,000.

Ottawa, Ont.—W. E. McCarthy has been awarded the contract for the erection of a three-storey brick apartment house to be built on Lewis street, for Alex Young, McKellar Townsite. Cost \$22,000. Owner can be addressed at Westboro, Ontario.

Renfrew, Ont.—M. J. O'Brien has the general contract for a residence to be built on Lyn street, for Guy M. French. It will be of brick veneer construction, modernly equipped, and cost \$10,000.

Toronto, Ont.—G. F. Cudmore, 62 Pacific avenue, is erecting two houses on Runnymede road, to cost \$6,000.

Toronto, Ont.—An apartment house to cost \$40,000, is being built on Heath and Kendall avenues, for J. M. Walker, 528 Palmerston boulevard. It will be four storeys high and of brick construction, modernly equipped throughout. Owner supervises work.

Toronto, Ont.—McGriffin Contracting Company, 7 McRoberts avenue, is building a duplex residence of brick construction to cost \$2,500. Work has also started on three residences to cost \$4,000 each, on Dufferin street, for Brook Sykes, 1796 Dufferin street.

Toronto, Ont.—Plans have been completed for a brick residence to be built on Runnymede road, for J. Carroll, 10 Kennedy avenue. Cost \$4,000. Also for a residence to be built at the corner of Palmerston gardens and boulevard, for W. J. Brown, 487½ Concord avenue. Cost \$3,000.

Toronto, Ont.—Architect W. G. Hunt, Confederation Life Building, has awarded the contract for the erection of a \$3,500 brick residence for Mrs. Gates to W. J. Sanderson, 270 Spears avenue. Work is also in progress on a brick residence, being built on Kennedy avenue for S. B. Green, 40 Woodside avenue. Cost \$3,000. Also a brick residence, to be built by the same owner on Lauder avenue near Regal road. Cost \$3,000.

Toronto, Ont.—Plans have been completed for a residence to be erected on Poplar Plains road, for Wm. J. Robertson, 63 Lynnwood avenue. Cost \$6,000. James Mitchell, 55 Isabella street, is the architect. Plans have also been completed for a brick residence to be built on Greenwood avenue, for J. E. Carlisle, 25 Woodside avenue. Cost \$3,500. Also for two brick residences to be built on Dufferin street, for F. H. Miller, 307 Lauder avenue. Cost \$6,000. Also for a duplex residence to be built for Miss Ella Ball, 33 Stacey street. Cost \$4,000.

Toronto, Ont.—Plans have been completed for a residence and garage to be built on Oriole road, for F. M. Sloan, 91 Forest Hill road. Brick will be used for the exterior walls and the equipment throughout will be modern. Cost \$12,000.

Toronto, Ont.—Warrington & Bage, 82 Wheeler avenue, have started work on the erection of three brick residences, on Drayton avenue near Stacey street. Cost \$5,000. Operations have also started on a residence to be built on Beresford avenue, for J. P. Luckhart, High Park Gardens. Cost \$3,000.

CONTRACTORS and SUB-CONTRACTORS

As Supplied by The Architects of Buildings
Featured in This Issue

Knox Presbyterian Church, Winnipeg.

Electric Fixtures, Canadian H. W. Johns-Manville Co.
Electric Contractor, Thomas W. Price.
Paints and Varnishes, R. Crawford.
Plumbing Contractor, John Plaxton Co.
Roofing, A. D. Christie.
Seating, Valley City Seating Co.
General Contractors, James McDiarmid.

First Church of Christ, Scientist, Winnipeg.

Brick (stock), Alsip Brick Co.; D. D. Wood & Sons.
Brick (face), Agents N. J. Dinnen & Co.; Hydraulic Press Brick Co.
Boilers, Spencer Steam Boilers.
Cabinet and Woodwork, Winnipeg Paint & Glass Co.
Carpets and Rugs, The Hudson's Bay Co.
Electric Fixtures, McDonald & Willson, Ltd.
Electric Contractors, Merriott-Denbigh Electric Co.; Levy Electric Co.
Furniture, The T. Eaton Co.
Glass (ornamental), The Consolidated Plate Glass Co.
Hardware, Marshall-Wells Co.; The J. H. Ashdown Hardware Co.
Paints and Varnishes, G. F. Stephens Co.
Plaster Work (ornamental), W. C. Metge.
Radiators, The Dominion Radiator Co.
Roofing, George A. Boardman.
Stone (Tyndall quarries), Wallace Sandstone Co.
Seating, Globe Furniture Co.
Structural Iron and Steel, Vulcan Iron Works.
General Contractors, Wallace & Akins; Fort Garry Construction Co.

Stanley Presbyterian Church, Montreal.

Brick Contractor, Reid, McGregor & Reid.
Boilers, Dominion Radiator Co.
Carpentry, Cabinet and Woodwork, F. S. Hudson Co.
Concrete Work, Church, Ross & Co.
Electric Fixtures, McDonald & Willson, Ltd.
Electric Contractor, McDonald & Willson, Ltd.
Furniture for Altar, Berlin Interior Hardware Co.
Marble and Tile, James Walker Hardware Co.
Paint Contractor, R. E. Jones.
Pipe Organ, Casavant Freres.
Plumbing Contractor, John A. Gordon.
Plaster Work, R. G. Hamilton.
Radiators, Dominion Radiator Co.
Roofing Tile, Geo. W. Reed & Co.; Ludwici Caledon Co.
Seating, Berlin Interior Hardware Co.
Structural Iron and Steel, Dominion Bridge Co.
Vaults, Ahearn Safe Co.
Ventilating System, Canadian Blower & Forge Co.
Acoustical Engineers, Mazer Acoustile Co.

First Presbyterian Church, Montreal.

Brick Contractor, Reid, McGregor & Reid.
Carpentry, Cabinet and Woodwork, D. M. Long.
Concrete Work, Church, Ross & Co., Ltd.
Electric Fixtures, McDonald & Willson.
Electric Contractor, Collier & Brock.
Glass, Stained, Hobbs Mfg. Co.
Hardware, D. M. Long.
Paint Contractor, W. E. Potter.
Pipe Organ, Casavant Freres.
Plumbing Contractor, Alex MacKay & Co.
Plaster Work, R. G. Hamilton.
Roofing Tile, Richards & Simard.
Stone, P. Lyall & Sons Construction Co.
Seating, Berlin Interior Hardware.

Howard Park Methodist Church, Toronto.

Boilers, Steel & Radiation, Ltd.
Cabinet and Woodwork, J. R. Eaton & Sons, Ltd.
Concrete Work, Ramsay Concrete Co.
Carpenter and Interior Fittings, W. A. Rumley.
Electric Fixtures, Geo. J. Beattie & Co.
Furniture for Altar, Globe Furniture Co.
Glass, Toronto Plate Glass Co.
Hardware, Sargeant & Co.
Mason Contractor, Wm. Halls.
Paint Contractor, Faircloth & Co.
Plaster Work, Wm. Horwood.
Radiators, Steel & Radiation, Ltd.
Roofing, Geo. Duthie & Sons.
Stone Contractor, S. H. Hurst.
Seating, Globe Furniture Co.
Structural Iron and Steel, Hepburn & Disher.
Tile, The T. Eaton Co.
Ventilating System, Shantz Ventilating Co.

Trust & Guarantee Building, Toronto.

Brick, Don Valley Brick Works.
Boilers, Kewanee Boiler Company.
Carpets and Rugs, Murray-Kay Company.
Casements and Window Construction, (also Doors and Window Trim), Trussed Concrete Steel Co.
Clocks, International Time Recording Co.
Concrete Work, Moushil & Partners.
Electric Fixtures, F. C. Henderson.
Electric Wiring and Apparatus, Bennett & Wright.
Elevators and Hoists, Otis-Fensom Elevator Co.
Fire Escapes, Architectural Bronze Co.
Fire Extinguishers, Wilson & Cousins.
Foundations, Wm. Cowlin & Sons.
Floor Covering, Cork Carpet, Murray-Kay Co.
Flooring, Italian Mosaic Co.
Fittings, (Board Room Table) L. Rawlinson Ltd.
Furniture, Canadian Office & School Furniture Co.
Furniture, Office Specialty Co.
Glass (Plate), Hobbs Mfg. Company.
Glass (Wired), Hobbs Mfg. Company.
Grilles, Architectural Iron Bronze Co.
General Contractors, Wm. Cowlin & Sons.
Hardware, Canada Hardware Co.
Heat Regulating System, Johnson Temperature Regulating Co.
Hollow Tile, Sun Brick Co.
Interior Fittings, Canadian Office & School Furniture Co.
Marble, Hoidge Marble Works.
Ornamental Iron, Architectural Bronze & Iron Works.
Paint Contractors, W. J. Bolus Co.
Plumbing Contractor, Bennett & Wright.
Plumbing Fixtures, J. L. Mott & Sons.
Plaster Work, R. C. Dancy.
Radiators, Dominion Radiator Co.
Signs, Day Sign Company.
Stone, Indiana Limestone Co.
Stone Contractor, Scott Bros.
Vaults, J. & J. Taylor Co.
Varnish, Pratt & Lambert.
Ventilating System, Sheldons Limited.

UNDER A NEW NAME.

The Black Building Supply Company, Ltd., 201-2 Mail Building, Toronto, a well-known firm handling building specialties, has changed its name to Drummond & Reeves, Limited. Both Mr. N. W. Drummond and Mr. L. A. Reeves, of the new concern, were connected with the old company. Under the new arrangement the reorganization will carry on the business that has been developed by the Black Building Supply Company during its seven years' existence. It will be the aim of the Drummond & Reeves concern to do everything in its power to give first-class service to its old customers, and at the same time develop a new clientele by handling a wide line of well-known building specialties. Among the building materials which are being handled are: Architectural terra cotta and face bricks, salt-glazed and enameled brick, paving bricks, the Toch Brothers' paints and waterproofing, plasterers' metal corner beads, picture moulds, bases, etc., and patent safety scaffolding machines.

ARCHITECTURAL FIRM CHANGES NAME.

The business of Bernard H. Prack, up to the present conducted as Prack & Perrine, will hereafter be known as Bernard H. Prack, Industrial Architect and Engineer, with offices as at present, 301-4 Keystone Building, Pittsburgh, Pa., and 308 Lumsden Building, Toronto.

Mr. Prack, whose home for the past seven years has been at Hamilton, specializes in the building of foundries, machine shops, power plants, and also specializes in the equipment, and is making a specialty of producing complete industrial buildings.

A few of the Canadian buildings designed by Mr. Prack are as follows: Office and factory buildings for the Canadian Westinghouse Company, Hamilton; power plant for the Dominion Power and Transmission Co., Hamilton; Oliver Chilled Plow Works, Hamilton; Standard Underground Cable Co., Hamilton; Wm. Wrigley, Jr., Company, factory, Toronto; Canada Cycle and Motor Car Company plant, Weston; Cowan Chocolate Company plant, Toronto; B. J. Johnson Soap Company factory, Toronto, and numerous other large plants throughout the Dominion.

"ADSCO" SYSTEM OF HEATING.

The "Adscos" system of atmospheric steam heating which is adaptable for all types of public and private buildings is explained in detail in an interesting bulletin published by the American District Steam Company of North Tonawanda, N. Y. The "Adscos" is a vapor system which it is claimed has stood the test of actual operation under all sorts of climatic conditions in almost every type of modern building. The system hinges on the principle that steam is lighter than air. Wherefore steam admitted through a valve into the top of a radiator occupies the upper portion of the radiator, the condensation and air flow out at the bottom. The "Adscos" valve does not permit an excess amount of steam to pass into the radiator; hence no heat is wasted, but the maximum amount of heat is delivered to the room. The company offers its services in a consulting capacity to inquirers who have specific heating problems. These bulletins may be had by architects on request.

"DEFEND YOUR STEAM."

With the present possibilities of a very serious shortage of coal, and with a warning constantly before us, urging economy in every industrial field, the question of the maximum amount of power from a minimum amount of coal becomes one of considerable importance.

It is these conditions that prompt the Magnesia Association of America, whose offices are in the Bulletin Building, Philadelphia, Pa., to issue a pamphlet entitled "85% Magnesia and Heat-Insulation."

For more than a quarter century carbonate of magnesia, in an approved form, has been recognized as an efficient and economical means of heat-saving. Its uses, as perfected by this association, are very clearly set forth in the pamphlet referred to, and with the great amount of information presented, it will be found a most timely and instructive reference for architects in specification. The pamphlet may be had on application.

HANDBOOK ON VACUUM CLEANERS.

B. F. Sturtevant Company of High Park, Boston, Mass., and with branches at Montreal and Galt, Ont., who for the past half century have been manufacturers of fans for industrial uses, have perfected a vacuum cleaning apparatus which they state has proved eminently successful. The company, recognizing the importance of proper installation of vacuum cleaning systems in buildings, has prepared a handbook for architects and engineers, discussing all points of the plant and its installation. Instructions for computing suction losses and for determining on the sizes of machine, piping and hose lengths required are given, with tables and diagrams for easy reference. A complete standard specification form covers all points of importance to the architect. This booklet is known as Catalogue 243. Another catalogue, No. 244, covers the subject from a more popular standpoint. Both will be of value to architects specifying vacuum cleaners.

CATALOGUES and BOOKLETS**DISTINCTIVE CHURCH FURNITURE.**

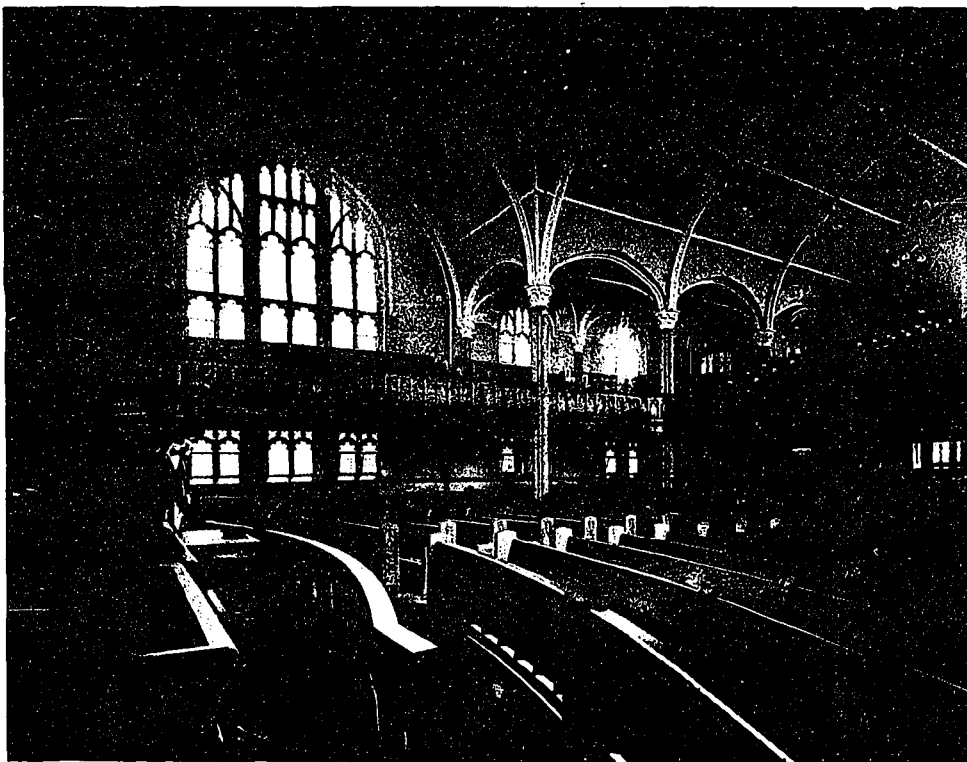
The Globe Furniture Company, Limited, Waterloo, Ont., have published a comprehensive book of 68 pages and cover, entitled "Distinctive Church Furniture," copies of which will be sent to any Canadian architect on request.

The book has many interesting illustrations, showing church interiors, plans of altars, sketches of church furniture of all kinds, and detail plans of pulpits, confessionals, vestment cases and wardrobes. Other views show various types of pews, communion rails, sanctuary seats, bishop's chairs, clergy stalls, baptismal fonts, etc., with some illustrations of lodge, office and school furniture.

Some valuable information is given in the reading pages, and architects interested in church work will find the book a valuable addition to their office library.

CHURCH FURNITURE AND PEWS

Interior of Howard Park Methodist Church, Toronto, as shown in the equipped illustration, throughout by the Globe Furniture Company to the designs of the architect, Mr. W. G. Burns, Toronto.



In the building of Church Furniture, and Pews, Art in Design is as essential as in the planning of the building itself.

We will submit sketches and designs without charge or obligation to any architect on request.

A copy of "Distinctive Church Furniture" will be sent on request.

THE GLOBE FURNITURE CO., LIMITED, WATERLOO, ONTARIO

CONSTRUCTION

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Automobile and Supply Company's New Garage, Toronto	Ex., In., Pl. Harkness & Oxley, Engineers; Shepard & Calvin, Consulting Architects	February	45-51
Garage and Greenhouse of J. D. Chaplin, St. Catharines, Ont.	Ex. Lord & Burnham Co., Ltd.	February	54
Garage, Robt. Davies Estate, Toronto	Ex., In., Pl. Burgess & Marchington	February	55-56
Geo. H. Gooderham's Garage, Toronto	Ex., In., Pl. G. W. Gouinlock	February	57-58
Mrs. J. E. Gordon's Garage and Greenhouse, Wallaceburg, Ont.	Ex., Pl. Lord & Burnham Co., Ltd.	February	53
Private Garage	Ex., Pl. Hynes, Feldman & Watson	February	56
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Byron Sanatorium, Near London, Ont.	Ex., In.	September.	322
Discharge Depot Hospital, Quebec City, Que.	Ex., In.	September.	316-317
Drummond Military Convalescent Hospital, Montreal, Que.	Ex., In.	September.	298-299
Gage Institute, Toronto, Ont.	Ex., Pl. Chas. S. Cobb	October	349-351
Leek Island, Convalescent Hospital, St. Lawrence River	Ex.	September.	313
Military Convalescent Hospital, Camp Hill, Halifax, N.S.	Ex., In., Pl.	September.	300-301
Military Convalescent Hospital, Cobourg, Ont.	Ex., In., Pl.	September.	306-308
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Military Orthopedic Hospital, North Toronto, Ont.	Ex., In., Pl.	September.	294-298
Military Sanatorium, Kentville, N.S.	Ex., Pl.	September.	323-324
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Mountain Sanatorium, Hamilton, Ont.	Ex., In., Pl. Stewart & Witton	June.	203-205
Mount Hamilton Hospital, Hamilton, Ont.	Ex., In., Pl. Stewart & Witton	June.	196-202
Reception Hospital, St. John, N.B.	In.	September..	317
Ross Memorial Wing of Royal Victoria Hospital, Montreal, Que.	Ex., In., Pl. Stevens & Lee and K. G. Rea	June.	189-195
St. Joseph's Hospital, Hamilton, Ont.	Ex., In., Pl. Stevens & Lee	June.	206-209
Toronto Free Hospital for Consumptives, Weston, Ont.	Ex., In., Pl. A. R. Denison & Stephenson	June.	210-213
HOUSES—			
Brantford, Ont., Wm. P. Preston	Ex., In., Pl. Lloyd D. Barber	May	167
Caledon Township, Dodsworth House	Ex., In., Pl. J. M. Jeffery	May	161
Hamilton, Ont.	Ex., Pl. F. W. Warren	May	178
Montreal, Que., F. H. Anson	Ex., In., Pl. Saxe & Archibald	May	166-167
Montreal, Que., L. C. Webster	Ex., In. Septimus Warwick	May	162-163
Montreal, Que., Major E. G. M. Cape	Ex., In. Chas. J. Saxe	May	164-165
Smith's Falls, Ont., M. G. Henninger	Ex., In., Pl.	May	170
Toronto, Ont., Dr. Helen McMurchy	Ex., Pl. Eden Smith & Sons	May	175
Toronto, Ont., Geo. H. Shaw	Ex., Pl. Eden Smith & Sons	May	173
Toronto, Ont., J. H. Fussell	Ex., Pl. Eden Smith & Sons	May	174
Toronto, Ont., Morden Neilson	Ex., In., Pl. Chadwick & Beckett	May	157-158
Toronto, Ont., Ralph Connable	Ex., In., Pl. Wickson & Gregg	May	154-155
Toronto, Ont., R. D. Kilgour	Ex., In., Pl. J. A. McKenzie	May	156-157
Toronto, Ont., "Strathrobyn," Residence of F. B. Robins	Ex., In., Pl. Allan George & Moorehouse	May	149-153
Toronto, Ont., Thos. Fussell	Ex., Pl. Eden Smith & Sons	May	174-175
Westmount, Que.	Ex., In. Anglins, Limited	May	176-177
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Imperial Oil Building, Toronto, Ont.	Ex., In., Pl. Clinton & Russell	March	79-88
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High School, Beamsville, Ont.	Ex., Pl. W. W. LaChance	July	233-235
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