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ILLUSTRATIONS ON SHEETS.

C. A. & B. Students' Competition,
Blackwell's Island Bridge, East River, New York—Messrs. Palmer & Hornbostel, Architects, New York.

ADDITIONAL ILLUSTRATIONS IN ARCHITECTS' EDITION.

Section Showing Station in Anchorage of Manhattan Bridge, East River, New York.—Messrs. Palmer & Hornbostel, Architects, New York.
Church at Cohasset—By Messrs. Cram, Goodhue & Ferguson, Boston.
Drawing by Mr. Wilson Eyre in Eighteen Club Exhibition, Toronto.

CONTENTS

Editorial	17	Pickling Steel	ix
Seventh International Congress of Architects	18	The Cost of Buildings	ix
Drawing at the Eighteen Club Exhibition, Toronto	19	Industrial Accidents	x
The Simplification of Plumbing	20-21, 22	English Rulings	x
Student's Competition Award	23	One hundred and Twenty-Five Storey Structure	x
Ontario Association of Architects Convention	24-25	Wire Wound Wooden Pipe	xi
Province of Quebec Association of Architects	26-27-28-29-30	The Fire Waste	xii
Standard Size of Brick	31	California Excursion	xii
New Pavilion for Toronto	31	German Strike Affects Canada	xiii
New Post Office at Toronto	31	The House Problem in Montreal	xiii
Legal	ix	Household Uses for Electricity	xiv
Steel Radiators	ix		

P.Q.A.A. Code for Competitions.

Old as the discussion on the subject of competitions is, it has still a practical bearing as long as there are competitions, for they are always imperfect. The Province of Quebec Association has made a contribution to it in the "Code for the Conduct of Architectural Competition" agreed to at their recent Convention. They take what seems like a step backwards, in declaring the "limited" competition less commendable than the "open." The ground taken is liberal—that it serves the promoters, purpose less well. But that has also been the ground of the objection usually made to open competitions. It is more possible to get the best men to compete in an invited (and paid) competition. But the P.Q.A.A. have endeavoured to give the open competition a better character by stipulating, first, that the Assessor is the proper person to fix the amount of the prizes—so that there is a better chance of the prizes being fairly remunerative—and, secondly, requiring that the first prize shall not be merged in the commission for carrying out the work, but shall be given in addition to the proper fees for this service. There is precedent for this; and it has reason on its side, for competition drawings do not take the place of working drawings. The whole process has to be gone through again, in different style, and usually altered in form. The successful competitor, in fact, though he gets the commission, has to pay heavily out of it for the expenses of the competition. If, as seems inevitable, every step in the

process of making competitions attractive has to be made by the profession which hates them, this is a good step to make; and the public, which benefits, had better recognize it as such.

Vacuum Cleaning.

Like all good things, this invention is obtaining continually wider application. In London, which is probably the cleanest city in the world, both indoors and out of doors, the vacuum cleaning machine is to be seen continually, throbbing at the front door of flats and residences; and, for the cleaning of the large interiors of public buildings, the system seems especially designed. Formerly the cleaning of a cathedral meant displacing with long mops as much dust as could be touched, and gathering up as much of it as reached the floor. The vacuum tubes are much more thorough, as they can reach wherever the mop could reach and enter the crevices better; and the dust does not appear at all—except in a closed receptacle in the machine outside the building.

New York finds the particular application of the vacuum cleaner, characteristically, in the office building. In the new Times Building all the rooms are piped to the machine in the cellar. Appliances for all cleaning purposes—sweeping floors, taking dust out of corners, from narrow spaces under furniture, from chairs and tables and even clothes—are on hand, and can be fitted to the pipe system as easily as the parts of a fishing rod are fitted together; and a signal

to the engineer in the basement is all that is necessary to start the suction. The best of it is that the dirt is not merely swept off one thing on to another; it goes down a tube and is seen no more, except by the man who feeds a fire with it. There must be sad mortality among the microbes.

The American Institute Convention.

The recent meeting at Washington had character of importance somewhat new, indicating a change that has come about recently not only in the status of the profession but in its sphere of usefulness. The point of departure was, without doubt, the Chicago Exhibition, which gave the public a new idea of possibilities in the building of cities, and a greater opinion of the importance not only of architecture but of architects. It is since then that the wave of civic improvement has swept over the country, and when the American Institute of Architects met at the national capital, the beautification of which—a pet idea with all Americans—has been put in the hands of a commission, of which the leading figure is an architect and member of the Institute, the meeting seems to have been regarded as having something of the nature of national importance. The President came to the banquet and spoke in a business-like manner. Other speakers were the Hon. Elihu Root, Justice Harlan of the Supreme Court, the French Ambassador, Cardinal Gibbons, and others who, though eminent, are connected with art and their presence had not the same significance. Other guests were Secretary Hay, Secretary Taft, Bishop Satterlee, seven senators, Hon. Whitelaw Reid, J. Pierpont Morgan, President A. J. Cassatt, Henry Walters, and many others, including Mr. Dooley. And an incident of the evening was the announcement that Mr. Morgan and Mr. Walters had each given \$100,000 to secure the purchase of a permanent abode for the American Academy at Rome.

This was a big affair and shows the way things are going. The architect will have much to do in the present century but in a larger way than before. The proceedings of the Institute at this convention reflect the state of affairs. There were papers on the methods of financing large building operations; an office organization; on the relations of specialists to architects; and on municipal improvements throughout the country. The national importance of the Institute was marked by the *personnel* of the guests at the dinner, and its international standing by the presentation for honorary and corresponding membership of three English architects of eminence.

The growth of the profession in importance is becoming evident in this country also, but, before it can have the national importance that is given to it in the United States by the American Institute of Architects, there must be some national unity. A Dominion Association is the only parallel to the present state of the American Institute, but the need for it must be felt before it can be safely instituted. At present there is no evidence of such a feeling. The Ontario and Quebec associations have each had their conventions recently without any message to one another or any exchange of delegates. And in Toronto the profession is divided into two camps. There is a movement towards union there, and it ought not to fail, for there

is a door partly open to the influence of architects for better taste in public works, but it wants united action to open it altogether.

As President Roosevelt said, in his speech at the Institute banquet, 'there are things in a nation's life more important than beauty; but beauty is very important.' He acknowledged that beauty had not been among the successes of the nation in the past, and looked to such gatherings and to such men as he was addressing to determine whether or not this should be true of the future. This, applied to practice, may be stated as separating the function of dealing with beauty in a nation's life from other functions. We may be perfectly prepared to admit the superiority of administration to that of design, but it certainly is different. And good administration includes the selection of a good designer for important works under its charge. The minor works, and superintendence of the construction of all works, are enough for the departmental architects in both state and municipal affairs. This principle is to some extent admitted now, but the decision as to what constitutes sufficient importance for special design is always being made, and hitherto, in this country, with too little regard for the importance of beauty. The architectural associations are really the only guardians of public taste at present; and the greater their union the wider will be their influence in this respect.

SEVENTH INTERNATIONAL CONGRESS OF ARCHITECTS.

At the closing meeting of the Sixth International Congress of Architects in Madrid (Spain) last year the Royal Institute of British Architects was directed to organize the Seventh International Congress in London in 1906, and certain members of the Institute were named and added to the "Comité Permanent des Congrès Internationaux des Architectes" (Permanent Committee of International Congresses of Architects); the Canadian members of this committee are Messrs. W. E. Doran and Alcide Chaussé, architects of Montreal.

The organization committee have announced that His Majesty King Edward the Seventh has consented to be the Patron of the Congress, and that His Royal Highness the Prince of Wales has consented to accept the position of Honorary President of the Congress.

The congress will be held in London on July 16th, 17th, 18th, 19th, 20th, and 21st, 1906.

The programme will include an inaugural meeting, discussions on architectural subjects of international importance, an exhibition of architectural art, excursions to various points of interest around London, visits to historical buildings and monuments of London, one or two social functions, and a grand banquet.

A special ladies' committee will be formed to see about the comfort and amusements of the ladies accompanying the delegates. They will be admitted to the inaugural meeting, to the excursions and visits.

All communication relating to the Congress must be addressed to Mr. W. J. Locke, Secretary of the Organization Committee, 9, Conduit Street, London, W., England.

DRAWING AT THE EIGHTEEN CLUB
EXHIBITION, TORONTO.

The distinguishing characteristic of this club's annual exhibition has always been the number of American drawings which the club, as a section of the Architectural League of America, has had the opportunity of presenting. On the present occasion, the circuit exhibition of the league not being due, the local drawings and photographs of work by members of the Club and other Canadian exhibitors were supplemented by some loans from American designers, of which the principal contributions and the conspicuous feature of the exhibition were Mr. Hornbostel's enormous drawings of the New York bridges over the East river. Of these we have been able to reproduce a small part of one drawing about five-eighths of the original size. The original drawing is 7 feet 2 inches in length and the portion here presented, is 1 foot 4 inches in height. It is not the largest of the drawings nor is it the most impressive; it is simply the most compassable for reproduction. Nor can the half-tone process be said to properly represent the delicacy of the original; it simply gives a fair representation of the character of the handling. The drawing is done with a soft and black lead pencil, and, apparently, upon tracing paper—that pure white tracing paper that gives such an attractive line. The work was evidently done with great freedom. Not that there is any mere generalization for the sake of the black and white effect; the most sketchy passages are still precise, representing something definite. But there is no sign of hesitation, no muddling; and, indeed, in looking round the large room that is filled by Mr. Hornbostel's drawings, it is evident that he must have worked rapidly or he might be drawing yet. The drawings are a feat for which one must seek a parallel among the facile draughtsmen of the Renaissance.

The justification for these drawings is, no doubt, a reasonable anxiety on the part of the municipal authorities as to the appearance of such enormous structures; impending over the city like creations of a dream, and dwarfing everything in sight. The portion represented in our illustration sheets is less than a quarter of the actual bridge, and there is an additional mile or more of approach at each end, which is still of great bulk and propped up above the tops of the buildings. There was good reason to doubt whether the city would not appear to be crushed under the weight. That is a point upon which the very slight geometrical drawing, which also appears in this exhibition and which would be enough for the purposes of the designer or constructor, throws no light. A view of the city with the bridge in place is the only thing to give assurance of the result, and fortunately Mr. Hornbostel had the graphic skill to represent the scene. The scale of the structure may be gathered also from the section of the anchorage pier of another bridge in the illustration sheets. The size of the hall contained within the pier, as measured by the figures, is striking.

The increasing scale of buildings since steel construction began to develop has often raised the question where the stopping point will be: these drawings suggest a doubt whether there is any stopping point. It is to its tall buildings that New York owes what picturesque interest it has. The bridges, when completed, will add to that interest in the same line. The

improvements to the City Hall Square, also drawn by Mr. Hornbostel—an extensive clearing surrounded by lofty buildings, where the City Hall, in the middle, looks like a cottage, and human figures have almost reached the vanishing point—appear now like the natural course of affairs. And if Prof. Despradelle's great design (see p. x.) for a municipal building, to cover sixteen of the New York blocks and rise 125 storeys in height, is ever executed, no doubt we shall regard it as the latest but not the last.

This building would make a remarkable drawing, and a picturesque treatment would show it best, for it would be beyond the limits of detailed representation as it would be of detailed perception.

But such drawing is not, properly speaking, architectural drawing, and it is a question how far it is a good kind of drawing for architects to do, except in a fragmentary way, to check their work and also to stimulate it. Drawings of effect, that is to say, are useful, to an architect, for enquiry and for suggestion, while the work is in progress. When it comes to assertion—such *is* the effect—the architect's work is done; and it wastes his time to do this kind of work, if he can get anyone else to do it. Architectural drawing is in fact a study not of beauty but of the facts that go to make it. It is scientific rather than artistic, and the drier the light in which the facts are represented the less chance there is of illusion.

Mr. Wilson Eyre's drawings are a treat, but imitators had better beware. The set of three drawings in one frame, from which our illustration of Mr. Eyre's work has been extracted, cannot be said to be unuseful, and there is a practicalness about the plan in the foreground which makes a great part of the interest of the drawing, particularly, by the way, in an exhibition singularly lacking in plans and much impaired in usefulness thereby; but the drawings have a decorative value that is pictorial and suggests the suspicion that they have the pictorial virtue of idealization; a quality which, if it carries the truth with it, does not carry the whole dull truth. With the flowery theme of gardens (with which all Mr. Eyre's drawings of this kind are concerned) his graphic methods are judicious, if not inevitable, and are certainly a delight to the beholder, but, where the beholder is a client and the subject is a house, he may reasonably ask if the house will look like that.

Our illustration of Messrs. Cram, Goodhue & Ferguson's church at Cohasset is reproduced chiefly on account of its interest as the realization of a well known drawing, which is probably in the collection of most of our readers. Part of the virtue of the design—the lodgement upon the rock—is there; but the missing belfry, which crowned the composition, got its value from the plainness of the rest which without it seems plain indeed. But it would not suit its rock so well if it were not. As it is, it looks as if it had grown there—a desirable characteristic for Gothic architecture in America.

There were 1,147 new dwellings erected in Montreal during the year, in spite of high wages and equally high prices of building material. That general rise in rents last spring was more encouraging to the landlords than other conditions were the reverse.

THE SIMPLIFICATION OF PLUMBING.

A paper read on Nov. 10th last by Mr. J. Pickering Putnam, F. A. I. A., before the Society of Arts, Boston, deals with this theme under the title "Sanitary Plumbing and the Plumbing Laws." The paper is printed in full, with illustrations, in the American Architect, for December 24 and 31. Much of it is occupied with demonstration before the audience of the facts of syphonage, by means of an apparatus of pipes traps, etc., with an air pump attached to produce the necessary vacuum. This is not new matter to the profession and may be omitted. Briefly stated syphonage occurs, when water is discharged from a fixture in an upper storey, because the friction of the walls of the soil pipe prevents the air from following as fast as the plug or piston of water falls, and therefore there is a volume of rarefied air immediately behind the piston, and this, when it passes the inlet from a fixture on a lower storey, upsets the equilibrium of air pressure on each side of the trap and the weight of air above the trap, being greater, forces the water down and out of the trap. As scientifically stated in the paper "the inertia of the water in the trap affords less resistance to the air than the friction along the sides of the soil-pipe." The purpose of back venting traps is to furnish a supply of movable air which, being immediately connected with the waste pipe where it leaves the trap, can, when the air in this pipe moves out to fill the vacuum in the soil pipe, drop into its place more readily than the air in the room on the other side of the trap.

When the plug of water gets near the bottom of a tall pipe, back-pressure, the reverse of syphonage, is very likely to occur because of the bend between the vertical soil pipe and a horizontal drain pipe of the same dimensions. As the bend retards the passage of the air in front of the falling plug of water, the air between the water and the bend becomes compressed, and fixtures which are near the bend are apt to have their trap seal broken by back-pressure resulting from this. For this the back vent, at the angle at which it is often connected, does not seem as if it would be the easiest way of relief.

It is this back venting air pipe and the plumbing laws which require it that is the principal occasion of Mr. Putnam's paper. He has been studying the question for the last twenty years; in 1891 got the Boston Society of Architects to take the matter up and make an effort to have the back vent law repealed; and now that this Society has appointed a Committee on the revision of building laws, which invites suggestions, is making another effort of which this demonstration before the Society of Arts is a part.

But there are other amendments to the plumbing law proposed in his paper. He states them as follows:

"1. More than half of the increased complication is due to the so-called "back venting" of the traps of all fixtures. We have, for instance, bath-tubs, wash-basins and other fixtures, whose traps consist in bends in the pipe deep enough to present a barrier to the passage of drain-pipe air into the house. Our building law requires every such trap to be vented by a special air-pipe extending from the sewer side of the trap up to a point above the highest fixture on the stack. The original purpose of the law was to protect the trap seals from what is called "siphonage." But soon after it was enacted it was discovered that the air-current induced by the back-vent pipe was itself far more mischievous than the danger it was expected to

remove, in that it operated to destroy the seal by evaporation; and so rapidly did it do this in some cases, that in at least one large city the Board of Health felt obliged to issue notices to house owners advising them to have the traps refilled by hand in houses temporarily unoccupied, as often as once a fortnight, in order to restore the seal destroyed by back venting.

It was also very soon found that the system was unreliable on account of deposits of greasy sediment within the vent-pipe and of snow or frost at its top, which rendered it inoperative. Other difficulties and dangers revealed themselves as time went on, as I shall show directly.

On the other hand methods of securing positive protection without back venting were multiplied, until to-day the thinking man is puzzled to understand how the public can continue to allow to exist such a foolish and costly method of ensuring insecurity.

2. The next important modification of the law recommended consists in the omission of the main house trap in the basement, and of the external sewer vent often resulting from its use.

3. A third modification consists in requiring every fixture to be constructed with an outlet large enough to fill its waste-pipe "full bore," in order to keep these pipes clean by thorough flushing.

4. A fourth consists in reducing the number of fixture traps required. The law now calls for a separate trap under each fixture, no matter how near to one another they come. An exception is made in the case of several adjoining wash-trays, which are allowed to have a single trap between them. This good feature should be extended to all adjoining fixtures. I hope to be able to show you that it is much more scientific as well as much safer and more economical to use one trap in such cases than several.

5. Moreover, it is for important reasons better to place the trap at or below the floor-level than close to the fixture it serves, as is now required by law.

6. A sixth modification consists in omitting, in most cases, the trap now called for on all rain-water leaders, because a trap here reduces the ventilation and increases the complication and expense. But more than this, this trap prevents the use of the main soil-pipe as a rain-water conductor. There is no possible way of flushing the soil-pipe better than by admitting rain-water, where the combined system of sewerage is used.

7. A seventh modification consists in striking out the restriction in the law, limiting the jointing of cast-iron pipes to lead calking. Probably no more unscientific method of construction now exists in the whole domain of house building than this, iron and lead having no more constructive affinity for each other in jointing than cats and dogs. Other really scientific methods of jointing cast-iron have recently come into the market which are both reliable and much cheaper.

8. Finally, the provision requiring water-closets to be supplied from cisterns with flush-pipes not less than an inch in diameter should be modified. Better and simpler means for flushing are now known. . . ."

The evaporation of trap seals, which is the principal source of danger from the back-venting air-pipe, is thus accounted for:—

"The air of a house being warmer in winter than the outer air, the ventilating current rising through the pipe is conducted over or near the crown of the trap and escapes at the roof. In summer the reverse movement takes place with a similar result. This current evaporates out the trap-seal with a rapidity proportioned to its proximity to the trap, its dryness, temperature, rapidity of movement, and, in short, in proportion to its efficiency in performing its function of ventilating the branch waste-pipe and guarding the seal from siphonage, and in experiments which have been from time to time published it has been found that seals have been destroyed by this cause in actual plumbing work in less than ten days. If the vent is

not connected with an S-trap at or near its crown it will not protect it from self-siphonage. Hence the requirement in the Boston laws, which leads to a quick destruction of the seal by evaporation."

There is also danger from the stoppage of the air-pipe for various reasons which do not disclose themselves, so that, the only effect of the presence of the air pipe is to give a false sense of security while the traps are being continually siphoned. The following are some of the causes of stoppage :—

"Clogging with grease is very common.

At every quick bend under a vertical rim of iron vent-pipe rust is certain to collect. A comparatively small amount of flaking off of rust or sediment in such a place may suffice to destroy the efficiency of the pipe.

Sagging [in a horizontal lead branch of the air-pipe] is another frequent cause of failure. Water and sediment collect in the sagged portion, and failure is again the result. Finally, hoar frost and snow often close the upper opening of the pipe above the roof, producing again failure.

Moreover, the chances of leakage by bad jointing are evidently increased in proportion to the increase of piping, and what is more important still, no water-flush passes through the vent-pipes, and there is, consequently, nothing to announce to the eye the presence of leaks, which may therefore do mischief before the leaks are discovered."

The process of development has been through the pot-trap now discarded in favour of more scientific forms. The trouble with the pot-trap is that it is not scoured by the flow of water and becomes in time by the deposit of grease (Figs. 1 and 2) converted into a S-trap.

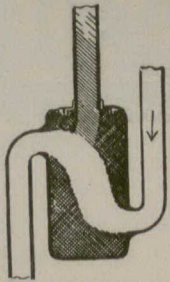


FIG. 1.

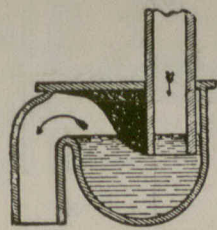


FIG. 2.

While they remain clean the pot-traps are not siphonable, and their power of resistance is directly proportional to their diameter and has nothing to do with their depth of seal. It is the supplemental water that is the source of safety not only from siphonage and back pressure but from such evaporation as is still possible in a system that does not require air pipes. The ideal trap must have a reservoir for water and yet must be no larger than the pipe in section, so that it may be scoured at each discharge of water. The first form of trap answering to these requirements is shown in Fig. 3. It is thus described by Mr. Putnam :



FIG. 3.

"It consists of a 1½-inch S-trap-seal proper and a long horizontal body made of a plain round 1½-inch pipe. Opposite the trap proper is the sewer-connection piece, also made of a bent 1½-inch pipe. I call the long body the "reservoir chamber." The water lies along the lower half of this chamber, leaving room, under siphonage, for air to pass above it without disturbing the water below it, provided the siphoning action is not too severe. The action is shown in Fig.

4. Less and less water is driven out of the trap at each siphoning action, because the air-space above the water is each time correspondingly enlarged, and the resistance to siphonage is accordingly increased until a point is reached where no further reduction of its level by siphonage is possible; the water spray caused by the suction adheres to the long body while air escapes.

Nevertheless, this form is too long and unwieldy to be practicable. Moreover, under strong siphonage waves are formed which, when they reach the top of the pipe, act like pistons in driving out the rest of the water. The wave may be broken up and the length reduced by bending the pipe back and forth on itself as shown in Fig. 5? This trap has been tested and found able to withstand indefinitely the most powerful siphonage which can be applied, namely, a strain which in a single discharge destroyed the seal of a fully vented S-trap with a new vent-pipe only 10 feet long. The same strain broke the seal of an unvented 4-inch pot-trap and siphoned out an S-trap having a seal 6 feet deep."



FIG. 4.

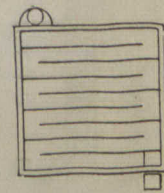


FIG. 5.
(HORIZONTAL SECTION)

This is the typical form of anti-siphon trap. Resistance to siphonage can be still further increased by adopting the form shown in Fig 6. In this form Mr. Putnam says, "friction is reduced and centrifugal force

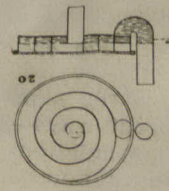


FIG. 6.

aids in the separation of the air from the water, leaving the latter in the trap while the former escapes." And as power of resistance is increased, the trap may be reduced in bulk. The paper continues :—

"Should this trap be used under a fixture having a small outlet and therefore furnishing little or no scour, it will act like a straight pipe, and will, like it, in time suffer a diminution of its area, by accumulation of greasy or gelatinous deposit along its wall. But, as in a straight pipe, the accumulations will be substantially uniform throughout, because the scour and form is uniform throughout, and its resistance to siphonage will remain the same, because its principle of resistance thereto will remain unchanged. Indeed, the size of the trap in respect to its proportion to the sectional area of its waterway will increase and thus correspondingly increase its resistance to siphonage. Should it ever be completely closed, its closure will announce itself by the simple cessation of the waste-water to flow out and then the obstruction can be removed through the clean-out cap."

Having thus established a trap which, as he says, is "vented through its own inlet pipe," Mr. Putnam goes on to consider the simplification of plumbing which results from this.

"The champions of back-venting have, as a matter of fact, abandoned to-day their original claim that it served to protect trap seals from siphonage. They occasionally adhere to it, however, on the argument that it is needed to purify the branch waste-pipes by aeration.

But it is now recognised that ample water-flushing

through properly constructed fixture outlets, followed by an equally thorough pure-air flushing from the room through the fixture and trap, is infinitely more effective than ventilation with foul air alone from the soil-pipe through the back-vent pipe, and is, indeed, altogether sufficient.

Hence the law should require every fixture to be constructed on the principle of the "flush-tank" by having outlet and outlet-valves large enough to fill their waste-pipes and traps "full bore" at every discharge. . . .

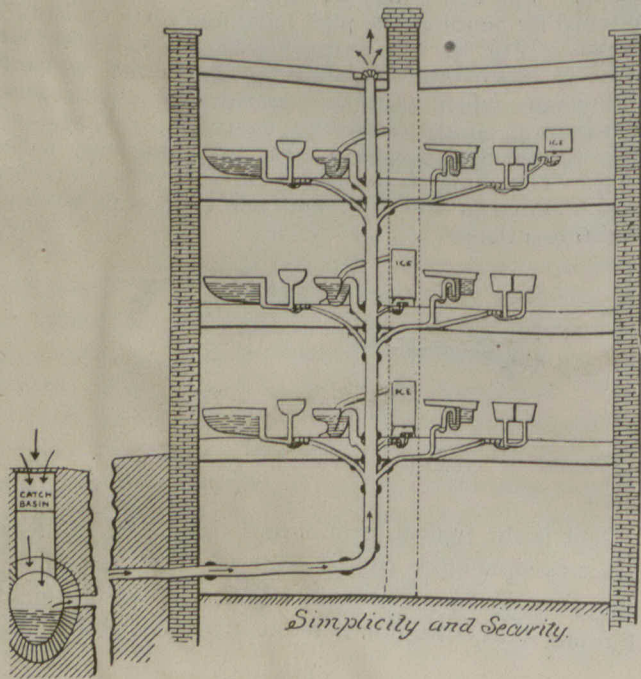


FIG. 7.

Figs. 7 and 8 show the same fixtures in a house plumbed in two different ways—Fig. 7 being in accordance with my recommendations and 8 being in accordance with the manner now sometimes seen in the finest houses. On the extreme left of the latter is the outside sewer vent, and on the inside, next to this, is the house-trap and circulation-vent. We have also

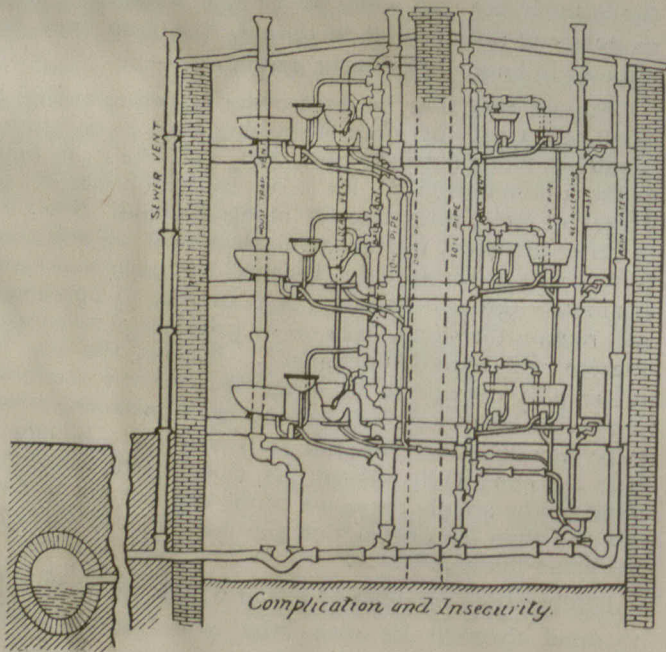


FIG. 8.

back-vents, drip-vents and rain-water pipe, and all of these unnecessary stacks are very common in the modern house.

Fig. 9 shows a part of this work enlarged. It is taken from a well known house in New York.

My reasons for urging legislation prohibiting the use of the main house trap, or "intercepting" trap

are, first, because its use prevents the best and only efficient and practical method of adequately ventilating the sewers, and, second, because it adds an altogether useless expense and complication to the plumbing.

Recent investigations by eminent scientists have shown us the fallacy of the popular idea that the air of sewers abounds in disease germs, and so sight-seers may now visit the famous sewers of some of the great cities of the world with the same feeling of safety they enjoy while seeing other regular "sights."

Germs are "particulate," as Dr. Carmichael, of Scotland, expressed it, and have no more power to raise themselves from the water or moist surfaces of sewers than have any other particles of vegetable matter, like leaves or small sticks. If, by any chance, parts of the sewage above the normal level of the flow become dried, as in periods of drought, and are then lifted and wafted along by some unusually strong air-current, it is found that they very soon fall again into the water by gravity or are carried against a wet surface in a bend or branch of a sewer by the same air-current that lifted them. Furthermore, it has lately been discovered, and the discovery satisfactorily corroborated, especially by the noteworthy and most interesting researches of the Englishmen, Laws and An-

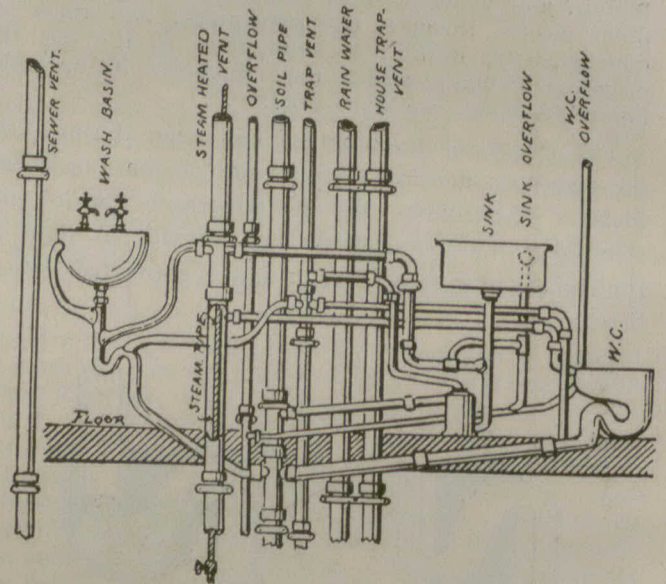


FIG. 9.

drewes, that the specific germs of disease do not thrive even in the water itself of sewers. They appear to be destroyed by other species of germs, harmless to man, which abound there.

In short, it has been determined that the dreaded germs of specific diseases are, of all places, least to be sought for in the air of sewers. They may abound in the air of the streets above the sewers, but not in that of the sewers themselves. Hence, if they are borne into our dwellings by air-currents at all, they must enter by way of doors and windows and not by way of the drains.

Note that we are speaking of germs and not of odors and gases. These latter do abound in the air of badly ventilated sewers and are unwholesome to breathe continuously. But they are immediately dangerous only when in an exceedingly concentrated form, and are easily excluded from houses by simple precautions and by proper plumbing regulations. One of the most effective and rational of these precautions is thorough sewer and drain-pipe ventilation.

Simple openings into the sewers at intervals along the streets are common; but they provide no motive-power to effect proper ventilation. The foul sewer may thus remain foul, and an opening here and there at the street level only concentrates the nuisance in the worst manner at special places for the annoyance of the public.

It is much better to carry the foul gases to the tops of the houses than to emit them at the street level under the very noses of the passers-by. Soil-pipes can now be constructed and jointed so as to be absolutely

tight, and the objection that it is dangerous to carry the sewer-air through the houses is no longer tenable.

A public sewer becomes very well ventilated and practically safe when its ventilation is effected by making every house drain and soil-pipe a ventilating flue. The sewer has then, in cities, special 4-inch suction tubes every 10 or 15 feet throughout its entire length, the houses averaging, say, 20 or 25 feet in width. We know that whatever putrescible matter, excepting street washings, is to be found in the sewers, comes from the house drains themselves.

Assuming, then, that the houses average 25 feet wide and 50 feet high, the number of running feet of soil and drain pipe in each would average at best not less than 100 feet, and the interior surface would, therefore, contain probably at least twice as much decomposing matter as the 12 ft. of sewer serving each house. It would be absurd, therefore, to insert a disconnecting trap and a vast increase of extra piping for the mere purpose of excluding this small extra drain-pipe air, even if it were not demonstrated that this very complication increased rather than diminished the chances of its entrance.

Even the foulest sewers and cesspools must cease to be foul the moment they are ventilated through every soil-pipe. Probably the most dangerous substance in our sewers to-day is illuminating-gas escaping from leaky mains, which modern science has, I believe it can be maintained, at last rendered unnecessary. The house trap is responsible for the presence of this gas in cellars and subways. It is exceedingly important that it should, where it is formed, be diluted and carried up above the houses and thus rendered comparatively harmless.

In conclusion, I will say in regard to calking cast-iron pipes with lead, that the law should rather prohibit this than specify it to-day, in view of the very recent methods discovered of jointing cast-iron both scientifically and economically, the joint permitting of a certain amount of rotation and play of the pipe without sacrifice to its soundness even under pressure."

STUDENTS' COMPETITION AWARD.

The judges in this competition, Messrs. W. L. Symons, appointed by the Ontario Association of Architects, A. H. Chapman, appointed by the Eighteen Club, and J. W. Lyle, chosen by the other two judges, have awarded the first prize to the drawings by "Ghost"—Mr. W. B. Van Egmond, of the office of Mr. G. A. Harvey, Toronto; the second prize to "Colonial"—Mr. S. Douglas Ritchie, of the office of Messrs. Finley & Spence, Montreal; and the third prize to "P"—Mr. Gordon M. West, of the office of Mr. Geo. W. Gouinlock, Toronto.

The authors of the several designs describe their materials and the judges criticize the design, as follows:—

"GHOST."

DESCRIPTION—Brick to be common hard red, laid with $\frac{1}{2}$ " white mortar joint. Half timber work to be of white pine stained a dull chocolate, and plaster to be white roughcast. Cornice, windows and pergola to be painted a cream white. Roof to be covered with shingles stained olive green; ridge to be galvanized iron. Brackets under cornice to be $\frac{1}{2}$ " x $1\frac{1}{2}$ " iron, painted black. Outside doors to be batten of V sheeting. Drainage to run into cesspool and overflow to be distributed in garden. Interior finish: Dining room—Georgia pine stained dark green, Burlap panels, and coved stucco ceiling. Halls and staircase—Georgia pine, stained. Dado. Drawing room—white pine, enamel finish. Bedrooms—white pine, painted white. Kitchen—white pine, painted grey.

CRITICISM—These drawings by "Ghost" are presented in a neat and workmanlike manner, and show taste and thought.

The plan is well arranged; the handling of the stairs and the placing of the dining and drawing rooms being particularly happy.

The service from the kitchen to the front door is well taken care of, the servant being able to get from one to the other with despatch.

The elevations are well treated, and show a pleasing combination of brick and stucco. A bad feature is the treatment of the angle over the main entrance.

"COLONIAL."

DESCRIPTION—Brickwork to be Flemish Bond, dark blue headers, with large white joints. Shingled roof stained a silver grey. Exterior and interior wood work to be painted white.

CRITICISM—In the design submitted by "Colonial," the general idea of placing a rectangular building in a rectangular lot so as to divide it in two nearly equal parts is not very interesting. The ground floor plan might be criticised in giving exactly the same importance and expression to the kitchen as to the three principal rooms, and also in having no exit to the garden except through the serving pantry, which has a very low ceiling.

The colonial style is carried out simply and in good taste, the side elevation being inferior to the other two elevations in proportion. The drawings are neatly and well presented.

(They do not appear so well presented in our illustration sheet as, in response to the request to have the drawings arranged on a sheet 8" x 12" or in that proportion, "Colonial" put each plan and elevation on an 8" x 12" sheet, and the reproducer has been obliged to lift them off by photography and arrange them as best he could.)

"P"

DESCRIPTION—Not returned.

CRITICISM—In the design submitted by "P" the question of the proper aspect of the various rooms has been entirely overlooked. The dining room should have been placed so as to get some east light. It is not satisfactory to bring the main entrance of a house of this size under the stair landing. In this case in all probability not more than 7 ft. 6 in. of head room can be obtained. A dark coat room is unsanitary, as well as being unsatisfactory to use.

On the whole the plan shows thoughtfulness. The exterior is to be commended on account of its simplicity, the rendering, however, could have been much improved upon.

PROVIDING FOR ADDITIONS.

To the other burdens of an architect the Architects and Builders Journal would now add the responsibility, or at any rate a share of the responsibility, for providing for future enlargement. Instance is given of a library building which had to be pulled down and re-erected before it could be made larger. There certainly are some buildings which require provision for growth. Of these libraries are one example. Hospitals also, school buildings and workhouses accommodate a population which tends to increase. These and residences have usually some free ground about them, and may well be placed on the ground with a view to future extension. A suggestion that the addition should be dotted in on the original plans, to be "helpful to future residents and any architect they may employ" will appeal somewhat coldly to the ordinary architect; but, to one who regards his work as his monument, it may appear a measure of safety worth taking into consideration.

ONTARIO ASSOCIATION OF ARCHITECTS.

ANNUAL MEETING.

(SECOND NOTICE.)

THE afternoon's session, on Jan. 17, concluded with a lecture by Mr. Horace McFarland, of Harrisburg, President of the American Civic Association, upon the work done in improving Harrisburg, Pa.*

SESSION OF WEDNESDAY, JAN. 18.

BUSINESS was resumed on Wednesday morning; the President in the chair.

The reports read on the preceding afternoon were, on motion of Mr. Pearson, seconded by Mr. Helliwell, adopted.

ANNUAL MEETING OUTSIDE TORONTO.

THE Registrar read a letter from Mr. F. J. Alexander, of Ottawa, suggesting that the annual meeting should occasionally be held elsewhere than in Toronto. Mr. Gregg gave notice that at the next annual meeting he would move that the meeting of 1907 be held in Ottawa; adding that he postponed the notice to next year, in order to give an opportunity for Ottawa members to come up and press their claims.

NEGOTIATIONS WITH THE EIGHTEEN CLUB OF TORONTO.

THE report of the Committee appointed to meet a Committee of the Eighteen Club, in order to discuss conditions of amalgamation was, in the absence of the Chairman, Mr. Wickson, presented by Mr. Burke, as follows:—

Proposed revision of the charter of the Ontario Association of Architects as amended by a committee of the Association and of the Toronto Architectural Eighteen Club.

Omit preamble and substitute the following:—

"Whereas it is deemed expedient for the furtherance and advancement of the art of architecture in the province."

After section 4 insert section 4 A as follows:—

There shall be three grades of membership entitled respectively, "Associates of the Ontario Association of Architects" (abbreviated A.O.A.A.)

"Members of the Ontario Association of Architects" (abbreviated M.O.A.A.)

"Fellows of the Ontario Association of Architects" (abbreviated F.O.A.A.)

ASSOCIATES.

Associates shall be admitted as such upon proving to the Council any one of the following qualifications:—

(1) Those who have passed the prescribed examinations of the Association.

(2) Those who are graduates of any recognized school of Architecture and who have served at least three years in the office of any reputable Architect, either in the province or elsewhere.

(3) Those who hold a title of equal standing from another body of architects.

(4) Those whose qualifications are not covered by the foregoing clauses but who give other evidence of their fitness. A 7/9 majority of the council shall be necessary for their election.

MEMBERS.

Members shall be enrolled as such, being

(1) Those who have been Associates for a period of at least ten years.

(2) Those who have been in active practice as principals for a period of not less than ten years outside of the province, and have given satisfactory evidence of their ability and experience, may be elected by a majority vote of the members on the recommendation of the council. The election may be held at the annual meeting or by letter vote at any other time.

FELLOWS.

Fellows shall be elected from the members of the Association for the excellence of their executed works or for distinguished services to the art of architecture.

The nomination shall be by unanimous open vote of the council, who shall give the members one month's written notice prior to the date of the annual meeting.

The election shall be by open vote at the annual meeting and shall require a four-fifth majority of the members present.

Omit clause 22, sub-sections (1) and (2) on page 4 of the Act, and substitute the following:

"All members in good standing of the Ontario Association of Architects and of the Toronto Architectural Eighteen Club on the coming into force of this amendment to the charter shall become members of the Association."

In clause 23 omit the words "as an architect," substituting "in the association."

Omit clause 24 and its sub-section and insert a clause in by-laws alter constitution with the Eighteen Club.

In clause 25, omit the words "registered architects" and substitute the words "this Association."

In clause 26, omit the word "Architects" and substitute, after the word "Register," "of the Association of Architects."

In clause 29 omit the words "registered architects," substituting the words "member of the Association."

After some discussion as to the powers, notices, etc., involved in making the changes necessary to carry out the recommendations of this report, it was moved by Mr. Burke, seconded by Mr. Symons:—

THAT, in connection with the proposed amalgamation of the Eighteen Club and this Association, the Association instructs the Council to arrange with the Eighteen Club on the basis of the amendments to the Charter of the Association which are contained in the accompanying Report, and to apply to the Legislature for such amendments.

The motion was carried.

PAPERS.

PAPERS* were then read as follows:—

ARCHITECTURAL ACOUSTICS, by Mr. G. R. Anderson, M.A., of the School of Practical Science.

IMPRESSIONS CONCERNING THE ARCHITECTURE SEEN IN NORTH CHINA, KOREA, AND JAPAN, by Mr. H. B. Gordon.

A STUDY OF WREN, by Mr. W. A. Langton.

THE CITY AS A WORK OF ART, by Mr. Henry Rutgers Marshall, F.A.I.A. (New York).

REPORT OF SPECIAL COMMITTEE ON FINANCE.

Gentlemen,—Your committee beg to report:—

That the credit balance of the Association in the bank has, during the last five years, decreased about \$500. During this time about \$250 has been added to the personality of the Association in the shape of furniture and books. For the last two years the expenditure of the Association has exceeded its revenue by about \$250 yearly, and this tendency needs immediate attention. The deficit last year was largely owing to the spending of the large sum of \$222 on the banquet and by adding \$60 to the Guild Fund. Our ordinary sources of income under present conditions cannot be expected to yield much more than \$400. Our expenditure for rent, registrar's salary, office expenses and sundries will amount to about \$515. If we spend \$110 on education and only \$100 on the banquet expenses above receipts, it will give us a budget of about \$715 of expenditure. This leaves a sum of \$325 to be made up from the profit on the publishing of our proceedings, an amount about equal to what was made last year. So with careful financing the receipts and expenditures may be made to balance. If with the advent of the 18 club and the consequent increase of income, the financial position is improved, any surplus can be advantageously used for education and the purchase of books. We do not think that the present financial position demands an increase of members' fees, but rather careful expenditure in the less essential features of our work.

All of which is respectfully submitted.

H. B. GORDON
MARK HALL
W. L. SYMONS

The report was adopted.

ELECTION OF OFFICERS.

Messrs. Edmund Burke, W. A. Langton and J. Wilson Gray were elected to take the place of the retiring members of the Council.

Messrs. Mark Hall and J. Wilson Gray were re-appointed Auditors.

The meeting then closed.

AN ADDRESS AT THE DINNER.

There was a dinner on the evening of the last day of the Convention at which, among speeches more or less serious in purpose, Mr. G. P. Payne, Inspector for the Canadian Board of Underwriters, took the opportunity to give some definite information that should be recorded for reference.

Mr. Payne said: It is a part of my work, as Inspector for the Canadian Fire Underwriters Association, to criticize the work of a good many of you Gentlemen, especially here in Toronto, and I would like to give you one or two figures, if you don't mind. Pos-

* To be published later.

* To be published later.

sibly it is going a little into "shop," which is I believe what one is not supposed to do on an occasion of this kind; but you know it is a very rare thing for a man like me to get an opportunity of talking to you as an audience. I am taking advantage of the privilege, and at the same time I hope what I have to say to you will be of interest. My figures are intended to give you an idea of where the Insurance Companies stand at the present time. From 1869 to 1900, the time during which the Insurance Companies have been making sworn reports to the Dominion Government, their income amounted to \$156,764,807. Their losses during the same period amounted to \$156,447,491, leaving a credit balance in their favour of \$317,316, which is equal to 1/5th of 1 per cent. Between that time, and the beginning of 1904, we have had the Ottawa-Hull Fire in which the loss amounted to \$6,000,000; the Vancouver Fire, loss \$3,000,000; and also two \$1,000,000 fires in Montreal. In 1904, the year just finished, our premium income amounted in round figures to about \$12,000,000. The losses amounted to \$18,000,000. As you will admit, it must have been a very profitable business? Now you may say, what interest is this to us. Well, gentlemen, when I tell you that the consensus of opinion amongst the Insurance men is that the majority of these losses were caused by defective construction, you will admit I think that it is of some interest to you. When I say defective construction, I do not mean poor construction, but I mean defective construction from the point of the fire hazard? Our old method of rating took into consideration only a very few features. We had a certain classification for our buildings. Four classes:—brick buildings with first class roof; brick buildings with shingle roof; brick-veneered rough cast or metal clad buildings; and frame buildings. The towns were classified according to the efficiency of their fire departments. The only difference we made was in the occupancy of the buildings. Now we have adopted a new system that we call schedule rating. The old system was not equal to the requirements, it was necessary to adopt a new one, and so we have fallen into line with many of the Insurance Associations of the United States and have adopted this system of schedule rating. Under it we have a regular schedule by which the water works and fire departments of a City are classified in proportion to the population, requiring a certain standard for domestic and fire purposes. Every point in connection with these departments is taken into consideration. That gives us what we call our key, or basis rate in making our rates. We then take up the construction of the buildings and we have a schedule for fixing the price of every deficiency that we find in the building, especially those deficiencies that tend to the rapid spread of fire. We also give deductions for points superior to the standard that we call for. In this connection we have the different classes of buildings to consider. That is, we have fire-proof construction, mill construction, and ordinary construction. We also take into consideration occupancy and exposure. When you consider that the excessive losses that we have had, were due in a very large measure to the building deficiencies you can easily understand why it is necessary for us to induce people to do better in the matter of buildings, to penalize those items that make the fire hazard. The only way you can get at a man in order to get him to improve his building, is either to penalize him for the deficiencies, for the poor features of his construction, or to pay him for making them better. That is the method we are employing at the present time. To give you an idea of about how this works out I have figured out a couple of risks in this City, risks that I could take you to at the present moment. Take a building of the new mill construction. This building I estimate would cost about \$100,000. It is pretty well up to standard mill construction. With a value of \$100,000 we would get a rate of say, 45 cents; that would give us a premium of \$450. Taking the stock at \$150,000 value, and rating that stock at 80 cents, we would get a pre-

mium of \$1,200. This gives us a total premium on building and contents of \$1,650. Now in the case of a building holding the same amount of stock, with the old ordinary construction valued at \$50,000, and with all the deficiencies that we find in it, (and I have taken an actual building for this), we would get a rate of about \$1.70, giving us a premium on building of \$850.00. With a stock of the same value, \$150,000, we would charge a rate of say, \$2.30, giving us a premium of \$3,450, a total premium of \$4,300 on the building and stock as against \$1,650 on the new mill constructed building, built up to standard. There is an annual difference of \$2,650 which capitalized at 5 per cent. would amount to about \$53,000. Now, gentlemen, this is an inducement that you have to offer to your clients to put up the better building. The difference in the cost of insurance will amply repay the extra outlay for the improved construction. It seems to me that you have got an argument there to induce people to put up a better class of buildings, and that is what we feel, we must have in some way or other. The premiums charged at the present time are all that the people can possibly afford to pay. At the annual dinner of the Fire Underwriters Association we had a gentleman there, prominent in financial circles of the City, who told us practically that we did not know our business when we did not lay aside a reserve to meet such losses as we had here in April last. Well that may be so, but at the same time if you have got the business loaded to the last cent it will bear and there is nothing left after paying losses and expenses to form that reserve, what are you going to do about it? You simply cannot get the reserve. In addition to it being an advantage to your clients, there is also another point that I think can reasonably be considered and that is the advantage to the community. As the gentleman who spoke before me said, we are all of us doing our best to build up Canada. I think the 20th Century is to be Canada's Century. I think the 19th was the American or United States Century, and the 20th is to be Canada's Century. Everything points to a tremendous progress in this Country during the coming years. If we can do away with the terrible fire waste, we surely are doing something for the benefit of the community. When you consider that the money is gone, that property that is burned has gone up in smoke, that there is nothing left of it, that it is an absolute loss to the community, then, if we can by any means lessen that loss, we are certainly doing something for the benefit of our Country. In speaking of the fire hazard there is just one little thing I would like to mention, and that is the worst point in connection with the fire hazard in any building; it is the vertical openings, the elevators and the stair ways that are found in almost every warehouse at the present time. There is no doubt whatever that the great conflagration here was caused by an unprotected vertical opening. Above all things, gentlemen, when you build a warehouse do away with the vertical openings. It has been a surprise to me that in a number of the new buildings that are going up in the City—and some of you gentlemen are responsible for those new buildings—to find that, although you put in an elevator shaft of brick, at the same time you have made no provision, in several instances, for the fire door that should go on the floor openings. A brick shaft is not very much good unless you put a good fire door on the openings into it. Quite a number of those shafts that you have built have unprotected openings. That is the worst feature, and the one thing beyond all others that the insurance man would like you to improve.

HAMILTON ART SCHOOL.

The directors of the Hamilton Art School have confessed themselves beaten in the effort to support the school by private subscription. They have agreed to ask the Board of Education to take over the management of the school on a plan similar to that followed in Toronto.

PROVINCE OF QUEBEC ASSOCIATION OF ARCHITECTS.

ANNUAL GENERAL MEETING.

The Association held its 15th annual meeting in the new rooms, in 5 Beaver Hall Square, on Monday 23rd January. The morning session opened at 10.30 a.m. Twenty four members were present, Mr. J. S. Archibald, 1st vice president, took the chair. The assistant secretary read a letter from the president, Mr. Ouellet, regretting the impossibility of his being present, owing to sickness, recommending the candidates for office, nominated by the Quebec members, as having unanimous local support.

The minutes of the last general meeting were read and approved. The Council's Annual Report for 1904, printed copies of which were in the hands of the members present, was taken as read and adopted. It runs as follows:—

GENTLEMEN,—The proceedings of your Council for the year just closed may be summarized thus: (1) Monthly meetings. (2) Library. (3) Scholarship. (4) Recognition of Architectural Degree Established by Schools of Architecture. (5) Publication of Annual Proceedings. (6) Architectural Awards. (7) Tariff. (8) Competitions. (9) Charter and By-laws. (10) Legal. (11) Examinations. (12) Membership. (13) New quarters. (14) Finance.

MONTHLY MEETINGS.—Monthly meetings of the Association were held during the months of February, March, April, October and December, when the following subjects formed the basis of lecture and discussion: February:—Meeting postponed owing to small attendance of members. March:—Address on "The Work of our Association," by J. S. Archibald. April:—Lecture, "Puis de Chavannes," by Mr. J. B. Lagacé. October:—Business meeting. No quorum. December:—Lecture, "Gothic Carpentry and Joining," by Prof. P. E. Nobbs. The lectures delivered by Mr. Lagacé and Prof. Nobbs were illustrated by stereopticon views.

Your Council feel keenly the continued want of interest shown by the members, and as evidenced by the small attendance at the meetings. Two out of the five meetings had to be postponed owing to small attendance of members. The average attendance of members was only nine (9), a result out of all proportion to the number of members on our roll.

Some expense has been incurred in connection with the meetings and considering the small number that has taken advantage of them the incoming Council should consider whether they would be justified in going to any further expense in the future in connection therewith.

The sincere thanks of the Association is due to those gentlemen who have so acceptably lectured before us during the year.

LIBRARY:—No actual additions have been made to the Library during the year but orders have been placed for the following:—"A Treatise on Architecture and Building Construction," by the International Correspondence Schools; "Rotch Travelling Scholarship"; "Les Elements et Theorie de l'Architecture," by J. Guadet.

SCHOLARSHIP:—All arrangements were made for the carrying out of the recommendations and resolutions passed with respect to the Scholarship established by the Association in the Architectural course at McGill University. The particulars pertaining to same were fully advertised both publicly and amongst members of the profession. We regret to state that, so far, the opportunity presented for the study of architecture, by the terms of the Scholarship, has not been taken advantage of, no one coming forward for examination.

RECOGNITION OF THE ARCHITECTURAL DEGREE ESTABLISHED BY SCHOOLS OF ARCHITECTURE.—In accordance with the resolution passed at the last general annual meeting the special committee have had the subject under consideration and their report will be placed before you.

PUBLICATION OF ANNUAL PROCEEDINGS:—In accordance with the resolution passed at the last annual meeting the Council have had under consideration the advisability of issuing an annual publication. No one questions the desirability of such a move

but it has merely resolved itself into a question of ways and means. Arrangements have been completed for the first publication to be issued early in March and at no cost to the Association.

ARCHITECTURAL AWARDS:—The scheme for a system of architectural awards which was adopted, in principle, at last annual meeting, has received the consideration of the special committee but it has been felt that, owing to the want of interest shown by members in the work of the Association, the time is inopportune to proceed further with the idea. We trust that the incoming Council may receive such a measure of support as will warrant them taking up the matter again.

TARIFF:—The question of the desired amendments to our tariff has been engaging the serious attention of the Council during the past year. It has been felt that when the time is opportune wherein to present to the proper authorities the amendments which we desire to make, that the amendments be of such a character as to cover the question, in its entirety, for years to come. With that end in view, we have been and are in communication with several architectural bodies, exchanging views on the subject and getting all necessary information in order to strengthen our case at the crucial time. The matter is now reaching that condition when we may be able to take the matter up with the Provincial Cabinet.

COMPETITIONS:—In accordance with the resolution passed at the last annual meeting, the question of competitions has received the careful consideration of the Council. After studying the competition codes promulgated by the leading societies of the world, your Council drafted a code adapted to our particular case. A general meeting of the Association was called on the 18th of October, to consider and discuss the said code, but no quorum was available. The code will be laid before you at the annual meeting.

CHARTERS AND BY-LAWS:—In accordance with the resolution passed at the last annual meeting, your special committee have had under consideration the question of amendments to the Charter and By-Laws. The report will be laid before the meeting.

LEGAL:—In order to exercise a thorough supervision over all legislation affecting our profession, both civic and provincial, the Council deemed it advisable to subscribe to the *Montreal Municipal Gazette* and the *Quebec Official Gazette*. These are kept on file and each issue carefully examined. The prosecution of persons practising illegally has been receiving the attention of the Council. Actions have been taken in two cases but as they are still pending further comment is impossible. In conformity with the desire expressed at the last annual meeting with respect to the amendments to Article 1688 of the Civil Code, as to responsibility of architects, and in continuity of the policy established by the former Council, your Council took and carried on the work begun by the former. Several joint meetings were held with the Builders' Exchange and representation was made before the Government in Quebec. A certain measure of relief was offered, but acting under the advice of our legal advisor, and which was in conformity with our own opinion, it was unanimously decided to refuse the amendment offered by the Government. We trust to be able to establish our contention and gain our point at some other time.

EXAMINATIONS:—At the January examinations Mr. G. E. Labelle, from Montreal, was admitted as student in Architecture, and at the July examinations Mr. L. E. Auger, from Levis, was registered as Architect.

MEMBERS:—The Association now numbers 109 members, the following having been added since the beginning of the year:—Messrs. Charles Follen McKim, William Rutherford Mead and Stanford White were registered members of this Association upon credentials as members of the American Institute of Architects, and Mr. L. E. Auger by examinations. We would take this opportunity to record the loss our Association has sustained in the departure, from our midst, of Mr. A. T. Taylor. Mr. Taylor was at all times an indefatigable worker in the interests of the profession and Association, sparing neither time nor trouble in order to advance the interests of all. His loss to our Association will be keenly felt.

NEW QUARTERS:—The Association has taken up new quarters since our last meeting. We are much better arranged for work and study, and at practically no greater expense. We trust full advantage will be taken of the increased facilities afforded.

FINANCIAL:—The Council wish to draw the attention of the members to the fact that every year large numbers are in ar

rears. The Council wish to impress upon members that those in arrears on the 31st of December have no right to vote.

ATTENDANCE AT THE MEETINGS OF COUNCIL. 18 meetings.

J. P. Ouellet.....President	Quebec	2
J. S. Archibald 1st Vice-President	Montreal	16
A. Chaussé2nd Vice-President	"	11
J. E. VanierSecretary	"	10
D. R. Brown.....Treasurer	"	10
W. E. Doran.....Councillor	"	7
R. P. Lemay....."	Quebec	1
J. Z. Resther....."	Montreal	7
J. W. Carmichael...."	"	6
A. A. Cox....."	"	5
Jos. Venne....."	"	10

It is to be noted that Messrs. J. P. Ouellet and R. P. Lemay, being from Quebec, could not attend the meetings.

J. E. VANIER, Secretary. JOS. P. OUELLET, President, Montreal, January 16th, 1905.

J. E. VANIER, ESQ., Architect, Secretary "P.Q.A.A.," Montreal.

SIR,—The undersigned, Officers of the Quebec Section, "P.Q.A.A.," herewith have the honour of submitting to the Council the annual report of said Section, for the term 1903-1904.

The election of officers took place at Quebec's City Hall, on the 23rd of December, 1903; Mr. Thomas Raymond was elected President, to replace Mr. R. P. Lemay, and Mr. Jos. P. Ouellet was re-elected Secretary and Treasurer.

The Quebec Section was increased by one member this year, Mr. L. Auger, who was admitted to practice at Montreal in July last.

Two candidates tried this year, at Quebec, the examinations for studentship, but they failed.

The Quebec Section has not yet succeeded in having the proposed regulations for building construction adopted for Quebec, specially due to changes in the Municipal Council and to general elections.

The Quebec Architects have worked in the Local House the adoption of amendments to the law relating to the responsibility of Architects and Contractors in the Province of Quebec; but on the decision of the Council of the P.Q.A.A., they let the bill drop, to take the matter under more favorable circumstances.

The whole respectfully submitted.

JOS. P. OUELLET, Sec. S. de Québec. THOMAS RAYMOND, President. Quebec, January 5th, 1905.

The treasurers report then came before the meeting in the following form:

TREASURER'S REPORT.

RECEIPTS.

Balance on hand January 1st, 1904.....		\$1,044 75
Arrears for 1903 and previous year.....	\$410 00	
Annual subscription for 1904.....	800 00	
Registration fees.....	125 00	
Examination fees.....	40 00	
Ten tickets to Quebec.....	45 00	
Banquet at Quebec.....	60 00	
St. James Literary Society.....	50 00	
Furniture Sold Drug Club.....	31 60	
Interest, bank account.....	43 20	1,604 80
Total.....		\$2,649 55

EXPENDITURE.

Returned to Quebec Section for 1904.....	\$65 00	
Salary of Assistant Secretary.....	360 00	
Rent account, including taxes.....	379 20	
Cleaning rooms and rugs.....	22 25	
Moving expenses.....	24 63	
Ten tickets to Quebec.....	45 00	
Monthly meeting expenses.....	22 00	
Legal expenses.....	203 00	
Insurance.....	3 70	
Collection on cheques.....	30	
Stamps and sundries.....	61 00	
Assistant Secretary's expenses to Quebec.....	14 25	
Lighting account.....	11 72	
Exhibition expenses to Quebec.....	38 80	
Dinner, Chateau, Quebec.....	73 25	
Typewriting, printing, stationery.....	43 10	
Examination fees.....	100 00	
Architectural journals.....	28 10	
Law books.....	3 75	
Advt. in Official Gazette.....	6 18	
Transferred to the Library Fund.....	100 00	\$1,605 23
Balance in bank January 1st, 1905.....		1,044 32
Total.....		\$2,649 55

STATEMENT OF LIBRARY FUND.

Balance on hand January 1st, 1904.....	\$110 17	
Transferred to Library Fund, rent from St. James Literary Society for 1903 and 1904.....	100 00	\$210 17

STATEMENT OF SCHOLARSHIP FUND.

Balance on hand January 1st, 1905.....	\$600 00
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BALANCE SHEET OF CAPITAL ACCOUNT.

Furniture and office fittings.....	\$554 13	
Electric lantern fittings.....	114 50	
Library.....	1,200 00	
Fees due for 1903.....	40 00	
" " 1904.....	320 00	\$2,228 63

Cash in bank :	General Fund.....	\$1,044 32	
	Scholarship Fund.....	600 00	
	Library Fund.....	210 17	1,854 49

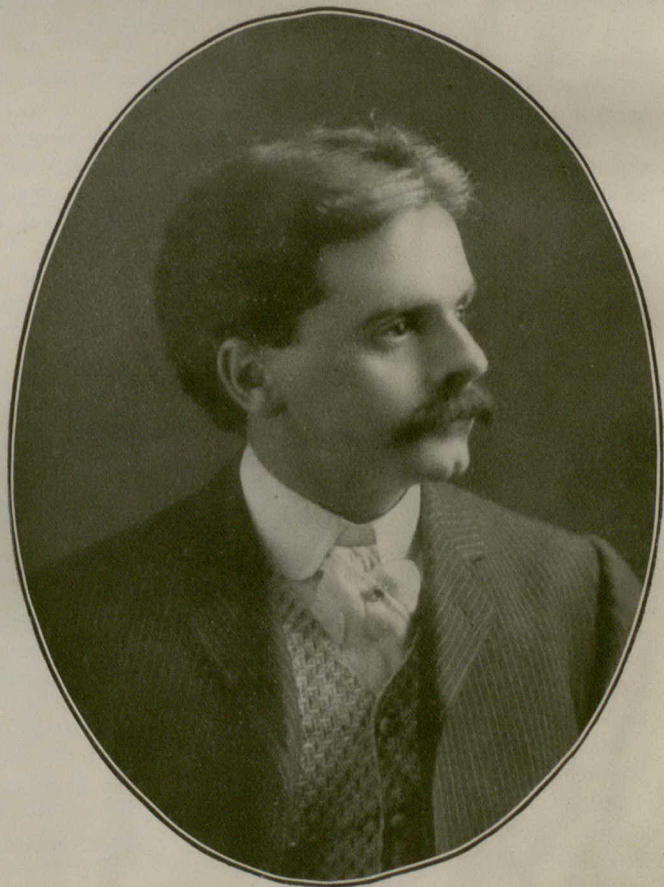
Total..... \$4,083 12
D. R. BROWN, Treasurer.

We the undersigned auditors having examined the books and vouchers find the above statement correct.

(Signed) L. LEMIEUX
(Signed) PERCY E. NOBBS.

Montreal, January 16th, 1905.

Mr. W. E. Doran pointed out that the sum of \$600 which had been voted as a Scholarship Fund, although it had not been awarded to any student, was not properly included as assets, and moved that it should be transferred to the liabilities. The motion was seconded by Mr. Hutchison and passed. Mr. Doran further pointed out that as the present form of the charter made it practically impossible to recover the subscriptions in arrear for 1903 and previous years, these were practically, though not technically, bad debts, and the Association must be considered as living beyond its income. The treasurer's report as amended being then adopted, the Association proceeded to the election of office bearers.



MR. JOHN S. ARCHIBALD, President Province of Quebec Association of Architects.

Mr. A. Chaussé, 2nd vice-president, taking the chair, moved that Mr. J. S. Archibald take the chair as president, being elected by acclamation. Mr. J. S. Archibald, president, in the chair, the following were elected:

1st vice-president, Mr. Alcide Chaussé (by acclamation); secretary, Mr. J. E. Vanier (by acclamation); 2nd vice-president, Mr. R. P. Lemay, Quebec; treasurer, Mr. D. R. Brown (by acclamation).

Mr. Doran asked to have his name withdrawn from the list of candidates for the council, having now served 6 years as councillor.

The councillors elected were:—Mr. Jos. Venne, 21 votes; H. W. Davies, 19 votes; L. A. Amos, 18 votes; J. Z. Resther, 16 votes; J. R. Gardiner, 15 votes.

The Reports of the Special Committees were then submitted to the meeting.

The Special Committee, formed to report regarding the conduct of Architectural competitions, laid before the meeting a Code to Regulate Competitions. The report, after being discussed paragraph by paragraph, was adopted in the following amended form. The adoption was proposed by Mr. Jos. Venne and seconded by Mr. L. A. Amos.

CODE FOR THE CONDUCT OF ARCHITECTURAL COMPETITION.

It is to be understood that the P.Q.A.A. issue these suggestions as a guide to promoters, where a competition has been decided upon, but not necessarily recommending the principle of competition.

Competitions, under certain conditions, being inevitable, the Province of Quebec Association of Architects, following in this, the example traced by most eminent bodies of the profession such as the Société Centrale des Architectes de France, the Royal Institute of British Architects, the American Institute of Architects, and many others, have formulated the following code, based on the standard set by aforesaid institutions.

1. Competitions should not be called for on a building already in the hands of an architect, and being actually in course of construction.

2. Competitions are not admissible for buildings of a mercantile character, stores, dwellings, etc. They are also objectionable on small commissions.

Competitions may be admissible for public buildings or those of a novel or special character.

3. The promoters of an intended competition should, at the outset, appoint one or more professional assessors, architects of established reputation, whose appointment should be published in the original advertisement and instructions, and whose decision should govern the selection of the design.

The president and members of council of the P.Q.A.A. will always be prepared to act as honorary advisers to promoters in their selection of an assessor.

4. DUTIES OF ASSESSORS.—The duty of assessors should be:

(a) To draw up the particulars and conditions of the competition, in accordance with the principles set forth in this code, as instructions to competitors and also to advise upon the question of cost.

(b) To determine whether the designs submitted conform to the instructions and to exclude any which do not. When no design conforms to the express instructions they should all be excluded. (c) To advise the promoters on the relative merits of the designs submitted in the competition, and to make a selection in accordance with the conditions.

An assessor must be a disinterested party, and must abstain absolutely from competing and from acting as architect, directly or indirectly, for the proposed building, or subsequently as consulting architect during the carrying out of the work.

Every promoter and every employee of either the assessor or the promoters, must be excluded from the competition.

DESIGN EXCLUDED.—A design should be excluded from the competition for any of the following causes:

(a) If sent in after the period of date named (accident in transit excepted.)

(b) If it does not substantially afford the accommodation asked for in the instructions given to competitors.

(c) If it exceeds the limit of site of floor areas called for by the instructions. The sizes of these should be determined by the assessors.

(d) If the assessor should determine that the probable cost will materially exceed the outlay stated in the conditions of competition. The question of cost may be a material element in the consideration of an award, but competitors should not be expected to furnish guaranteed

estimates, neither should they be bound to more than about 15 per cent. above or under the named valuation.

CLASSES OF COMPETITION.—Competitions for the selection of an architect may assume one of the following forms:

(1) "Limited"—To a certain number of architects, each of whom is invited to take part.

This form is not specially recommended as it deprives the promoters of the principal benefit supposed to arise from a competition, viz: The selection of the best idea possible.

It may be advisable in special problems where expert knowledge is desirable.

(2) "Open"—To all who desire to enter.

The most desirable form of competition, specially for public buildings.

(3) In cases of local or national competitions, it is not considered a limitation to exclude strangers to the locality: for instance cities might limit competitions to their citizens, provinces to their residents, or organizations to their members.

PAYMENT.—Competitions being additional work to architects, of an extraordinary character, and for the express benefit of the promoter, should be paid for independently of, and in addition to the usual schedule of charges.

In all competitions the first prize, in addition to the premium, shall be the award of the commission to design the building and superintend its construction; and the programme should definitely state that the successful competitor will be so retained, and that he will be paid for his services, at the rate established by the P.Q.A.A.

These conditions being set forth, payments to competitors may be as follows:

(a) In limited competitions each competitor should be paid a fixed sum.

(b) In open competitions there should be a number of premiums stipulated, and to be paid in addition to the professional charges for carrying out the work.

(c) The assessor is the competent person to fix the amount to be paid as a premium.

DRAWINGS.—The number and scale of the drawings required should be distinctly set forth, and they should be not more in number or to a larger scale than necessary to clearly explain the design. Perspective drawings are not necessary, but if the assessor advises that they are desirable, it should be so stated. However, when perspectives are not called for, they should not be considered as an infraction of the programme, and shall not cause the competitor to be excluded, as the nature of his design may, to his mind, necessitate the perspective.

Drawings should be of uniform size. Mode of coloring, mounting, and framing to be identical. This should be distinctly stated in the programme.

No design should bear any motto, device or distinguishing mark; but all designs should be numbered by the promoter or by the assessor, before being opened.

Any attempt to influence the decision of the promoters or the assessors should disqualify a competitor.

Each design should be accompanied by a declaration, signed by the competitor, stating that the design and drawings have been prepared in his own office and under his own supervision.

EXHIBITION.—It is desirable that all designs admitted in a competition, should with the consent of their authors, be publicly exhibited after the award has been made, which award should be published at the time of the exhibition.

COMMISSION ALLOTTED.—The Architect, whose designs may be selected as the best, shall be employed to carry out the work. If no instructions are given him to proceed within twelve months from the time of selection, he should receive compensation according to the schedule of charges established by the P.Q.A.A., which sum is to be merged in the usual professional charge when the completion of the design is proceeded with.

CONDITIONS.—The conditions of the competition should be drawn up so as to form a contract. They should:—

(a) Name the owner of the structure forming the subject of the competition and state whether the owner institutes the competition personally or through representatives. If the latter, name the representatives, state how their authority is derived and define its scope.

(b) State the kind of competition to be instituted, and in limited competitions, name the competitors; or in open competitions, if the competition is limited geographically or otherwise state the limits.

(c) Fix a definite time and place for the receipt of the designs. The time should not be altered except with the unanimous consent of the competitors.

(d) State the (approximate) limit of cost, if fixed; the desired

accommodation and the conditions of the site, giving a plan and profiles of the ground. In some very important competitions, it is desirable to give raised models of the grounds.

(e) Fix the uniform requirements for the drawings, giving the number of drawings, the scale, and the method of rendering. (Only the strict requisites should be asked for.)

(f) State whether the submission of more than one design by a competitor is forbidden or allowed.

(g) Name the judge or jury. Define his or their power.

(h) Provide that during the competition there shall be no communicating upon anything relating to the competitions, except in writing, between any competitor, on the one hand, and the owner or representative of the owner, the professional assessor or any juror, on the other; and that any information, whether in answer to enquiry or not, shall be given, in writing, simultaneously to all competitors.

Fix a date after which no questions will be answered.

(i) Provide for the placing out of competition any drawing which violates the terms, or any set of drawings whose authors have so far disregarded the terms as to deserve the extreme penalty.

(j) Fix the number, nature or amount of the awards.

(k) State whether the assessor (or professional jury upon vote) is to make the award.

(l) Fix the period of time wherein the final decision will be rendered.

(m) Provide for sending the decision and a copy of the report of the professional adviser or of the jury to each competitor.

(n) Provide that no drawings shall be exhibited or made public until after the award.

(o) Provide for the return of unsuccessful drawings to their respective authors within a reasonable time, and provide that nothing original as to this competition in such designs shall be used without compensation to the author of the design in which it appears.

The discussion on the above report was taken part in by Messrs. Doran, Hutchison, Gauthier, Amos, Nobbs and others. Mr. Doran strongly objected to the general principle of competitions and insisted on the necessity of adequate compensation for all work done. The clause regarding remuneration for competitive drawings called forth a good deal of discussion, Mr. Gauthier contending that these should be considered as something more than preliminary sketches, Mr. Doran suggesting that competitive work should be made to include working drawings and specifications and that these should be paid for at the usual rates.

At the afternoon session, which opened at 3 o'clock, Mr. J. S. Archibald, President, in the chair, there were seventeen members present. The Special Committee, appointed to make a report on the amendment of the Charter & Bye-Laws, submitted to the meeting certain amendments, prepared by the legal adviser of the Association, M. Beauduin. It was pointed out by the President that, owing to the great difficulty experienced in enforcing the rights of the Association under the charter as at present made out, it was felt necessary to have the charter made in some way more effective. That, although the charter was intended to give the Association the power to prevent unqualified persons acting as architects, and the power to prosecute members for arrears of subscription, yet practically these were operations of great difficulty and expense. Mr. Lacroix pointed out that the clauses under consideration were not in any way an amendment of the purport of the charter, but were simply a means of making the charter efficient. After discussion, in which Messrs. Venne, Hutchison, Vanier and others took part, it was proposed by Mr. Hutchison, seconded by Mr. Lemieux, that the suggestions of the legal adviser of the association be adopted and presented to Legislature during the present session or the next.

The following is the Report of the Committee on the above matter :—

REPORT OF LEGAL COMMITTEE.

MONTREAL 10TH. NOVEMBER, 1904.

TO THE MEMBERS OF COUNCIL: In accordance with the instructions received, your committee have taken into consideration the resolution passed at the last annual meeting with respect to preparing "a scheme of amendments to the charter, if necessary, and to part of the by-laws concerning the election of officers and council," and now beg to report as follows :

1st. With respect to the Charter :

Your committee having met with difficulties in the endeavor to enforce certain clauses of the charter, requested your legal adviser to draft certain amendments pertaining to the instituting of actions for illegal practising and for collection of arrears. We append for your consideration, the said amendments.

Your committee having carefully considered the clauses of the charter, in all its bearings, and the suggested amendments, after nature consideration, have come to the decision that they are entirely inadequate and fall far short of the requirements. The charter safeguards neither the interests of our profession nor those of the public.

Some radical amendments are necessary in order to gain this desired end, but after our previous experience, we consider that it would be impossible to get the necessary legislation by means of a private bill. We recommend that steps be taken to bring the matter before the Government of the day and that all due pressure be brought to bear upon them, in order that the Government may recognize the importance of the subject as one not merely affecting the interests of our profession but the wider field of public good, and be influenced to take up the matter as a public measure, as it is essential that the same standard of efficiency should be established by law in architecture as is required in the other learned professions.

2nd. With respect to the amendments to by-laws governing election of officers and council.

Your committee have carefully considered the said by-laws and while acknowledging that there is room for improvement, we do not consider the present an opportune time to make any change in same.

Reported by,

Respectfully yours,

(Signed) J. S. ARCHIBALD.

W. E. DORAN.

J. E. VANIER.

PROPOSED AMENDMENTS TO CHARTER REFERRED TO IN FOREGOING REPORT.

The second paragraph of section 13 is replaced by the following :

Any person who, after the time above mentioned, not being registered as a member of the said Association, takes or makes use of any such name, title or designation, as above mentioned, is liable to a fine not exceeding twenty-five dollars for the first and not exceeding one hundred dollars for every subsequent offence.

13a. Prosecutions undertaken for the recovery of the fines imposed in virtue of said law can be instituted by the Association or any individual before the Judge of Sessions, the Police Magistrate, or the Recorder, in the cities of Montreal and Quebec; or before a District Magistrate or a Justice of the Peace at the place where the offence was committed in other parts of the provinces; or before any other competent court of justice of the locality where the offence was committed, by simple civil action in the ordinary manner.

13b. In default of immediate payment of the fine and the costs, these shall be levied by way of execution and sale of chattels of the defendant, and in case the chattels be not sufficient to pay them the defendant shall be incarcerated at the common jail of the district for a period not exceeding ninety days, unless the fine and costs shall be previously paid.

13c. In all prosecutions instituted in virtue of article 13 it rests with the defendant to make proof of his right to practice the profession of Architect or to take one of the titles mentioned in said article.

13d. Any person otherwise competent to render evidence in an action or prosecution in which the corporation is a part, shall not be held to be incompetent by reason of the fact that he is a member or officer of the corporation.

13e. In all prosecutions instituted in virtue of clause 13 for

recovery of the fines imposed, the proof of the offence can be established by the evidence of a single witness.

13f. All fees, penalties, and fines recovered in virtue of section 13 of this act shall be the property of the Association of Architects of the Province of Quebec, and shall become part of the general funds.

The Special Committee on the recognition of degrees to be given by schools of architecture then submitted the following report :—

REPORT OF THE COMMITTEE NOMINATED BY THE COUNCIL TO CONSIDER THE MOTION OF JANUARY 28, 1904, BY MR. W. E. DORAN, TO ADD TO BYE-LAW 8.

Motion.—It is moved by Mr. W. E. Doran, seconded by Mr. J. S. Archibald, to add to bye-law 8.

“Candidates for admission to registration as architects who have graduated from recognized schools or colleges of architecture after a full course of four years and who shall present certificates of having successfully passed at such schools or colleges their final examination in any of the subjects prescribed by this bye-law shall be exempted from further examination in such subjects.”

After discussing Mr. Doran's motion and considering that the said motion might infringe certain privileges of the association.

It was moved in amendment by Mr. Raoul Lacroix seconded by Prof. P. E. Nobbs and carried :

That the question be referred to a special committee to be nominated by the council and to contain the proposer and second of this amendment who shall report to a general meeting of the association.

The committee begs to report in favor of the proposed amendments to bye-law 8, on the ground that subjects prescribed for the final examination of the Province of Quebec Association of Architects are covered on a satisfactory standard by certain college courses in Architecture.

The committee further recommends

(1) That graduates of recognized architectural colleges shall be required before admission to have passed at least one year in an architect's office subsequent to graduation.

(2) That further test of such practical knowledge as is required for the profession of architecture be instituted with the final examination of the Province of Quebec Association of Architects.

Mr. Jos. Venne strongly opposed the suggestion that graduates from recognized schools of architecture should be entitled to become members on presentation of their diplomas and a farther examination in practical matters. He pointed out that this would mean a deleg-

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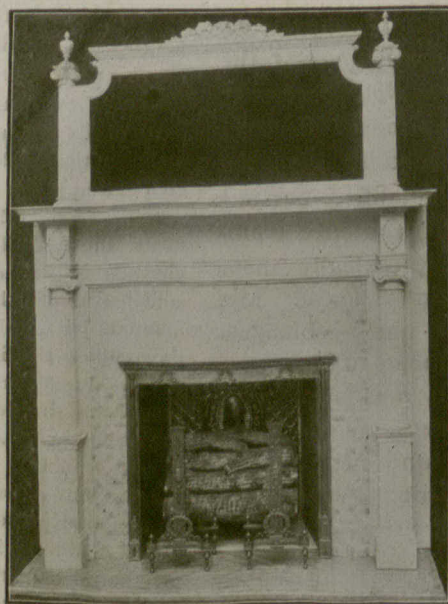
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ation to the other organizations of the right to set the standard in certain subjects for admission to the Association, and that, however high the standard aimed at by these organizations might be, it was unreasonable to expect any association to relinquish so far the control of the entrance to its own membership. If the standards proposed were higher than those required by the association, there would be the less difficulty encountered in passing these by students who had graduated at the schools. He would have no objection to exempting such students from paying unnecessary fees in such circumstances.

Prof. P. E. Nobbs said the clause in question was introduced in the hope of encouraging architectural students to undergo a systematic training and thereby raise the whole standard of architectural education. The Association at present did nothing for architectural education. He strongly urged the establishment of definite relations between the Association and the schools of architecture in the Province. Amongst others his own department at McGill University would, he felt, incidently receive much encouragement from being brought into that practical touch with the profession in the city which the cause aimed at. The mere passing of the examination set by the Association was not the unique qualification for membership that Mr. Venne's view seemed to imply. The recent admission of Messrs. McKim, Meade and White was made very properly on their credentials, and, though it

might be arguing somewhat from great things to small, he thought that students who devoted four sessions to a special study of their profession, passed a recognized standard of efficiency, and then underwent a period of practical training in an office, held credentials of a much more satisfactory nature than the passing of the entrance examination could afford.

Mr. Hutchison thought students with a training of an architectural school must acquire a more liberal education than could be picked up in offices or gathered by private study at home.

After some discussion, a motion, made by Mr. Jos. Venne seconded by Mr. Heriot, "that the Report be laid on the table", was carried.

On a motion of Mr. Jos. Venne seconded by Mr. J. E. Vanier it was resolved that the \$600, set aside for Scholarship Fund but not awarded, should be replaced in the General Fund.

It was resolved on a motion by Mr. Jos. Venne seconded by Mr. Alcide Chaussé that the next annual meeting be held at Quebec.

STANDARD SIZE OF BRICK.

In 1902 a Conference of Architects, Engineers and Builders and Makers was held, and adopted a length equal to two widths, plus one joint, and brickwork in height should measure four brick and four joints per foot.

NEW PAVILION FOR TORONTO.

The Toronto City Architect has prepared two plans for a new pavilion in the Horticultural or Allan Garden, to replace, on the same site, the old pavilion which was destroyed by fire. The first plan estimated to cost \$200,000, has a hall to seat 1,350 persons, with cloak rooms at the entrance and an upper storey containing supper rooms and a kitchen. The other plan, estimated to cost \$130,000, will seat only 1,070 and the supper rooms are in the basement. The old pavilion seated 1,800, and the Toronto public has not decreased since it was in use.

NEW POST-OFFICE AT TORONTO.

Sir William Mulock, Postmaster-General, has announced that the proposed post-office building on Front street will occupy a strip of land beginning at the south-east corner of Bay and Front streets, extending eastward a distance of 250 feet, and to the south as far as the railway tracks. An agreement on this site has been reached between the Post-office Department and the Grand Trunk Railway Company.

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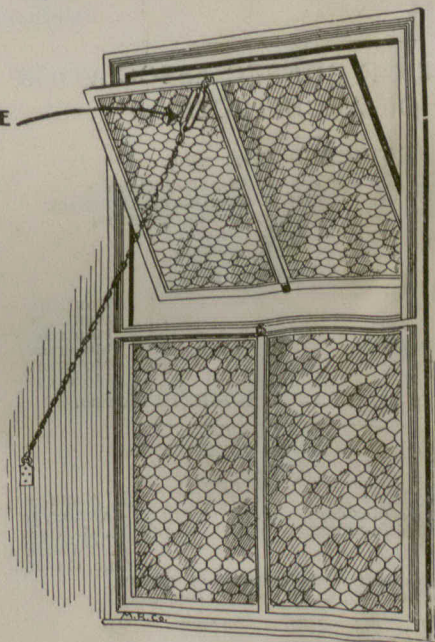
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An amalgamation has been made between the offices of Messrs. Sproatt & Rolph and S. G. Curry, Toronto. The combination will be known as Sproatt & Rolph, architects, S. G. Curry, consulting architect.

There are some 25 firms comprising the list of architects in South Africa and of these 13 are in the Transvaal. Most of the names have the letters F.R.I.B.A. or A.R.I.B.A. after them so that the country may be said to have a good start in the way of architects. The native style, if it has any real expression, except in houses like that of Cecil Rhodes, where, for purposes of sentiment the most is made of what style there is, is not particularly expressive, but they have that great advantage for architectural style a definite climate which, if it has extremes has them only on one end of the thermometer; not like ourselves who combine the climates of the extreme limits of Russia on one parallel of latitude.

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are now manufacturing

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IN ARCHES, BLOCKS AND FURRING

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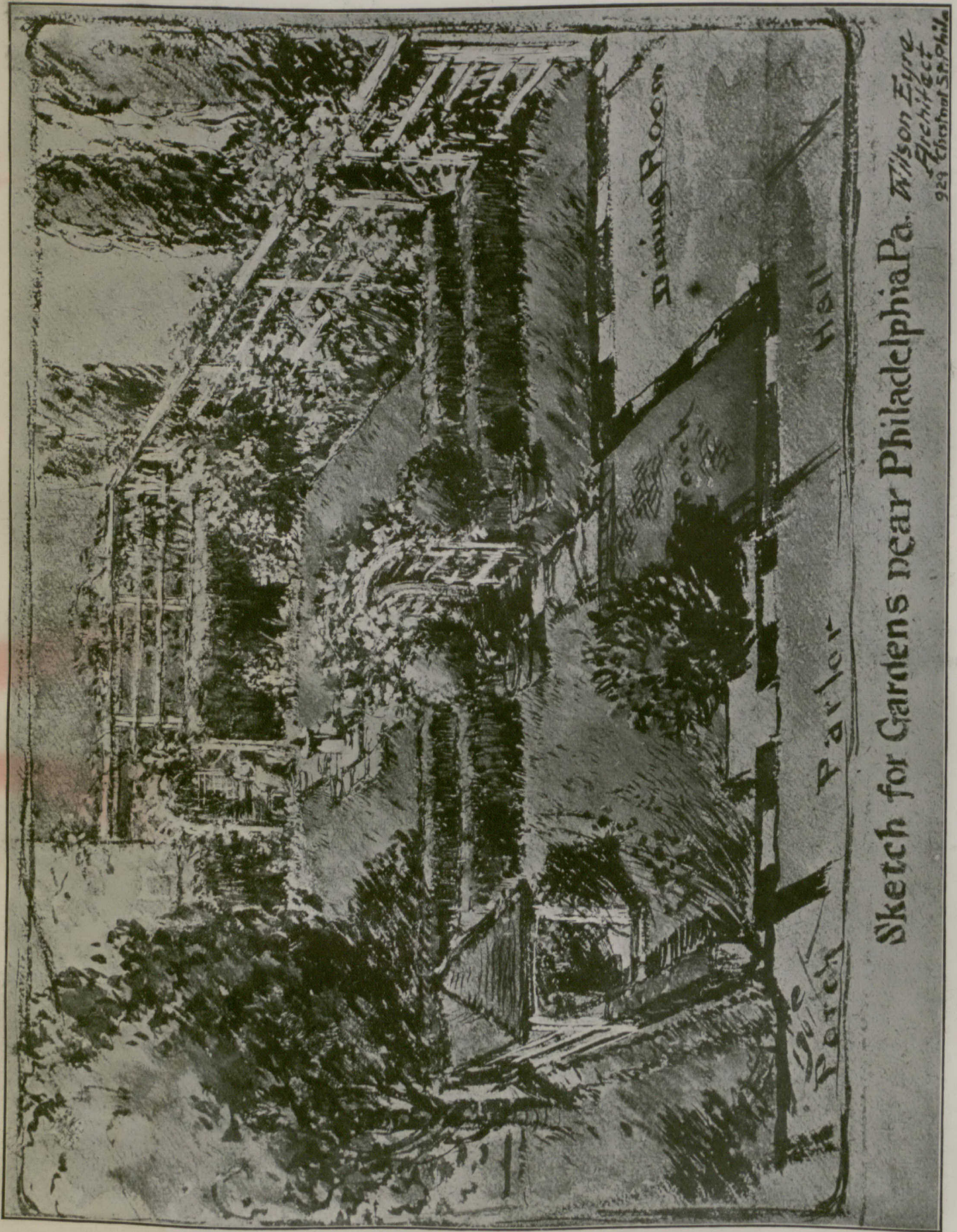
HEAD OFFICE:

36 Toronto Street, TORONTO

MONTREAL AGENTS:

DAVID MCGILL
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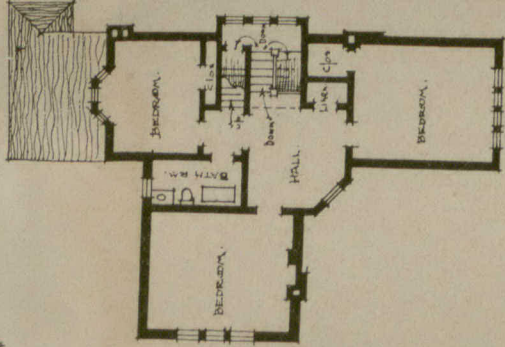
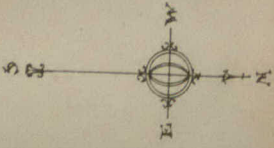
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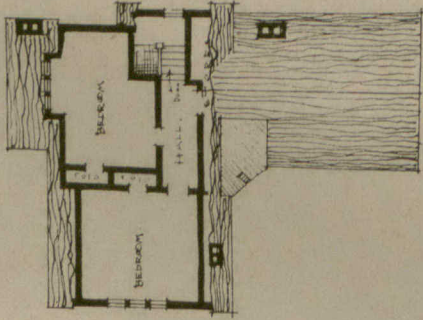
DRAWING BY MR. WILSON EYRE IN EIGHTEEN CLUB EXHIBITION, TORONTO.

C. A. & B. STUDENTS' COMPETITION
A HOUSE IN A COUNTRY TOWN.

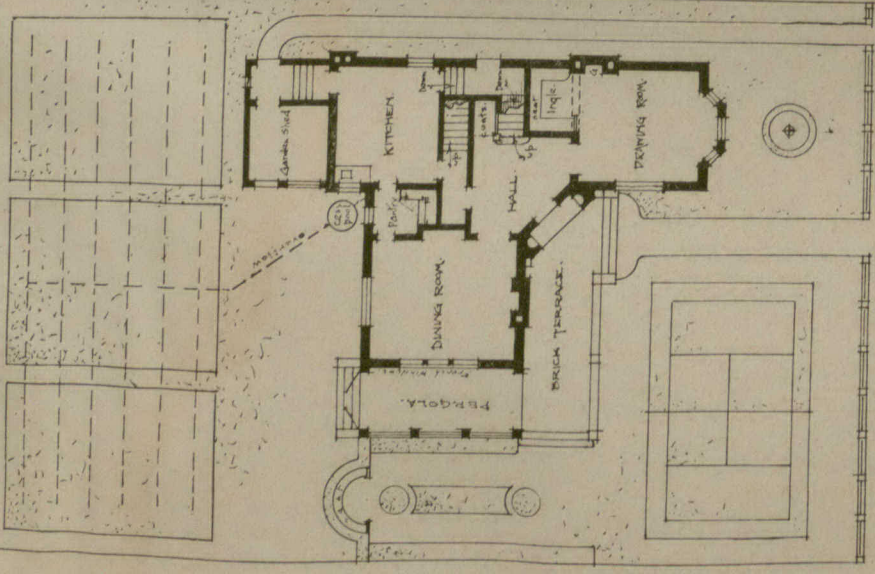
by "GHOST"
1904-1905



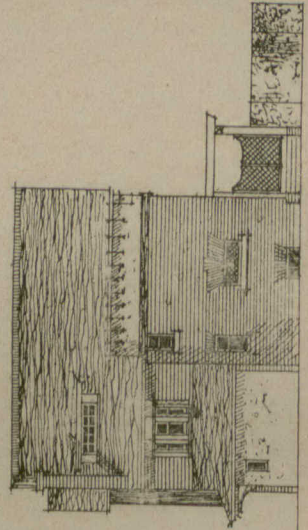
FIRST FLOOR.



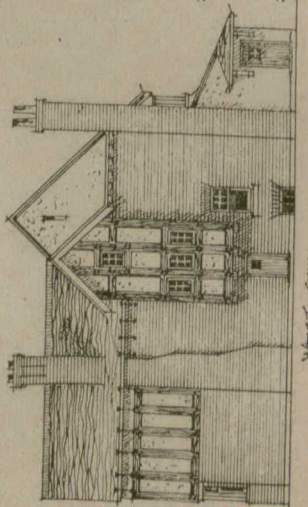
ATTIC.



DECK PLAN

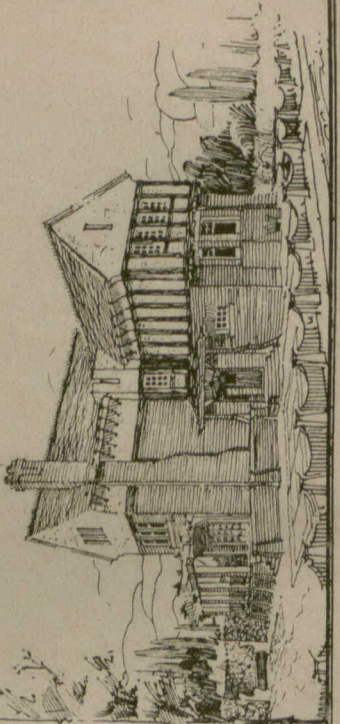


REAR.

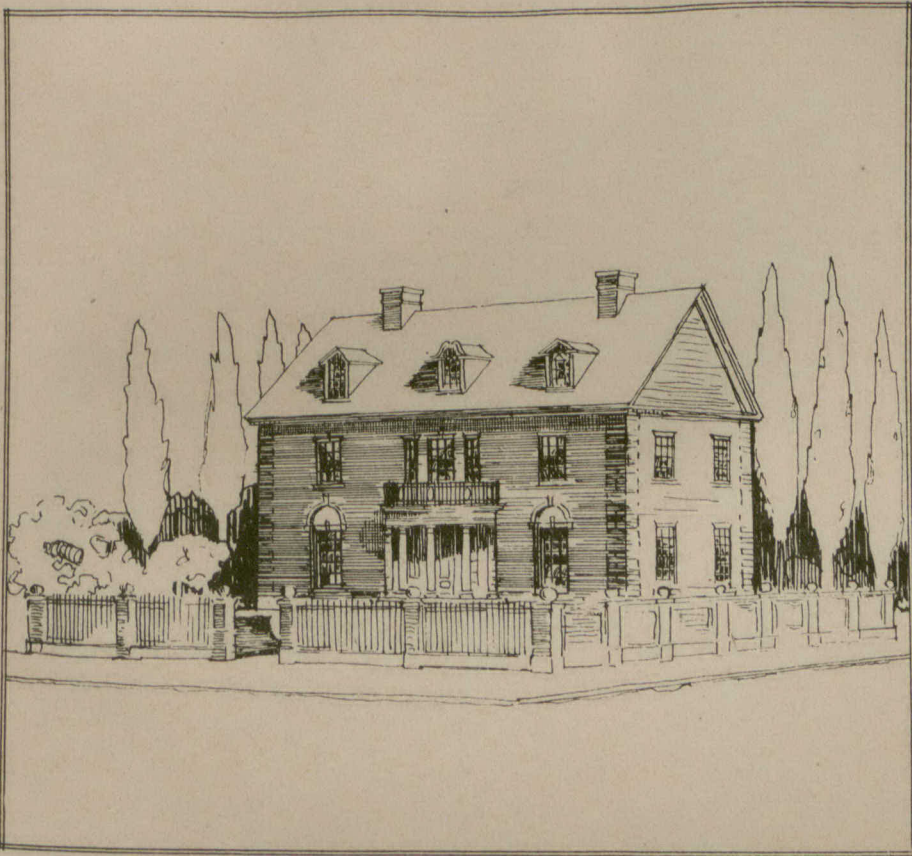


West Elev.

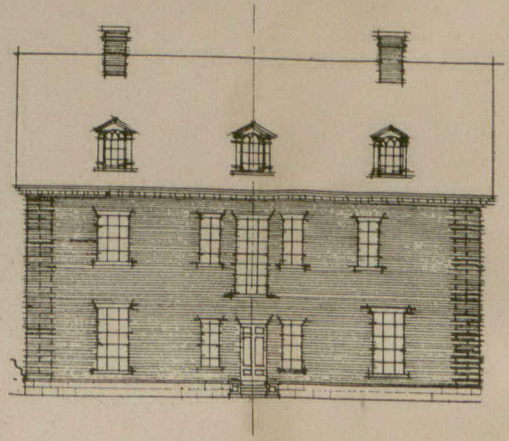
PERSPECTIVE SKETCH.



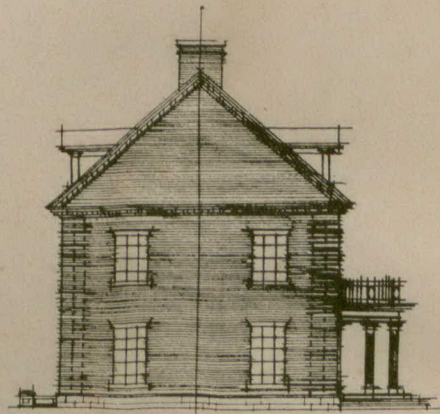
C. A. & B. STUDENTS' COMPETITION. DRAWING BY "GHOST," MR. W. B. VAN EGMOND.
AWARDED FIRST PRIZE.



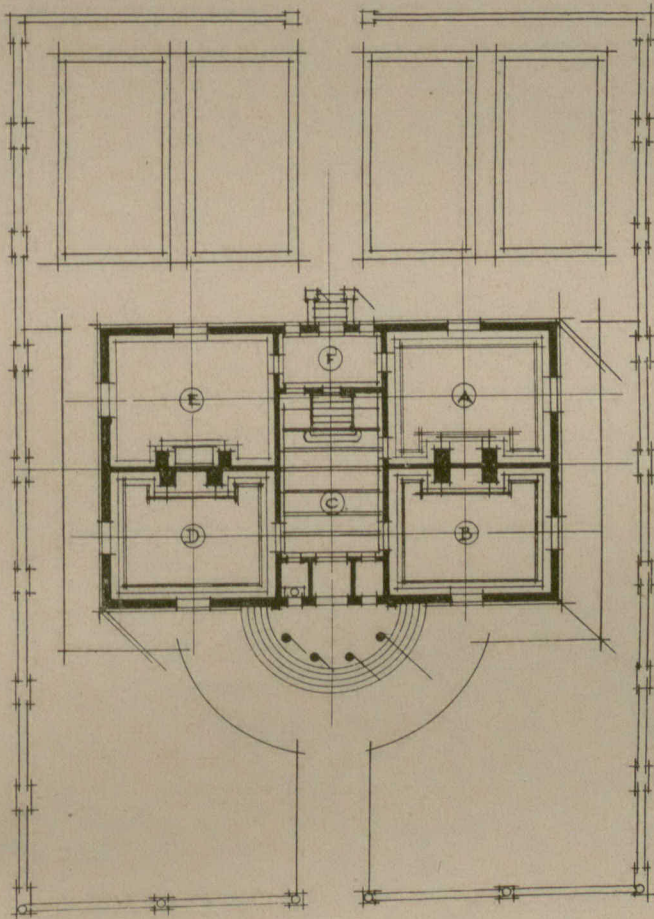
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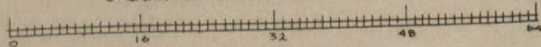
SOUTH ELEVATION.



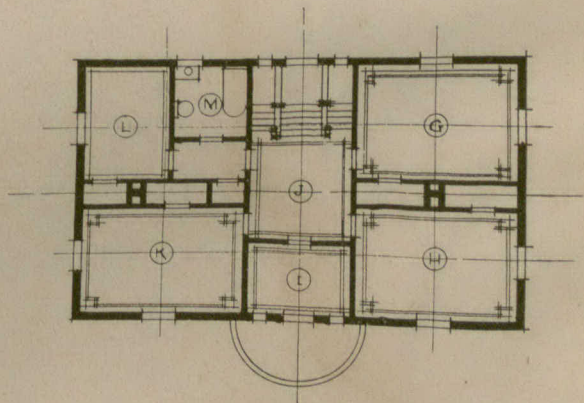
EAST ELEVATION.



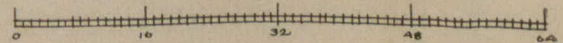
FIRST FLOOR PLAN



A	DINING ROOM
B	PARLOR
C	HALL
D	LIBRARY
E	KITCHEN
F	PANTRY



SECOND FLOOR PLAN



G	CHAMBER
H	CHAMBER
I	SITTING RM
J	HALL
K	CHAMBER
L	CHAMBER
M	BATH ROOM

C. A. & B. STUDENTS' COMPETITION.

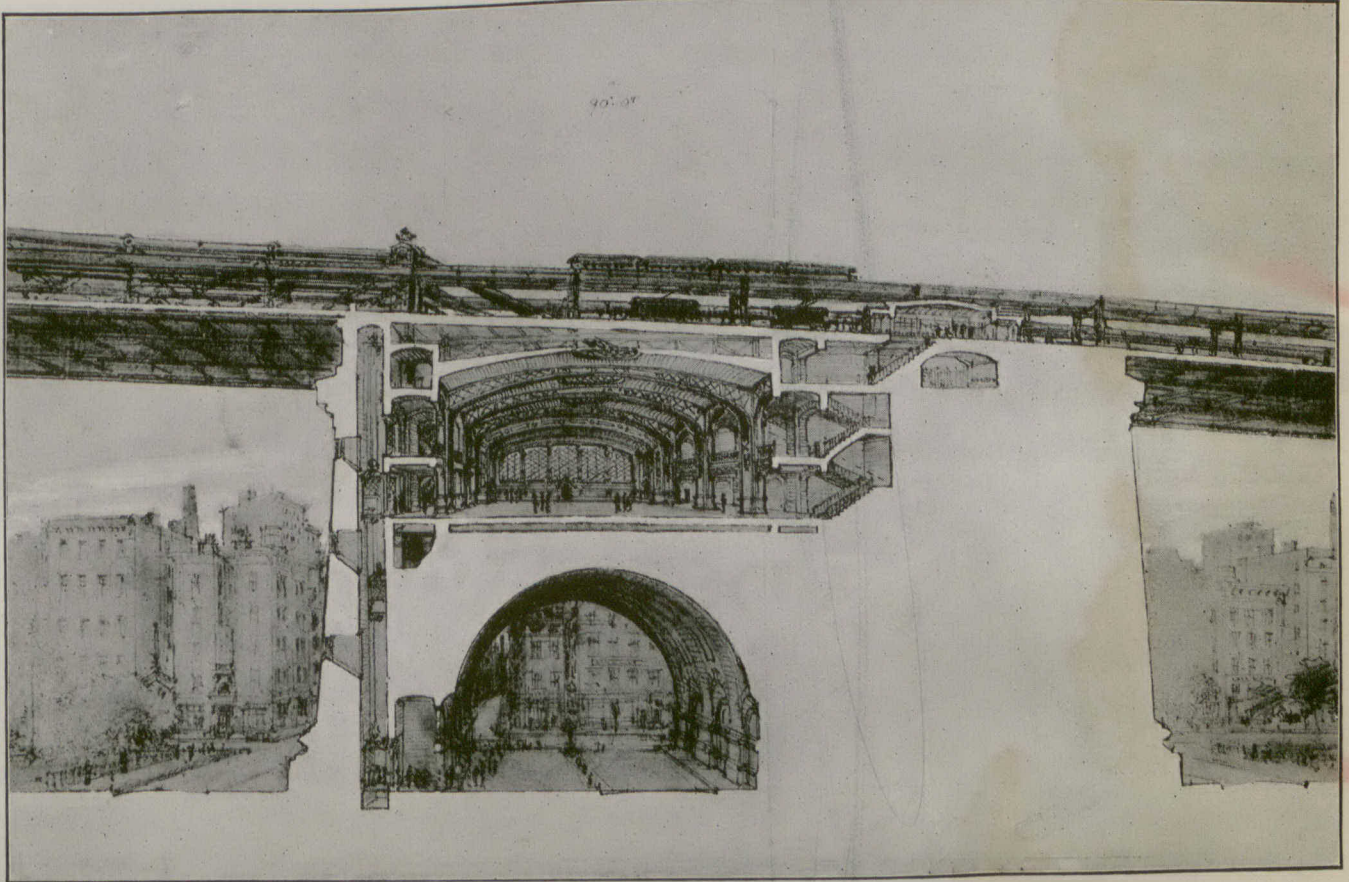
DRAWING BY "COLONIAL," MR. S. DOUGLAS RITCHIE.

AWARDED SECOND PRIZE.



BLACKWELL'S ISLAND BRIDGE, EAST RIVER, NEW YORK. MESSRS. PALMER & HORNPOSTEL, ARCHITECTS, NEW YORK.

Reproduction of a portion of drawing in the Eighteen Club Exhibition, Toronto.



SECTION SHOWING STATION IN ANCHORAGE OF MANHATTAN BRIDGE, EAST RIVER, NEW YORK.

MESSRS. PALMER & HORNBOSEL, ARCHITECTS, NEW YORK.

From the drawing in the Eighteen Club Exhibition, Toronto.



CHURCH AT COHASSET,

BY MESSRS. CRAM, GOODHUE & FERGUSON, BOSTON, MASS.

From a photograph in the Eighteen Club Exhibition,
Toronto.

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