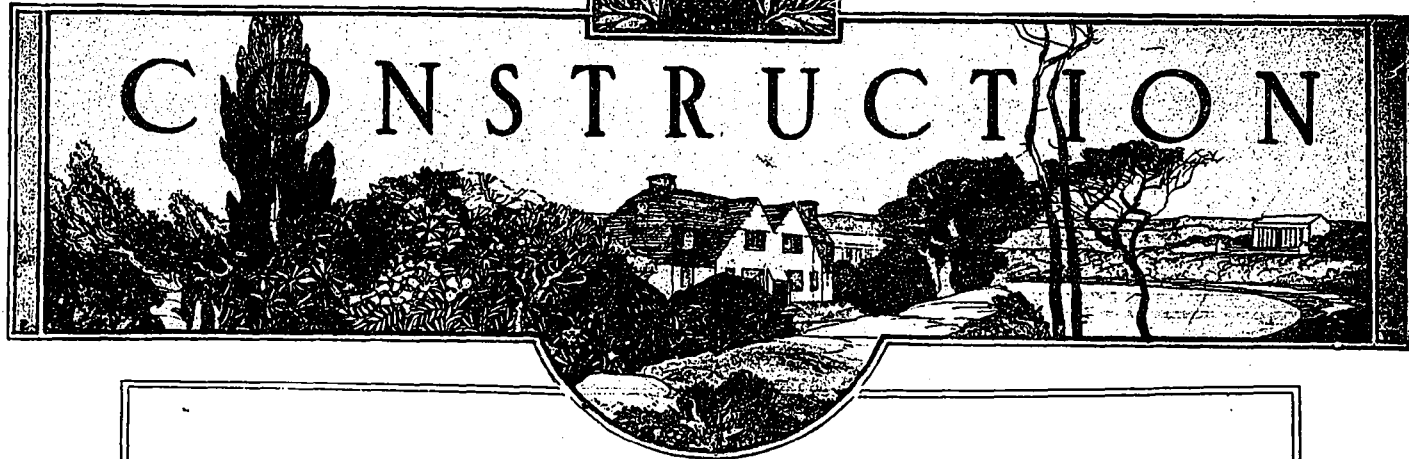


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November, 1919

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### CONTENTS

NEW HAMILTON (ONT.) SCHOOLS .....	333
WAR MEMORIALS .....	340
An address by Prof. Percy E. Nobbs before the R.A.I.C. and O.A.A.	
ALLEN'S DANFORTH THEATRE, TORONTO .....	345
AN IDEAL FOR ENTHUSIASM .....	347
CONVENTION ADDRESSES:	
THE WAR AS A FACTOR IN ARCHITECTURAL EDUCATION.....	350
By Brigadier-General Charles H. Mitchell, Dean of the School of Practical Science, Toronto University.	
THE UNIVERSITY IN RELATION TO ARCHITECTURAL EDUCATION	354
By Sir Robert Falconer, President of the Toronto University.	
THE ONTARIO HOUSING ACT .....	356
By James Govan, Architect of the Provincial Secretary's Department of the Ontario Government.	
ARCHITECTURAL EDUCATION .....	359
By W. D. Cromarty.	
COMMUNITY HALLS FOR RURAL ONTARIO .....	362
DRAUGHTSMEN TO FORM ATELIER .....	365
CANADIAN BUILDING INDUSTRIES' CONFERENCE DATE .....	365
PROPOSED EMPIRE EXHIBIT OF BRITISH GROWN TIMBER .....	365

#### Frontispiece

NEW MEMORIAL SCHOOL, HAMILTON, ONT. ....	332
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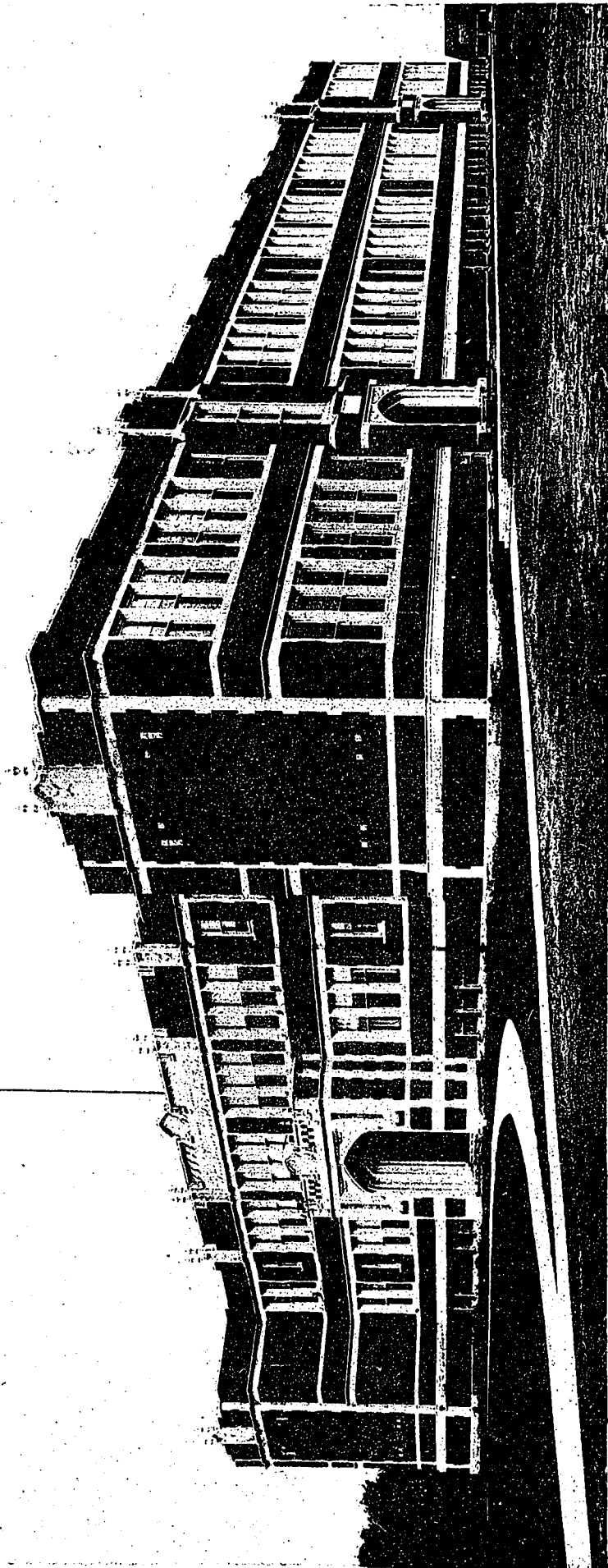
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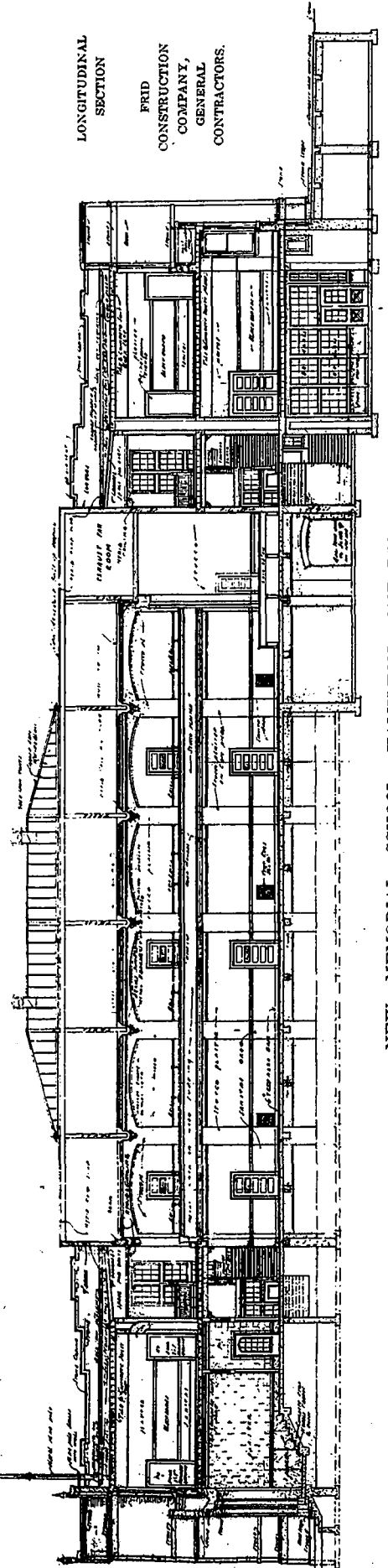
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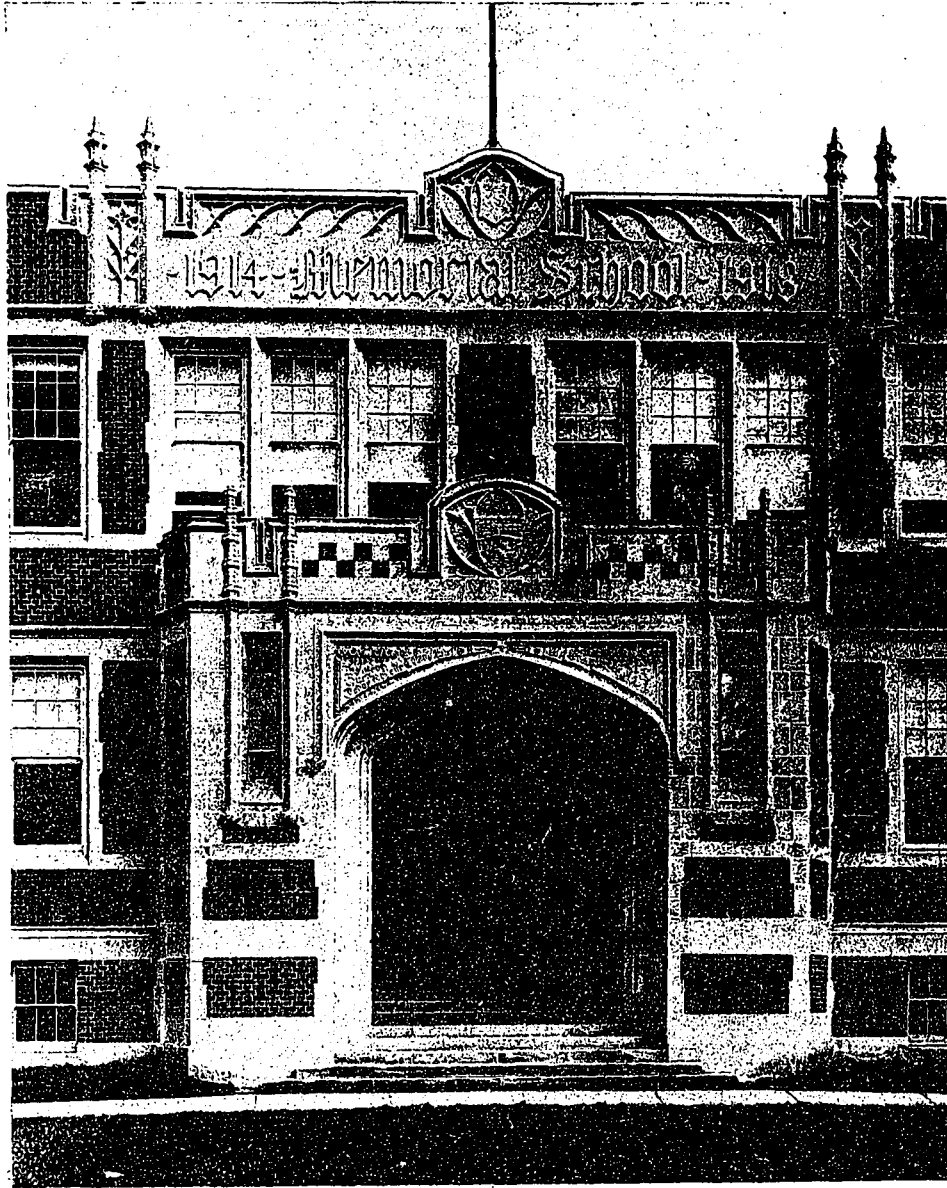
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NEW MEMORIAL SCHOOL, HAMILTON, ONTARIO.  
GORDON J. HUTTON, ARCHITECT.

## New Hamilton (Ont.) Schools

**T**WO new educational buildings opened this season at Hamilton, one entirely completed and the other partly carried out, are unique in features of design. One is the new Memorial School, the first building of its kind

nates any beams in the ceiling. Its principal feature is a spacious central auditorium. Instead of following the usual plan of placing the rooms along a longitudinal axis, the class rooms are arranged around a large central quadrangle



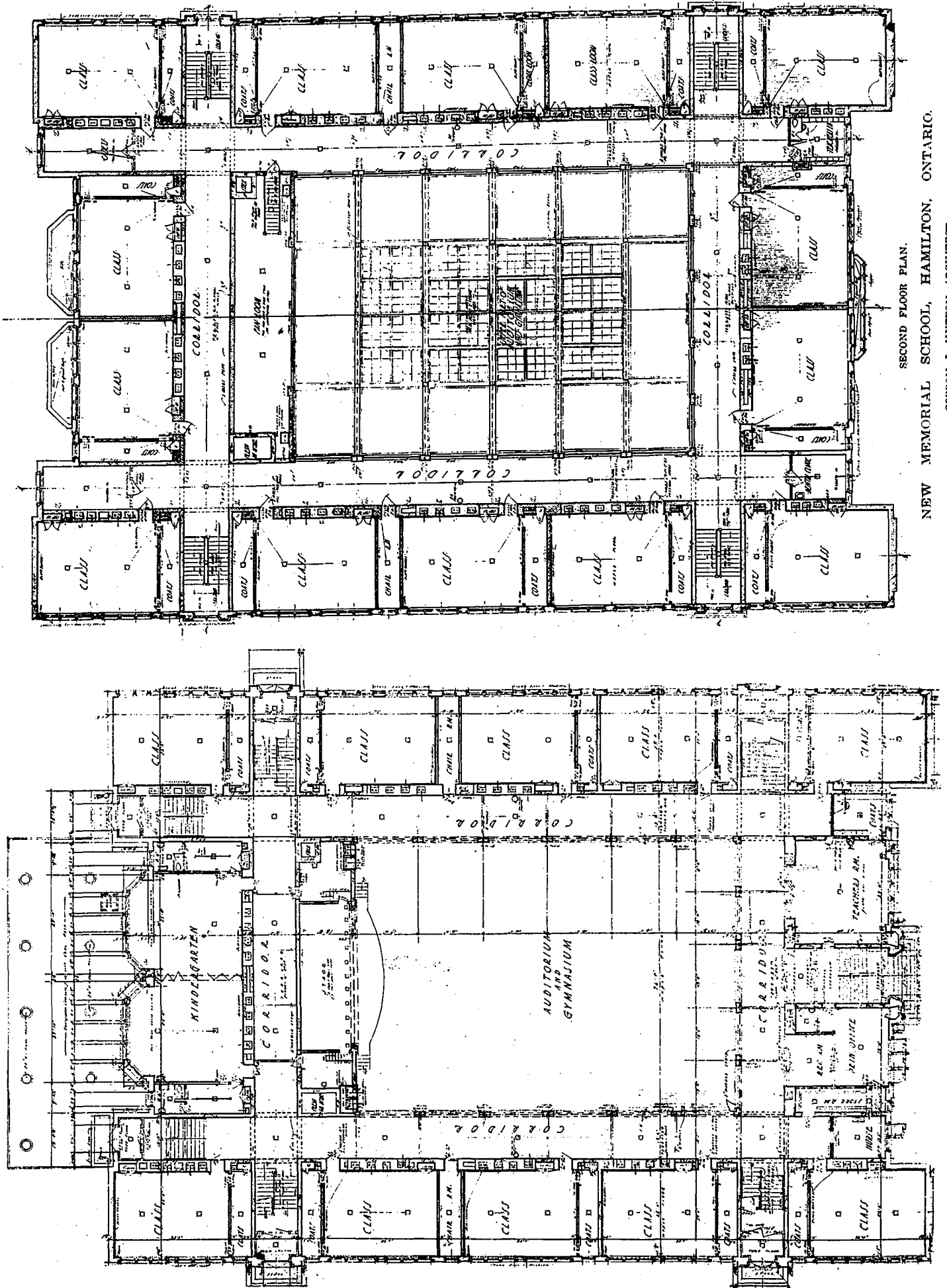
DETAIL OF MAIN ENTRANCE: MEMORIAL SCHOOL, HAMILTON, ONT.

in Canada, or perhaps elsewhere, dedicated to this purpose, and noteworthy on account of its somewhat unusual plan; and the other the partly finished Technical School, which is distinctly industrial in architectural character, and which when eventually completed will be several times its present size.

The Memorial School is practically of reinforced concrete construction throughout, the design being carried out so as to give the class rooms a continuous overhead span which elimi-

which is used for auditorium and gymnasium purposes. This entire inner square is taken up by the auditorium and the corridors which surround it, the latter connecting with several entrances which give convenient access to the building and the various class rooms.

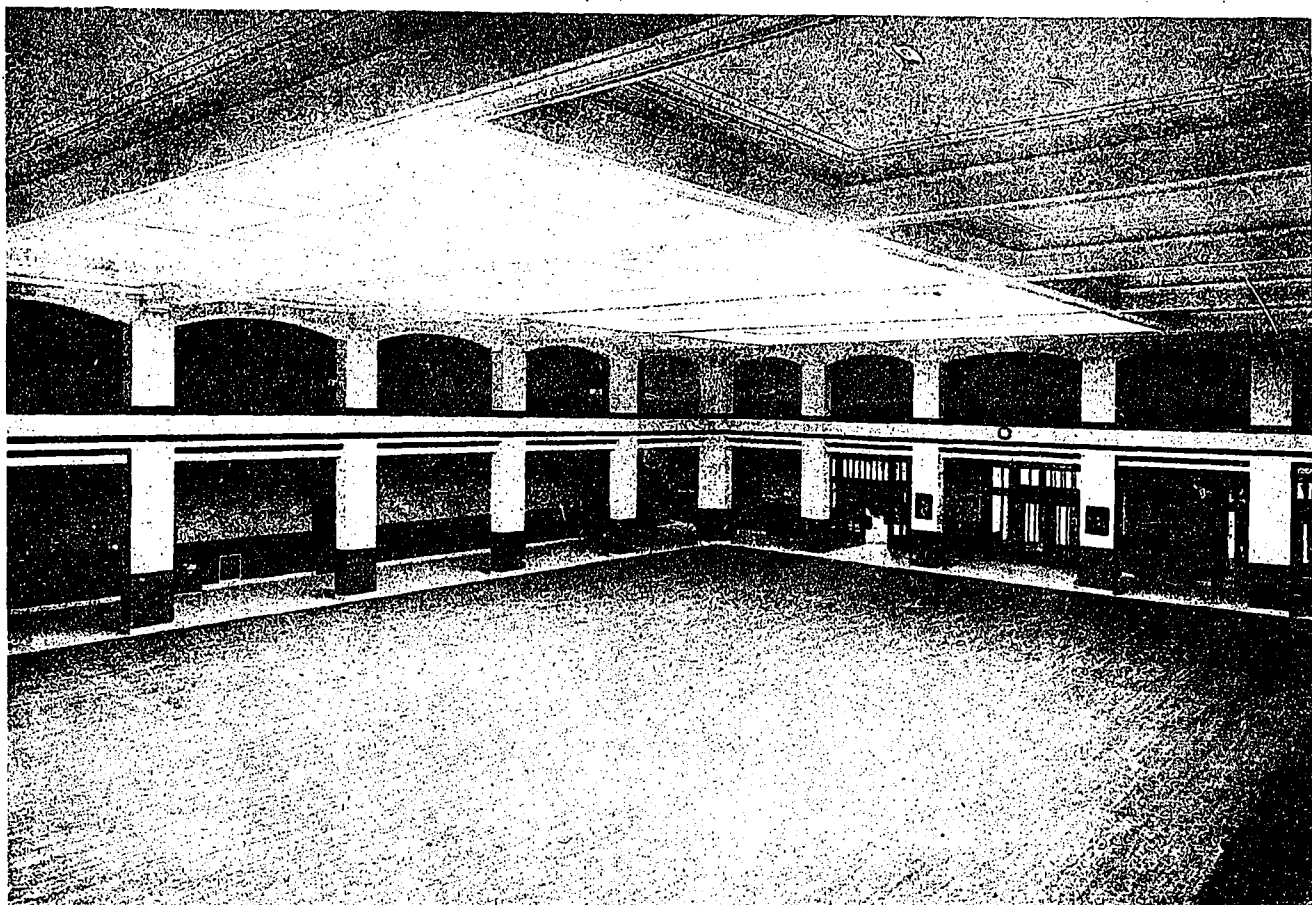
Externally the building is impressive both as to size and architectural character. The exterior walls are all terra cotta tile, faced with rug brick laid with a flush joint in Flemish bond, and trimmed with carved stone detail. The



NEW MEMORIAL SCHOOL, HAMILTON, ONTARIO.  
GORDON J. HUTTON, ARCHITECT.

GROUND FLOOR PLAN.

SECOND FLOOR PLAN.



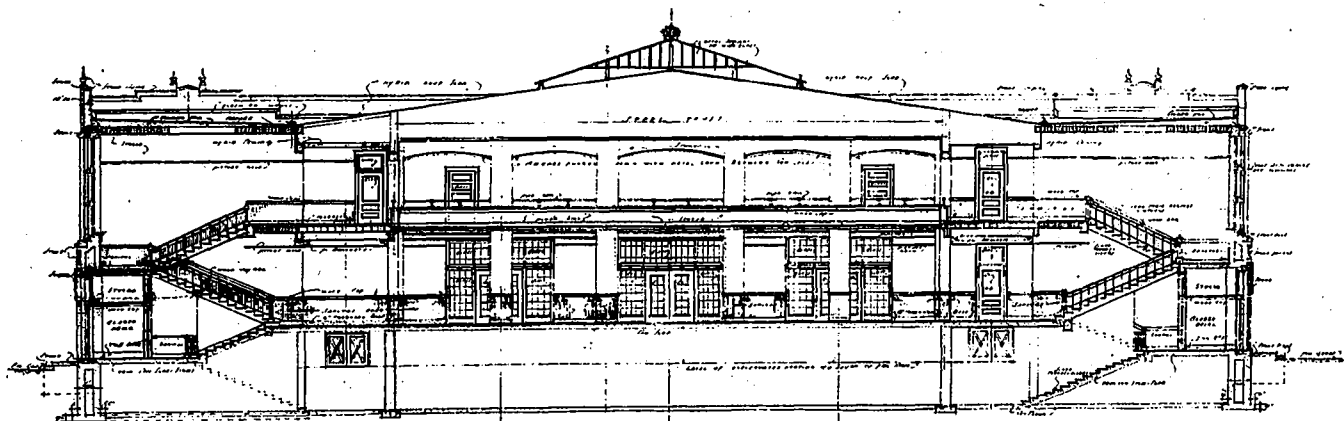
GENERAL VIEW OF AUDITORIUM: MEMORIAL SCHOOL, HAMILTON, ONT.

wainscotting in the main entrance and the staircases are of marble. On one side on entering is the teachers' library and sitting room, with coat and toilet room adjoining, and on the other the principal's room, public reception room, stationery and supply room and nurse's clinic. There is a master 'phone in the principal's office connecting with an inter-communicating system extending to all class rooms.

The class rooms are all soundproof, all partitions being of hollow tile. Each class room has its own coat room, and there is also a book cupboard built in flush with the wall and a private clothes closet for the teacher. Sanitary

wainscotting runs to the height of the black-board, and is also used in the corridors, the plaster finish in the class rooms being a smooth putty coat, and in the corridors and auditorium of stucco.

The only woodwork in the building is the floors of the class rooms, doors, trim and window frames. The auditorium is spanned by steel trusses, which eliminates all columns in same, with the exception of the colonade which surrounds this space. The floors of the corridors, toilets, dental clinic and nurse's room are of terrazzo, with a six-inch base of the same material. All class rooms are floored with maple



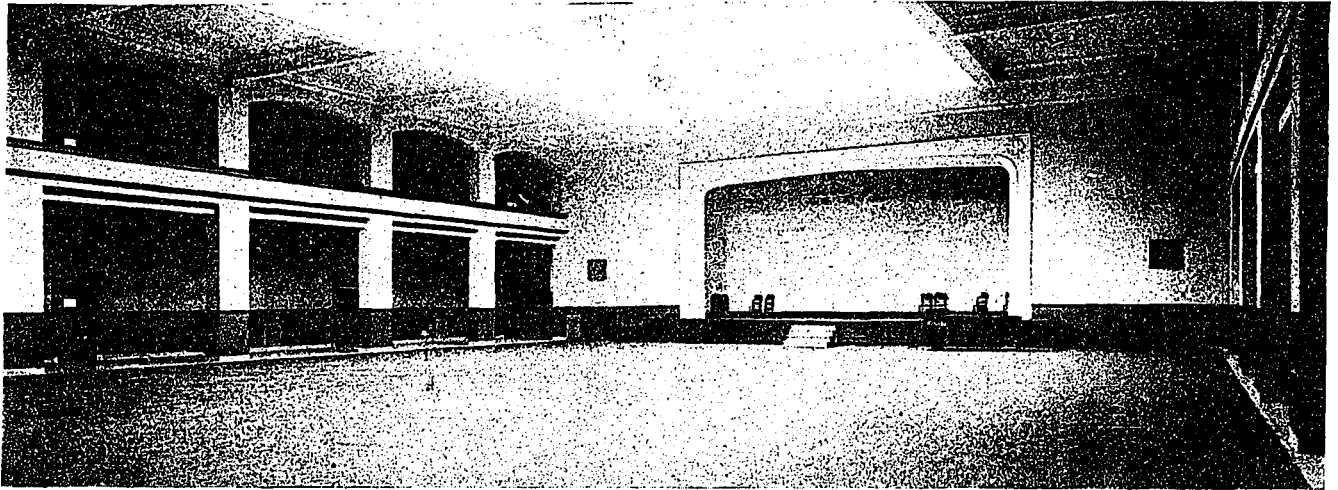
CROSS SECTION, LOOKING SOUTH.

and trimmed with Georgia pine, stained and varnished. The doors and trim in the corridors and auditorium are of ash, the auditorium floor being of maple, the intention being that it will be used at times for gymnasium work.

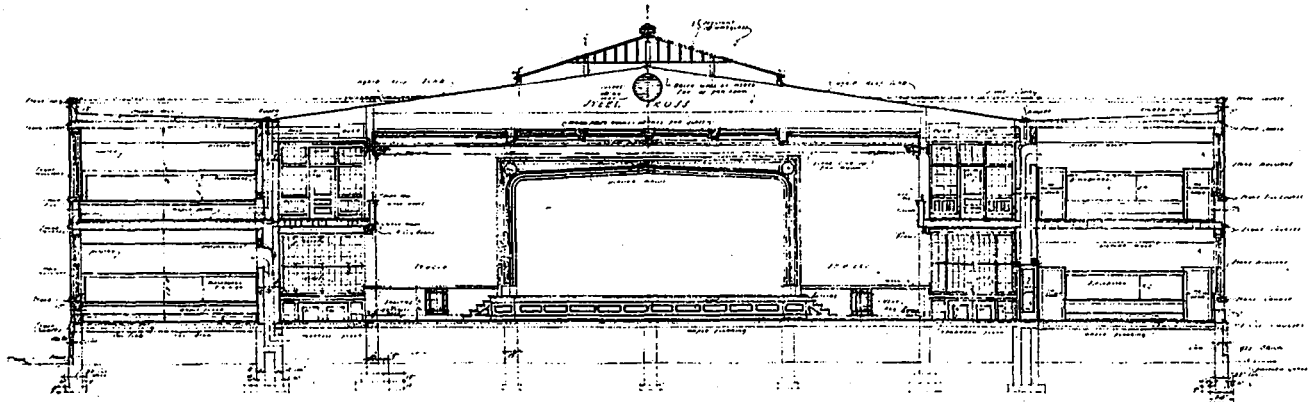
A feature of the second floor corridor is a series of arches which form a gallery looking down into the auditorium and giving an excellent view of the entire central space. The auditorium, which has in all a seating capacity of over two thousand, is lighted by a skylight about two-thirds its size, and has an obscure glass ceiling. The artificial lighting is done by re-

design of technical school buildings. The site, comprising six acres on Wentworth street in the heart of the city, was purchased three years ago by the Technical Committee of the Board of Education, and ground was broken in the spring of 1918 for the erection of the first unit. This unit is now nearing completion, and will be ready for the official opening some time in January, 1920. In the meantime, both day and evening classes are being held, with an enrollment of 400 for the day and 2,200 for the evening classes.

The new Technical School building is dis-



VIEW OF AUDITORIUM, TOWARD STAGE: MEMORIAL SCHOOL, HAMILTON, ONT.



CROSS SECTION, LOOKING NORTH.

flectors, which are placed behind the ceiling screen, there being no electric fixtures visible.

The building is heated by a vacuum steam system, and ventilated by an automatic fan system with temperature control to all class rooms. The fresh air is drawn in from the roof by a fan in the basement, and is thence cleaned and heated and forced through ducts to all rooms, the foul air being taken off by an exhaust fan which is placed under the roof.

#### THE NEW HAMILTON TECHNICAL SCHOOL.

As regards the new Hamilton Technical School, it is quite another type to the building just described, as well as different to the usual

type of technical school buildings. It has been put up according to the best known methods of factory construction. The building faces Wentworth street, and has a frontage of 100 feet. It runs back 120 feet. The structure is four stories high, and is built of reinforced concrete, with supporting pillars thirty inches in diameter dividing the building into bays twenty feet square. The exterior has a veneer of pressed brick. The sash throughout is of steel, with standard factory pivoted sash for ventilation. The ceilings and pillars have been painted a gloss white of three applications.

The front section of the school is divided into class rooms of standard size divided by tile



partitions, while the rest of each floor, consisting of space 100 feet by 60 feet, is devoted to trade shops. The partitions in this part of the building are of wood, with glass at the top.

Ventilation for class rooms is provided for in the basement, running the length of the front of the building, in which is located motors and fans. There is a motor and fan for each room, and this may be controlled by the teacher, who has but to step to a switch, press a button and the current is on or off.

There is an inter-departmental phone system throughout the halls and class rooms, and a time recording clock with gongs that ring automatically on each floor the different periods.

Heating is provided by three boilers producing low pressure steam, which is carried from the heating plant to hot water converters located in the basement. The heating is hot water, with standard radiation throughout. Lavatories and washrooms are fitted with standard fixtures.

The class room floors are hard maple over concrete, the halls terrazzo and the shop floors concrete, with the exception of the first floor. The machine shop, oxy-welding and motor mechanics classes are held on the first floor, which is made of wood blocks laid on concrete. These blocks are standard blackwood paving blocks, which make an excellent shop floor.

The new school, although incomplete in many particulars, marks a new departure in Technical School construction. In the first place, the Hamilton Technical Committee chose to build according to the unit plan, instead of the block plan. This first unit was constructed for the accommodation of shops required in trade instruction. For the present, the academic work will be carried on in the front class rooms, but eventually the entire space on each floor will be occupied by trade shops. There are no wall-bearing partitions in the building, and this will permit of expanding each shop to meet the growth of the school.

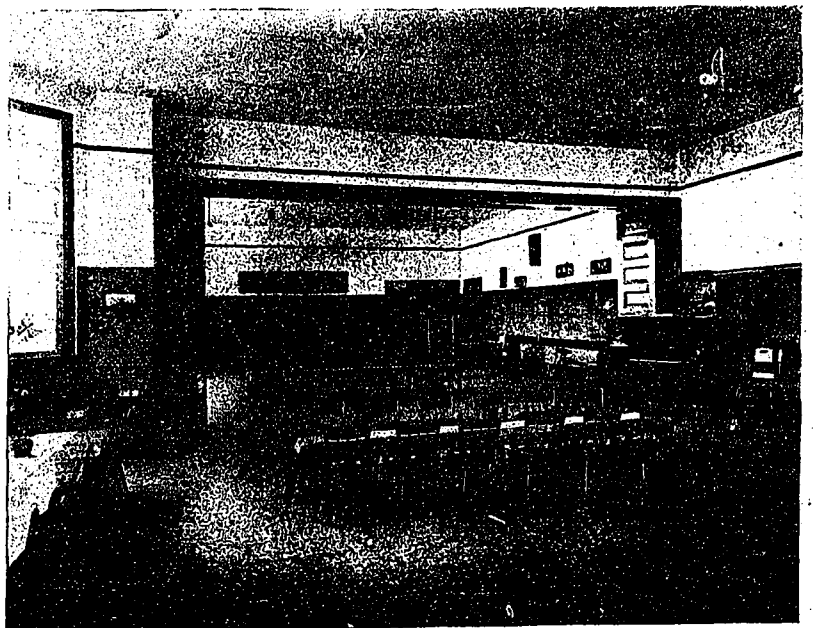
The plan of Technical School buildings provides for a main administration building joining



RECEPTION ROOM: MEMORIAL SCHOOL, HAMILTON, ONT.

on to the present factory unit. This main building will be more ambitious in architectural design. It will be the central building in whatever buildings it may be found necessary to construct to meet the growing demands for technical education in an industrial centre such as Hamilton. The main building will contain class rooms, offices, auditorium, gymnasium and laboratories. According to the plans, all buildings will be so located that a large space will be left on the six acres for an athletic field. The layout of the present first factory unit of the new Technical School provides the following accommodations:

Ground Floor: Temporary office, study room,



KINDERGARTEN ROOM: MEMORIAL SCHOOL, HAMILTON, ONT.



class room, machine shop, oxy-welding and motor mechanics.

Second Floor: Three class rooms, teachers' room, painting and decorating department,

The present building serves admirably the purpose for which it is constructed. It was planned and built as a factory unit, and should not be compared with school buildings which have been constructed on the block plan. It will be only a matter of a year or two before it will be necessary to construct the next unit, the main administration building. No institution in Hamilton so meets the need of workers in such a growing industrial centre, and the Technical Committee is to be congratulated for having the vision to undertake the construction of the Technical School according to plans which provide adequately for future growth.



DETAIL OF EAST ENTRANCE: MEMORIAL SCHOOL, HAMILTON, ONT.

cabinet-making and general woodworking, carpentry, pattern-making, lumber storage and demonstration class room for carpentry, cabinet-making and pattern-making.

Third Floor: Two class rooms, physics laboratory, printing department, architectural drafting department for evening classes (used for drawing in day course), apprentice department, electrical laboratory, practical electrical work, sheet metal work and plumbing.

Fourth Floor: Chemical laboratory, physical laboratory, apparatus room, class room for girls' department, sewing, millinery, cooking and drafting.

### School Wardrobe Ventilation

About a year ago, the Board of Health of Detroit, Mich., was requested to investigate the practice of exhausting air from school class rooms, through the wardrobes and to report to what extent the results of such practice were detrimental to the health of the children.

The problem, naturally resolved itself into two components: First a study of the extent to which dust is deposited or filtered out on the outer garments hung in the wardrobes and the possible danger of such dust, and Second, the possible transmission of germs of communicable diseases through the medium of the outer garments. The investigation by the Board of Health was carried on at the Duane Doty School, being a typical example of that class of schools ventilated in this manner. Observations were not made at other schools as the general principles applied to all of those of this class.

The Doty School is mechanically ventilated, air being drawn from above the roof through an air intake to the basement heated and discharged into the room at the rear about 8 feet above the floor, at the rate of about 1,500 cubic feet per minute. The air is forced well to the front of the room, and travels back through the breathing zone at low velocity and leaves the room through the wardrobes at the rear, the sliding doors of which are so arranged as to leave an 8 inch by 36 inch opening at the floor. About 60 per cent. of the air supplied finds its exit this way. The rest is lost by leakage through windows and doors.

To determine the amount of dust present in the air, a method devised by Dr. E. Vernon Hill,

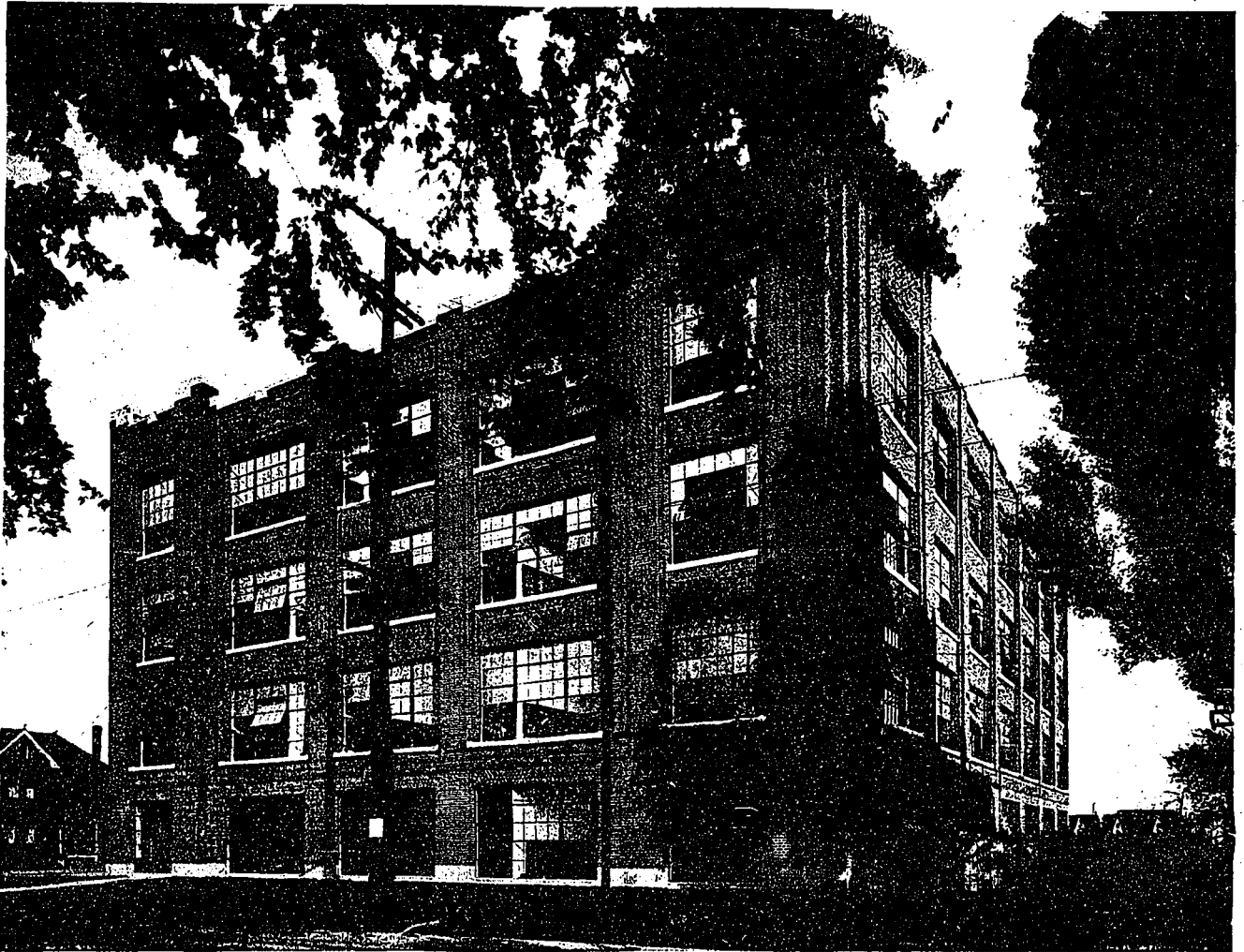
was employed, consisting in microscopically counting the dust deposited on a cover slip from a known volume of air. The average of the observations made show the following results:

Number of dust particles per cubic foot in air entering room, 24,000; average number of dust particles per cubic foot in air in front of room in breathing zone, 26,200; average number of dust particles per cubic foot in center of room in breathing zone 32,600; average number of dust particles per cubic foot in wardrobe, 16,400.

those plates exposed in the room in the breathing zone was 5, the maximum 48, with an average of 15. The examination does not show any stratification.

The result of the analysis in the wardrobe show the minimum count to be 7, the maximum 48, with an average of 16.

It is noticeable in this instance, however, that plates taken above the clothing at a height of 5 feet from the floor frequently show a count in excess of a plate simultaneously taken near the



NEW TECHNICAL SCHOOL, HAMILTON, ONT.: VIEW SHOWING FIRST COMPLETED UNIT. STEWART & WITTEN, ARCHITECTS.

It is evident from these and other observations, that the amount of dust in the wardrobes is not so great by 50 per cent. as in the room, and that the children's garments hanging in the wardrobes are as safe from dangerous dust as they are when hanging in the average home and safer than when being worn upon the street.

To determine the danger of transmission of communicable diseases, bacteriological examinations of the air were made by exposing nutrient agar plates at various locations, for periods of 2 minutes, incubating 48 hours at 37 degrees C. and counting colonies. The minimum count of

floor, there being some evidence that the clothing gives some dust and some bacteria to the air.

It is conclusively shown that the clothing does not act as a filter to any appreciable extent, and that the danger of contact infection from child to child or of droplet infection by coughing or sneezing greatly outweighs any possible danger of transmission by means of outer garments.

All of which facts lead to the conclusion that the practice of exhausting air from the school room through wardrobes cannot be considered in any way detrimental to the health of the children.

# War Memorials

*An Address by Professor Percy E. Nobbs, before the recent Joint Convention of the R.A.I.C. and O.A.A.*

IT is a great honor to share with the housing experts the duty of making an address on one of the two new staple industries which the war has brought to us architects. I am afraid I cannot just keep to the letter of the law in speaking of war memorials in relation to town planning. I am one of the people who do not know anything about town planning. As to war memorials, I think we would do well to define two very distinct types. I suppose the greatest and most successful war memorial that was ever achieved was the foundation in 1437 of All Souls College, Oxford. In that particular war memorial, architecture has only a place in so far as buildings are essential to its utilitarian purpose. For it is a college for the education of statesmen, dedicated to those who fell at Crecy, Agincourt and those battles, and the dedication is as follows:—

“The College of all the souls of the faithful departed, and especially the souls of Henry V, King of England and France, and of the faithful subjects of his realm who died in the French Wars.”

Now we are going to have lots of war memorials of a kindred kind. That is to say, instead of society erecting hospitals and institutions of various kinds to the memory of defunct traders, or maiden ladies, who leave the money for such purposes, there will be a tendency to link such benefactions with the war. There is very little scope for the kind of war memorial I am now proposing to talk about, in cases of that kind. All you can do there is to do what the clerks of Henry V's time did so well, and that is, made a glorious dedication, for in the case of All Souls the war memorial—the work of art—the essential monument—is the glorious dedication.

There is another kind of war memorial, woven into the very forms of the masonry and where the ideas connected with the war may be into the sculpture and decorations of the object; where the utilitarian aspect is of secondary consideration,—where a monument, not to the social needs of the time, but to an idea connected with the war, is the issue. That is the kind of war memorial I propose to speak of, and there are a great many difficulties that arise, and the greatest is to find out just how the public who will pay for a memorial feel about what has happened in the last five years.

It may be useful to consider some of the larger memorials that have already been decided upon. Take the National Scottish Memorial by Sir Robert Lorimer, which, I understand, will take the form of some additions to

Edinburgh Castle. The old barrack on the west side up on top of the rock will be converted into a war museum, and as that barrack is a monstrous affair that is, I am afraid from its very nature, past all human help in the way of improvements, the intention is to add some cloisters and something in the way of an entrance, and at the same time to avoid spoiling the magnificent skyline which Nature and certain accidental accretions in the way of buildings have given to the City of Edinburgh in the castle. The cloister, according to published drawings, will be a neo-Gothic affair of extreme severity and simplicity.

The great school at Winchester has had some troubles over its war memorial, a chapter of adversity which obtained a great deal of publicity about a year ago. They finally decided upon more cloisters. Again we will have some neo-Gothic construction, and as little as possible will be done to spoil the amenities of existing buildings. The chief concern in these cases seems to be not to celebrate the war, but to do no harm to what exists. So there is nothing very great to be expected in either of these war memorials.

Now, having drawn the lucky number in connection with the competition instituted by the Government of Saskatchewan in this connection, I have just been to the West, and I was surprised and much enlightened to find a point of view taken by that Provincial Government which was quite new to me. The idea there is to centralize the whole effort of the Province in one substantial memorial, where local feelings will be duly considered in connection with the lists of the fallen by arranging them by localities as well as by units. That is the action of a very paternal kind of Government, and there is a great deal to be said for their way of dealing with this problem.

There is a strong feeling also, I think, among some of you gentlemen in Toronto about the necessity of doing something to protect the public from itself in connection with war memorial schemes. There is on the one hand the danger of allowing anything at all, including some things which we will regret, to happen, and on the other of taking all spontaneity and life out of the efforts.

In the city of Caracas there are many war memorials, most of them taking the form of a pedestal with a heroic statue on it. All these people whose statues we see there are “liberators” of the country. They have had a great many little civil wars there, and every time

such a war occurs they have a liberator of the country as a result, and every time they have a liberator they give him a statue. There are liberators with their hands upon their hearts, and liberators sword in hand, there are liberators on horseback with the horse at attention, and others with the horse "high curvetting." They also have a building, suggestive of ecclesiastical purposes, in which there are more liberators—about thirty-five of them. The outside liberators are mostly made of brass, and the inside ones are of marble. That is, of course, one of the natural results when a warm-hearted people, true to Latin traditions, have some sort of official organization to take care of their artistic culture and administer their fine arts.

On the other hand, take what is happening in Canada, where we have a condition of affairs at the other extreme. It is here possible for a sculptor to go round hat in hand on his own account collecting for a project on the execution of which the whole amenity of a public place may depend. Now, under present conditions it does not matter whether that sculptor is one of the heaven-born who can make stone to breathe and bronze speak for all time the things which cannot be written, but can only be breathed, or said in stone and bronze, or he may be some cheery vulgarian who has already destroyed the amenity of public places with calumnies and libels on soldier-men of former wars. It does not matter, he can go round hat in hand to the rich dry goods men, and because during the last five years these dry goods men have been selling cotton goods at the price of woollens, and because they know that the poor sculptor, good or bad, has been having a tough time of it during the war, one shells out, and then another, who cannot have his concern outdone in patriotism or charity, shells out too, and that is the way certain memorials may happen in Canada. That is the other extreme, gentlemen.

The question now arises, can we as an association do anything to help? There are a lot of ways in which we could try, but the question is, will they help? That is a matter for discussion. I am putting things in such a way that I hope discussion will result either here or informally afterwards.

The public at the present juncture is very anxious to do something, and they don't know what they want to do; they are really quite open to guidance, but as our friends found in connection with the housing schemes, they are perhaps a little suspicious of the architectural profession.

It will not do, in connection with these projects, for us to try to ram what we think suitable sentiment down the throat of the public. The great thing is to find out what the public

wants to remember about the war and help them to immortalize their feelings.

Do they want to remember the savagery and dash of a bayonet charge? A very good subject, which my friend Tait McKenzie has put into plastic form in a group of men getting out of a trench, and he calls it "Over the Top." Now, that is one quite distinct war spirit which can be immortalized or made permanent in art if it is wanted.

Most people who were "over there" have a profound admiration for the people who were not, because they know quite well that the harder work was done both in soldiering and in general organization, and so on, a good long way from France, and the enormous labor that the munitioning represents is surely something which could and should be expressed in art.

Then again there is the domestic side of things. I saw a charming panel the other day in a sculptor's studio, in which a woman with a child in her arms seemed to be opening a little rather empty cupboard near the door, and there is a dog poking his nose at the corner of the door. A dramatic thing, and it happened to be handled with wonderful sweetness.

Then there is the matter of leadership. I suppose, although we made the war for this or that or the other purpose, and among them to do away with militarism, whatever that is, and for a few other propagandist ideals, still some of us want the leaders to have statues somewhere, and one only hopes that genius will be found that can indicate leadership without always putting a man in review order on horseback.

Then there are all the aspirations and the idealistic inspirations that were the subject matter of recruiting propaganda, and which are so much poppycock and tommyrot and nonsense. I know of no man of the many hundreds and thousands with whom I came in pretty close contact when soldiering who was instigated to get into uniform by the kind of sentiment that the Press was using from the beginning to recruit the forces. I think all this was entirely on the wrong lines from start to finish, but there may be people who desire that some of this ultra-high and hollow inspiration to fight (when it was a matter of common sense that we had to fight or go under) should be immortalized. And the world being now free, I cannot prevent them, but I won't help them.

Then there is the mystery of regimental glory, one of the things which appeals most strongly to everyone who ever wore a uniform. Men die, but the regiment goes on, and the badges of the new regiments have reintroduced a living element in heraldry which is the very foundation of decoration. And we have the great sense of the losses felt by communities,

and apart from the losses of this or that community, we have the terrible realization of the great legions of the dead—all the dead in the war.

And again we have those deeds of extraordinary heroism which make the tales of heroes and demigods, such as David and Goliath, and all those things, absolutely true and real again.

And, lastly, there is that primitive passion which I think is one of the things about which the people who speak most feel least, but it is a very true sentiment for all that to many, and can be described simply as the hatred of the Hun. This sentiment, by the way, was most peculiarly rare throughout the combatant forces of the British Army and of the Canadian Corps in France.

You can perpetuate any or all of these ideas in art, and in doing some of them you will be attempting to perpetuate things which were not, and our immediate problem is how to mobilize the artistry which is competent to deal with these ideas, because the public is quite willing and anxious to pay for it.

Now, we architects are fairly well organized; we have a more or less clear understanding as to what we can do and what we cannot do in poking our noses into each other's business, and we have an established custom in regard to the management of competitions, where competitions are necessary, as in some cases they are. But the sculptors have not as yet these advantages of professional organization, nor the painters either, and I think the right attitude for our profession to take is that sculptors and painters are not practicing our sister arts, but that these are the daughter arts, and that we who practice the mother art can do a very great deal to help them. Nor would I restrict the thing to sculptors and painters, because there are the glass stainers and the bronze founders and the iron smiths, to say nothing of the stone masons and the embroiderers. And the public has not the faintest idea that all these people can be enlisted in this service of expressing their deepest feelings for them. The public would like to get a sculptor to do something, and the public's chief idea is so many cubic feet of stone with a brass soldier on top of it, and if there is a guardian angel or an inspiring angel or a glory angel or something of that kind, or a Winged Victory urging him on or holding him back or attracting his attention to the business in hand, so much the better if it can be got for the money. That is really about all that the public knows about these things, and if the public starts running competitions on what the public considers square lines for the poor sculptors (who cannot take care of themselves), a good deal of bad art is likely to result. I know the ins and outs of several com-

petitions for statues occurring during the last fifteen years, and some are a sad commentary upon human nature.

Now, there has been talk of committees to do this and committees to do that, and, Mr. President, I think that if we start too many committees going we are only helping the world to the condition in which Russia finds itself today. The great thing is, in my mind, to use our constituted machinery. We have the standing rigging, let us say, of this organization, with a President who can speak impersonally as President of the Institute in the name of the architects, and we have in every province a president of an association. That is the standing rigging, and if some anonymous committees to advise with those gentlemen, in case they are flooded with problems of this kind, are required, the machinery is there for hoisting such sails to catch such breezes as may be blowing. I think more good will be done along those lines than by initiating new machinery and a "bureau," as it is now the fashion to call every new piece of machinery that has an office at Ottawa.

One thing that the war has taught us, among the many, is the use of propaganda. Drop, drop, drop, and you wear away the stone. One way to manage a little propaganda on this subject would be to have a paragraph, let us say of forty lines, appear every day for a fortnight in all the principal papers in Canada, and it will be taken up by the others, provided the story is intelligently put together. I think the press in a matter of that kind would see that it was to their own advantage to publish interesting matter provided free. Now, such things could be signed by the President of the Association, and the address of the President could be given, if the public desire further information.

Articles might be on matters of this kind, or possibly the President in his wisdom, with the aid of his council, might think of better subjects, but these occur to me at haphazard: Forty lines on the subject of Canadian sculptors. I don't know whether there are any sculptors present. You all know there are not a great many; the number of sculptors in Canada is very small; you could say quite a lot about each of them in forty lines. Then a little story could be told from an actual case to show in article No. 2 how sculptors are dealt with, how they are paid, where the stone and so on comes from (supposing it is a stone and bronze thing), and when the sculptor is to be paid for his models. The public doesn't know what the sculptor does for his pay. They tell him they want a soldier doing so: (Registers fierce valor), or an angel doing so: (Registers peaceful benignancy), and the sculptor is expected

to make it for them. But, bless my soul, that is no kind of way to treat a sculptor. Now, a little story as to how you deal with a sculptor would be very apropos. Then, in article No. 3, he might bring in a little detail showing how comparatively useless sculptors are without architects to collaborate in connection with the base, and the absurd mistakes sculptors sometimes make in the scale of their statues. Architects can be of use to sculptors, but in such cases the architect must understand that he is only second fiddle. When the sculptor acts as decorator of a building, then he in turn is second fiddle and the architect can get his own back.

Now, another little story could be something about the management of competitions on fair and square lines. Sculptors' competitions are sometimes embarked upon in the same way as architectural competitions. We heard a good deal some years ago about the plans for the Ottawa office buildings, but those were well advised who had nothing to do with the competition, because there was far too much real estate in Ottawa, owned by parties on both sides of politics, for a central building which would economize the country's time and money and reduce the janitor service, ever to be possible. We want to guard the sculptors against schemes of that kind for local advertising, which was all that the Ottawa scheme amounted to.

Another little story might be sent out on mural paintings. The present generation has produced a great deal more painting than sculpture, and we have for one able sculptor a dozen able painters, and we have lots of big blank walls, and mural decoration, either in connection with old or in connection with new buildings, would, I think, be a very legitimate field in connection with war memorial work. We could say something on that subject.

Then there is the bronze tablet. I don't think you have to look very far away: you have only to open the paper and you will find people who make bronze tablets and marble stuff by whom "designs will be cheerfully submitted." Cheerfully, CHEERFULLY! There have been some extraordinarily good bronze tablets put up in Canada since the beginning of the war, designed by architects, cast by bronze-founders with a clean finish on them, and there has been a lot of the rottenest commercial work you can imagine. That is something the public might be warned about and told that good things can be got, and there is no reason why some of the good things should not be photographed and illustrated in the weeklies.

Then comes the stained glass. The general public does not seem to know how stained glass

is done. They don't know that you must have a full-sized cartoon and that it costs quite a large percentage of the total. They don't know whether the architect makes the cartoon or the stained glass man, or whether they collaborate on it. Or, if you do employ an architect in connection with stained glass, that you owe him about fifteen per cent. of the cost even if he doesn't make the cartoon. These things are perfect shocks to the public, especially the last item. Now, there are great opportunities for glass, of course, in this connection, and there is a terrible lot of bad glass about, and more in sight.

Then there is the purely aesthetic question of the difference of handling necessary in sculpture with different materials. The absolute difference required for the treatment of a statue in such diverse materials as black bronze, pale grey granite or white marble. There is the color, material, technique, and one hundred and one things that make for a difference. I am sure the public would be interested to know that such a difference existed, and I think it could be told in forty lines.

Then there are a lot of ancient war memorials that would furnish material for another forty lines.

And last, after people have got into the habit of seeing these little paragraphs in a fixed place in the paper, let us spring the fact that there are a lot of us architects, artists, sculptors and painters. I am sure a little carefully organized propaganda of that kind would do a great deal of good. I cannot see that it would cost very much, and I fail to see that it would do any harm. I make that as my contribution to the discussion, that a little propaganda along these lines, issued in the name of the President of the R.A.I.C. impersonally, with his address, so that public bodies and people interested might possibly inquire, would be beneficial all round. If it is found that a great deal of inquiry is being made and people want to run competitions here and there, and ask for advice as between two different artists they have in mind, or anything of that kind, I think the President of the R.A.I.C. is in a position to point to the presidents of the provincial associations. The presidents of the associations have the natural powers of their office to ask for advice from any of their members if they want it. We must really help the painters and sculptors. They are going to have a more direct say in these matters than we are. It is true we can put the big emotions in stone, but, then, nobody but architects will ever appreciate our efforts.

In conclusion, I must say a word on decorative subject matter. We have been struggling  
(Concluded on page 349.)





ALLEN'S DANFORTH THEATRE, TORONTO.

HYNES, FELDMAN &amp; WATSON, ARCHITECTS.

### Australian Federal Housing Plan

The Federal Housing Commissioner of the Commonwealth of Australia states that operations for building houses for returned soldiers and dependents of deceased soldiers will be commenced very soon and will be pushed as rapidly as possible. The shortage of dwellings is serious, and there is an unfortunate scarcity of building materials.

Before the war, in the City of Melbourne, an average of 75 houses were begun every week. It is estimated that the yearly construction for the Commonwealth must be at least 25,000 houses. To build that number of four-roomed cottages would require 875,000,000 bricks,

which is more than the annual pre-war production. Hence the manufacture of bricks will have to be greatly increased. It is also estimated that a minimum of 200,000,000 feet of lumber will be required annually to relieve the present congestion.

Soldiers are to be encouraged to build new houses rather than to purchase places already built. The deeds will be retained by the Government until 25 per cent. of the price has been paid off, when they may be handed to the buyer. The Commissioner hopes to be able to build at 15 per cent. below the market price asked by private contractors.—“Conservation.”



## Allen's Danforth Theatre, Toronto

**W**IDE awake movie owners have not only come to realize that a well-designed building is a good investment and a means of attracting and stabilizing business, but movie patrons themselves are becoming more discriminating

parts of Toronto. Three of these new theatres have already been completed and are now in operation, while four others planned along similar lines will shortly be opened to the public, making with other holdings



FOYER.

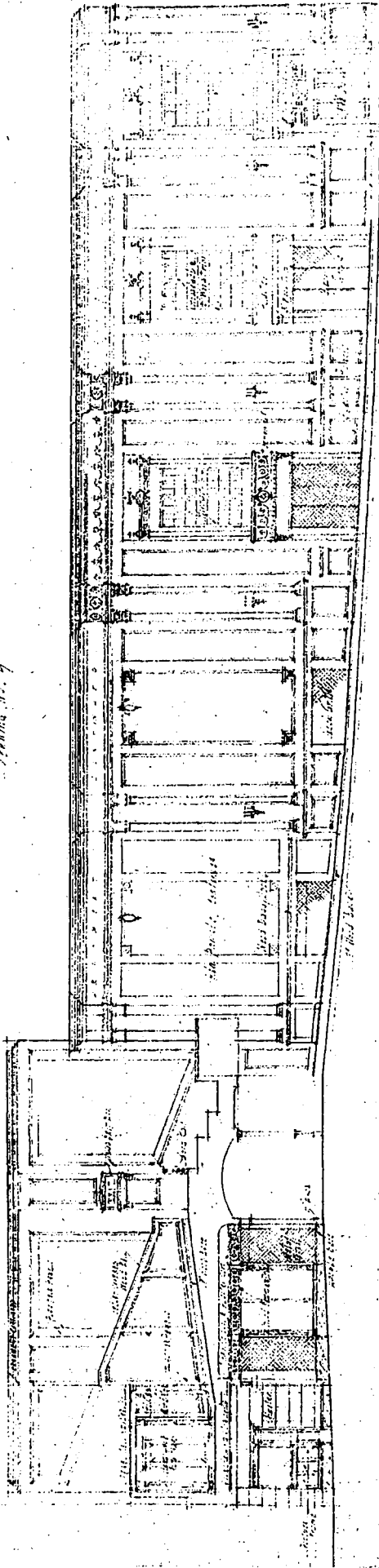
and are seeking out those places which offer the most in the way of artistic and comfortable surroundings for the money they spend. As a result an architectural impetus has been given to movie theatre design and a new standard is to be observed which is strikingly in contrast to the time but recently remote when remodelled structures and a plethora of heavy ornament were its outstanding characteristics.

The new Allen Danforth Theatre quite indicates the tendency in this direction, and is the latest of a chain of neighborhood movie houses now controlled by the Allens in various

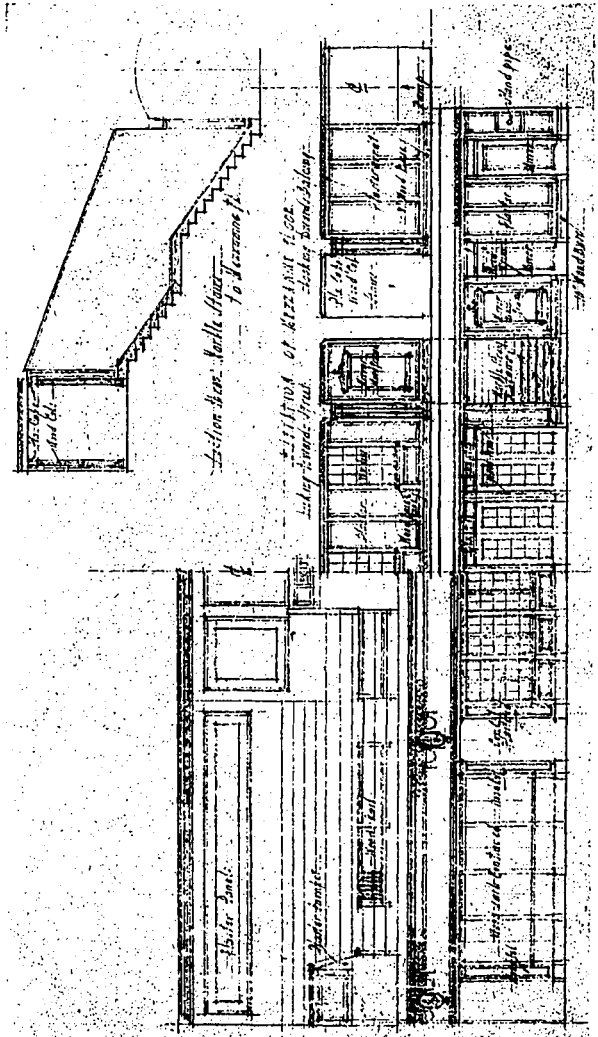
of the Allens a circuit of ten local playhouses under the one management.

In the Danforth house the chief interest lies in the thoughtful and well studied general scheme, which demonstrates in a noteworthy way the value of competent architectural service in designing buildings of this kind. The exterior is of tapestry brick and cut stone, and simple in character; and the entrance is under a wrought iron canopy into the lobby, having panelled walls and a red quarry tile floor, and through a connecting foyer characterized by

THE ALLEN THEATRE ARCHITECTS LTD  
 TORONTO  
 HYNES, FELDMAN & WATSON ARCHT. CONSULTS  
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 PLANS, No. 9



LONGITUDINAL SECTION.



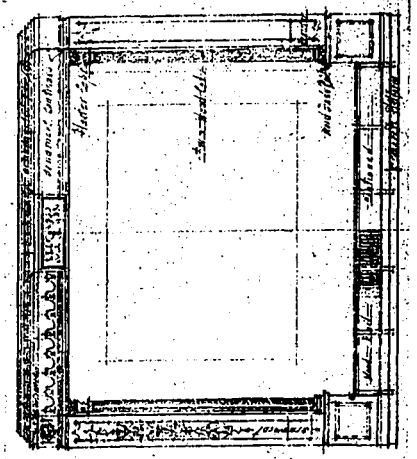
TRANSVERSE SECTION.

LOOKING TOWARD BALCONY

THROUGH MEZZANINE AND FOYER.

ALLEN'S DANFORTH THEATRE, TORONTO.

HYNES, FELDMAN & WATSON,  
ARCHITECTS.



ELEVATION OF PROSCENIUM ARCH

dignified lines and finished with white enamel trim, marble and chaste plaster detail.

In the decorative treatment of the interior throughout, all elements which might tend to distract have been carefully eliminated, and the result is a harmonious and inviting effect.

Evidence of this is particularly to be seen in the auditorium, which is in modified Adams design, the color scheme consisting of gray, blue and old rose tones, and the plaster ornaments being richly detailed and very effectively done. The ceiling is oval in shape, conforming to the contour of the walls and having drop lights at the centre and the four corners. The wall panels are of tapestry silk, while further adding to the effect are French windows set high on the sides and draped with gold trimmed old rose velour, which is also used for the curtains of the proscenium and the boxes.

Altogether the auditorium seats about 1,600, and all but 400 of the seats are on the lower floor, the interior being designed entirely free from posts, and with sufficient floor elevation to insure perfect screen vision from any part of the house.

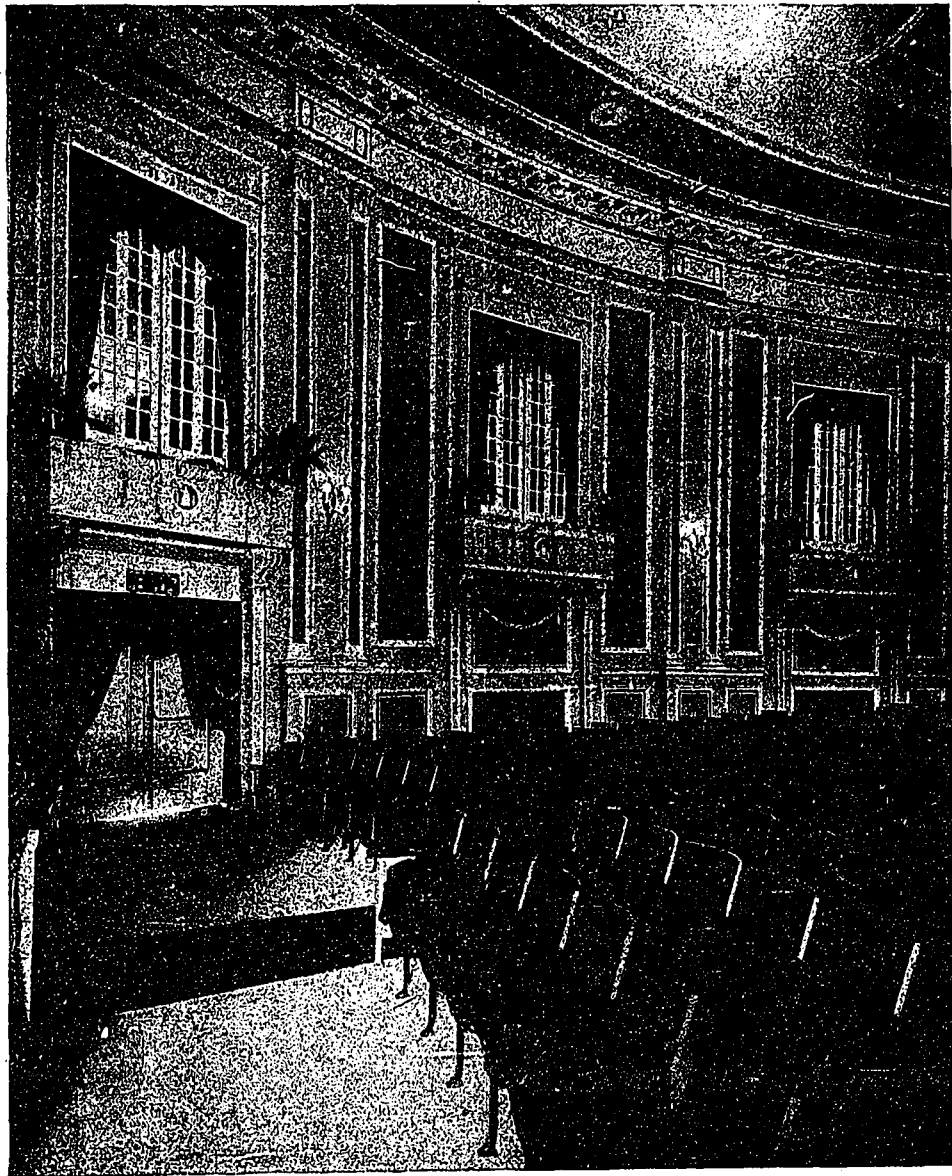
Other features of the plan are the rest rooms and smoking room adjoining the foyer, furnished with wicker furniture and attractively appointed. The trim of the "Rendezvous" and of the stairs leading to the mezzanine is of Venetian marble.

The building is equipped with an efficient heating and ventilating system which regulates the temperature in the auditorium and provides for a constant circulation of fresh air; and the basic materials used are brick concrete and hollow tiles, making the structure fire-proof in character.

### An Ideal for Enthusiasm

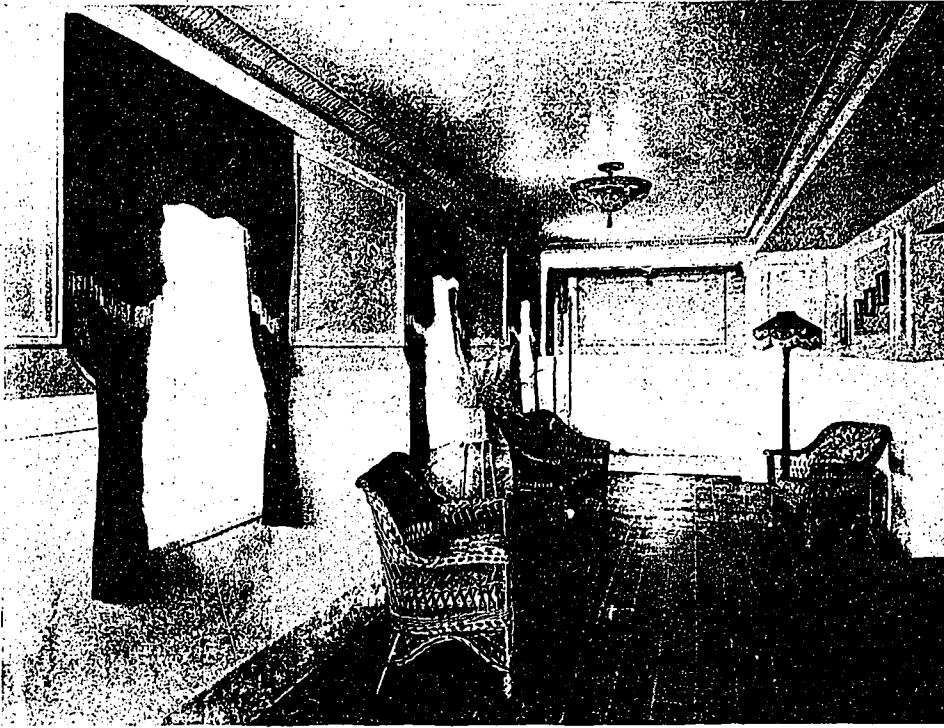
Discussing editorially the subject of "An Ideal for Enthusiasm," the BUILDER, London,

in a recent issue states in part that the wide recognition of the limitations of each race and age in building art that has followed in the wake of intelligent archæology has had its effect upon architects. It is now an offence against the light to close the eyes that have become opened to the beauty of all good building art



ALLEN'S DANFORTH THEATRE, TORONTO.  
HYNES, FELDMAN & WATSON, ARCHITECTS.

merely at the bidding of a doctrinaire specialist or of a crank in taste. Blessed with freedom, we view the so-called styles as vehicles of a universal architecture which reflects the intellectual ideals and scientific accomplishment of the builders, enriched and limited by their historical circumstances. The general and absolute gain of this widened outlook cannot be conceived or regretted by the most ardent mediæval or classical student, and it brings to architects especially, and to their profession, an important share in the inheritance of this generation.

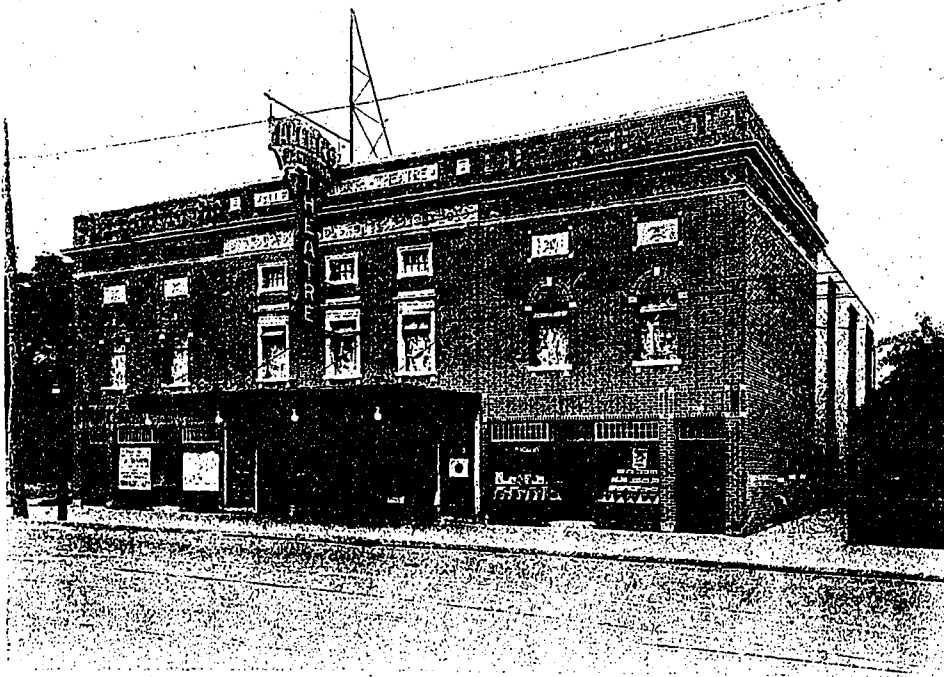


MEZZANINE, ALLEN'S DANFORTH THEATRE, TORONTO.

"In architecture, if enthusiasm were of the imitative kind it would be absurd. The delight, however, is genuine of discerning that the intellectual conflict in a problem of plan or construction in the past recurs to-day, and it will mount into enthusiasm when the artistic motive is similarly revealed by analysis in a work of acknowledged or newly-discovered merit. This is equally true of all works of art in measure, though in architecture the variety of aims and factors increase the interest of research. The

building has its specialty, and consequently its new combination of contrivance, construction and artistic treatment; though constant in the facts controlled by horizontal and vertical reaction, the art of design becomes progressive as new possibilities in arched or concrete building become available. The realization of the bygone architect's ideal and his method of working it out grows with the revelation of the factors with which he dealt, and the increase of the experience of beauty in architecture is under-

stood with a new appreciation. Intelligent archaeology is as stimulating to enthusiasm as dry-as-dust antiquarianism; the new generation may discover its warmth to be more healthy than the heat of the "battle of the styles." The opportunity not infrequently occurs of building for similar requirements to those of antiquity. Modern churches and tombs often afford examples, dwellings and buildings for living action seldom. But superficial form or technique will now cease to be as satisfying as formerly. Similarity of spirit and action will be sought for and result



GENERAL VIEW, ALLEN'S DANFORTH THEATRE, TORONTO.

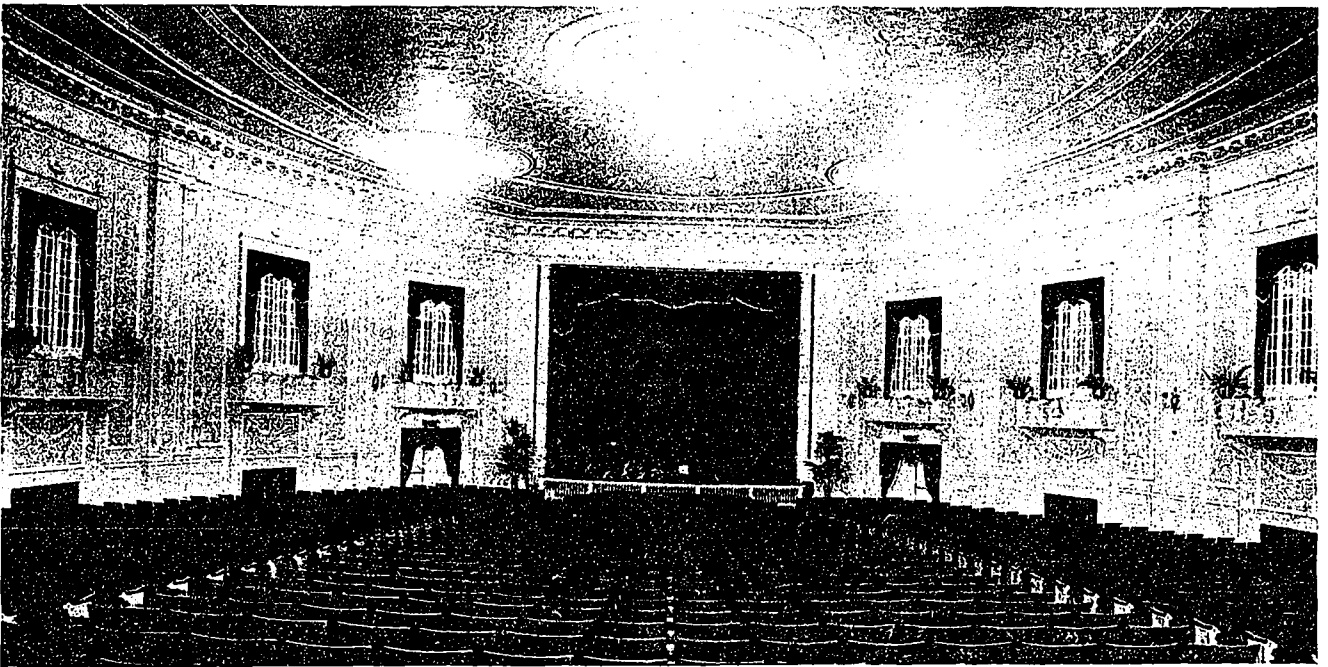
in a higher attainment of every true architectural quality.

"The question remains whether enthusiasm for the analysis of the motive and process of design in ancient architecture is a possible force in the usual tide of architectural practice, for in this alone is such a consideration of any practical value. The answer may be that a patient and sympathetic study of the conditions will generate in a modern builder zeal to emulate, not the forms, but the living spirit or genius of his ancient brother, and will lead towards a manifest triumph over circumstances. Architectural genius is the spirit resident in its successes.

"The world of historic building will cease to be a wearisome panorama, in which the only interest is to identify a similarity of form to some traditional or accepted type. It will become an

of it. Pegasus is the very embodiment of the aeroplane, and Taras riding the dolphin aptly symbolizes the submarine with her crew, while Britannia and her sea horses is as apt to-day as ever to typify the spirit of the navy. We have as part of our heritage of medieval heraldry, with many modern accretions, the arms of cities and countries and provinces and dominions, and we have the newer heraldry—which needs a little straightening out, that it will get in time—of regimental insignia: Winged Victory means something more to us now than ever it did before, and so does the slow-tarrying Victory without wings. I really think we are approaching a rather splendid epoch again in the matter of ornament that means something.

For instance, if people want a war memorial in the way of an addition to a building, a porch,



AUDITORIUM, ALLEN'S DANFORTH THEATRE, TORONTO.

encyclopædia, expressing everywhere the same intellectual conflict between forces and ideals that besets the path of the architect of the twentieth century. The requirements of the problem may be as different as the materials, but as both the forces of nature and the laws of thought, by which the art of design works, are constant, universal genius of architecture will ever assert itself."

## War Memorials

(Continued from page 343.)

along ever since the Middle Ages, losing generation by generation the subject matter that makes possible the adornment of buildings. We still have a small heritage from what the Greeks left us, and a slightly larger heritage from the Middle Ages in the way of symbols and tutelary deities and saints, and all the rest

screen, window, door, entrance to a park, bandstand, or anything, how much better they should be as war memorials than merely as doors or windows. Think what a much better bandstand you could do now as a war memorial than you could have done before the war, with nothing but a Union Jack railing and the Corinthian Order as the decorative materials to play with!

Now, what I really wanted to talk about was the suggestion that a little propaganda be administered for the information of the general public as to just where and how the different artists' function, and we who practise the mother art should look after those who practise the daughter arts; and I know that if we do it there will result a great deal of excellence that the country would never otherwise come by.

# The War as a Factor in Architectural Education

*An Address by Brigadier-General Charles H. Mitchell, Dean of the School of Practical Science, Toronto University, before the Ontario Association of Architects.*

IT has always been my impression that an architect had a great deal more at stake in the war than other people, excepting perhaps engineers, of which profession I am a member. Now after five years of war I cannot help but feel, as I am sure you all do, particularly those of you who were over to the other side, what a factor that experience has been in our education; so much more than we could have realized when we started out. I very well remember how that impressed many of my friends who were architects, particularly some from Toronto—and just now I do want to deplore the loss of one of the finest men who ever came from this place, Lt.-Col. Sam Beckett, one of my great personal friends, whose presence we very much miss here to-day. We often talked about what it was going to mean to us to fight in that historical theatre of war, filled as it is with priceless architectural monuments.

The educative effect, looking at it from that point of view, was more than we could have anticipated if we had attempted to think it out beforehand. When we got over to France and saw to what extent these ideas were being realized we could not help but think what a tremendous education it was to us to have that opportunity; to see those great towns, so rich in historic memories and so rich in architectural beauty, to help us in the relaxation, if you like, that is so necessary at times, when we could enjoy them in our life over there, whether we were regimental or staff officers. We remember the different types of architecture and the types of town planning which we saw, and I for my part could not help but remember and compare Canada my home, Toronto my home, and think about the problems we are trying to work out here, and try unconsciously to apply what I had seen in France to the problems of Canada. And I could not help but feel that if the good Lord was willing that we should get home safely, how we would try to make this country better, more beautiful and more convenient to live in, which is the motto I am sure of every architect and every town planner in the Dominion.

I suppose there was no more beautiful architectural inspiration in the whole theatre of the war than the City of Ypres. I remember Ypres as early as March, 1915. At that time it had been through the first battle of Ypres and had only been partially destroyed, only slightly in-

jured, as compared with what happened afterwards. The Cloth Hall had been burned and the roof was off the great Cathedral of St. Martins, and a few of the houses of the town were destroyed. And then we entered upon the great battle of April 15th and realized what a tremendous bombardment could do in destroying a town. Ypres was a town of not more than 13,000 or 14,000 people, but it was rich in history and rich in architecture; and as time went on I watched it with very great interest, and many of us discussed it from an architectural point of view, realizing that so beautiful a place was going to be absolutely destroyed. And when we looked at the Cloth Hall, at St. Martins, and at the other churches, St. Peter's and St. John's, and when we looked at the beautiful architectural features of the Grande Place with its quaint buildings surrounding it, and again at the historic gateways, the Menin Gate, the Lille Gate, we could not help but feel that the inspirations of four hundred years were going to be lost if we could not push the Germans back and free the town. That time never came.

A subject about which there has been much speculation is the number of tons of shell that were thrown into that town to destroy it and bring it to the state in which it now is. I did not see it during the last year of the war, but as I remember it two years ago, it was practically flat and in a ruined condition. But it is a great relief to know that even what remains—particularly of the Cloth Hall and St. Martins—the civic centre—they are going to try to retain as a feature for the new town that will be built up around it. Plans are now well advanced for that. I heard some talk of it when I was in England, and I saw by the press recently that they are actually going to carry that programme out. There was some talk at one time of building another Ypres on the high ground to the north, at the Menin Road, but that plan evidently fell by the wayside, due, I am afraid, to commercial interests, which they have over there as we have them here.

While I am speaking of Ypres, I cannot help speaking of some of the wonderful chateaux that surround it, names that I know are familiar to you—Potizje Chateau, Belgian Chateau, Swan Chateau, Lankhof Chateau, and the "White Chateau" on the hillside, which was in possession of the Germans and which I well remember formed such an interesting picture



in connection with our fighting in that locality, because it was right opposite Hill 60 and near St. Eloi. I tried very hard to get the plans of the White Chateau, which had been built in the eighties; it was not an old building; it had a mansard roof, and I was able to get the plans from the architects who happened to be in France, in order to show the arrangement of the cellars and the basement so that we might know something about it in connection with our bombardment. But that is just of passing interest to architects of course.

Now to go further south to Amiens. I do not want to take time going over these things, because in many respects they are very obvious, but one cannot, in speaking of the war, forget Amiens with its wonderful cathedral. I well remember the first time I saw it, which was just before the battle of the Somme; that is before that phase of the battle in which the Canadians participated; I felt that it was the greatest thing I had ever seen. Through the mercy of Providence, and the will to defend of the British and the French in front of that wonderful old town, it is a great thing that the cathedral has been preserved to us the way it has. I think, as architects, we all feel that it is one of the things which the army saved.

When one thinks of that area of the Somme in which such bitter fighting went on three years ago this month—it is just three years ago that our Canadian corps was attacking Regina Trench with such great loss, and the mind visibly pictures the rolling hills, the waving fields on the hillsides, they are low hills and not sharp but rounded, a sort of undulating country, in Picardy—one can yet see the little groups of villages which were always marked by clumps of trees, the only topographical features of the landscape. That is why it was that there was such great difficulty in the fighting on the Somme to distinguish the trenches and know where our troops were as they advanced. That is why it was that we had so much difficulty and so many losses due to artillery fire because there was always an uncertainty as to where the front line lay, and it was difficult for the observer or photographer in the aeroplane to get the actual location of our front line. There were no fences, no fields, very few roads, and nothing except a little village with the trees about it.

That brings me now to the thing which I should have spoken of perhaps when I was talking of Ypres. Every region, as you know—and many of you have been across to Europe—has its own distinctive architecture. The distinctive architecture of Flanders and of Picardy, and of the Flemish region as apart from French Flanders, was so marked that one could see it as he passed through the country in a motor car. I suppose that while there was a general similar-

ity through the whole country, yet one, if he studied it with care—I tried it once but did not get very far—could pick out various areas in which the dominating ideas or taste of the architect of any particular period was marked by the buildings which he or his contemporaries built. And that brings me to an interesting feature in which that fact was used in connection with the war. As you know, I was engaged in the Intelligence Service throughout the whole period, and particularly in the Second Army with Sir Herbert Plumer during 1916 and 1917. We had great difficulty in organizing properly our reconnaissance and observation work from the various observation posts and from the hills around the country lying between Lille, Armentieres, and up to Roulers, for instance, which was well inside the German lines. We had occasion to try to pick out the various landmarks which, of course, in that flat country largely consist of towers, spires or some great architectural feature in the various towns and villages; and when we realized that there was really a great similarity in the landmarks, we found that it was advisable to get out diagrams to show these various towers as they might appear to us through a telescope at ten, fifteen or even twenty miles away and to make them useful for the whole army. I got out a little booklet or chart to show how these were, and thereby each observer could orient himself on the landscape on the horizon by these various towers or spires, the location of which was shown. To illustrate my point, I will take the liberty of passing this around so that you can see the similarity of the original work and in another the dissimilarity, I presume owing to the different periods at which these buildings were built, varying from 100 to 500 years. That can be applied to our own country, and you in whose keeping the architectural features of this country will be, know better than I can express it what it means to be too wedded to a type, too much concerned with certain features which are only transitional and which are not basic for a century's use.

Now, I have spoken of France, and let me say a few words about Italy. Italy would be sufficient to talk about all the afternoon. When I learned that I was going to Italy, in November, 1917, I suppose, apart from the excitement of the moment, one of the first things that struck me was: What a wonderful place in which to fight a war. Think of going to Italy, and Northern Italy particularly, so rich in wonderful architectural features, those great towns which have made our history in so many respects in art of every kind. And in the great rush out there after the battle of Capporetto and the disaster to the Italian army, I can never forget my first impression in those cool and bright November days in passing through those his-



torical towns which many of you have seen, and in looking at the beautiful historical churches, palaces, monuments, fountains, the great squares and arcaded streets. Mantua, which always makes us think of Shakespeare; Padua, so rich in all its wonderful buildings, with San Antonio, the great church, in the centre; Verona, which is a city of courts and private courtyards and wonderful doorways and gateways; Vicenza, so rich in all its private buildings and extraordinarily artistic vistas of private houses, the place where Palladio, the great architect whom we all studied, for years lived and carried on his architectural business and whose marks are all over the country thereabouts in the wonderful villas which he built.

In passing, I cannot help but speak of living, a year ago this last summer, in a Palladio villa. It was on a hillside about 15 miles north of Vicenza at the foot of the Alps. It was built about 1480, a wonderful old place, with wonderful entrance gates, fountains and gardens, and a wonderful terrace where we sat after dinner, overlooking the valley of the Astico. I suppose it is quite all right to say that when I was living in it with Lord Cavan the staff included the Prince of Wales. We were all living in the same house, and it was a delight to have the unique experience of working in those conditions with the splendid Imperial officers. After dinner we used to sit out on the terrace for about half an hour before our evening conference, and have our coffee and cigarettes. Away up on the right to the west was the valley of the Astico with the setting sun through it; and from a notch in the mountains at the end of which, fifteen miles away, we knew the Austrian sentries and observers were sitting looking towards us—if they had had strong enough glasses, and there was not usually a little haze, they might have seen us. We had the roadway screened so that they could not see the approach of motor cars. In front of us the Astico with its wonderfully rich valley of vineyards, and then to the left, away off in the haze the hills around Vicenza. I will never forget those evenings, and I suppose if I had been an artist or an architect, I would have wanted to be making sketches all the time and would probably have lost my job if I had tried, because I had too many other things to do.

I have digressed on that because I wanted to speak about Palladio. Now we come to Venice. Venice was, I suppose, the place of all others in Italy where everyone felt we had to fight to the last ditch, to the last canal, to save it. And I suppose the war in Italy centred around Venice more than any other place. They nearly got it in the great rush of November, 1917, and they nearly got it again in June, 1918, when the Austrian offensive took place. But, thank God, the Italians and the Allies managed to save

Venice and the Austrians never got there. You have all heard how the Austrians bombed Venice, and they did bomb it hard. They never got any shells into it, but they dropped very many bombs, which fortunately on account of the large water area did comparatively little damage. I was surprised when I first went into Venice to see what little damage had been done. Of course, with a town of 200,000 people, the enemy could put a lot of bombs into it without doing any very serious damage, comparatively speaking; that is without destroying many public buildings. They got some churches and they got the railway station and some private houses, but very few valuable essential buildings were destroyed.

Of course, the Italians took great precautions. They took away all the things which might be destroyed which were of priceless value. The bronze horses of St. Mark's, for instance, were taken away to Rome; I saw them there about a year ago this winter. They removed all the great pictures from the walls and ceilings of the Doge's Palace and the Library, and they took away most of the movable paintings with whatever the paintings were on, whether canvas or wood, and got them out of the place entirely, mostly down near Florence. But there still remained a lot of priceless statuary and architectural details which had to be protected. I do not need to go into details of how they did it because I suppose you have seen many photographs of the protective measures which were taken, but it was one of the most interesting things to me in the war to go to Venice and study the way in which those ingenious Italians had protected places like St. Mark's, the Doge's Palace, the Library and other prominent buildings, by covering the fronts with sandbag structures, supporting the arches, particularly of the Doge's Palace, by under-pinning, adding extra posts in the crown of the arches and filling up the spaces with struts of various kinds. Inside St. Mark's the same precautions were taken about the wonderful statuary, the Donatellos, and so on; and they also protected the glass where they could not take it out by mats of various kinds; while the glass that could be taken out was removed and put in a safe place.

I cannot pass without speaking of the extraordinary effect of the lighting of the lanterns of the domes of St. Mark's after they had taken the glass out. The first day I saw this effect was on a Sunday morning in May, with a bright sun, when all these windows around the tops of the domes had been removed and replaced by canvas; the canvas was white and had been oiled, and the effect was a rich warm yellow color. With the sunlight shining through on to the golden mosaic of the domes and walls of St. Mark's, it was a thing I will never forget, and

when I go back to Venice, God willing, some day, and see the glass in again, I will remember by contrast what an extraordinary effect that lighting was. It was still more accentuated after the armistice. It was a week before the armistice in France, and on the 9th of November, a Sunday, there was a thanksgiving service held in St. Mark's, attended by about seven or eight thousand people, including soldiers of all nations, Italian, British and French and some Americans. On that occasion they took down some of the protective work on the interior, as well as from the windows on the outside, and for the first time in many months the church was attended with the bright sunlight shining in through all the windows. The scene, with its brilliant coloring and music, is something which I shall always remember as one of the great jubilee thanksgiving services at the end of the war. After the services were over, with several of my officers, we walked on to the gallery where the bronze horses used to be, and saw the people in the Piazza in front of St. Mark's, and although sombre in color, with so many of the people in black, there was enough color in it to make a wonderful picture in the bright November sun.

I speak of these things because many of us will be in Venice some day, and I want to try in the few moments at my disposal to indicate a picture so that when you see it again you will notice and mark the contrast.

I am afraid I have talked more about the war than I intended, but I do want to say that the war to us—and I am proud to take the liberty of classing myself with architects, because I am associated with you in various ways—has a very rich advantage in giving us a viewpoint and a perspective which is going to affect the whole of this country in architectural and artistic ways.

I wish we had more time to follow some of the other questions which would take us through fields such as town-planning and reconstruction, but this is not the occasion.

And now with regard to the University. As Dean of the Faculty of Applied Science and Engineering—the post which I have the honor to now hold—I am very proud indeed that it includes a Department of Architecture. Last February, when I was in England, after my return from Italy, and while engaged at the War Office, I received a letter from Sir Robert Falconer (and it was not a surprise to me, because I had been thinking about these various matters), in which he said there was a strong feeling here amongst the architects of Ontario and of Canada that we ought very materially to strengthen the Department of Architecture at the University of Toronto. Of course, during a war such as we have had, such a long period and

such tremendous influences at work, where almost all our staff and students went to the war—it was only to be expected that a great dislocation would occur in a department such as that of architecture. Those of you who have had to bear the brunt of the situation at home, who stayed here and had to keep things going at this end, realize that as well as I do, looking at it from the University side. Now we come to a new turn in the road.

When I came home, with the approval of Sir Robert Falconer, the first thing to which I wanted to turn my attention, and which I did, was to take steps to strengthen the Department of Architecture in various ways. One of the things which we arranged for, and which is now in process of fulfilment, I hope, is the addition of an associate professor who comes from London, and who has been for seven or eight years a teacher at the Architectural School in Bedford Square. He will take on architectural design during the coming year. That is a first step which will affect us very materially. Other plans contemplate a further widening of the scope and arrangements where the members of that department can be given more time in which to concentrate on that particular phase of the work, as well as the addition of other instructors.

Now I come to a point on which I do want to speak to you as architects of this city and of Canada, and on which we want your help and co-operation.

I may say that while I did not have the advantage of hearing the discussion of the convention on "Architectural Education," I am sure that expression must have been given to the fact that in university education for architecture we are too apt to be academic, and too apt to forget the side which in after-life every young architectural student has to develop after he leaves the University.

Before returning to Canada, I went through all the great universities in Great Britain—Oxford, Cambridge, Manchester, Leeds, Birmingham, Glasgow and Edinburgh. Most of them had architectural courses of some kind, and I was somewhat shocked when I realized, as I asked the question in place after place, that their architectural courses were a very uncertain thing, that they were ill-attended, and apparently ill-nourished. When I got back to London, I went to the man who I thought was the biggest man I could go to, Sir Aston Webb, who, I suppose, is the doyen of architecture in the Empire, and who is now, as you know, the President of the Royal Academy. I told him of our situation in Toronto, and asked his advice. I told him what we wanted to do, to get a special man to come here who would bring in some new ideas from the other side and help us with our

designing. I told him of our difficulties as I saw them from that distance, and of the necessity of allowing for the five years of the war which had kept me out of touch with conditions here, and as to what might at present be regarded as the best course in teaching architecture. I explained that the methods followed here were, in my opinion, not the methods which were succeeding in Great Britain.

Sir Aston then told me of the School of Architecture in Bedford Square, and I went with him there and met the principal and a number of the instructors. I found that even under war conditions, 200 students were taking architectural work. That was more than I could count up in all of the universities which I had visited; so that evidently the methods which were being used at the Architectural School in London were the proper methods, according to our present lights. While the methods were academic in a way, they were about two-thirds something else, and that something else was a very close relationship, close co-operation and close co-ordination, with the work which is done by the practicing architects in the city of London. I asked myself at the time as to how we could approximate this course and get our students at the University closely connected with the working offices, studios and draughting rooms in order to establish contact between class studies and practical work in architectural training. This was the problem.

Evidently in London that is considered the best way to do it. As to whether it is the best method or not, I will leave to you. I do not propose to make any suggestion whatever, but I would ask that if you can appoint some committee or sub-committee with which we might confer in order to ascertain what way there

might be co-operation with our teaching staff, some such conference should be held.

Of course, I think that there must be a university education in order to produce a good architect. Perhaps I am going counter to the views of some of you when I say that, but I think that to-day it is as essential in that profession as it is in any other.

May I digress a moment on that point? We have been in the habit in the last few years of educating engineers and applied scientific professional men as technologists. We have over-educated them in some respects by specializing too early as technologists, and we have forgotten the great essential in the education of young men. I am sure you will all agree with me that a man who graduates from a university must first be a cultured and educated man; and in the second place a man who will take his place in the citizenship of Canada after he leaves the university, as a leader in thought and action in the community in which he resides. After that let him be a technologist, whether he is an architect, engineer or anything else. I think you will agree with me that I have put the first two essentials in their proper order.

There is undoubtedly some way whereby we can produce at the University the best type of architect and combine all these qualities in one man who, after he has graduated, will be of value to himself, of value to the people with whom he works, and of value to the country at large. I leave that thought with you, gentlemen, and would ask particularly that you assist us in finding some such means. We will do anything to meet any suggestion which you have to make, and I hope some such scheme can be worked out. I am delighted to have had this opportunity to speak to you, and I hope we will meet again sometime before long.

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## The University in Relation to Architectural Education

*Address by Sir Robert Falconer, President of the University of Toronto, before the Ontario Association of Architects.*

Following General Mitchell's remarks, Sir Robert Falconer, President of Toronto University, addressed the gathering, stating that it was not his intention to deal with the technical side of architecture, but to make one or two general remarks about the great inrush of students this year both at Toronto University and elsewhere which was entirely without precedent.

"This," he observed, "is not a matter merely of making up arrears. There is an element in that, but there is something more. As we read the facts this week, it justifies what we have

been expecting, that as a result of the war there will be a great turning towards education, and the future will lie with the educated men. The ordinary technician, quick at a little thing, and perhaps doing it very well, but knowing very little more, is going to find competition extremely difficult in the future, because he is going to find the world more full of educated men than it has ever been before.

"What does it mean? It means this, that in dealing with our educational affairs we have to consider what the word 'practical' really means.

You hear a great deal about 'practical education.' Now, what does 'practical' mean? Some people think that practical means a quick technique, that you can get quickly and use as soon as you go out. Of course, there is a certain practicality about a readiness of that kind that is easily got and is effective and efficient within certain narrow limits. But the real practical education is not the education that fits a man to get a living the year after he goes out, but it is the education that fits that man to compete in the great school of life so that year after year he will be able to maintain his position and get a growingly increasing position in the community. That is the real practical education. Now we have to meet that in every branch and in every profession. There is the quick lunch type of education, which ruins your digestion after a while. And there is the man who believes that life is not so full of rush but that you can sit down in the middle of the day and talk awhile and get a decent lunch and perhaps even rest a little while after it. There are the two types of men, and the one will live longer than the other. That is so in almost every branch of education.

"To-day the world is full of restlessness and rush. But why should the world be so full of rush? Why should there be all this haste? It is reasonable that there should be haste while war is on, when everything has to be speeded up to win an instant victory. That is all right. But has human life nothing more for us than year after year of fevered anxiety, that every moment of it should be seized and filled full not with thought but with mere exercise of the will, mere energy? Is that all that life is? Mere energy, mere drive, mere force? Then life is not worth living for most of us. We have had too much of that kind of thing already. What we want in life is something of the richness of it. Something that really brings us treasures from our spare moments—and we want more spare moments. That is the reason that we sympathize with the movement for shorter hours. There are varieties of reasons for shorter hours, but one great underlying and perhaps unconscious reason is the need of more time to live life rationally, to put something into life that is worth while. And, of course, it is incumbent upon us, now that the workman is getting more time, that we should enable him to use the extra hour in a reasonable human way and get some richness out of it. But what sort of example are we giving him if those of us who occupy ourselves in the professions and elsewhere fill up every moment with this rush and do not recognize that the largeness of a man's life consists very much in the way he uses the spare time he has. If we give them no example we cannot expect that the world will change. Therefore we cannot, in view of the immense

rush into education, lower our standards. They are going up instead of down. They have gone up. We have added another year in medicine, and it is now six years.

"I had a letter from a friend of mine, a rather anxious university president. He says some people are somewhat anxious that if these long hours are put on we will drive our students to the United States. There is not much sign of that when we have in the first year of medicine 450 students, of which not more than 200 are returned men. There are 250 entering on the six-year course. A far larger number than we have had before. Next year Applied Science will be put up, so that three or four more subjects will be put on. That is to say, he has to be well educated before he begins. He must have honor mathematics now. He will probably have to take honor physics and honor French. That is where we intend them to be well educated, at the schools, so that a good type of student will come in.

"Of course, the difficulty is expense, and that is a very serious matter. There is one of the questions for the future democracy to solve. How is talent to be discovered? How are we to know where it lies latent? And how is that latent talent, when it has not the opportunity, to get the opportunity so that it will become of service to the public? That is one of the large questions that lies before this democracy. But because of the probability of latent talent not getting its chance, we cannot keep back the whole average. The average has to be brought up and then we have to find means to cultivate the special, those who really are fitted for an opportunity but cannot get it.

"That to-day is our point of view in the University, and I think you will find in the long run it is the practical view. We know why we have had so great a tussle in this war; it was because Germany had learned that lesson. There is the latent power in the Anglo-Saxon, but it had not been organized, but believe me, we are not going to be caught napping that way again. There is going to be a high level of intellectual development and intelligence in every branch in the country.

"Yesterday I was out in two of the cities of this Province—Stratford and London—and I got the same story there as everywhere. The schools are almost bursting with youth; not room enough in the village institutes. We know that the technical schools are being developed and their branches in the intermediate schools are going to come on. And you know the inspiration that Dr. Cody is putting into the whole movement in this Province. For the next ten years we will hardly know how to take care of our youth who are seeking an education.

"It is a magnificent period to live in. I stood in that hall of ours to see so large a body of students, and I never felt such a thrill of power and energy as there was in that body of men and women. It is a great time to live in. The future rests not with those who haste and hurry through, but with those who in quiet and confidence have their strength and who go on year after year working out the power that is in them and bringing that power to the development it should have.

"That is the whole principle that ought to underlie our education, and therefore our standards will go up instead of going down. The result will be that the democracy, as a whole, will find leaders. It is in the educated talent of our democracy that the leaders will be discovered. They are the only people who can lead. Taking the people found anywhere, wherever

they are, in any grade of society, give them the opportunity, and then develop them. That is our safety, and I think our people have discovered it, and for that reason they look upon the future of education in the next ten years as being bright with promise.

"I really have nothing more to say, Mr. Chairman, because that is the gist of the whole thing, and I know that you as architects agree with me; that what you want, as General Mitchell has said, is the class of man who can think, who can take time, perhaps sometime, to go over to Italy and look at another world. The class of man who has a breadth of human understanding that makes him more than a mere technician. The architect is an educated gentleman who has a large function in rendering human life—as General Mitchell said—more human and more livable."

## The Ontario Housing Act

*Address delivered by Mr. James Govan, Architect of the Provincial Secretary Department of the Ontario Government, before the R.A.I.C. and O.A.A. Convention.*

**W**HILE my connection with housing is not very old, I have specialized quite a bit in the problem of housing the unfortunate, the victims of the sins of omission and commission of past generations. So I look upon housing schemes not only from a professional but a social standpoint. I am connected with Ontario's first official venture into a field which, after all, is the greatest, just as it is the oldest architectural problem. You gentlemen who have to deal with the problem of providing five thousand dollar houses for three thousand dollars are better qualified to speak on the architectural side of this question than I am, because after all officially I have only been a critic, and it is very easy to be a critic. I consented to say something here to-day because I have been connected with the working out of the Ontario Housing Act, and I think if something is put before you it may produce a greater participation in the development of the housing movement on the part of the architectural profession in Ontario than has been the case in the past.

The attitude of the Government is that they do not feel as if the profession had taken the interest in this subject which it might have taken. I do not know whether Mr. Adams here agrees with that or not, but that is how I feel personally about it. At the same time I could not have carried on my Department if it had not been for the splendid backing and help which some of the members of the profession have given to the local Commissions scattered throughout the Province. This assistance has

meant much to the local Commissions, and I think the members of the profession as a whole can do far more than they have been doing this year.

The experience I have had during the past year in the administration of this Act simply confirms an opinion that I held before, that in the solution of the economic problem of the small house most of the laymen in Ontario consider the services of an architect not only unnecessary but positively a hindrance. That may seem rather a broad statement, but it is the experience I have had in dealing with the local Commissions. We have had ninety-one Commissions going in the Province, and I have met most of those acting in this capacity, and I think that on the whole they are a splendid body of men; but they have just about as much use for the architectural profession as the gentleman had for the general public who said, "The public be damned." That is the sort of remark that the layman has to make of the architectural profession.

I think that the remedy for that state of affairs lies entirely in the hands of the architectural profession. As Mr. Adams has pointed out, we must begin to take an interest in this thing not from dollars and cents you may get out of it in a professional way, but from a social standpoint. It is no use to say that if we had a chance we could demonstrate what we could do. The fact is that the profession as a whole has ignored the question, and if the housing work generally has been left in the hands of incom-

petent men, those who think they are competent need not wonder if their ability is questioned unless they show by more than an academic interest that they are not dilettantes.

In the operation of the Ontario Housing Act so far, there are about ninety-one municipalities with Commissions appointed, and out of the twenty-three cities in the Province of Ontario, eighteen have come under the Act. The cities that have not are Toronto, Chatham, Peterborough, St. Thomas and Kingston. Of those five Chatham and Peterborough have got by-laws in course of preparation. More than two-thirds of the towns are in, and about sixteen municipalities are actually building. A point of interest to the profession is the fact that of the sixteen municipalities that are now building, over two-thirds of them have in their employment a local architect to guide them as recommended by the Government.

The first thing we have attempted to do in administering the Act has been to advise every Commission which came to us to get an architect. Sometimes we were able to induce them to get an architect, and sometimes not. It depends entirely on what the local Commission thinks of an architect. In some cases they have got architects, and in many cases they have got the best men that are available in the particular neighborhood.

When the Act was passed at the last session of the Legislature, the fact that was impressed on Mr. Ellis, the director of the Ontario scheme, and on myself as consulting architect for the scheme, was that something had to be done quickly.

Now, there are two ways in which this Act might have been developed. One would have been to carry out the same ideas as have been carried out in Great Britain, and also in the United States, and have got a big central organization that would have approved of all the schemes and that nearly all the schemes would have been large group development. Public opinion in Ontario at the present time, or at that time, was such that Mr. Ellis did not feel that very much progress could be made this year if we confined our energies entirely to group development. For that reason we have rather satisfied ourselves this year with making a beginning with the development of building on individual lots, and endeavoring wherever possible to influence the local Commissions to get busy as soon as possible on group development. I am glad to say that quite a number of cases—for instance the development at Ottawa, Hawkesbury, Iroquois Falls, Trenton and several others which I cannot remember just now—are being carried out as group development. There are, indeed, one or two splendid schemes which will have a fine leavening effect in the

Province of Ontario. I think the best of all so far is the one with which Mr. Adams is connected, the scheme in Ottawa.

I thoroughly agree with Mr. Adams' contention that we cannot hope to build all the houses needed, and that therefore the few we do build should be built as models for the general community.

As soon as the Act was passed, and before we could say "Jack Robinson," the plans began to shower into the Department in such a way that we had to pass on the plans, create the machinery, and get the whole thing going at once. The result is that to-day in Ontario there are two hundred families living in houses built under the Act this year; thirteen hundred families that will be living in houses in two or three weeks, and before the year is closed there will be fifteen hundred.

That has involved an expenditure of about four million dollars. At the present time the amount of appropriations which have been already granted to the Commissions in Ontario is \$10,620,000. Now, if I came to you and said that in the immediate future there was a job which represented the difference between that four million dollars which has practically been spent and the ten millions appropriated, or about six millions, I think you gentlemen would be much interested. Well, the job is there for you, only it is cut up in piecemeal fashion. If you leave the development of this work to speculative builders and half-baked draughtsmen and men of like calibre, of course we will not get the results that we desire to get. While we in the Department are doing everything we possibly can to put this scheme in the hands of the ablest architects in the Province, that kind of result is very difficult to get by force. You have to get it through the process of education, and the educational campaign can better be conducted by the architectural profession than it can be by the Government.

It is interesting in connection with the figures I have just given you to notice that in a recent number of the "Canadian Municipal Journal," the secretary of the British Federation of Trades Unions stated that Britain had yet to build its first house under the reconstruction scheme. Well, as I said before, we were asked for results, and we have got some results. They are not all that I would like, nor all that you as architects would desire, but I do think they are having a good effect throughout the Province as a whole.

For instance, we had a report from Sudbury within the last week to say that the quality of the work done there is having a very excellent effect on the building adjacent to where the work is going on; that it has already practically changed the character of one of the sections of



the town, and that the quality of the work being done is a good deal better than has been done for that class of house in Sudbury before.

I think the same remark applies to the work that is being done by a number of the associations around Niagara Falls. There is much good work in general being done, and on the other hand there is work being done that is not as good as it might be. It is very hard for anyone in my position to get the right kind of influence on this scheme, because the kind of plans we get are not always what one would wish. Sometimes the price of paper seems to be so high that some people think it a good thing to save up the paper they get from the laundry or the grocery, to make their plans on. When we get a case like that, one has to be not merely an architectural critic but an architectural prophet to know what kind of building they intend to build. We could hold everything up to-day if we insisted on getting the very best of plans and all the information necessary. But we have attempted to do a sort of educational work by enlisting the co-operation of the local Commissions.

After all is said and done, the money behind this scheme is not Dominion Government money, nor is it Ontario Government money, it is money that belongs to the municipalities where those houses are building. While the assistance in the first place has come from the Federal and Provincial Governments, at the same time the security behind the movement is the municipal security; and therefore we feel that the more we can decentralize the authority that is coping with this problem, the better the educational features will be throughout the Province and the less we will have of the evils of bureaucratic methods.

I have been connected with the Ontario Government long enough to know, in connection with these public institutions, that centralization carried too far is a bad thing. As you know, all our public institutions in Ontario are administered by a central authority here in Toronto, and my experience in that matter has led me to the conclusion that it would be better for us and for those institutions if the people in the towns where they are located had more to do with their administration and the various responsibilities connected with them. At present the Act in Ontario operates in this way, that the local Commissions are appointed by any municipality or township that cares to come under the Act, and they in turn are advised by the Government to get an architect; to get a surveyor to survey the sites; and to appoint an inspector to inspect.

The city of Toronto, as you all know, does not come under this Act. It has a special Act of its

own, and does not take any notice of the Ontario Act this year.

In the municipalities and towns of which I speak, however, some of the Commissions are doing splendid work and have produced a very fine effect in their localities. Other Commissions, of course, have to be educated up to that point. They do not want to take any responsibility. They receive everything into their mill, whether done in the form of wrapping paper or good blue prints, and they shoot it all down to Toronto in the hope that we will catch all the bad things. To do that would mean the creation of a central bureau, which would be altogether too expensive.

Under the United States Government, the cost of their overhead administration for their housing schemes was eight per cent. If we started in to spend eight per cent. of the eight or ten millions which will be expended on housing, I know that it would not meet with the approval of the taxpayers.

At present our overhead in Ontario runs about one per cent. We cannot expect the Department to give the same attention to supervision for one per cent. that costs the American Government eight per cent. So we are trying to pass the responsibility back and by educational methods get the local Commissions to assume more of the burden of administering this Act.

Up to the present time, of the thirteen hundred houses which are well under way, over a thousand are on individual lots. Of course, that means that so far we have not really got down to very much of the group development. That, however, is coming. All the evidence goes to show that the Ontario Government will be asked to spend by the end of 1920 or 1921, close on to twenty millions on this scheme, and it seems equally evident that next year nearly all of the schemes that will come under the Housing Act will consist of group developments in the hands of the best architects of the Province and with good town planners and good municipal engineering experience at the back of each project. This year's work must be regarded more as pioneering and as an experiment in educating Housing Commissions to the point where they are willing and ready to go ahead and assume the larger burden of developing a piece of property in the way it should be done. At the present time the Commissions would rather fight shy of that responsibility, and they simply welcome the man who comes in and says, "Here is a lot and I want to build a house on it." There is a great deal less responsibility and work for them, and less technical responsibility required, to encourage that kind of applicant than to attempt such a scheme as Linden Lea in Ottawa.



The reason why the Housing Act is appealing to the individual in Ontario is not very far to seek when I cite to you some figures. For instance, as to the cost of the buildings at New Toronto. For a six-room detached house there, solid brick construction, shingle roof, designed by one of the best of your associates here in Toronto, the contract was about \$3,005, and roughly speaking about \$300 or \$400 more than that is required for the local improvements and other things necessary to finish the house. Now, on twenty years' payments that means that it takes about eight per cent. for capital and interest, and the man who is buying that house

and is going to own it, is going to be living for the next few years anyway at practically a rental of twenty-three dollars a month.

Now, you know enough about the building conditions in Toronto to realize that when that sort of figure is put before the average individual in the outskirts of Toronto and throughout the other cities of Ontario, the scheme is going to be popular.

In Toronto there has been quite a hitch, and the results have not been as successful as everyone hoped they would be; but perhaps next year they will get over that difficulty.

## Architectural Education

*Paper read by Mr. W. D. Cromarty before the Royal Architectural Institute of Canada.*

**I**NDIVIDUAL views on architectural education as on other subjects, war gratuities for example, have value in that they may serve to promote discussion among a group of thinking men. It is on that basis I am putting forward my views, not suggesting that here is the panacea for all architectural ills.

You may recollect the story of a Professor of Physics I think, who had given the same series of lectures for about a dozen years. On this fact being mentioned to him he replied in a terrible voice, "My dear sir, truth never changes." This may, of course, be an exaggeration, but there can hardly be any doubt that education in general tends to shape the mind in an accepted fashion, methods that have stood the test of time quite naturally prevail, newer things are apt to be distrusted. It is therefore desirable that from time to time the tendencies of education should be reviewed by interested outsiders.

There would appear to be a tendency in the architectural schools to regard the students as the property of the professor, he guarding them from the wiles of the outer world of architects. Why else would the student be required to design for example "A king's palace set in a wooded park?" The average practicing architect's acquaintance with kings is of the slightest, though it is true that if he lives in Toronto he may shake hands with a prince.

This tendency serves to make architectural education more and more academic, to deal less with the practical requirements of the everyday architect. Now, whatever may be the case in France, on the lines of whose great school practically all the others are founded, there is very little doubt that in Canada the architect has become by force of circumstances a business man first and an artist later. That may be unfortunate, yet every architect in practice knows that if he is to survive it is essential that his

clients get value for money expended. If we grant that such is the case, then it follows that the architectural colleges should be prepared to give the student a grounding in the business of architecture. At present a great deal of time is spent in making elaborate drawings of, say a Corinthian capital, yet practically never is that strange and elusive being, the contractor, mentioned. Now it is possible that in his subsequent professional life it may never be necessary for the student to make a large rendered detail of a Corinthian capital, but he is almost certain to come into frequent contact with the builder, and he may to his sorrow learn something of the lien law.

Too much time can easily be spent in the drawing and rendering of the orders, frequently they are copied from books as isolated portions, and the student does not realize for some time that the base and the capital have any relation to one another. One might indeed go farther and say that too much time is spent on purely antiquarian problems — the reconstruction of ancient temples and such like. The influence of such teaching is all around us in architecture and sculpture. Painting has, to some extent, freed itself of the shackles of the past. To take a recent example in sculpture—the British War Medal design. Here we have represented an unclothed Greek youth riding a spirited and well groomed horse. Now what connection that has with the war it would be very difficult to say. I showed an illustration of it to a friend of mine, and he said, "Oh, Lady Godiva, I suppose." One would have thought that the khaki clad youth we all know so well, who went out so calmly to teach the gentle German how to behave, would offer a sufficient inspiration; that the great guns which blazed along the grim lines in France and Flanders would have provided for him a worthy setting.

I can remember a post office in the United States and an interview with a man in the street regarding it. He said, "It's Greek, ain't it?" I agreed that we might call it that. "Well," he asked, "did the gol-darn Greek have to drag himself up a hundred steps every time he wanted to buy a two-cent stamp?" The hundred steps may have been an over-statement, but no doubt that's what it felt like.

I have a great reverence for Greece, for her art and philosophy, but along with that reverence it is reasonable that one may question the wisdom of adopting her forms for whatever type of building we may have to construct, not paying enough attention to the manners of to-day, to the demand for unobstructed light in offices, for example, something not regarded as an essential in the temples of the gods.

Architectural design should, of course, retain its present position of importance in the schools, but I do not hold it is necessary that the elevators should be rendered and the shadows mathematically projected. Problems bearing on to-day's requirements should be set and the designs drawn in pencil only, noted as to the materials and with figured dimensions, this until the final year at all events. A detail of some important feature should be made and finally a perspective sketch of the building.

The elimination of the rendering allows more time to be given to the practical needs of the problem. I can recollect a student who was able to draw quite correctly as far as I am aware, a section through the great pyramid, but who was totally unacquainted with the mysterious processes of a double hung window. I think you will agree that it is more important for the student to be well equipped for the work he later hopes to do than to possess a beautifully engraved diploma. For design, the students of the second, third and fourth years might well work together. Each student from time to time should exhibit his design with what pride he can muster up, and answer his critics. This working together of men imbued with common ideals will serve to produce the best in each. The younger student sees what the elder has done or, if he is made of the right stuff, is fired by the desire to accomplish that or more; the elder in his turn is able to see how far he has progressed. The gentle art of defending his design in the face of his remarkably outspoken fellow students will also be useful in later life; it will enable the man to face church building committees and school boards with more equanimity than some of us can do at present.

The subjects taught should be related more closely than they are. There is a tendency to divide everything up into periods not readily connected with one another. Building construction, for example, should obviously be taught in

connection with the design the student has made, detailing various parts in a practical way. The drawing of the orders and exercises in antiquarian reconstruction could be made part of the course in history of architecture. The report on architectural education compiled by the Illinois Chapter of the A.I.A. and the Illinois Society of Architects states:

"The student should be made to understand that the course in the history of architecture is part of his cultural foundation and is not intended to provide material to be used irresponsibly in modern building. He should be told that the styles in the present century have no longer any structural or chronological significance. No one can prophesy in the presence of a skeleton steel frame whether the building when hatched, will be classic, Romanesque, Gothic or one of the 57 varieties of the "Renaissance."

While the study of historic ornament has its importance, the student should not be exclusively trained to draw always the accepted forms. We might copy the Greek in the spirit and not in the letter. We have all around us a wealth of flowers, fruits, leaves, animal life. If these are introduced as a basis for design, would not the mind of the student be refreshed and his imagination fired? From such study creative design would more surely be evolved than by the drawing of what I once saw described in an architectural competition program as "miles of monotonous mouldings."

The study of mathematics should be cut down to a minimum; to many students it is productive only of mental anguish. Wild flights into the higher regions of the calculus are a mere waste of time for the architect. There are plenty of curiously constructed people in the world who find joy in working at such abstruse problems; it is unnecessary to add to them from the ranks of architects.

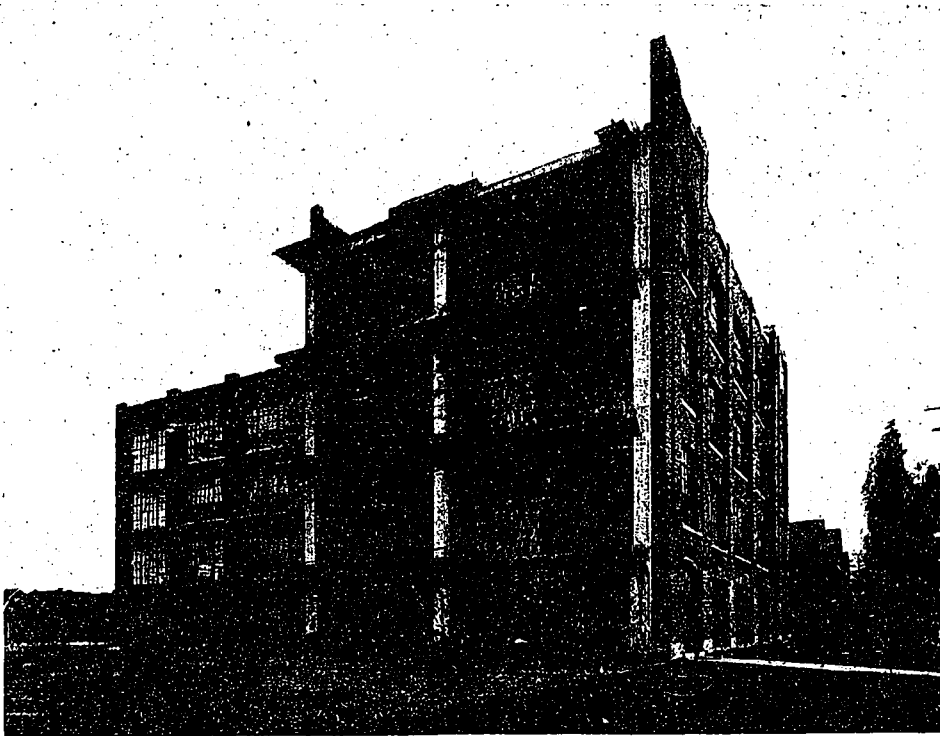
The length of an architectural course is in itself probably too short. It is true that it extends over four years, but in Canadian universities at least it actually occupies, owing to the long vacations, only two years, and the first session at present dealing only in small measure with architectural subjects it really becomes only eighteen months. It would probably work a great hardship if the course was lengthened, therefore the practicing architects must assist. They must make it possible for the student to spend certain of the long vacations in their offices and pay him for his work. This is essential in order that the student may be at least partially self-supporting. The receiving of some small wage will help him to be self-respecting and increase his interest in his work.

One long vacation might well be spent in a contractor's office where the student would be afforded the opportunity to go out on various

jobs. He might take a turn at being a carpenter, try his hand at concrete mixing, and in various ways the time so spent would be of great value in his future work. If the course remains of four years' duration only, then the first year must be made more definitely architectural. This can be accomplished by requiring a certain number of subjects now taught in the first year as entrance subjects.

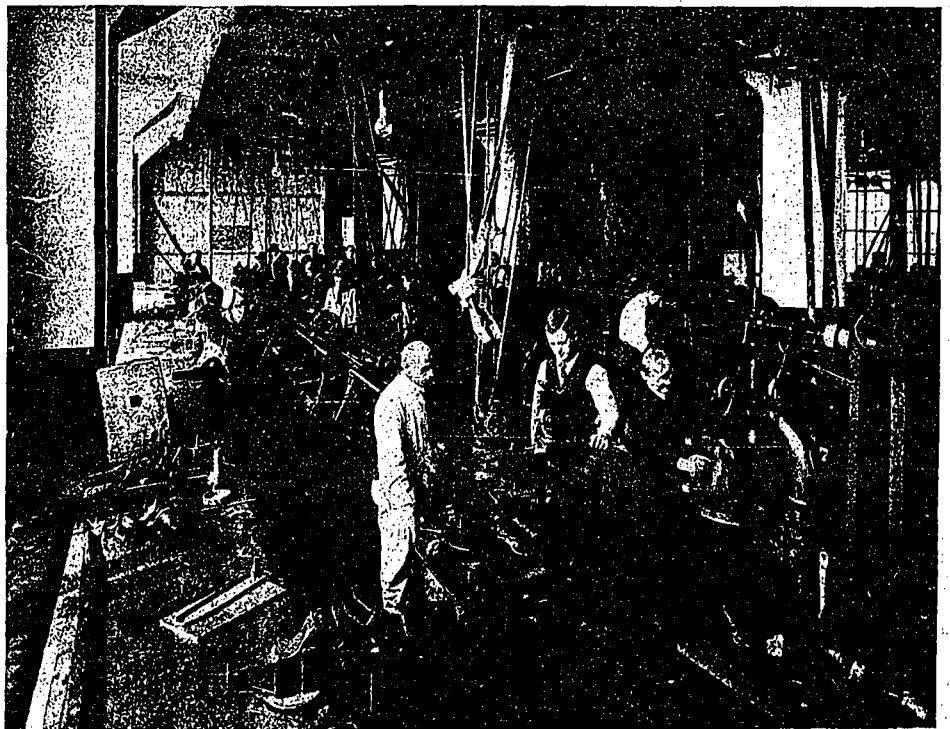
Two long vacations must be spent in architect's offices, one long vacation in a contractor's

office. I wrote down these varied notes in odd corners as they occurred to me; they might be summed up thus: The student should not regard his college course as an end in itself, but as a preparation for a many-sided and likeable profession which requires the exercise of a certain amount of business method in that architects are responsible for the right use of large sums of money. Design in the grand manner if you will, but construct and carry on in the grand manner also.



NEW TECHNICAL SCHOOL,  
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VIEW SHOWING PRESENT END  
WALL WITH CONCRETE CONNECT-  
ING RODS READY FOR PROPOSED  
EXTENSION.



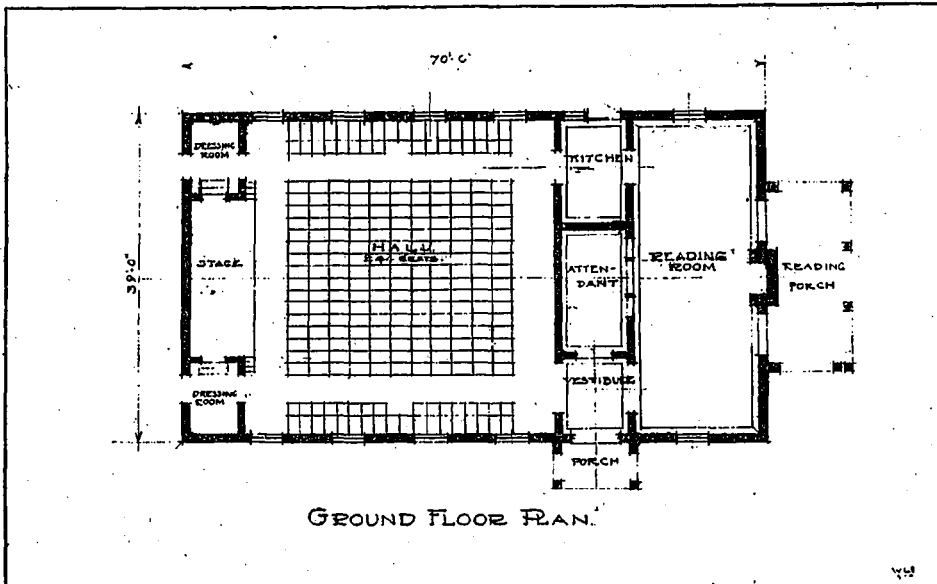
MACHINE SHOP,  
NEW TECHNICAL SCHOOL,  
HAMILTON, ONTARIO.

# Community Halls for Rural Ontario

Recognizing that social as well as economic conditions have much to do with community development and well being, the Ontario Legislature recently passed what is known as "An Act Respecting the Establishment of Community Halls and Athletic Fields in Rural Districts." The object is to provide proper meeting places for community gatherings and for organized community effort. Under the Act it is required

meetings and gatherings of a community nature in the broadest sense possible; and financial assistance is to be given to any community taking advantage of the Act in the way of a government grant amounting to 25 per cent. of the cost of the building, said grant in no case to exceed the sum of \$2,000 and in no way to apply to the cost of the land.

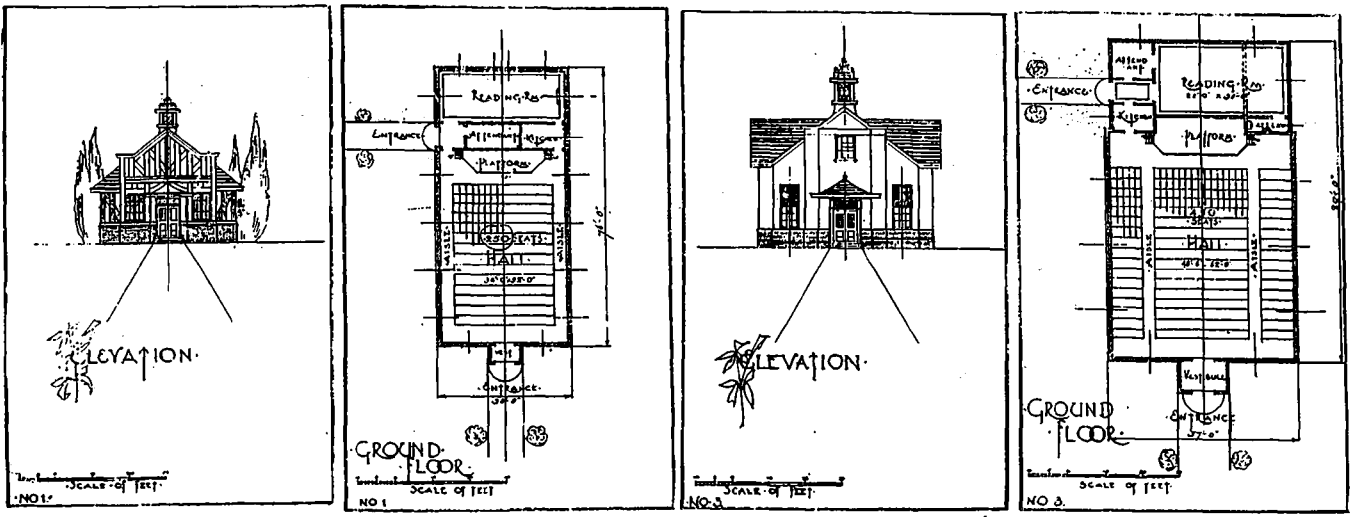
Briefly the Community Halls Act 1919 is a



COMPARATIVE DESIGN, SHOWING A SMALL COMMUNITY HALL OF ATTRACTIVE CHARACTER, INVOLVING THE SAME ACCOMMODATIONS AS PLAN NO. 1, ON OPPOSITE PAGE.

that buildings for such purpose shall include an auditorium with movable seats, reading room and kitchenette and library; further that the auditorium shall have a level floor and platform with space suitable for recitals, dramatic entertainments and the discussion of public questions. It also provides that adjoining the building or in close proximity to it there shall be a three acre site for athletics, picnics and outdoor gatherings. The intention is that such a building and its surrounding ground shall be available for all

most desirable and commendable piece of legislation. There is a need for buildings of this type both in Ontario and in all of Canada, and during the present period of reconstruction an effort should be made, particularly in rural communities, to encourage that class of design which would set a standard for the entire district. But this is just where the Government fails in its otherwise progressive scheme. Indeed such inappropriate designs as appear in the Bulletin dealing with the Act, is virtually "tying a tin



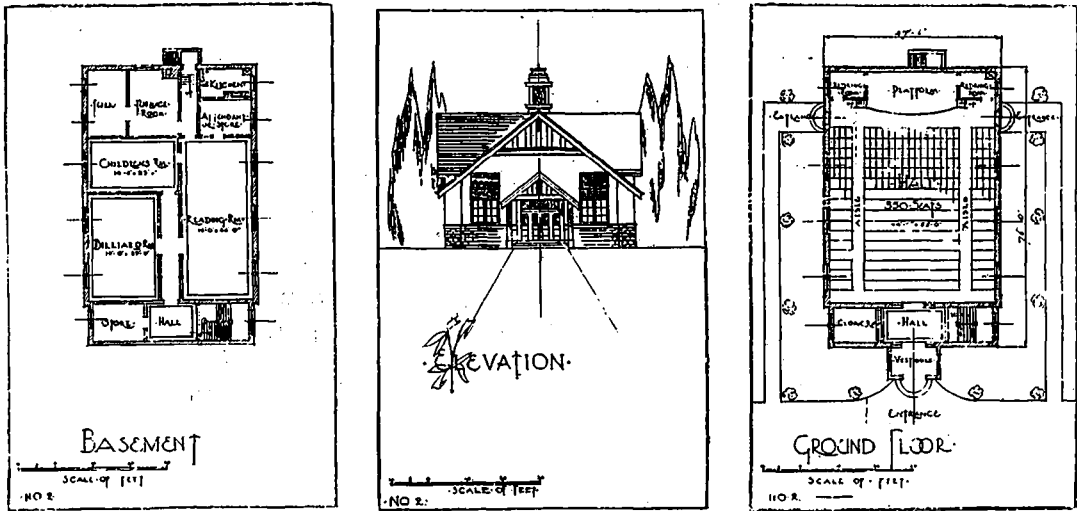
DESIGN NO. 1.

DESIGN NO. 2.

can to its tail." At the very best they would produce buildings which would be meaningless, and totally lacking in architectural interest.

should serve as a guide with modification to suit local conditions.

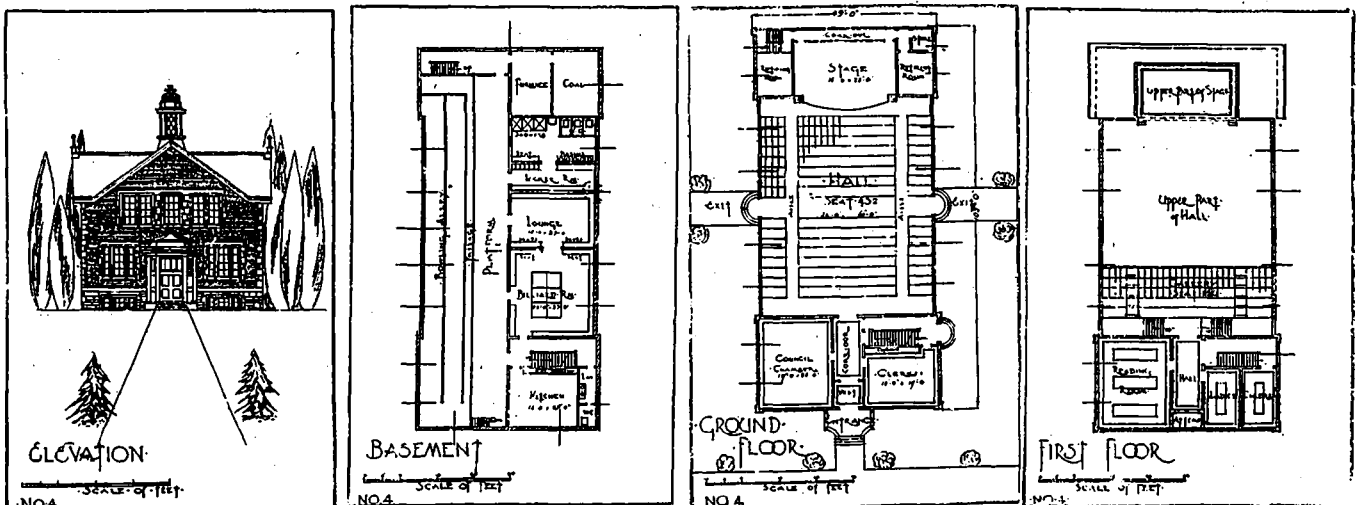
The elevation of Design No. 1 in the Bulletin,



DESIGN NO. 3.

While it is explained that it is not necessary that these plans should be followed entirely, at the same time it is stated the intention is that they

for instance, has absolutely no architectural character, unless there is such a thing as "bad character" in Architecture. It merely tries to



DESIGN NO. 4.

be pretentious by putting on an elaborate, illogical entrance.

In Design No. 2, the plan places the rooms which will be used the most in the basement. As the Act requires that the building be placed on a tract of land at least three acres in extent, such a plan seems entirely uncalled for and is something that should be condemned rather than recommended by a Governmental Department. The amateurish way in which the design is presented is shown by the fact that the elevation does not agree with the plan.

In Design No. 3, the plan is very much like No. 1, only much larger. It could be improved by placing the reading room at the front instead of the rear.

Design No. 4, shows a plan which is badly cut up by the stairway on both ground and first floor. It is particularly bad in the arrangement of the exit from the gallery which land the crowd from the gallery in the narrow hall used as an exit from the main floor. If this stair were reversed it would be better. Such a building could be made much more attractive if a more irregular plan were used instead of the deep narrow building which seems to be developed in every case. Considering the fact that these halls are to be erected, at cross roads or in a small village the several plans shown are anything but suitable, except perhaps the smallest one which naturally develops into a plan of the shape it assumes.

In a word the chief criticism of the several designs is the fact that they do not represent Canadian tradition or try to develop prototypes which are to be found in such buildings in England, or the better aspects of recent work of this kind in the United States. This perhaps could be overlooked if the designs were good in themselves but they are decidedly amateurish, ill-proportioned and positively ugly.

The extent in fact to which the several designs could be improved is shown in the "Comparative Design" on page 362, which takes as a basis the accommodations involved in design No. 1. This comparative study shows a rearrangement of the plan which places the reading room and the entrance nearer the corner of the lot, and at the same time provides one entrance to the building instead of two, thereby reducing the cost and making the building more attractive. This makes the reading room more accessible and gives it a better aspect than if placed at the rear as indicated in Plan No. 1. Moreover, Plan No. 1 shows a seating capacity of 250, while as a matter of fact it has only accommodation for two hundred and twenty-four. In the rearranged plan of the "Comparative Design" the length of the building has been reduced and its width increased and seat-

ing provided for 244, on a slightly less total ground area.

Considering the improvement noted and which could be applied to the other designs by giving them proper architectural thought, it seems highly important that the provincial authorities, particularly at the present time on the eve of what is apparently going to be a period of unusual activity, should avoid anything which would inflict on the country as a whole such atrocities as the designs in the Bulletin suggest. A community house must be more than a mere building; it must be attractive to those who use it, and if designed with dignity and good taste, it should go far in districts without any architectural traditions to establish a standard for other buildings.

The Act, therefore, in reference to the class of buildings it will bring into existence might well receive the attention of the incoming government, which will find the United Farmers' party mainly in control. In order to improve the standard of design, a competition might be held with nominal prizes and an appeal made to architects on educational grounds. It is something which would undoubtedly receive a larger measure of support from the profession and obtain for the government that necessary co-operation which would create a desirable class of buildings in the rural districts. As it is the designs presented in connection with the Act are architecturally of a decidedly inferior character, and something vastly better should be provided.

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### Designing a House

If you would design a house for any man, you must understand his real needs and sympathize with his highest ideals and distinguish between what is noblest in his nature and that which is pure convention and vulgarity. Pandering to every whim and fancy that is petty will not result in anyone's happiness. By multiplying the number of rooms, every room is often spoiled by being too small. An artisan's dwelling cannot fitly imitate the villa of a bank clerk, or any other class of dwelling other than his own. With sympathetic tact men may be led to contentment in simple, unpretentiousness. Frankness and honesty must win the affections in the end, and it is libelling human nature to assume that the workingman wants his house to be like that of the class above him. He has abundance of common sense, and his wife will bless the architect who omits the dust-catching ledges, painted wood linings, architraves and skirtings that encumber most houses.—C. F. A. Voysey.

# CONSTRUCTION

A JOURNAL FOR THE ARCHITECTURAL  
ENGINEERING AND CONTRACTING  
INTERESTS OF CANADA



H. GAGNIER, LIMITED, PUBLISHERS

Corner Richmond and Sheppard Streets.

TORONTO . . . . CANADA

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WESTON WRIGLEY, Business Manager

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Vol. XII Toronto, Nov., 1919 No. 11

## *Draftsmen to Form Atelier*

The endeavor which is being made by the Toronto chapter of the recently organized Draftsmen Association to form an atelier approximating the lines adopted by the New York Beaux Art Institute of Design, is something which should meet with encouragement. Many students in the office have no other means of improving their knowledge of design, and consequently a movement of this kind could be made an important factor of education especially for draughtsmen who, through no fault of their own, cannot afford the advantages of a college course. Such a system of study could be made an efficient auxiliary to the student in his practical office work, and would hence make the draughtsman of more value to his employer. Of course the success of an atelier will depend on inaugurating it under proper auspices, and on the support it receives from competent architects acting in the capacity of patrons. This,

however, seems to be assured. Several prominent members of the profession, it is understood, have already expressed a willingness to give liberally of their time and ability to help the movement along. The movement is not in any way intended to replace the college course which certain members of the Ontario Association of Architects now insist on as a qualification of students entering their office, but rather to supplement the knowledge gained by practical work and to give draughtsmen in general an opportunity to better their conditions.

## *Canadian Building Industries Conference Date*

An announcement has been sent out by Secretary J. C. Reilly, correcting an error in a recent circular which has given rise to some misapprehension concerning the date of the Second Annual Conference of the Association of Canadian Building and Construction Industries to be held in Ottawa, January 27th-30th, inclusive. The announcement states definitely that the meeting will open on the morning of the first day mentioned in the Chateau Laurier, and will continue throughout the week.

In view of the present great need for united action and intelligent co-operation among Canadian builders, contractors and supply men, a full attendance at the conference is earnestly urged. Attention is drawn to the fact that while the coming season promises to be a banner for the building and construction industries, there are many new conditions and grave problems arising which call for the fullest investigation and frankest discussion.

It is also announced that it has been decided to cancel the Western Convention which was to have been held this fall, though provincial rallies will be arranged in the West, preparatory to the general conference.

## *Exhibit of British Grown Timbers*

The British Trade Commissioners in Canada have been notified by the Department of Overseas Trade of the British Government that the Department are organizing an Exhibition of timbers grown within the British Empire to take place in London from the 5th July to 17th July, 1920.

The classification embraces: (a) Specimens of timber (polished and unpolished); (b) Exhibits demonstrating the various uses to which timbers are put, viz., floors, panelling, staircases, furniture, ply wood, and articles of everyday use; (c) Wood pulp.

The main object of the exhibition is to bring prominently before architects and inspectors, firms who have to specify timbers in their contracts, as well as the users and consumers of



timbers, the full range of Imperial grown timbers and especially those timbers which up to the present are only very slightly, if at all, known in this country, and at the same time to demonstrate the chief uses for which such timbers are suitable.

A catalogue will be issued giving full particulars of all exhibits displayed, and will include among other features:

(a) A short concise statement regarding each kind of timber exhibited, showing the size in which it is usually obtainable, and the purposes for which it is specially suited; also giving the following particulars, viz.:

1. Weight in lbs. per cubic foot.
2. The result of tests carried out with regard to:

Tension,  
Compression, both with and across  
the grain,  
Detrusion,  
Modulus of rupture,  
Modulus of elasticity,  
Fire resistance.

(b) A list of the shippers of the various kinds of timber in each of the Dominions.

(c) A list of importers and large timber merchants in the United Kingdom who would be prepared to supply the various timbers to users in this country.

The British Trade Commissioners in Canada are as follows: G. T. Milne, O.B.E., 367 Beaver Hall Square, Montreal; F. W. Field, 260 Confederation Life Building, Toronto, and I. B. Beale, 610 Electric Railway Chambers, Winnipeg.

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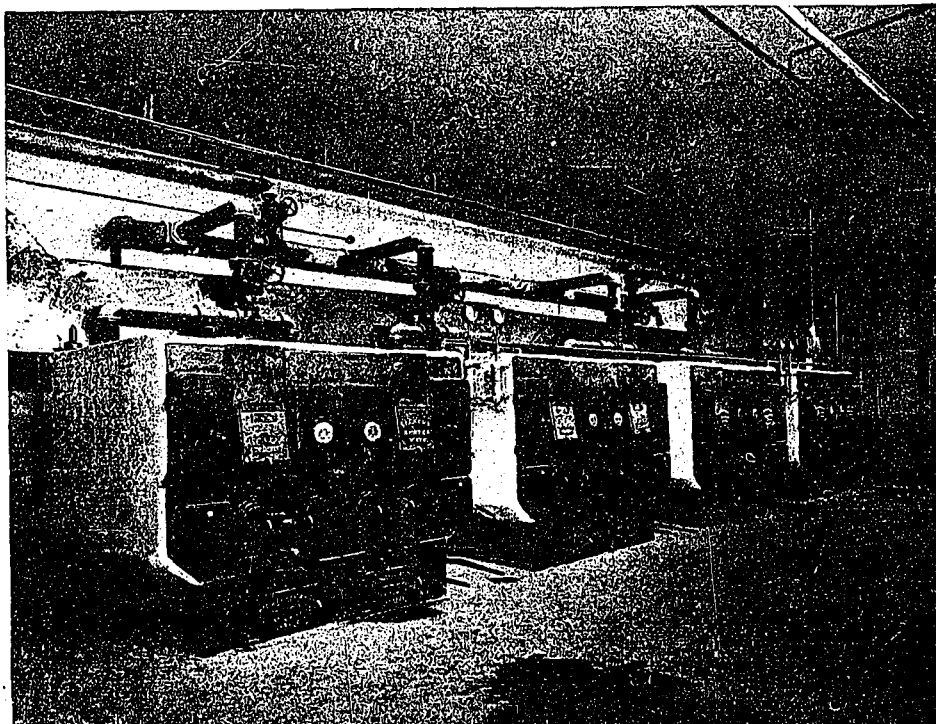
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Kalamine Doors, McFarlane, Douglas Co.  
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Roofing, Dennis & Jocelyn.  
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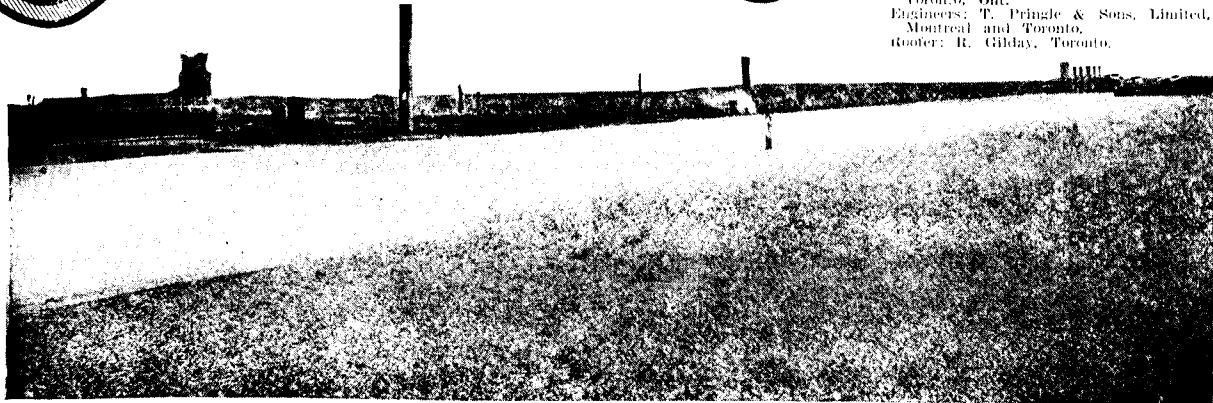


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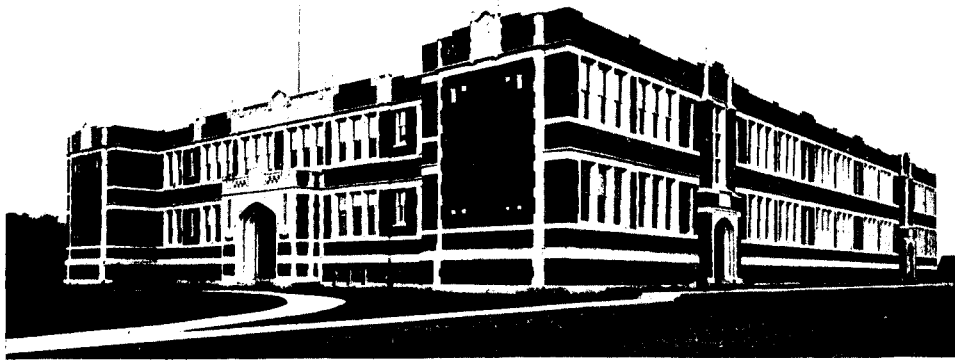
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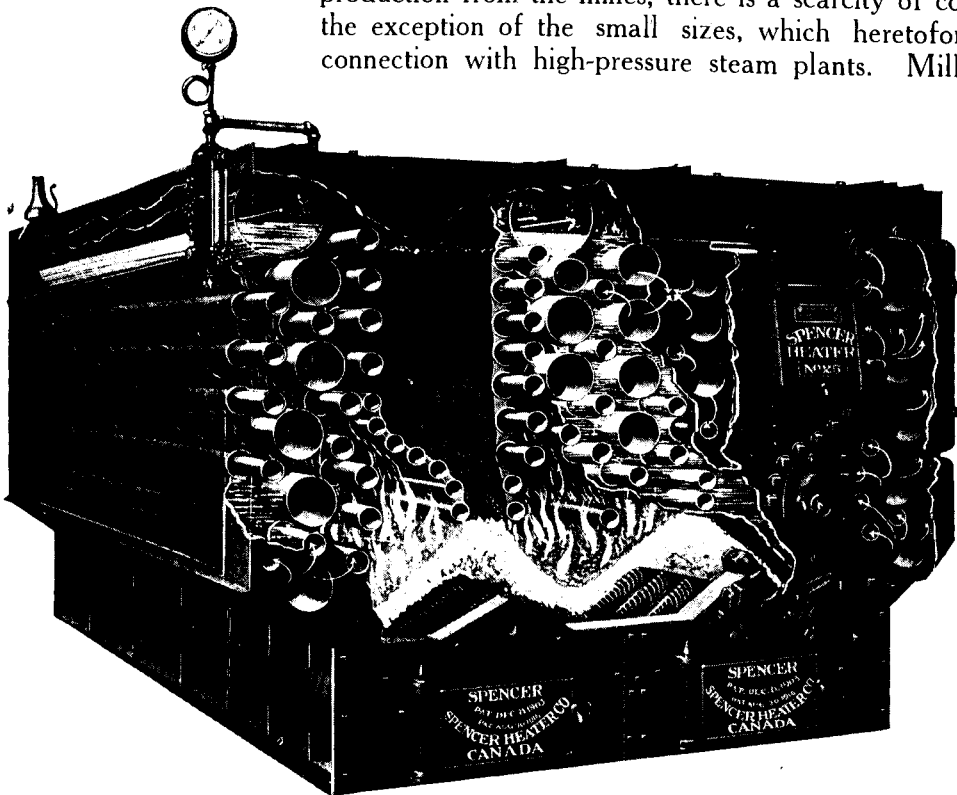
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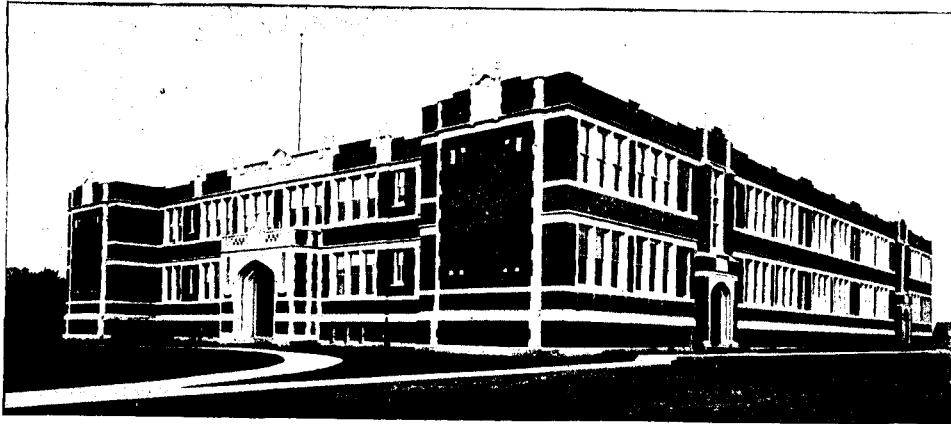
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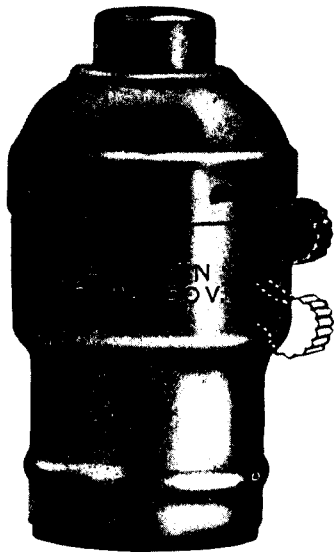
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