

CANADIAN

ARCHITECT AND BUILDER



VOL. XII




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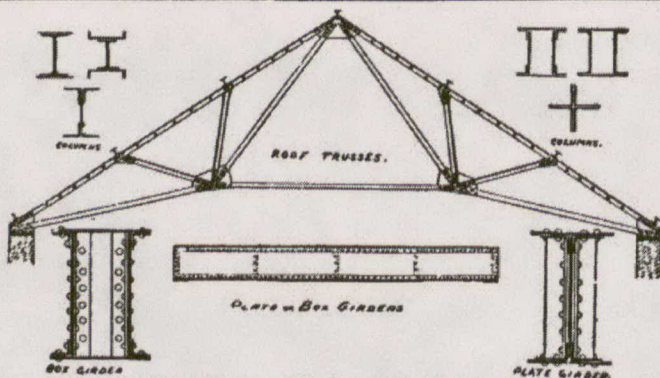
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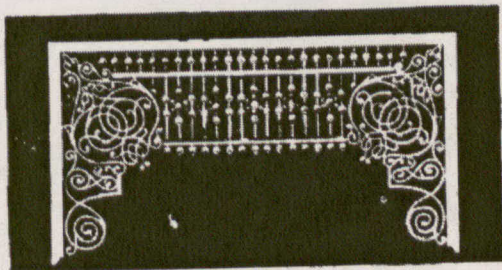
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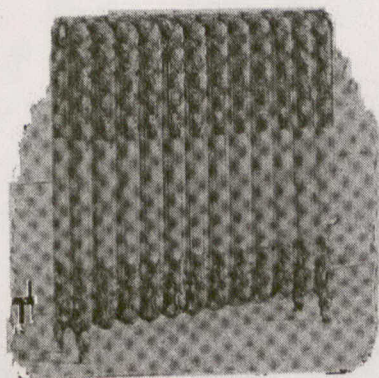
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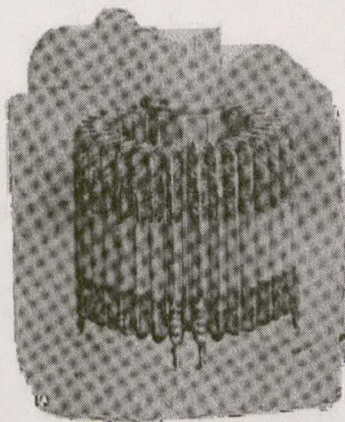
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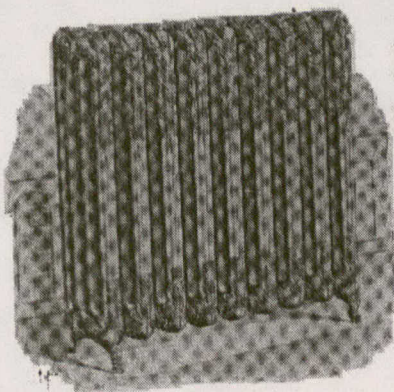


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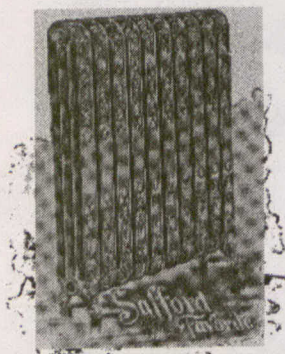
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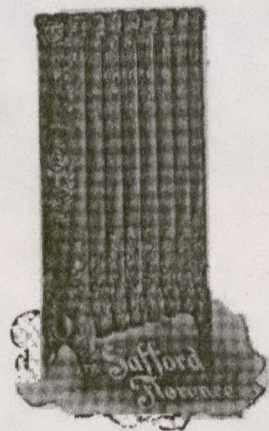
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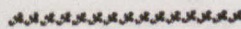
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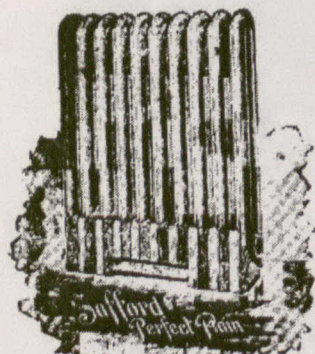


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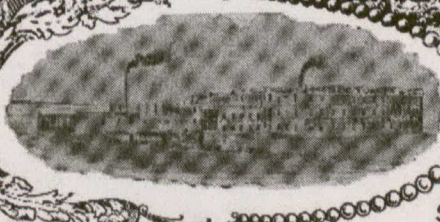
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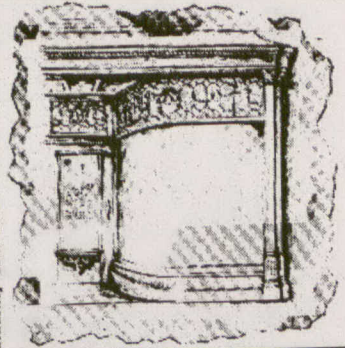
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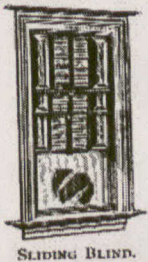
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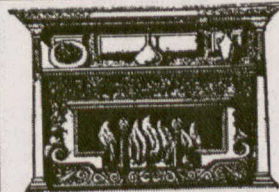
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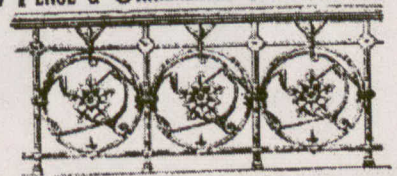
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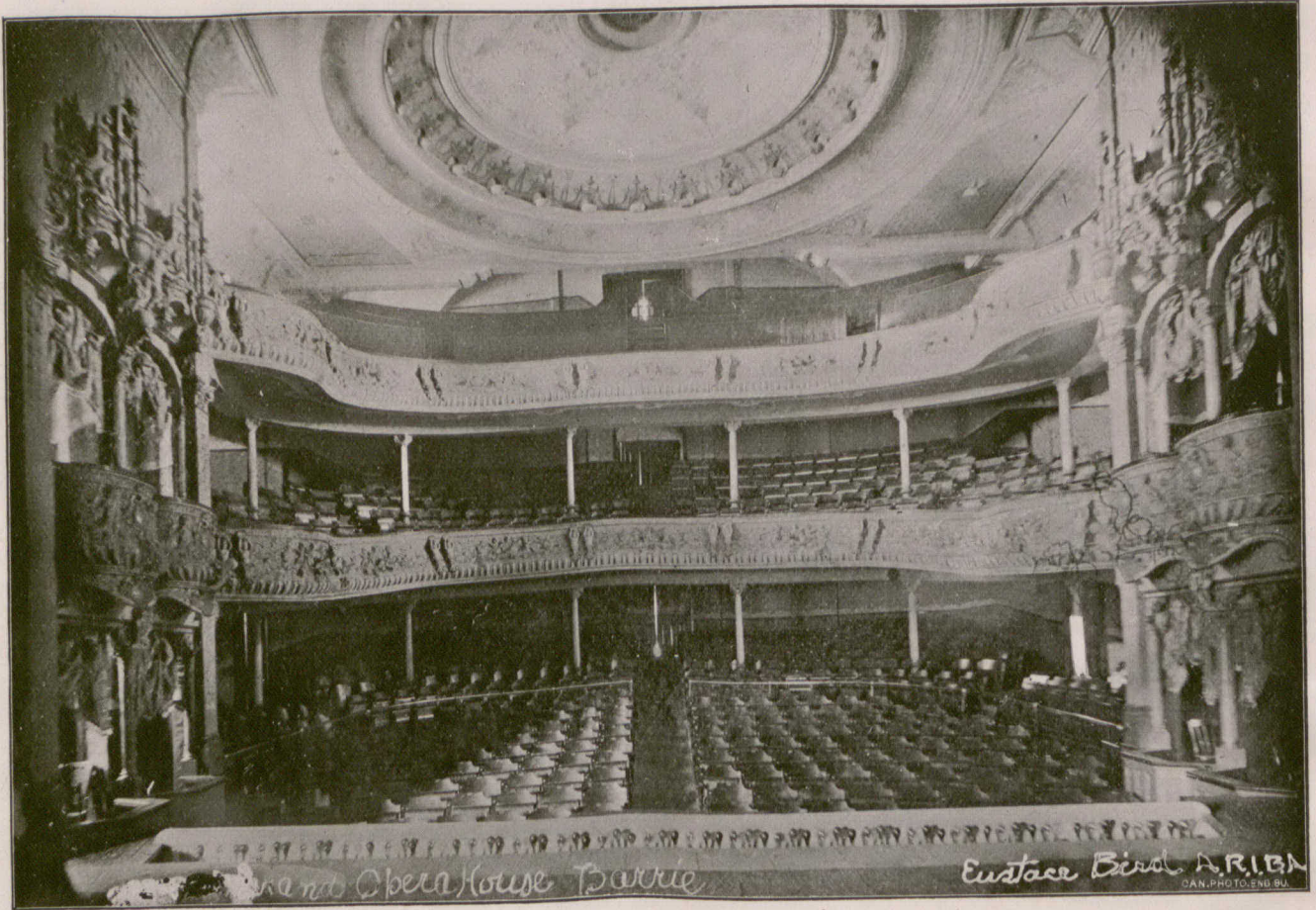
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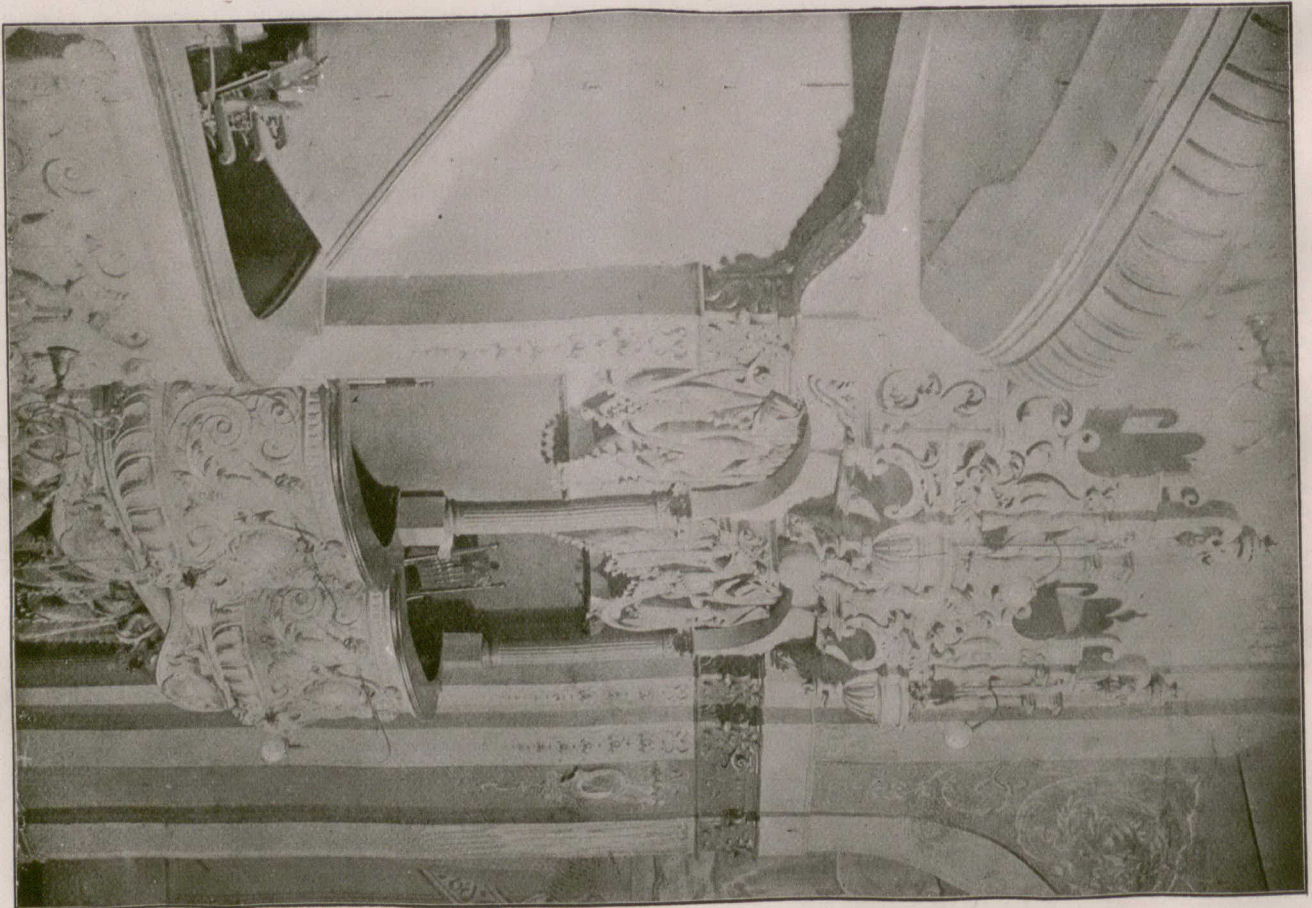
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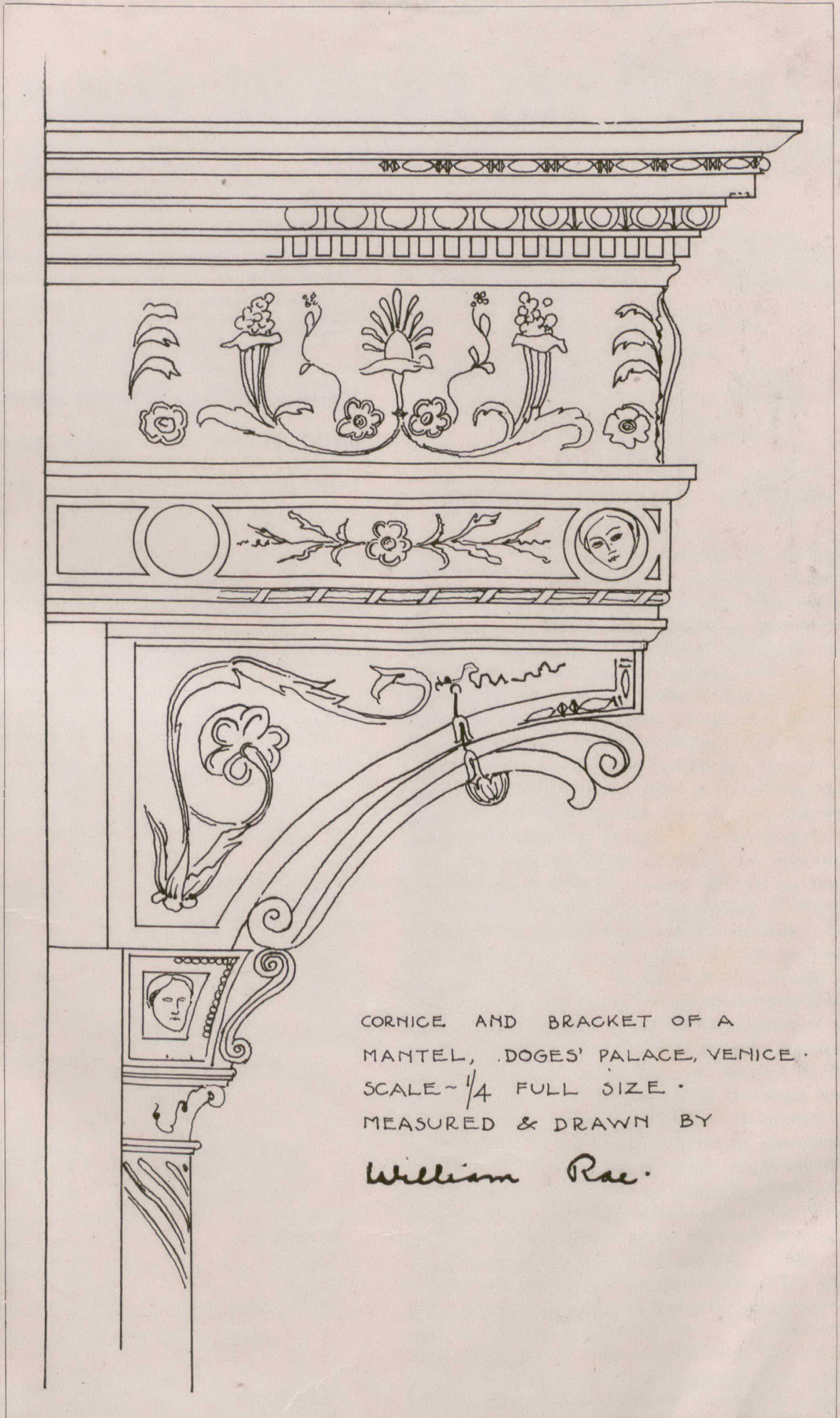
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VOL. XII.—No. 1.

JANUARY, 1899

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The Ontario Association of Architects. The annual convention of the Ontario Association of Architects seems to promise some result. The fulfilment of the idea with which the Association was founded, that of making the title "Architect" a degree attainable only by an educational process, was for many years considered to be only deferred for a time; but it seems that there is no near prospect of legislation effecting this end. If the Association is to exist at all it must exist as a voluntary Association, and to those members of the profession who are unwilling that it should cease to exist the idea of a voluntary Association seems to be pleasing enough. The intercourse with each other and exchange of ideas and information, which constitute the main motive of such an Association and are necessary for its life, should, if effectively carried out, be very profitable to its members. But it is no light task to make a success of such an Association among a body of hardworked professional men, who have little time to think when the preparation of a really interesting paper means the expenditure of much time in thought. Yet such things come by practice and the Association is most likely to succeed by boldly launching upon a career of monthly meetings for the discussion of professional subjects. One meeting a year will not fulfil the purpose of a voluntary association in this respect. It would be, of course, necessary to have a sub-committee devoted to procuring the papers for these meetings, and it would be necessary for this committee to be beforehand with its work and arrange for papers a long time before their delivery. If this is done not only will the busiest man have some time for the preparation of his paper, but the principal function of a paper is more likely to be fulfilled. The principal function of a paper is to deal, not with ideas, but with facts. When a scientific man reads a paper upon an eclipse of the sun, an earthquake, or even the brief passing of a tornado, he recites not what he thought or felt but what he said; and an artist among artists or a constructionist among constructionists will similarly give them best

what they want to know by giving as few personal opinions as possible and as many facts—what proceeding, either in construction or decoration, produced what result. To accumulate facts of this kind for a paper, it is desirable that the subject should be determined as early as possible in the year in which it is to be delivered; that the mind may, as it does when there is a necessary topic of thought lying in it, receive impressions from what the eye would otherwise look at without heeding. It is in this way that original papers are made, and it is this process that repays the paper reader, for, however much he may impart to others, he acquires more himself.

Among the other suggestions as to what the Association might do, that of presenting a medal in recognition of merit in design is interesting, and may be worked out. There is evidently a great setting of public taste on this continent in the direction of architecture. Something in the way of municipal recognition of good design is already being talked of. It is perhaps early yet for us in this province to regard with reverence a municipal stamp of approval upon an architect's work, but the approval by architects of the design of one of their number may be regarded as a correct pointer to merit; and it is probable that in the growing state of public interest in architecture such distinction for an architect would attract attention and be of solid value to the recipient.

The proposal that members of the Association should take the title "Registered Architect" seriously and adopt it for their letter heads, etc., seems a good one. As was pointed out in the Convention by the turn things have taken, this title has now some merit as a distinction. Its adoption will certainly help the esprit de corps of the Association, and it may be a professional advantage to those who are entitled to use it. There seems no reason to suppose that the title "Architect" will become debased in this province by the preference thus given to a combination title; for, in the adjacent province and in the neighboring state, where the distinctive title of the profession is given a legal force greater than that which will attach to the title "Registered Architect," it is the old and proper title "Architect" which is employed; and there are indications that the initiative thus taken will be followed in other states before long.

#### The Eight Greatest Facades.

A RECENT voting contest was held by the readers of the Brochure Series of Architectural Illustration to determine which were the eight greatest facades in the world. The "greatness" was to be considered from a purely architectural point of view, not from that of historic or other interests. No limitations of style or period were imposed. The contest resulted in the choice by consensus of the following facades, the order of preference being indicated: (1) Notre Dame Cathedral, Paris; (2) The Parthenon, Athens; (3) The Opera House, Paris; (4) St. Mark's Library, Venice; (5) St. Peter's, Rome; (6) Amiens Cathedral; (7) The Farnese Palace, Rome; (8) The Ducal Palace, Venice. It is curious and interesting to find in this list of the eight greatest facades in the world that the three first are examples of the three classes of design into which architecture may be divided. The first is the constructional style, in

which construction forms the motive and the parts are proportioned only with regard to their function. The second is the style which proportions its parts in conformity to abstract beauty rather than to the bare necessities of construction. The third class is architecture in which the motive is display. It is a hopeful sign that, in a country which is developing new methods of construction, the first place should be given to a great example of the style which succeeded in developing beauty at the same time as it developed scientific construction. The other examples in the list are, with the exception of Amiens Cathedral, of a mixed character, and have less significance for this reason. If influence on subsequent work is a test of greatness, the Farnese Palace as the leading example of the type which has begotten the modern tin cornice is well placed; but it seems an easy triumph, and one would have thought the Ducal Palace, though it has had so little influence in comparison, should have been ranked above it.

#### Effect of Frost on Cement Mortar.

MR. A. O. Hobart, Fellow of Civil Engineering of the University of Illinois, draws from a series of recent experiments the conclusion that cement mortars, made either with natural or Portland cement, if frozen in the presence of water, are likely to be disintegrated and destroyed; but that, if extraneous moisture is kept away from them, natural cement mortars, if allowed to set from three to six hours, are improved by subsequent freezing; while mortars of Portland cement, under such circumstances, lose strength, particularly when mixed with a large excess of sand. Moreover, while mortars of natural cement usually suffer a slight surface disintegration by freezing, although the total resistance of the briquette is greatly increased, briquettes of Portland cement mortar show no change on the surface, although their strength may be almost entirely destroyed.

#### TORONTO CHAPTER OF ARCHITECTS.

THE regular monthly meeting of the Toronto Chapter of the Ontario Association of Architects was held at the School of Practical Science on Monday evening January 9th. The attendance was not up to the average owing to the prevalence of la grippe amongst the members. Those who did turn out however enjoyed a very interesting evening. The annual report to the Association was read and approved. Mr. J. W. Gray read a paper entitled "Some Notes on Tall Building Construction," which was attentively listened to and fully discussed. The balance of the evening was spent looking at lantern views which were thrown on the sheet under the management of Mr. Wright and Mr. Harkness of the school. A cordial vote of thanks was offered to all these gentlemen. The chair was occupied by the Vice-Chairman Mr. F. S. Baker, in the absence of the Chairman, Mr. G. Helliwell.

In the course of excavations necessary for the putting in of the foundations of a villa to be erected near Hammersmith Bridge, Eng., there has been found, some 9 feet below the surface, the paved floor of a Roman villa. The design of the pavement consists of half-circles, circles, and triangles, bordered with what would appear to be geometrical patterns or figures. In the area of the circles are depicted leopards and sea-dragons pursuing dolphins. In the centre compartment are what appear to be dogs chasing foxes. In the spaces between the circles and the triangles are drawings representing the heads of Neptune, Venus, Jupiter, Mars, etc. Another design, in remarkable preservation, is believed to represent Actæon attacked by his hounds. There are also heads of Flora and of Ceres, Silenus mounted on an ass, a fine head of Medusa, and a vine-leaved Bacchus. These tiles are laid upon a bed of concrete supported upon brickwork, which again, in its turn, rests upon rammed-down clay.

### CHARACTER IN MATERIAL.

It was asserted in the October number of this journal that the indefinable but attractive quality which in literature we call Style, exists in architecture also; not in following any of the historic manners which we call the styles, but in the enjoyment and expression of the three practical bases of architecture, plan, construction and material. In the November number, the essential character of the building was said to reside in the plan. In last month's number, the life of the design was found in its constructive needs. We come now to consideration of the intimate connection between good detail and perception of the limitations of the material in which it is wrought. The snare of the imitative designer, who works from a model, is that he is working from outside, and is often found to be forcing upon the material he is obliged to use conditions, belonging to that used in his model. To pattern a wooden erection after a stone example, is no more good design than were the early Greek stone imitations of wooden construction. An original designer works the other way, from within outward, and finds in the requirements of plan, in the necessities of construction, and finally in the limitations of material, suggestions for form and opportunities of beauty.

It does not seem at first sight as if much success would attend the process of decorating a window with a figure subject in colour, made by piecing together, by means of lead strips, pieces of coloured glass somewhat imperfectly matched and roughly blended. But it has been found that due regard for these limitations and the fact of transparency, transforms them from hindrances to the very source and ground-work of beauty. There is no limitation which is not a source of beauty. The discovery now applied to luxfer prisms, that glass quarries can by the electrical deposition of metal between the joints, be set true to a plane, instead of, as in leaded work, at slightly varying inclinations to the light, will be no help to coloured windows if applied to them; the very variation of the greets in coloured work is one source of richness in the colour, and for plain leaded work, as in the ordinary diamond pane, it is the source of the variegated gleam which makes these windows so picturesque on the outside. This is an illustration of a principle, which applies equally to all materials: mechanical skill displayed in overcoming the conditions of a material, whether in refining them out of sight, or in making the material imitate the conditions of some other material is fatal, both to the workman who thereby ceases to be an artist, and to the work which thereby ceases to be a work of art.

Not only the short road, but the only road to good architectural detail is to work with the material and try to bring out its qualities. Wood as we use it, is a thin material from one to two inches thick as a rule. It is possible by means of raking mouldings and other processes of building up, to confuse this characteristic with the characteristics of other materials, and thereby lose one essential of beauty in design by losing the character of the material. Wood thus built up, may be said to look like wood of greater thickness, but it does not. In the first place it comes to be used in places where such thick pieces would be out of place, and the eye that is satisfied with the appearance so made, is an eye which has lost perception. But even the inexperienced eye misses the variation in grain, and the small fissures which are the marks of solid woodwork and which the eye enjoys without knowing why in old work. A certain eminent writer of Boston, who cautioned his architect's superintendent, "Do not let any fool of a painter fill up the cracks in my ceiling beams," showed a refined appreciation of the beauty of character in material. Built beams if near enough to the eye to be clearly seen, show the neatness of cabinet work, and that which in its proper place is refined gives here a curious impression of vulgarity. The same may be said of the shining surface which is now disappearing from fashion, as the proper finish for constructive wood work. We like our polished mahogany dining table whose hard and glassy

surface looks perpetually clean, and there are other circumstances in which wood that takes a polish should be polished, but the "hard oil finish" that has spoiled the colour and surface of so much good hardwood, and will keep it spoiled, is happily out of date with architects of taste.

Brick is a material of universal use, and one might perhaps say, capable of universal application if its conditions are studied. The opposite poles of its application are the enormous brick fortresses of Spain, and the commixture with stone in some of our city buildings, where there is so much stone trimming that the constructive lines are practically stone, and the brick becomes a mere surface for the spaces between. The walling of Spanish fortresses is of long thin brick with joints not less than an inch thick. Even in photographs the texture of the walling in such large masses delights the eye, and when we imagine the soft and varied colour that must be given to the brick by the large admixture of mortar, and the roughness of the joints, we see that this is the perfection of plain brick-work on an extensive scale. Build the same masses in pressed brick and the result would attract no artist. On the other hand, we could not fill in between the stone work of a first-class city building with brick-work of the old Spanish character. There is some indication here of a scale of limitation in brick-work, corresponding to the scale of fineness in the buildings in which it is employed. It is rather the character of what it is perhaps least invidious to call "swellness" in a building that limits the use of brick rather than its real dignity. The beautiful but slightly "swell" brick and marble Renaissance front with which Sir Christopher Wren so skilfully hid the whole of Cardinal Wolsey's building at Hampton Court is still beautiful, but has an undeniable air of shabbiness—a shabby gentility that does not at all affect Wolsey's far older building. This portion, which pretends to no greater dignity than a large comfortable-ness, and no finer beauty than can be executed in brick, still remains dignified and beautiful. For a building that should give evidence of wealth, brick is out of place. Brick, which is the poor man's material, must diminish and finally disappear, in proportion to the wealth of which the building should give evidence. Stone is always in place. Designers seldom go wrong in stone as far as considers the character of the material, and there is a mechanical and infallible guide to the scale of quality in the scale of cost.

Of material that is difficult to handle and that is often mishandled, perhaps iron has the least settled treatment and offers most field to the original designer. The problem would be easier if cast iron were holding its own. The purist objections that have been raised to cast iron should have been directed, not against the material but against the manner of casting it in imitation of other material. That iron can be cast is enough reason why it should be cast, and suitably moulded or modelled details are an easy task to the designer, since variations from stock cost but little to execute. But rolled iron, which we can only afford to use as manufactured on a large scale, offers difficulties on this account. There are, however, pleasing instances of open beam work, adorned only by ornamental bolt heads and angle connections. If wrought iron might be always exposed, the best advice that could be given to the designer would be to expose it and learn from experience how it can be made beautiful, and how beautiful it can be made. But the question with wrought iron is not so much how to expose it as with what to conceal it. It seems, from papers that have been read about steel building, that the problem of protecting a light structure of iron in a characteristic manner is, in spite of the hurry of practice, not absent from the minds of modern designers.

Whatever is done in this direction with good result must be the outcome not of imitative design but of an artistic appreciation of the imaginative quality that inheres in a building definitely planned for definite needs, of the vigor given by clear constructive lines and of the interest that lies in the characteristic application of material.

## BUILDING OPERATIONS IN 1898.

In reviewing a year ago the Canadian building operations for the year 1897, which it may be remembered were of a disappointing character, the opinion was expressed that 1898 would probably show to better advantage. This opinion is verified by the reports to hand of the results of the year which has just closed. The extent of building enterprises is properly regarded as being a reliable barometer by which to measure the commercial condition of the country. Early in 1898 a substantial improvement began to be manifest in all branches of business. This improvement continued throughout the year. In sympathy therewith the building industry took on a degree of activity such as it had not previously experienced for several years. The revival was not confined to one or two particular localities, but extended to most of the leading cities in all the provinces of the Dominion. In Toronto, where for six or seven years unusual dullness had prevailed, the improvement was especially noticeable. The greater number of the buildings erected were residences of the better class. True, prices were much too low to allow of a fair margin of profit to contractors, the bulk of advantage being therefore reaped by the workmen, but should the improved conditions continue during the present year, as there is reason to anticipate, it may be that prices will advance to a more equitable standard.

## TORONTO.

The returns of building operations for 1898 as compiled from the official records, show the expenditure to have been almost double that of the previous year. There were issued during last year 562 permits, totalling in value to \$1,701,630, against 396 permits in 1897 with an aggregate value of \$951,130. In 1897 the average value of the permits issued was \$2,402, while the average value of those issued in 1898 was \$3,026. The classification of the buildings represented by these permits is as follows:

No. of permits.	Amount.
161 Brick dwellings.....	\$489,600
132 Brick dwellings, alterations and additions....	83,585
35 Roughcast dwellings.....	29,350
53 Roughcast dwellings, alterations and additions	15,740
32 Stores and offices.....	115,500
51 Stores and offices, alterations and additions...	43,230
33 Factories.....	267,500
25 Factories, alterations and additions.....	92,665
23 Warehouses and additions.....	211,200
7 Churches and additions.....	23,600
15 Schools and additions.....	124,300
3 Colleges.....	57,200
7 Hotels and additions.....	54,200
2 Theatres and additions.....	27,200
2 Banks and additions.....	13,000
1 House of Industry addition.....	15,000
37 Stables and sheds.....	34,760
1 Hospital addition.....	4,000
Total, 1898.....	\$1,701,630
Total, 1897.....	951,130

Increase for 1898..... \$750,500

The principal increases are in dwellings, for which the value of permits issued was \$618,255 this year, against \$439,005 last year; in warehouses, in which there is an increase from \$71,700 to \$234,800, and in factories, which show an increase of from \$80,770 to \$360,165, over 400 per cent. The operations of 1898 were the most extensive of any year since 1892.

## MONTREAL.

The total value of buildings erected during the year is placed at \$1,729,150, as compared with \$1,414,300, in 1897, showing a gain of \$350,000. The buildings erected are classified as follows:—669 dwellings; 18 stores; 6 manufactories; 2 theatres; 1 hospital; 2 skating rinks; 4 churches. It is subject for regret that it has not been possible to obtain a more detailed statement of the year's operations. Mr. Jos. Venne, architect, reports having designed and erected the following important structures:—church for the parish of St. Eusebe, cost \$20,000; church of St. Clement, cost \$25,000; twelve dwellings on St. Denis Street, cost \$50,000

orphanage for the Grey Nuns, cost \$60,000; alterations to church of St. Vincent de Paul, cost \$4,000. Messrs. Alex. G. Fowler and J. Rawson Gardiner, gas architects, report as follows: Rebuilding mill and factory for Messrs. Peck Benny & Co., cost \$23,000; additions and alterations to store and dwellings Nos. 2, 4 and 6 Victoria Street for estate of late James Allen, cost \$8,000; two houses on Prospect St. Westmount; branch bank at Revelstoke B.C., and addition to bank at Sorel, P.Q., for the Molsons Bank; additions to factory King St., for the McClary M'fg Co.; alterations to house, Park Ave., for the Rev. Archdeacon Mills, and other smaller alterations, etc.

The report of the Westmount building inspector for the year ending November 1st, 1898, gives the whole number of buildings erected as 189, and the value thereof \$825,300. There were 115 terrace houses, 10 detached houses, 19 semi-detached houses, 36 tenements, 5 stores and dwellings, a church, a public library, a public hall, and a building for municipal purposes. During the previous year there were 160 buildings erected, valued at \$757,950.

## HAMILTON, ONT.

The cost of buildings during the year just closed is estimated by Mr. John Anderson, city building inspector, at the sum of \$426,645, being \$63,723 in excess of the year 1897. The majority of these buildings were constructed of brick, the most expensive being the departmental store of Mr. F. W. Watkins, cost \$60,000, Charles Mills, architect; residences for Hon. W. E. Sanford, cost \$20,000, Charles Mills, architect; dwelling for Mr. A. E. Carpenter, cost \$9,000, Messrs. William & Walter Stewart, architects. The details of the year's operations, as embodied in the annual report of the building inspector, are as follows:

	1897.	1898.
Number of permits issued.....	216	197
At a total value of.....	\$362,922	\$426,645

being an increase of \$63,723 over the expenditure of the previous year.

Description of permits.	1898.		1897.	
	Number.	Value.	Number.	Value.
Brick dwellings.....	137	\$189,540	109	\$163,910
Frame buildings.....	8	6,185	9	6,600
Alterations to buildings..	72	34,685	72	41,127
Factories, stores, etc....	42	196,235	35	151,285
Total.....	259	\$426,645	225	\$362,922

## QUEBEC, QUE.

The expenditure on buildings and public works in this city during 1898 was about 100 per cent. greater than in the previous year, the total being estimated at upwards of half a million dollars, divided as follows: Civic improvements, including opening, widening and prolonging of streets, paving with stone and asphalt, wharves, pontoons, parks, etc., \$310,000; sidewalks of wood, stone, brick, cement and asphalt, \$15,000; drainage and water works, \$54,000. The buildings erected consisted of first class stone and brick public and private structures, about 20 per cent. being for residence purposes, 40 per cent. for business purposes and 40 per cent. for public use. Eighty per cent. were constructed of brick, eighteen per cent. of stone and only two per cent. of wood. The principal structures erected were: A wing to the Chateau Frontenac, cost \$150,000, Bruce Price, architect; St. Sauveur church, cost \$10,000, Tanguay & Vallee, architects; exhibition buildings, cost \$50,000, J. F. Peachy, architect; Grey Nun's building, cost \$35,000; government emigrant sheds and freight sheds, cost \$10,000; Telephone Exchange, cost \$20,000, D. Ouelette, architect; Y. M. C. A. building, cost \$20,000, J. F. Peachy, architect. Prices of materials were slightly in excess of the previous year. Prices for labor were as follows: Laborers, \$1 to \$1.20; masons, \$2; stone cutters, \$2 to \$2.50; joiners, \$1.50 to \$1.75; bricklayers, \$2.50 to \$3. Cost of street work was as follows: Granite sets paving on six inch concrete, \$3.37 per superficial yard. Contract prices for the current year are as follows: For asphalt and six inch concrete, \$2.40 per superficial yard; scoria brick paving, \$3 per superficial yard; 9" x 12" curbing, \$1.67 per lineal yard. Mr. D. Ouelette, architect, reports having carried out work during the year in various parts of the province outside of the city to the value of \$252,000, and to have work in hand for the present year in the city and the adjoining town of Levis amounting to upwards of \$300,000.

## VANCOUVER, B. C.

The total expenditure for new buildings during 1898 is placed at about \$1,500,000, a sum considerably in advance of any previous year. The cost of buildings for residential purposes was



about \$900,000 and for business purposes \$600,000. Among the most important buildings erected were the C. P. R. station, cost \$150,000, E. Maxwell, Montreal, architect; Bradbury & Brown, contractors; the Molson's Bank constructed of stone, approximate cost \$100,000, Messrs Taylor & Gordon, Montreal, architects, Thomas Tompkins, contractor; the Imperial Bank, (stone) G. W. Grant, architect, David Bain, contractor; the DeBeck block, Fairfield block, Prior building, Shinner building, Thomson building, Rodgers block and the McClary building from plans by Messrs W. T. Dalton, Parr & Fee, William Blackmore, C. O. Wickenden, W. H. Mallory, E. H. Whitehead, N. Hoffer, S. McClure, Mr. Soule, C. Oldershaw and Messrs Moore & Henry of London, Ont. Prices of materials were about 20 per cent higher than in 1897, and prices of labor were also in advance of the previous year, added to the fact that mechanics were more steadily employed. The present indications go to show that operations during the present year will be on a scale equal at least to that of 1898, as dwellings and business blocks are well occupied. There is said to be, however, sufficient skilled and unskilled labor on the market to meet all requirements.

#### VICTORIA, B. C.

Buildings operations during 1898 were on a restricted scale, the total expenditure within the city limits, and exclusive of Provincial Government or Dominion Government buildings, being placed at about \$140,000. The only building of importance erected during the year was the block of stores and warehouses for Messrs Weiler Bros. costing \$40,000, T. C. Sorby, architect, Smith & Sherbourne, contractors. A considerable amount was expended on the completion of the Provincial Government buildings of which Mr. F. M. Rattenbury is the architect, and on the Government post-office. Beyond this the bulk of the work consisted of small residences costing from \$1,500 to \$2,500 each. Prices of materials changed but little. Lumber is reported to be still too low in price for a fair margin of profit. Prices of labor were fairly well maintained as the busy building operations at Vancouver kept all hands well employed. The indications for the present year point to a fair amount of residence work of the better class, but a small number of business buildings. Real estate agents report that rents and interest are paid with greater regularity than for some time past, that there are few empty houses and no empty stores, and that there is a tendency in the direction of recovery in real estate values in suburban districts. Mr. F. M. Rattenbury has on hand a considerable amount of work at outside points, including pressed brick and terra cotta banks for the Bank of Montreal at Rossland, cost \$40,000; Nelson, cost \$30,000; New Westminster, cost \$19,000. Also brick business blocks to be utilized by the Bank of British Columbia at New Westminster, cost \$18,000.

#### ST. JOHN, N. B.

Mr. M. W. Maher, inspector of buildings, places the total value of new buildings erected within the city during 1898 at \$182,990, divided as follows: Brick and stone buildings, \$64,800; wood or cased buildings \$118,190. These figures show a total advance of \$60,000 above 1897. Wood buildings predominated, the total number being 97 as against 11 of brick and 1 of stone. The residences numbered 55, business buildings 31, and churches 3. The most important of these buildings were a brick warehouse costing \$12,000; a bakery, costing \$12,000, and a stone dwelling costing \$10,000. Prices of materials were about the same as the previous season, bricks measuring about 17 to the cubic foot, selling at from \$8 to \$10. There was no change in prices of labor, masons being paid \$3 per day, and carpenters \$9 to \$12 per week. The interference caused to the timber trade by the Spanish-American war, is believed to have retarded building operations in this city last year. An improvement is therefore reasonably anticipated for the coming season.

#### HALIFAX, N. S.

Building operations were less active than usual, the total expenditure for the year being only about \$600,000. There were erected 80 residences, 12 business buildings and 4 public buildings. Of the residences 76 were constructed of wood and 4 of brick. Of the business buildings, 7 were of brick and 5 of wood. The principal buildings erected during the year were, a brick warehouse for Clayton & Sons, cost \$10,000, J. C. Dumaresq, architect, H. Saunders, contractor; the Pinehill College Library, brick, cost \$18,000, J. C. Dumaresq, architect, Rhodes, Curry & Co., contractors; Fort Massey School, Elliot & Hopson, architects; Morris Street School, Elliot & Hopson, architects. Prices of materials and labor were about the same as in 1897 with employment scarce, there being but few unfinished buildings on the way. The outlook for 1899 is not regarded as being a very hopeful one.

#### NEW WESTMINSTER, B. C.

New Westminster was swept by fire on the 10th of September last, the fire originating in inflammable buildings on the water front, and getting beyond control, swept the business portion of the city out of existence, including four churches, Post-office, Court House, etc. With true Canadian pluck the citizens immediately set to work to rebuild the burnt district, and with such good effect that at the close of the year some dozen or more sub-

stantial business brick blocks are nearing completion, as well as the law courts, Holy Trinity Cathedral, the public market and many lesser buildings. Should the present rate of progress continue to the close of '99, the scar of the great fire will be completely obliterated. Mr. G. W. Grant, architect, who designed so many of the former buildings, has been entrusted with the restoration of most of the buildings above referred to. Among other architects who are principally engaged in the reconstruction of the city are Messrs. Tiark, Sate, Guenther & VanAken, Clow & Welsh, Julien—among the leading contractors being Jas. Sayfield, J. H. Williams, R. Buckland, Alex. Cruikshank, D. Bain, G. E. McDonald, E. Burns, J. A. Colbick, Jas. Cunningham, S. G. Tidy.

#### LONDON.

A slight increase took place in the volume of building operations as compared with 1897. The expenditure for 1898 is placed at \$275,000, divided as follows: Residential buildings, \$65,000; business buildings, \$50,000; public buildings, \$160,000. Most of the buildings were constructed of brick. Among the most important buildings were a hospital, Bell Telephone Co.'s Exchange, Hemidge office building, and buildings for Messrs. Sterling Bros. and Gorman, Eckert & Co. Prices of materials ruled about 10 per cent. higher than the preceding year labor unchanged. More favorable conditions are anticipated during the present year.

#### OTHER PLACES.

In St. Thomas, the year's expenditure on new buildings is estimated at \$125,000, being in excess of the previous year. The buildings erected were principally of stone and brick, the most prominent being the city hall, Neil Darrach, architect, cost \$45,000, and two public schools each costing \$20,000, Long & Son, architects. Prices of materials were about the same as in 1897, with the exception of lumber, which sold at a high figure. Prices of labor were about ten per cent. in advance of the previous year. The prospects for the coming season are as yet uncertain.—The town of Galt expended in new buildings about \$65,000, a sum considerably in excess of the previous year. The expenditure on residential buildings was about \$25,000, on business buildings \$30,000, and on public buildings \$4,000. Among the most important buildings erected was a fire hall, cost \$4,000; remodelling opera house, cost \$6,500; factory for the Turnbull Company constructed on the slow burning principle, cost \$12,000, F. W. Mellish, architect. Prices for labor and materials were unchanged. The outlook for the coming season is considered hopeful.—At Brandon, Man., new buildings were erected costing \$40,000, brick and wood being the materials used in their construction. The most important buildings were the Nation block, costing \$8,500; a building for Messrs. McLeod & Hanley, costing \$4,000; a double residence for Zinc Bros., costing \$9,000, only the foundation of which was completed last year; a double residence for Mr. John Hanbury, cost \$5,000; foundation for new Methodist church, cost \$4,000. Mr. W. H. Shillinglaw is the architect of the first four mentioned buildings, and the supervising architect of the Methodist church, the respective contractors being Messrs. Miller & Sherber, George Stinett and John Hanberry, which was designed by Mr. S. R. Badgeley, architect, and the ultimate cost of which is to be \$25,000. This building will be completed during the present year. The contractors are Messrs. Spencer Bros. and T. M. Harrington. Prices for materials and labor ruled about the same as in 1897.—The total expenditure for new buildings in Collingwood is estimated at \$32,000, being a less amount than in the previous year. About three-fifths of the buildings were erected for residence purposes and two-fifths for business purposes. Two-thirds were constructed of brick and one-third of wood. The most important buildings were a residence for Charles Stephens constructed of pressed brick and brown stone, cost \$11,000; three brick stores, cost \$9,000, and a residence for B. Westcott, cost \$3,000, the contractors for the first mentioned house being the Bryan Mfg. Co., and for the three latter buildings, Messrs. Wilson Bros. The coming season promises to be about equal to last year. In St. Catharines \$50,000 was expended in building improvements, a considerable increase above 1897. The work done was almost entirely of a residential character, consisting of brick and wood dwellings. The architects connected therewith being Messrs. S. G. Dolson, W. B. Allen and A. Youmans, and the contractors Messrs. Newman Bros., George Wilson & Co., E. C. Nicholson, James McBride, E. Switzer, Thomas Lazenby, Robert Irwin, John Carl and H. Riddell. Prices of materials and labor were unchanged. It is yet too early to estimate the extent of operations for 1899.—Buildings to the value of \$15,000 were erected in New Denver, B.C.—In Mount Forest, Ont., \$42,000 was expended on new buildings.—Windsor, N.S., which was swept out of existence by fire in 1897, has been largely rebuilt, over 300 houses having been erected during 1898.—In Edmonton, N.W.T., upwards of \$50,000 was expended on new buildings.—The expenditure on new buildings in Moncton, N.B., is estimated at \$60,000.—North Sydney, C.B., invested \$83,000 in new buildings last year; Smith's Falls, Ont., \$80,000; Waterloo, Ont., \$36,000; Tilbury, Ont., \$25,000; Portage la Prairie, Man., \$100,000; Renfrew, Ont., \$35,900; Woodstock, Ont., \$46,000.—In Peterborough the total expenditure on all classes of construction work totalled about \$60,000—\$20,000 of this amount represents expenditure on sewers and concrete sidewalks. The expenditure on buildings was about 50 per cent. below that of 1897. The buildings erected were largely of a business character, among the most important being a pork-packing warehouse, harness factory, power house, and Baptist church—the architects of which were Messrs. Belcher and Blackwell. The municipal work was under the direction of Mr. S. Belcher.

## BY THE WAY.

THE name of the young lady recently admitted a member of the Royal Institute of British Architects, is Miss Ethel Mary Charles. She has just completed her term of studentship in the office of a London architect, and in addition has won several prizes for design. It is said to be her intention to open an office in a good business locality.

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MR. Chas. Baillarge, late City Engineer of Quebec makes the sensible suggestion that persons sending circular series of questions to be answered, should always send at least two copies of the blank instead of one. He says: "you must certainly conjecture that anyone answering such questions is desirous of keeping an original, or minute or copy thereof for future reference, and it is enough in the second copy of the blank to copy the answers, without having also to copy the questions. I receive scores of such circulars during the year—all city engineers do—from scores of towns and cities in Canada, the United States, etc., for information as to paving, electric lighting, hygiene, etc., and generally have to write for a second copy of the blank form."

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WE have all too few architectural landmarks in Western Canada, and can therefore ill afford the loss of any of them. The recent destruction by fire, of St. George's Cathedral at Kingston, is consequently felt throughout the province. The fire is supposed to have been caused by an explosion of gas in the furnace room. With the thermometer registering twelve degrees below zero, the efforts of the firemen and citizens to save the structure, proved unavailing. The cathedral was built in 1825, and remodelled in 1840 and 1893. It is probable that \$100,000 had been expended upon it. The loss including the organ and fittings has been adjusted at \$72,780. An effort is being made to raise by subscription the sum of \$10,000 to be applied with the insurance money towards the immediate restoration of the building.

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To "See oorsels as ithers see us" is not always possible or even perhaps desirable, but to have our efforts fairly criticized should prove helpful. Therefore I reproduce the following from a recent number of the Architectural Review of Boston:—"In the Canadian Architect & Builder for July are some interesting half-tones from photographs of the new Legislative Buildings at Victoria, B. C., by Mr. F. M. Rattenbury. The buildings are of a simple and massive Romanesque style, not badly proportioned. In detail, however, there is an unpleasant mingling of somewhat rudimentary forms with a crude semi-classic detail (even pedimental volute scrolls appear). The Drill Hall at Quebec, by Mr. E. E. Tache, in the August number, is also of interest in its use of early French Renaissance forms: but the buttresses are weak, and if structural, as they should be, are clearly inadequate."

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A LOCAL firm of architects who recently carried to completion a small church in the suburbs of Toronto heard of a very amusing incident which took place at one of the meetings of the intelligent building committee. The architects had proposed a scheme of color for the interior which although somewhat new, seemed to them

particularly appropriate to the building in hand. The committee's ideas of propriety were greatly upset thereby and much heated discussion ensued. At last an unusually bright and intelligent member made the following naive proposition, "Send for old Tom Brown who has done nothing but kalsomining in the district for nearly fifty years and color the church as he says." The intelligence of the suggestion will at once be seen when it is remembered that this old kalsominer has probably never used more than two colors in his life, and knows as much about color effect as the old tom cat. It is satisfactory to note, however, that the architects' scheme was finally carried out, though probably this would not have been consummated but for the minister of the church, who is a liberal minded and cultured man.

## ILLUSTRATIONS.

BANK OF MONTREAL BRANCH, NOTRE DAME STREET, MONTREAL—ANDREW T. TAYLOR, F.R.I.B.A., ARCHITECT.

COTTAGE AT ELLERSLIE, N. S. WALES—R. M. FRIPP, F.R.I.B.A., AND G. S. GOLDSBROUGH, ARCHITECTS.

GRAND OPERA HOUSE, BARRIE, ONT.—EDEN SMITH AND EUSTACE G. BIRD, A.R.I.B.A., ARCHITECTS.

The building, which is owned by the County of Simcoe, was completed in 1896. It is isolated and used for theatrical purpose only, having no stores, etc., in connection therewith. It has accommodation for 1200 persons and is capable of hanging any travelling company's scenery. It is built on the French plan, having orchestra, auditorium, parquet, dress circle, balcony and top gallery, eight boxes, smoking, green and crush rooms.

The main entrance is so arranged as to admit all persons to any part of the theatre, but separate doors are provided for egress from each different part on termination of performances.

The acoustic properties are all that can be desired, being the effect of a plastered partition in front of the brick wall at back, but at the same time made as fire-proof as possible and all angles are well curved off. The ventilation is successfully carried out by immense heated shafts on either side of the bell-mouthed proscenium arch, and connected to ducts around the curved parquet floors.

The house is lighted with one thousand electric incandescent lights, including stage lights. Those in the dome are hidden by means of staff shells which forces a reflected light from the ceiling into the auditorium.

The floor and galleries have splendid pitch and each seat is well elevated.

The gallery fronts, boxes, canopies, proscenium, arch, caps, pilasters, etc., are decorated in modelled staff in meggio-relievo, tinted in two shades of cream and picked out in gold. The dome and walls are frescoed in warm tints, and all dados throughout the building are finished in stained burlap, which gives a cosy appearance.

The stage proper is 60' x 35' and fifty feet to gridiron (the latter is complete with forty-five runs of lines), has flymen's galleries, bridge-palette, etc. The electric switchboard, including dimmers, &c., on the stage, controls the whole lighting system throughout the building.

There are ample artists' and public dressing rooms, lavatories, &c. The facade is of Spanish design.

The following contractors executed the respective works: James Barbour, Toronto, carpentry; Stapleton & Son, Toronto brickwork, &c.; W. J. Hynes, Toronto, ornamental and general plastering; Pease Furnace Co., Toronto, heating and ventilating; J. Woodburn, Toronto, rigging loft and switch; J. P. Davis, Chicago, scenery and fresco work; P. J. Moore, Barrie, plumbing.



(Correspondence of the CANADIAN ARCHITECT AND BUILDER.)

#### AN INTERESTING LEGAL DECISION.

A CASE of considerable interest to architects, owners and contractors, was decided by Mr. Justice Curran in the Superior Court in this city on the 28th ult. The plaintiff, Collins, a contracting carpenter brought an action against one Lapierre for \$330. He alleged that on the 5th of August, 1897, he made a contract with defendant to do all the carpenter work on a block of houses in Laprairie street in this city, under plans and specifications. The contract price was \$2,020. He claimed that he faithfully performed all the work as specified. Defendant, he alleged, paid him \$1,765 on account, leaving a balance of \$225. In addition the plaintiff claimed \$75 for extra work done for defendant independent of the contract, making \$330, for which he asked judgment. Defendant pleaded that it was true he entered into the contract alleged, but he denied that plaintiff did the work according to the plans and specifications. On the contrary, he alleged that after plaintiff pretended to have finished his work, he was obliged to protest him notarially, and that he put him in default to do a number of things mentioned in the contract which had been omitted, and to change others which had been done in a totally different manner from that specified. He set forth that under the contract he was to pay 85 per cent. upon the contract price during the progress of the work, and was to be privileged to retain 15 per cent. until the expiration of thirty days after the full completion of the work. As regards the claim of \$75, he repudiated it and stated that the only extras were for a sum of \$18. He claimed that he had paid far in excess of 85 per cent. of the contract price, and a great deal more than sufficient to cover these \$18. Defendant's pretension was that under the terms of the contract, the present action was premature. The proof established that plaintiff had not completed his work at the date of the institution of his action. He had informed defendant that he would do nothing more, and pretended to have done more than he was obliged to do; that certain changes made by him and deviations from the plans and specifications were really beneficial to the defendant and improvements upon the plans and specifications. As the case stood, it was clear that following the contract, as the court must, the action of the plaintiff was premature. He should have fulfilled the contract and adhered to the specifications; he should have completed the works, and he should have waited for 30 days after such completion before instituting his action. The claim for \$18 for extra work, which was the only sum proved, had been more than extinguished by the excess over 85 per cent. paid by the defendant upon the contract. It was clear that plaintiff had a claim for a balance upon the contract price, but he instituted his action too soon. Defendant in his protest notified plaintiff that in default of his executing the works as called for, he would execute the same at his cost. Since plaintiff declined to do the work, he should have given defendant time to do what remained to be done, so that he might be in a position to make plaintiff a tender of what was actually due. The action was premature, and for that reason it was dismissed with costs *sauf recours*.

#### THE NEW CITY CHARTER.

Several clauses affecting the building trades are embodied in the new City Charter, which was recently approved by the City Council, and now only requires the sanction of the Provincial Legislature. Among these are the following: "52 (a)—To

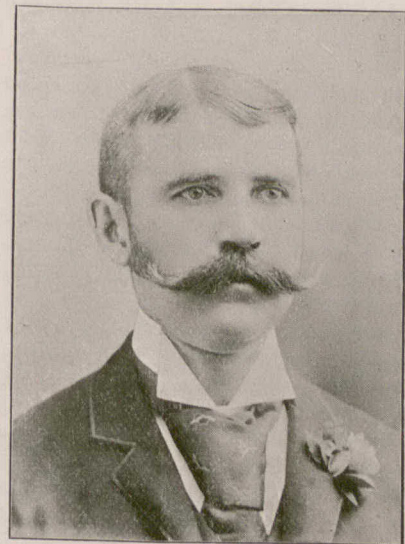
regulate the architecture, dimensions and symmetry of buildings in certain streets; to compel the proprietors to submit the plans thereof and to previously obtain a certificate, in writing, from the Building Inspector, and to prevent the construction and order the demolition of any building erected contrary to the By-laws."

"In cases of expropriations the indemnity paid to tenants of any land or building shall not exceed the remainder of the current year, and of four years' rent of their premises; no paving of any street, lane or highways shall be laid, unless asked for by two-thirds of the proprietors, in number and value, whose property fronts thereon, and the cost of such paving shall be paid for one-half by the city, and the other half by the proprietors."

#### OBITUARY.

Mr. David Perrault, one of the oldest and most prominent contractors in the city, died recently at the advanced age of 83 years. He was connected with the erection of the Montreal College and St. James Cathedral.

Mr. Frederick Hortan, one of the most progressive plumbers of this city, passed out of life recently at the comparatively early age of 42 years. He was one of the most active promoters of the first plumbing association in 1887, and occupied the position of 1st Vice-President. He also advocated and was instrumental in having formed classes for the education of the apprentices to the plumbing trade held in the Council of Arts building, 96 St. Gabriel street. He was appointed instructor of these classes by the Government of Quebec, jointly with the Master Plumbers' Association, and held the position for three years, when the demands of his business compelled him to resign. Mr. Hortan carried out plumb-



THE LATE FREDERICK HORTAN.

ing contracts in connection with many of the large churches, warehouses and handsome residences of the city. His death was due to an attack of typhoid fever.

#### NOTES.

Nearly five hundred car loads of scrap iron comprising the tubes of the old Victoria Bridge, were recently forwarded to the purchasers, the Ontario Foundry Co. of Hamilton.

A committee has been appointed by the Province of Quebec Association of Architects to guard the interests of the Association in connection with the amendments to the city charter which will shortly come before the Legislature at Quebec for approval.

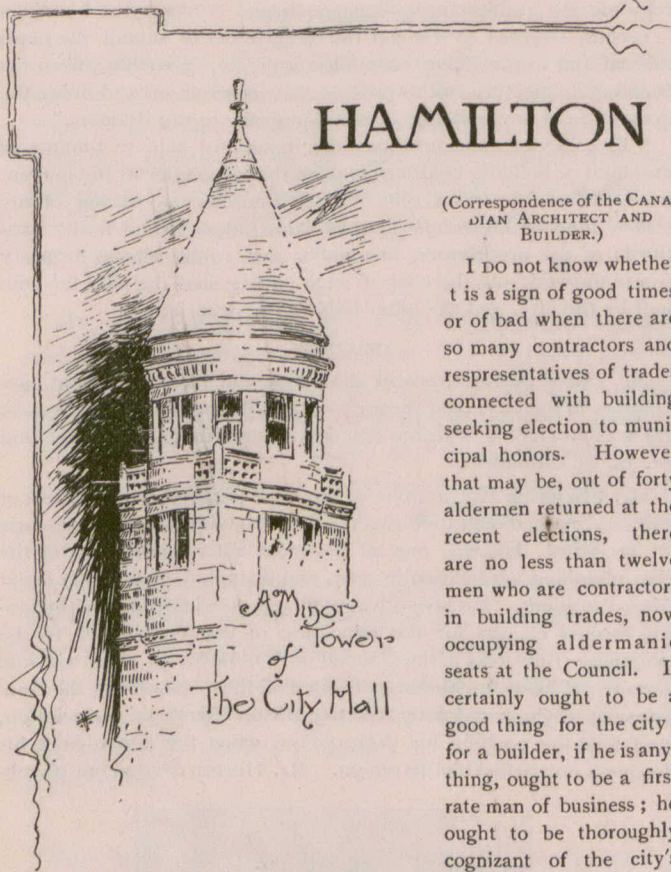
In a recent address to the students of the Crystal Palace School of Practical Engineering in London, Sir Charles Rivers-Wilson, President of the Grand Trunk Railway Co., referred in complimentary terms to the status attained by Canadian engineers, as evidenced by the reconstruction of the Victoria Bridge, and the high standard of electric traction.

#### PERSONAL.

Mr. David R. Brown continues the business of the late firm of Brown, McVicar & Heriot, architects, with offices in the Canada Life Building.

Messrs. D. H. McVicar and J. C. A. Heriot, architects, have formed a partnership under the name of McVicar & Heriot. Their offices are in the Canada Life Building.

Mr. Walter H. Cottingham, who for several years past has been engaged in the manufacture of paints in conjunction with the Sherwin Williams Co. of Cleveland, Ohio, has recently been appointed general manager of the Company. This will necessitate his early removal to Cleveland. It is understood that the Montreal works will in future be under the direction of Mr. Chas. Ballantyne.



## HAMILTON

(Correspondence of the CANADIAN ARCHITECT AND BUILDER.)

I DO not know whether it is a sign of good times or of bad when there are so many contractors and representatives of trades connected with building seeking election to municipal honors. However that may be, out of forty aldermen returned at the recent elections, there are no less than twelve men who are contractors in building trades, now occupying aldermanic seats at the Council. It certainly ought to be a good thing for the city; for a builder, if he is anything, ought to be a first rate man of business; he ought to be thoroughly cognizant of the city's

needs, and as an employer of labor he should have a good understanding of the condition of the working classes. Such men as Mr. William Hancock, Vice-President of the Hamilton Builders' Exchange, and Mr. W. J. Reid, Treasurer of the same institution, are "live" men evidently, and should be able to do much for the city.

Besides these two, there are now on the Council, Mr. W. M. Findlay, who has been an alderman before; Messrs. G. H. Milne, J. Phillips, H. G. Wright, W. Barrett, G. Hummell, J. H. Larkin, J. T. Ross, T. J. Stewart and P. Thompson.

It is evident from such a showing that the builders of Hamilton are a wide-awake set of men, and therefore we need not be surprised to find that the Hamilton Builders' Exchange, which was inaugurated only a few weeks ago, now numbers over seventy members. The association has secured rooms, and by the time the C. A. & B. is issued this month will have them furnished and in use.

A case of considerable importance came before Judge Snider at the recent assizes here. The suit arose as one result of the fire which destroyed the old Spectator building last May, that had since been purchased by the defendant, Procter. The plaintiff, Mills, was the contractor, carrying out extensive alterations to the interior. The contractor was paid by monthly progress certificates of the architects, Messrs. Stewart & Stewart. Up to the time of the fire the plaintiff had been paid \$1,300. From the receipt of the last certificate up to the fire, work had been done by the plaintiff and materials supplied to the value of \$1,000 more, but they were not entitled to a certificate according to the contract at the time. Plaintiff sued to recover this amount. Clause 8 of the printed contract relieved the owner from liability in the event of fire or other such cause during the progress of the work. The fact that the 9th clause, as to insurance by the owner, was struck out, made it clear that the parties to the contract intended that the contractor, as one of the parties, should insure the works in his own safety, but this he had neglected to do. The judge found that the owner had not received anything for insurance in consequence of the fire. Held, that the premises having been destroyed by fire without fault on either side, the contract was determined and there was no cause for action. The suit was therefore dismissed. Many cases have been recorded of fire determining a contract, and the judgment in the case in hand corresponds with the precedents. Notice of appeal, however, has been given.

Despite the severity of the winter, some people continue building operations and wilfully risk the inevitable serious results of laying brickwork during continued hard frost, but no buildings of any importance are being proceeded with, except, of course, those which completed their stone and brickwork before the winter set in.

R. W. GAMBIER-BOUSFIELD.

The calendar for 1899 issued by the B. Greening Wire Co., of Hamilton, Ont., is one of the most attractive and useful that we have yet seen. The figures are especially large and bold.

### A CAUTION TO ARCHITECTS AND BUILDERS.

To the Editor of the CANADIAN ARCHITECT AND BUILDER:

SIR,—A strange, because unusual, and unusual because nothing of the kind has been done, as yet, to bring about such an occurrence (which, had it been, would have happened somewhere, ere this) has just taken place here at the old Vendome restaurant premises, north side of St. Joseph street.

I hear, since the accident, that the same thing once happened in Montreal, though, in that case as in this, supposed to be due rather to some settlement or pressure on the glass from the superincumbent weight of overlying stories, or to some vibratory action of the air, than to the true cause of the phenomenon.

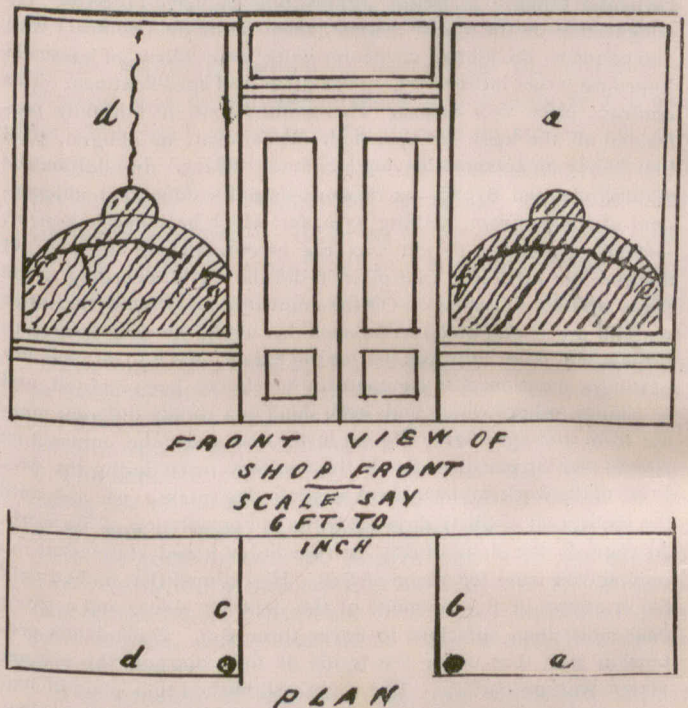
The accompanying sketch is almost self explanatory, and shows at a glance what has happened. The shaded portions of the plates A and D had just been painted a dark green, and in fact the painter was still at D, when plate A cracked across from E to F, and so did plate D, from G to H, soon after it was finished.

Of the side lights B and C, B only has been fissured, and in the same manner; plate C has not suffered, from not being exposed as the others were to the action of the sun.

Every one knows how the vein or thinner portion of a tumbler or drinking glass, on the contact of hot water breaks away from the thicker bottom, which takes longer to expand. The same thing, or rather an action analogous to this, has happened in the present case.

Unpainted, unobstructed glass, as is well known, allows free passage to the sun's rays, while the glass itself remains cold or unaffected; but with the painted portion (the paint applied from the inside), provided this paint be of a dark shade and impermeable to the sun's rays, so to say, the rays are intercepted, and their heat becoming stored up in such portions of the plate, cause it to expand and tear itself away from the cold and unexpanded portion of the window.

The nature or position of the cracks or fissures render this a certainty.



Sketch to scale of about 6 feet to inch, showing plate glass shop windows—old Hotel Vendome, St. Joseph street, Quebec—north side. Painted dark green where shaded and broken along lines E F and G H by expansion of painted portion by sun's rays.

For instance, the fissure in plate D starts from and terminates at the very points E and F where the shading or painting ends, and very nearly the same thing has happened to plate A, where one of the extremities of the fissure is about three or four inches below G, while the other end of it is about two inches above H; and the same result obtains or thereabout in the case of the side light B. A remarkable fact, also, is that each of the three fissures, instead of running nearly straight or horizontally across the plate, follows a curved line nearly concentric to the curved line of painting.

This does not, or at any rate is is no way so likely to occur, when the shading or obscuring of the glass is done with white paint, or some process by which no dark tints are used; and I can here take occasion to say that Flammarion, in his last bulletin of the Astronomical Society of France, Paris, relates how—all other conditions being the same—having experimented for a season on the effect of colored glass on vegetation, he found that of half a dozen seeds of a kind, planted opposite as many different colors or shades of glass; that opposite the clear or white glass attained during the trial to a height of some 6 feet, while all the others produced plants of a lesser and lesser stature, the height in the case of the green and blue glass dwindling down to not over one foot during the experimental season.

Every one knows, also, the attraction dark colors have for the sun's rays, and how substances thus colored become heated and transmit the heat they receive, as can be seen when, during a thaw in the spring, while a piece of white cloth or flannel, for instance, hardly makes an impression on the snow it lies on, the black material, on the contrary, sinks deep beneath the surface.

The damage in the present case, or cost of replacing the full-sized plates of glass, may be some \$200 or more, and the question arises who is to pay the piper?

CHAS. BAILLARGE, Architect, etc.

QUEBEC, Dec. 24, 1898.



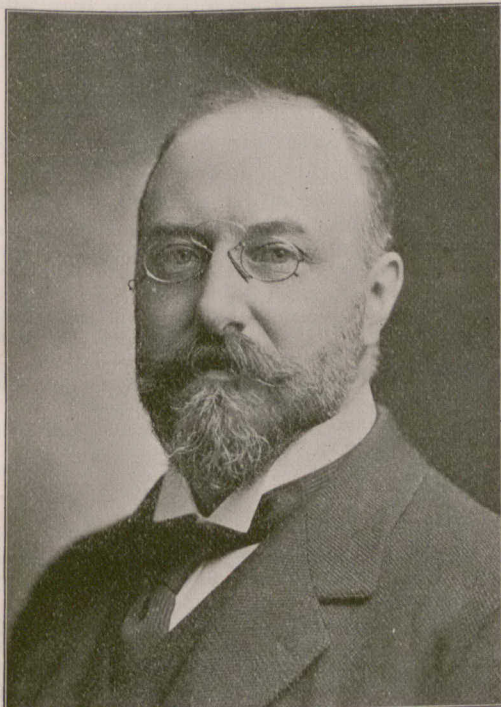
GRAND OPERA HOUSE, BARRIE, ONT.  
EDEN SMITH AND EUSTACE G. BIRD, A.R.I.B.A., ARCHITECTS.

AN. PHOTO. ENG. BU.

## MANUFACTURES AND MATERIALS

### THE LATE MR. F. S. RATHBUN

WIDESPREAD regret followed the announcement of the sudden death from heart failure on November 26th last, of Mr. F. S. Rathbun, Secretary-Treasurer of the Rathbun Co., of Deseronto, Ont. The late Mr. Rathbun was born in Deseronto in 1856, his father being the late Hugo Burghardt Rathbun, founder of the Rathbun Company. At the age of sixteen he quitted the school which he had been attending in New York, and entered the office of Messrs. H. B. Rathbun & Son. At the formation of the present company he was



THE LATE MR. F. S. RATHBUN.

appointed secretary-treasurer, a position of great responsibility, which he filled with marked ability. He was also an officer of a number of other enterprises in which the Rathbun Company were financially interested, and in addition was for many years treasurer and postmaster of Deseronto.

A strike of stonecutters is in progress in connection with the quarries at Crookston, Ont. The owners express their intention to cease operations at the quarries during the winter.

The Londonderry Iron Co. of Nova Scotia have gone into voluntary liquidation. At a recent meeting of creditors held in Montreal, Mr. Geo. Creak, accountant, of that city, was appointed liquidator.

A quarter of a million dollars is said to have been subscribed towards the establishment of the paving brick Company, of which Mr. J. W. McBride, of Toronto Junction is the promoter, reference to which was made in our December number.

The Dominion Radiator Co. of Toronto, have recently purchased additional land 150x130 feet, south of their present premises, and are negotiating for land on Melbourne Avenue with a view to further enlargement of their present extensive works.

A new abrading material equal to emery in hardness, according to the claims of Mr. Floryanowicz, the Russian inventor, as described in the Engineer, is made from fireclay. The clay is thoroughly washed, mixed in a pasty mass, dried, and then burned at a temperature of about 2,300 deg. Fah. The result is a uniformly hard product with a hardness of 8 to 9 on the Mohr scale; this is equal to that of emery. The burned clay is crushed and used for making wheels, etc.

In mercantile architecture, the demand for show window space has forced upon architects many a sacrifice in the way of design. This feature of large show windows must be frankly accepted as

an essential condition in retail store buildings, and in every detail they should be made as effective and attractive as possible. The proper lighting of these windows at night does not always receive the attention it should from architects. If it were a question of lighting a picture, no architect would hesitate as to the right way. Why should not a show window be arranged to light the merchant's goods, as a picture is lighted? The best specification for this purpose is the store window light devised by Mr. I. P. Frink, after forty years experience in making special lighting fixtures. It is a modification of Mr. Frink's famous "picture light" used in the Metropolitan Museum of Art, New York, the New Corcoran Gallery, Washington D. C., the Art Institute, Chicago, Ill., the Carnegie Library, Pittsburgh, Pa., and many other public and private art galleries. Full particulars of this store window light, as well as a estimate on any particular work, can be promptly secured by writing to Mr. Frink, at 551 Pearl St., New York.

## STUDENTS' DEPARTMENT.

### C. A. & B. STUDENTS' COMPETITION.

BELOW will be found the reports of the Committees of Award of the O. A. A. and P. Q. A. A. on the above competition :

To the Editor of the CANADIAN ARCHITECT AND BUILDER.

SIR,—We have placed designs by "Caza" first, in connection with which we make the following remarks :

Design of domestic chimney (left hand upper corner): The general idea of this one is good, but the buttress set-offs on same are much too low down, not only detracting from the appearance, but interfering with the saddle, which would have to be placed behind. The details of the top are not as good as the outline.

The other domestic chimney is a good simply-designed feature, and is agreeably worked in with gable, and has evidently a nice corner beside the fireplace.

The scholastic chimney is an exceptionally nice quiet bit of designing, the proportions being unusually good, and the drawing in connection with this is well done.

The classical chimney is weak in design and poorly drawn.

In "Caza's" details he has failed in more than one instance to design proper drips to his mouldings, which in execution always is attended with bad results.

"Percival's" designs are also good, but the design in left hand corner is somewhat "fussed." The outline of upper part is not a pleasing one, with the chamfer below and the angle columns above buttress set-offs. The drawing could be improved upon.

Lower left hand design is an agreeable bit of composition, nicely proportioned. The cut stone base to the angular portion is "faked" in the perspective, as if constructed as shown in detail, the splay is too flat to be properly seen in execution.

His "Queen Anne" chimney represents a rather well designed gable, though the top is hardly in keeping with the ramped work.

The classic chimney is an unpretentious but well designed feature.

"Colonial" submits a sheet of designs in which he shows his good sense in trying to design in a good style. With one exception his designing is unconstructional, having stone angles without bond swags across brickwork, etc. He is practically ruled out of the competition by not conforming to its requirements, but it is to be hoped he will try again.

It is to be regretted that a competition on such an interesting subject met with such a poor response.

JOHN GEMMELL }  
W. A. LANGTON } O.A.A. Committee.  
A. F. WICKSON }

To the Editor of the CANADIAN ARCHITECT AND BUILDER.

SIR,—Re C. A. & B. Students' Competition for four ornamental chimneys, compositions as a whole were found weak, design by "Caza" showing better qualities of drawing—"Percival" being nearly equal to the first mentioned. As to "Colonial," he is inferior in drawing and composition.

For the standing Committee on Competitions, P.Q.A.A.,  
JOS. VENNE, Secretary.

[The names of the successful competitors in this competition are: 1. "Caza" (Mr. A. H. Chapman), 28 Toronto street, Toronto; 2. "Percival" (Mr. Elmer H. Russell), 145 Yorkville avenue, Toronto.—THE EDITOR C. A. & B.]

ONTARIO ASSOCIATION OF ARCHITECTS.

Proceedings of Eleventh Annual Convention.

THE eleventh annual convention of the Ontario Association of Architects was held at the School of Practical Science, Queen's Park, Toronto, on Tuesday and Wednesday, the 17th and 18th inst. At 2:30 p.m. on Tuesday, the 17th, the first session of the convention was called to order in the lecture room of the School of Practical Science, the President, Mr. S. H. Townsend, in the chair. There were present Messrs. Baker, Burke, R. J. Edwards, W. R. Gregg, Gemmell, Hall, Helliwell, Belcher, Dick, Bird, Gordon, Aylesworth, C. E. Langley, Langton, A. E. Paull, Pearson, Siddall, Townsend, Wagner, Wickson and Wilmott, members of the Association, and Messrs. Wells, C. H. Acton Bond, J. C. B. Horwood and Sandford Smith, unattached.

The minutes of last meeting having been read and confirmed, the following report was presented and read by Mr. Edmund Burke, the Treasurer :

TREASURER'S REPORT.

1898.		Dr.	
Jan. 1.	To balance from 1897.....	\$1,021	78
	Members' annual fees.....	319	00
	Students' registration fees.....	18	00
	Students' examination fees.....	2	00
	Sale of examination papers.....	50	
	Interest on Treasurer's bank account.....	35	90
			<hr/>
		\$1,397	18
1898.		Cr.	
Dec. 31.	By W. A. Langton, salary for the year.....	\$199	98
	W. A. Langton, general disbursements.....	18	16
	Printing reports, circulars, etc.....	23	97
	C. H. Mortimer, CANADIAN ARCHITECT AND BUILDER for 1898.....	22	00
	Harry Webb, Convention lunch.....	20	25
	R. M. Williams, engrossing Minutes.....	10	00
	Davis & Henderson, receipt book.....	2	25
	W. J. Graham, attendance at Convention.....	5	00
	Wm. Tyrrell & Co., letter heads.....	5	00
	Nelson R. Butcher, typewriting.....	4	11
	Books added to Library.....	4	00
			<hr/>
	Total disbursements.....	\$ 314	72
	Balance on hand.....	1,082	46
			<hr/>
		\$1,397	18

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

HENRY LANGLEY } Auditors.  
WM. R. GREGG }

The Treasurer, in submitting the accompanying statement, has to report that all outstanding accounts for the year, as far as presented, have been paid. The expenditure (\$314.72) is \$128.28 less than last year. This saving has been made up, principally, by the reduction in the salary of the Registrar of \$100. The receipts, amounting to \$375.40, including bank interest, are \$187.05 greater than last year. The increase in the receipts is due to the payment of arrearages by a large number of members who were in danger of having their names left off the register. The fees received for 1898 amount to \$86. The balance in the bank is \$1,082.46, being an increase over last year of \$60.68. The following is a comparative statement of the income and expenditure for the past three years :-

	1896.	1897.	1898.
Members' annual fees.....	\$ 271 00	\$ 112 00	\$ 319 00
Members' registration fees.....	15 00	15 00	.....
Students' registration fees.....	12 00	17 00	18 00
Students' examination fees.....	9 00	5 00	2 00
Sale of examination papers.....	50	25	50
Library fines.....	.....	20	.....
Interest on Treasurer's bank acct.	46 20	38 90	35 90
Expenditure.....	573 32	443 00	314 72
Balance on hand.....	1,276 43	1,021 78	1,082 46

Respectfully submitted,  
EDMUND BURKE, Treasurer.

In presenting the report, the Treasurer drew attention to the increased amount received from members' fees, and pointed out that this was owing the fact that a number of members who were in arrears for some time back had paid up, and therefore the deficit was less than it would otherwise have been. This payment of back fees was something, however, which might not occur again, and he thought the Association was fast approaching the time when they must revert to the order of things which existed before incorporation,

when all services were honorary. Unless something could be done to enlarge the membership roll or increase the fees, to continue in the present course would be suicidal, as there was year by year a decrease in the amount of the balance in hand, and in a few years at most they would find themselves without funds. He could therefore see no other course than to revert to the plan of having no paid officers, if the balance they ought to maintain was to be preserved.

The President agreed that it would be necessary to take some such action as that suggested by Mr. Burke. Although this year the receipts were slightly in excess of the expenditure, owing to the causes explained by the Treasurer, it would be impracticable to continue much longer on the present lines.

The Registrar, Mr. Langton, pointed out that if all the members in arrears paid up there would still be a considerable lump sum to come in; but the regular annual income from the membership fees and other sources would on the present reckoning amount to about \$328, which was too close to the expenditure.

On motion by Mr. Siddall the report was then received and adopted.

The report of the Registrar and Librarian was then read by Mr. Langton, as follows :

REPORT OF REGISTRAR AND LIBRARIAN.

MEMBERS.—Pursuant to the recommendation of the last Convention the Council omitted from the list of members printed in 1898 the names of those who were in arrears for the annual fee for a longer period back than 1896. Members so in arrears were notified by registered letter that their names would be omitted from the list if their arrears were not paid up to this point. The membership as thus printed numbered 37 non-resident members, 29 resident members and 6 travelling members; in all 72 members. Since the list was printed one non-resident member has died.

STUDENTS.—There have been three students registered. The examinations were held in March. The board of Examiners was, Prof. Galbraith (Chairman), Messrs. C. H. C. Wright, S. G. Curry, R. J. Edwards, W. R. Gregg, Grant Helliwell, W. L. Symons, S. H. Townsend, A. F. Wickson, and the Registrar. There were two students examined: one for the First Examination, who was allowed a supplemental examination, but has not yet come up for it; and one for the Final Examination, who was plucked.

PROCEEDINGS OF THE COUNCIL.—The resolution of the Convention requesting the Ontario Government to place a sum of not less than \$5000 at the disposal of the School of Practical Science, for the purpose of making such tests of Canadian building materials as will furnish reliable data for use in the building trades, was duly forwarded to the Government through the Hon. Minister of Education. The Minister, in reply, said that the recommendation is worthy of careful consideration, but that, as the House had risen, no money could be voted until the next session. There was a formal session of Parliament in the summer, but no general business was transacted. The Council have amended the by-law relating to Student's Fees, Article 3, to read:—"The fee for examination shall be \$10.00 for each examination and \$2.00 for each supplemental examination." This by-law to affect students registered after January 14th, 1897. Two competitions which took place during the year, one at Stratford and one at St. Thomas, were brought to my notice by members of the Association as having unsatisfactory conditions; and, as instructed by the President, I wrote to the promoters of the competitions to endeavour to procure amendment of the unsatisfactory clauses of the conditions in accordance with the Association model of conditions of competitions which I enclosed. In each case I was told that the competition was too far advanced for a change in the conditions to be possible.

THE LIBRARY.—There have been 42 lendings among 19 borrowers. Additions to the library have been: Building Construction and Superintendence, Part II., by F. S. Kidder; Specifications, by W. F. Bower; Lectures and Lessons on Art, by F. W. Moody.

On motion by Mr. Wickson, seconded by Mr. Baker, the report was received and adopted.

The President's address was then read as follows :

PRESIDENT'S ADDRESS.

GENTLEMEN OF THE ONTARIO ASSOCIATION OF ARCHITECTS: In welcoming you to this our eleventh annual convention, I am glad to be able to congratulate you upon the present prospects of increasing prosperity in most branches, at least, of our work. But I regret to say, I am forced to admit that, in connection with the Association itself, the outlook is not so bright.

Three years ago a former president (Mr. Darling, I think) stated that the Association practically numbered among its members every person following the profession of architecture within the province. Since then there has been a considerable falling off in our membership, and not a few young men have opened offices, and begun practice, without having passed the examinations necessary to entitle them to become members of the Association; I doubt if the present register contains the names of more than two-thirds of those now practising in Ontario.

There are, however, some grains of encouragement: In Que-

bec, the Legislature, at its last session, passed an amendment to the "Architects' Act," restricting the use of the title "architect" to qualified persons; in England the registration movement has been steadily gaining ground, the President of "The Society of Architects" in his last address expressing the conviction that the bill would become law; and in the state of Missouri a measure—similar in effect to the one already passed in Illinois—is now before Congress.

And here it may be noted that the English bill is a much more comprehensive measure than our own. It not only seeks to restrict the use of the title to persons qualified to perform the duties of an architect, but also endeavors to prevent unqualified persons from attempting to perform those duties; and the American acts are still more restrictive—while our governments have never been asked to do more than restrict the use of the title to those who are qualified. On the whole, therefore, I think we need not despair of ultimately obtaining the amendment asked for.

The year has been a very quiet one and there is little of importance I can bring before you which is either new or interesting.

The early part of the year was marked by an unprecedented number of building failures, resulting in considerable loss of life and destruction of property. As usually happens at such times, after a score or more of lives have been sacrificed, public attention was directed to the unsafe condition of many of our public buildings, and efforts were made in some quarters to ascertain the extent of the hazard—for the most part without any practical results, because, as a rule, those having the care of the buildings in charge neglected to put the work into competent hands.

As mere instances of the danger to the public existing under the present system, I may refer to three incidents which came under my notice at the time:

1. At the inquest following the London city hall disaster a coroner's jury actually went out of its way to state that more than ordinary care was used in the construction of the beam that failed, in face of the fact that the safe load upon the floor carried by this beam was only something like ten pounds per square foot.

2. Under the influence of the public alarm caused by the London and Oshawa failures, the council of one of our oldest cities commissioned its leading architect to examine and report upon the condition of the buildings owned by the corporation, and, at a subsequent meeting, an alderman who was not present when the appointment was made, is reported to have spoken very violently in opposition to his employment, charging the council with reckless and unnecessary expense, one of his reported sentences being, "Me and Jimmy Jones as knowin' the strength of timbers could ha' done it without costin' nothin'," ("Jimmy Jones" standing, if I am rightly informed, for the corporation superintendent of buildings).

3. In another town a local practitioner was commissioned to build a public hall—the upper storey of a building twenty-four feet wide—and proposed using for the floor, which was to have no intermediate supports, 2 in. x 12 in. joists at 16 in. centres. The London disaster occurring about this time, he evidently became frightened, for he sent his drawings to me (probably having seen my name as president of the Association), explaining that he was afraid the floor would not be stiff enough, and asking if I thought there was a cheaper way of making it strong than by nailing 1 1/4 in. x 3 in. hardwood strips (Queen post fashion) on the sides of the joists.

Curiously enough the journals containing accounts of these building failures published, side by side with them, a series of attacks upon the Association, the writer asserting the principle of registration to be wrong, and, with all the confidence in the world, advocating municipal supervision in its place, just as though the failures there reported did not afford the most complete refutation of his theories.

Municipal supervision is a very good thing (if properly carried out) as an additional safeguard, and what hope could any sensible person have of getting it properly carried out, under existing conditions, anywhere in Canada? But, to substitute it for scientific knowledge in the architect, as a means of avoiding building accidents, would be about as sensible as providing for the storage of naphtha, a combustible building heated by an open fire and safeguarded by an elaborate fire protective system, as a substitute for an incombustible one heated by steam pipes. There is danger in both; danger is inherent to the condition—but, how different.

As these letters have been very fully answered by the Registrar, I need not take up your time by further reference to them. But I would like to say a few words in answer to another kind of attack continually being made upon the Association. I mean the complaints of those writers who censure the Council every time they hear of members of the Association entering a badly conducted competition, or accepting lower fees than in their opinion should be charged for work; and the objections of others who are continually crying to the Council to do something—they never say what—to make the Association of more interest to its members.

To the first class of objectors I wish to point out that the Association is not a "trades' union," and does not believe in trades union tactics.

It is true that the Council has, as a matter of education to the public (and to the profession as well), prepared a set of competition regulations, and forwarded copies upon occasion to building committees, as suggesting the standard of fair conditions necessary to induce the best class of architects to compete: and it has analyzed and pointed out objectionable features in other conditions, and advised members against entering competitions where the conditions were unfair, and some members of the Association who have disregarded the advice have been sorry for it afterwards.

But the Council has never sought to coerce its members to any line of action, either in regard to competitions, fees, or other matters in the conduct of their business. It is not its province to do so.

These matters are personal to each practitioner and do not concern others, or the profession generally; and the Association has no right to interfere, save when the matter is of such a nature as to involve dishonest dealing upon the part of the practitioner.

It is, as Mr. Darling so lucidly pointed out in his presidential address, the indisputable right of an architect to fix the scale of fees for his own practice at what he considers his services are worth, and—however foolish it may be for him to differ from the recognized tariff—nobody has any right to complain, provided he charges everyone the same.

But it is clearly not honest for the individual who is ready to sell his services to a close-fisted client for 2 or 3 per cent., to charge 5 per cent. or more for the same services to the easy-going one who neglects to make a bargain with him beforehand, and I think this Association should take some steps to prevent the man who wishes to act in this dishonest way from making use of the tariff of the profession to collect, from clients who do not bargain beforehand, larger fees than he makes a practice of accepting from those who do. Possibly some good might be accomplished by an official notification to the courts, that the schedule of charges generally accepted by the profession as fair remuneration for professional work is not intended to over-ride any standard an individual practitioner may, by his own practice, have set up for himself.

To the second class of objectors—those who complain that the Council is not active enough, and that the Association fails to give a direct return for the fees paid—I would like to explain that the Association has never promised a direct and immediate return, in benefits, to its members. It was not formed for that purpose.

The sole purpose for which it was established is, to so educate the public and the profession, as to raise the status of Canadian architecture and establish a standard whereby the public can distinguish between competent and incompetent practitioners.

And yet it seems to me that for the few short years our Association has been in existence, it has not altogether failed, even, to be of immediate and direct benefit to its members.

With the aid of the Faculty of the School of Science (I might also say by aiding the school, for, although the initiative is due to the Association, the school has done no small part of the work), the Association has already placed within the reach of its members and architects generally, a large amount of exact technical data, gathered from experiments upon the building materials we are using every day; and has laid the foundation for a more extensive system of tests, which, if the government will but grant us the assistance we ask, will soon place the architect employing Canadian material beyond the necessity of using for his structural calculations, data derived from experiments made upon foreign materials of which he knows little, under conditions of which he knows less.

It has formulated and placed at the disposal of the cities and towns of the province a set of building by-laws and regulations which, if adopted and enforced, would result in great benefit to public and architect alike.

It has held conventions and exhibitions, and given public lectures on subjects calculated to raise the standard of architectural knowledge and educate the public to a just estimate of the value of high architectural skill.

It has dealt with fraudulent and unfair competitions, and has prepared a summary of the conditions essential to fair competitions, which, if adopted by building committees and insisted upon by architects, will result in benefit to both.

It has got together a library for the use of its members and their students, which (although but a small one) has been selected with unusual care, having special reference to the needs of students and those practising in small places where books of reference are difficult to obtain.

And last, but not least, it has fostered an "esprit de corps" and feeling of fellowship among its members, which is gradually bringing all the better men in the profession into sympathy with each other's higher hopes and aims, and enabling them to work together with one common object—the advancement of the art they love—or ought to love.

No one conversant with the condition of affairs prior to the formation of the Association can fail to see a marked advance in this respect—an advance which to many would, alone, be a sufficient warrant for its existence.

This record would not, I venture to say, have been a very discreditable showing had the Association been established for the express purpose of benefiting its members and nothing else, but, as I have said before, the real object of the Association is purely an educational one—to so educate the public and the profession as to raise the status of Canadian architecture and establish a standard whereby the public may be enabled to distinguish between qualified and unqualified practitioners.

In pursuit of this aim also the Association has at least performed its duty. In addition to the various achievements (if I may be pardoned the expression) already referred to, most of which are distinctly educational in effect, it has defined the course of study best adapted to the education of persons intending to qualify themselves for the practice of architecture, carried on the examinations required by the "Architects' Act," held lectures for students, and even furnished students with books free of charge. In fact, it has done almost everything a purely voluntary association can do to produce a high standard in the profession, but it can never be fully successful in this while the Act remains in its present shape.

Voluntary examination may be all very well in its way; it will



stimulate and encourage the best class of students, and architecture will be benefitted by it to the extent of such encouragement; but so long as any one may call himself an architect without first proving that he has the qualifications necessary to safe and proper practice, lazy and stupid students will continue to shirk the examinations and the study necessary to pass them, and will foist themselves upon the public as architects, assuming the title and undertaking professional work with all the assurance of experience and competency. Failures must of course ensue, and the public, knowing the culprits only as "architects," and having no way to distinguish between the competent and incompetent persons using the title, will naturally enough charge the crime to the whole profession, and so fail to give, even to the competent architect, that entire confidence so essential to the successful conduct of professional work.

And yet, because we ask the government to give the public the means of making this distinction, we are accused of duplicity in stating our aim to be "the raising of the standard of architectural practice," and are told that our real object is "the regulation and restriction of the profession." Yet could any mistake be more stupid? Restrict the use of the title to competent practitioners only, and the necessity for regulation disappears.

But now in the meantime can we not, as a voluntary paper-reading association—an R.I.B.A.—do something to further our aim and art itself?

One or two matters occur to me which might be dealt with.

The Municipal Council of Paris offered prizes to the architects and owners of the most attractive houses erected in that city during the past year, and the result is said to have been highly encouraging. Would it not be well within the scope of this Association to urge the authorities of Canadian cities to take similar action? Might we not ourselves offer prizes to cover the work of the whole province? The prizes need not be large, for the honor of pre-eminence ought alone to be a sufficient inducement. Such a movement, if properly carried out, might give no small impetus to architectural studies, and awaken a public interest which could hardly fail to have beneficial effects upon the development of architecture in this country.

Can we not also renew our efforts to secure the continuance, upon a large scale, of tests of Canadian building materials and inventions? The Society of Architects is winning laurels for itself in this direction.

Mr. G. Helliwell then read the report of the Toronto Chapter, as follows:

REPORT OF THE TORONTO CHAPTER OF THE ONTARIO ASSOCIATION OF ARCHITECTS.

The Executive Committee of the Toronto Chapter beg to report to the Ontario Association of Architects in convention assembled:

GENTLEMEN,—The Chapter has met regularly at the School of Practical Science on the second Monday of each month, exclusive of the summer interim.

In all seven meetings have been held. The average attendance, as taken from the minutes, has been about nineteen. The largest attendance was at the November meeting, when the Rev. C. H. Shortt, M.A., delivered a very instructive and interesting lecture on Gothic architecture in the time of King Henry.

The number of members on the roll now is twenty-seven. At each meeting of the Chapter a programme of interest has been provided, usually in the form of the reading of papers. The following is a list of the subjects treated: "Some Points in Wood Construction," by Mr. H. B. Gordon; "Decoration," by Mr. S. G. Beckett; "Specifications and Tests for Structural Steel," by Mr. J. A. Duff; "Suggestions on House Planning," by Mr. Grant Helliwell; "Steam Heating," by Mr. William Mansell; "Interior Decoration," by Mr. W. H. Elliott; "Gothic Architecture in the Time of King Henry," by Rev. C. H. Shortt, M.A.; "Domestic Architecture in the Eastern States," written by Mr. A. N. Patterson, M.A., A.R.I.B.A., and read by Mr. Baker; "A Few Notes on Tall Building Construction," by Mr. J. Wilson Gray.

The Chapter at the November meeting appointed as its representatives on the Technical School Board Messrs. W. A. Langton and A. F. Wickson.

At the annual meeting of the Chapter held in April last the following were elected to act on the Executive Committee, viz., Messrs. Burke, Gregg, Helliwell and Jarvis, who, together with Messrs. Baker and Wickson, form the complete executive.

The committee met subsequently, and appointed its officers as follows: Grant Helliwell, chairman; F. S. Baker, vice-chairman and also secretary-treasurer.

The above is respectfully submitted.

(Signed) GRANT HELLIWELL, Chairman.

Toronto, Jan. 17th, 1899.

Mr. Burke pointed out that while the average attendance at the meetings of the Toronto Chapter was 19, that hardly gave a fair idea of what the attendance was in reality. At the meeting at which Rev. Mr. Shortt lectured, there was an attendance of 60, which had materially brought up the average. As a matter of fact, he thought that seven or eight was more like the average attendance at the ordinary meetings.

Mr. Baker said that was too low, he would place it at twelve.

Mr. Burke thought even that was a poor showing. The Toronto Chapter was intended to take the place of

another organization, which had given way to it, and with such a small attendance he did not think it was quite fulfilling its purpose.

Mr. Paull complained of the dilatoriness which prevailed in the matter of beginning meetings sharp on time, which he thought was unbusiness-like, and probably had the effect of deterring some from attending.

Mr. Gregg said that probably if they availed themselves of one resource which had not hitherto been tried, it would result in a better attendance at the Chapter meetings. That was for the members to remain at their offices until 6 or half past 6, and then meet at some place arranged, have tea or dinner together, and afterwards to hold the meeting while all together. Until that had been tried he did not think it was right to say the Chapter had not fulfilled its purpose of taking the place of the Guild, the organization referred to by Mr. Burke.

Mr. Helliwell, referring to the remarks of Mr. Paull, said that the delay in calling the meetings to order was occasioned by the desire to give members an opportunity to look over the very interesting drawings and books which were laid out on the tables on the occasion of the meetings. For his part he had always found that time well spent, and he did not think it had the effect of keeping members away from the meetings.

Mr. Paull quite agreed that the time spent in the way referred to by Mr. Helliwell was profitably employed, but thought it would be better to have it definitely stated on the agenda that such time would be given for that purpose, making the hour for opening the meeting that much later, but beginning sharp at the time stated.

Mr. Baker wanted to know what was going to be done with the ghost of this Toronto Guild, which, it seemed, would not down. It was news to him that the Toronto Chapter had been formed out of the old Guild. The Guild, he had always understood, was a society not connected with the Association. The Chapter, on the other hand, was the Association. He thought it would be a good thing to drop the word Chapter, and simply hold meetings of the Association once a month, and members ought to make a point of attending these meetings. He did not desire to further take up the time of the meeting, although he would willingly spend an hour in defence of the Chapter meetings, because he had great faith in their possibilities for usefulness.

Mr. Langton said he had always an inward feeling of resentment against the idea that he or any other member should attend these meetings as a matter of duty. If the Chapter could make its meetings sufficiently interesting and profitable to induce members to leave their firesides and their books well and good, but he deprecated the idea that he or any other member should be called on to attend meetings when they felt that that was not making the most profitable use of their time.

Mr. Baker maintained that some of the papers read were of a high order, and quite interesting and instructive enough to warrant one's leaving his fireside.

On motion by Mr. Helliwell, seconded by Mr. Baker, the report of the Toronto Chapter was then received and adopted.

Mr. Siddall inquired if the present was the proper time for him to move his amendment to the by-laws of the Association.

The Registrar said the clause in the report of the special committee appointed to deal with questions connected with the Association read as follows: "Your committee would recommend that the word 'ten' in clause 2 of the by-laws passed by the Association at the annual meeting be struck out, and the word 'five' be substituted, and that this recommendation stand as notice of motion to be discussed at the next convention."

The clause referred to was, "Any person being a British subject, who has for ten years been practising the profession of architecture and residing within the province, and is, at the time of his nomination, a member in good standing of this Association, shall be eligible for election as a member of the Council." It was proposed to read five years instead of ten years.

Mr. Siddall said it was no doubt within the recollection

tion of all present that this motion had been fairly discussed, not only in the convention last year, but in a committee appointed to consider the matter, which committee reported in the manner which had just been read. It might, however, be well to state, in case any had forgotten, that the object aimed at was to infuse new blood into the Council of the Association. It had been felt that the Council, being composed of old established architects, might be benefitted by having some of the younger members included in it. He held that opinion himself, and he thought there was a sufficient number of that view to compass the bringing about of that change.

Mr. Gregg had great pleasure in seconding the motion.

Mr. Wickson said that while the committee that reported upon the matter evidently felt very strongly regarding it, still it was desirable to proceed with caution. While the action suggested might be a good thing, it seemed to him that from ten years to five years was a long jump, and if a reduction was made he was personally strongly in favor of a term of more than five years. He would therefore, unless it required a whole year's notice, move in amendment that it be made to read seven years.

Mr. Burke agreed with Mr. Wickson, that the drop from ten to five years was rather too great, but he would be very glad to support the motion if it were made seven years.

Mr. Baker said he had been looking over the constitutions of other associations, and the longest term he could find in any of them was seven years. In the New South Wales, Australia, association, and several others, the limit was five years. He thought it was immaterial whether it was made five or seven years, and he did not suppose Mr. Siddall cared for two years either. He thought a man who had spent five years in the profession, if a clever fellow, might, if elected to the Council, prove a very desirable acquisition to that body. If he was not a fitting person, there was little danger of his securing election.

Mr. Gregg did not think there was any danger to be apprehended; even if a five years member who happened to be lacking in experience and judgment did find his way into the Council, he would find himself surrounded by men older than himself, by association with whom he would gain those qualities in which he might be lacking. It was not at all probable that the proposed change would have the result of bringing in a majority of the younger men and enabling them to carry everything their own way. He saw no danger in making the term five years.

Mr. Wickson admitted the force of Mr. Baker's argument, that the election was in the hands of the Association, who might be relied on to choose suitable persons even in the absence of any qualifying limitation. At the same time he thought it was often found desirable to retain a good rule on the books.

Mr. Dick said that while he was conservative in his tendencies he felt that in this matter the limitation ought to be removed as far as possible; certainly it should be reduced from ten years to five. For his part, he would not object to the total abolition of the qualification, and the throwing of the whole responsibility of electing proper persons upon the Association; he thought the members ought to be able to choose the right men for election to the Council, whether they were architects of one year's experience or of ten years' experience. He therefore should support the shortest term mentioned.

The President thought it was advisable that a member should have sufficient time to demonstrate his fitness to represent the Association. He thought, however, that five years was quite a sufficient time for that, and would support the motion to that effect.

Mr. C. H. Acton Bond asked if a non-member might be allowed to speak on this matter, and being assured by the President that the meeting would be very glad to hear either him or any other of the visiting members, made the suggestion that a safeguard would be provided if a certain proportion of the Council was limited

to ten years' men and the other portion to five years' men.

The Registrar, Mr. Langton, did not think there would be any danger in making members of even less than five years' standing eligible for positions on the Council. Of the younger members there was no likelihood that any would be put forward but those who engaged actively in the work of the Convention, and gave evidence in that way of their capacity for administration; the others would not suggest themselves as suitable persons. He felt that the interests of the Association were far more likely to suffer from inability to elect to the Council really desirable men of less than ten years' experience than from any sudden influx of the younger element.

Mr. Wickson, while recognising the suggestion of Mr. Bond as theoretically the ideal one, thought there were considerations which would render it impracticable, such as the rotation question. With the permission of the Chairman, he would withdraw his amendment, and allow the original motion to go to the meeting.

Mr. Burke, seconder of Mr. Wickson's amendment, having assented to its withdrawal, the original motion was put and carried.

The meeting then proceeded to the consideration of "New Business."

Mr. Burke, following up the remarks made by him in presenting the Treasurer's report with regard to the state of the funds of the Association, said he thought the time had now arrived when the Association or the Council ought to consider some scheme for the reduction of the expenses. He did not know whether he had any support in the meeting on his view, but he very much desired to elicit some expression of opinion regarding this subject.

Mr. Baker thought the Treasurer's report was not quite so discouraging as some seemed to imagine, but rather indicated that after the dark days of the past few years there was light ahead at last. It was true they had not succeeded in obtaining the sought for amendment, but he thought it would be well now to recognize the inevitable and direct their energies, hitherto expended largely on that object, into other ways of building up the Association. With that object in view he had prepared a few suggestions, which were as follows:

That a committee, consisting of six members in good standing to be selected by the President, be appointed to consider the following and other matters:

1. To find, and if possible obtain an option upon, a premises which would make a suitable headquarters for the Association.
2. To consider the advisability of increasing the membership fees, and of using a portion of the increased income to form a benevolent fund to be used for the relief of any worthy member who may be in distressed circumstances.
3. To approach the government with a view to their appropriating funds to provide a medal, to be known as the "Ontario Gold Medal," to be presented annually to the member of the Association or other architect, whose work in ordinary practice in Ontario is considered of the highest merit.
4. To consider the advisability of providing a suitable medal out of the funds of the Association annually, and of raising a sum of money by popular subscription or otherwise to found a scholarship or travelling studentship, and that this medal and scholarship be presented each year to the student who ranks highest in the final examination for qualification for membership, or for other qualifications.

That this committee confer with the Council from time to time and present a definite report to the Convention of 1900, and that the adoption of this motion stand as notice that these matters will be moved at the next convention.

He made these suggestions merely to afford a working basis or plan of action. It would be observed that the suggestions operated equally in favor of members residing in Toronto or elsewhere. Referring to the first item, he thought it was time they abandoned their swaddling clothes and assumed the full status of manhood as an Association. He thought the Association ought not longer to rely upon the good offices of those who had so kindly in the past permitted them to use the School of Practical Science, but should now establish a headquarters of their own; he felt that the dignity of the Association demanded it. The second item, the increasing of the membership fees and forming a benevolent fund was equally desirable. He thought the present membership fee was exceedingly low; he had

never heard of any similar institution in which the highest membership fee was only five dollars, and, though he did not desire to criticize, he was inclined to think a mistake had been made when the fees were reduced, and that that action was in some degree responsible for the falling off of the Association, because it might be argued that where the fee was so low the benefits must be small, and it could not be worth while to become a member. The benevolent fund of the Royal Institute of British Architects had been growing and increasing, and in the few cases where its benefits had been applied had been found an exceedingly good thing. Of course it was known to all that subscribers to a benevolent fund were entitled to its benefits without being under obligation to anyone for them. The third item, the application to the government for funds to establish an "Ontario Gold Medal," he thought would furnish an incentive to architects which would have the effect of improving their work in every direction. The medal would be sought for by the architects of the province just as the Royal gold medal of England was regarded as the highest honor to be attained by any old country architect. Of course, Canadians were eligible as competitors for that medal, but it was not likely under present conditions that it would be obtained by a Canadian. The course he suggested would be in the public interest, as it would result in a generally improved class of architecture, and it was therefore something which ought to meet the approval of the government. The fourth item in his motion was the providing of a medal out of the funds of the Association, and a scholarship by public subscription or otherwise, to be competed for by the students of the Association. He thought that hitherto the Association had not held out sufficient inducement to its students; in fact, he almost felt like saying they had been neglected. Certainly very little had been done for them, and the remark was frequently made by students, "I would like to register, but why should I, there is nothing in the Association for me!" It seemed to him that the attraction of students to the Association was one of the most desirable things, for if they could get the students, success was assured. He thought architects not connected with the Association must feel on many occasions that something was wanting in their make up as an architect, and that something was membership in the Association. He believed that in the course of time, perhaps before they secured any amendment to the act of incorporation, men would be proud to call themselves registered architects. Other institutions had prospered all along the line without restrictive legislation, but in all those cases it would be found that attractions of some kind had been provided to induce and maintain the membership. He thought the medal and travelling scholarship he suggested would prove a very strong inducement to students, and have the effect of reinforcing the ranks of the Association. He thought a policy such as he suggested was quite practicable, and would have the effect of building up and strengthening the organization, and placing it in a better position to assume the new responsibilities which would undoubtedly fall upon it when, in the future, the desired amendment was secured.

Mr. Helliwell suggested the advisability of discussing the various clauses of Mr. Baker's motion seriatim.

The President pointed out that the matter could only be dealt with as a notice of motion, and therefore it might not be well at this stage to spend time in discussing it clause by clause.

Mr. Pearson said that before Mr. Baker spoke the idea seemed to be to cut expenses down; Mr. Baker's proposition seemed to be to put them up. Mr. Baker certainly had a very rosy view of the future, which it was to be hoped was well grounded, but, speaking for himself, he thought the programme outlined was almost too much for the Association to undertake.

Mr. Burke was of the opinion that it would be necessary to have a very much larger income than that possessed at present if the Association was to embark in all the projects outlined by Mr. Baker. Even to continue its existence it was necessary either that the mem-

bership fee should be increased or the membership list augmented; there were only the two courses open, as far as he could see.

Mr. Wickson said it did not necessarily follow that all of the suggestions embodied in Mr. Baker's motion should be adopted. He thought that the idea of accord- ing some recognition to the man who had done the best work during the year, if confined to registered archi- tects, would be a very strong incentive to good work by members of the Association. Some of the other sugges- tions, although good, might not be practicable just now, such, for instance, as establishing a headquarters of their own, which would be open to the objection that it was available to the Toronto members only, and there- fore would not be likely to meet with support from out- side members. But the mere fact that Mr. Baker's suggestions might not be accepted in their entirety was no reason for not considering such of them as seemed valuable.

The Registrar, Mr. Langton, thought there could be no possible objection to the appointment of a committee to consider Mr. Baker's suggestions, and, indeed, any other ideas on similar lines that might occur to them in the course of their discussion. He had had an op- portunity of seeing Mr. Baker's proposals before they were brought before the meeting, and at first sight he had been favorably impressed by them, but on careful consideration, and speaking as one who had an inti- mate knowledge of the financial affairs of the Association, he felt alarmed at the largeness of the idea of establish- ing a scholarship and a benevolent fund. The matter of the medals, he thought, was quite within their re- sources. If Mr. Burke's suggestion was adopted, and the offices all made honorary, it might also be possible to have a room as suggested by Mr. Baker. The ques- tion was one on which much might be said on both sides, and as there were some gentlemen in the room, not members of the Association, but who had some ideas regarding what the course of the Association ought to be, this might be an opportune time to hear their views.

Mr. Wells, one of the gentlemen referred to by Mr. Langton, said that the matter now before the meeting opened up a very wide field for discussion. He remem- bered in reading the report of last year's convention that one member had expressed himself to the effect that he was getting tired of paying fees merely to afford students an opportunity of being examined, entirely for their own benefit, and for that reason contemplated dropping out of the Association. He thought that Mr. Baker's point was very well taken. He did not sup- pose that even the most ardent member would claim for the Association that it had hitherto been a howling success, nor did the attendance on the present occasion evidence that such was the fact. He thought Mr. Baker had hit the nail on the head when he said that without the students the Association could not look for- ward to a very prolonged or useful existence. Of course the older members might carry it on for a time, but without an accession from the ranks of the younger architects it could hardly be expected to prolong its existence more than fifty years at most. So far they had not succeeded in getting the amendment to the charter which they sought, and, as far as he could judge, there did not seem to be any immediate prospect of their doing so. They might possibly secure it in the course of fifteen or twenty years, but even if they did he questioned whether it would be a good thing for them. In the meantime, how was the Association going to get along without the young men. The Presi- dent appeared to regard the history of the organization with entire satisfaction, to think that it had done nothing which it ought not to have done, and had left un- done nothing it ought to have done. This, however, was not apparent to some of the younger men in the profession. It therefore seemed to him that Mr. Baker's proposition that something should be done to encourage the younger men to join was a good one. He was aware that the question of ways and means presented difficulties, but they were not insuperable. He thought that the great trouble was that at the outset the whole

idea was to get restrictive legislation, and that with that in view everybody then practising had been taken in; in fact, at that time he believed there were not more than one or two men of any prominence who remained outside of the Association. Consequently things had been lively for a time. It had been found impossible, however, to deliver the goods according to contract, and for the last few years the enthusiasm had apparently been on the wane, and at the present time he was unable to observe any indications of any tremendous enthusiasm. It had occurred to him that if the Association could be re-organized on a different basis, with different ideals; if it would get down to business and strike off the roll the delinquents, and settle down to a business-like course of procedure, it might be productive of much good. Of course, all the things proposed—the benevolent fund, the scholarship and medals, and the rooms—could not be had at the start, but would have to be carried out as opportunity offered. He thought the true province of such an Association was that recognized by the older societies, both in England and the United States—not the securing of legislation from some government, but the encouragement of the profession by awarding scholarships and medals, and in other ways advancing its interests. There was no doubt that young men would work very hard for the honor of winning medals; where they were awarded there was never any scarcity of competitors for them, although they carried nothing but honor. He thought the Association might devote more attention to the art side of the profession and its improvement, as that was something which appealed to the young men with more force than such topics as fire-proof construction, which could be read up in books.

Mr. Bond, another of the non-members, deprecated the idea that he or his associates had come to criticize the course of the Association in any spirit of antagonism. He had always been under the impression that the primary idea of the Ontario Association of Architects was to secure legislation in their favor. He did not think that was right; it seemed to him that the true province of such an association was to become more and more an educator of the public. He advocated the giving of popular lectures at some central part of the city as a means of enlightening the public as to the value of good architecture. The idea of legislation was good, but there was no use in trying to force it; if it was a good thing it would come of itself. He did not think the writing and reading of papers made up from journals which all had the opportunity of reading for themselves had much educative value. Reference had been incidentally made to the fact that when Mr. Shortt lectured before the Toronto Chapter there was an attendance of sixty, whereas the average attendance was ten or twelve. He thought this showed the desirability of securing as lecturers men capable of presenting their ideas in an attractive form, even though they might be men outside of the profession. Referring to the qualifications of architects, he said it had been his misfortune to work with two men whose qualifications were attested by an institute of high standing, but who nevertheless had proven themselves conspicuously incompetent. He did not pretend to say that this fact condemned the institute in question, but it did show that the diplomas held by the men in question proved nothing.

Mr. Gregg said he was unable to understand the position of those represented by the gentlemen who had just spoken. Why did not these gentlemen come into the Association and help to do the things they thought so desirable? The very first sentence of the Act of Incorporation set out that the object of the Association was "to ensure a standard of efficiency in the persons engaged in the profession of architecture, and for the furtherance and advancement of the art of architecture." Surely that was broad enough to cover all their aspirations. He saw no room for such discussion as was being carried on; the thing to do was for all to join together and work to make the Association fulfil its avowed objects.

The Registrar, Mr. Langton, thought it was a mistake

to say they had not devoted themselves to art, for that as well as construction had been dealt with. All of the papers he had himself contributed had been devoted to the artistic aspect of the profession of architecture, and many similar papers had been contributed by other members. He thought Mr. Gregg was right, and that the gentlemen who wish to look upon architecture as an art would find themselves in place as members of the Association.

Mr. Bond objected that, under the rules which had so far governed, the young men, even if they came in, would have no influence. Of course, that was something which might be removed by the resolution just passed, making members of five years' standing eligible for the Council.

The Registrar pointed out that it was possible to exercise a great deal of influence without being a member of the Council. The reading and discussion of papers and the suggestion of desirable courses of action was not confined to members of the Council.

Mr. Baker thought the Association might congratulate itself on the presence at the meeting of Messrs. Wells and Bond, and the opportunity those gentlemen had given us, in the language of Burns, "to see ourselves as others see us." Messrs. Wells and Bond had to some extent criticized the Act under which the Association was incorporated. He thought there was nothing the matter with the Act at all, and it was a mistake to suppose they could not work efficiently under that Act. Perhaps, indeed, if they had gone ahead under it without seeking amendment they might even now have been in a more prosperous condition. He felt, as Mr. Burke had said, that they must either resign themselves to falling into decline and death by slow consumption, or adopt some radical changes and infuse new life into the organization. As to the question of funds, it seemed to have been assumed by most of those taking part in the discussion that his proposals necessitated the expenditure of large sums of money. Now, he would ask, what did they call for? In one case the Government was to be asked to provide funds for a medal. That would be without cost to the Association. Then, as to the benevolent fund, it would be observed that he had coupled with it an increased membership fee. A very small amount of money would be sufficient to found the benevolent fund, and it was only because of its great usefulness that he had suggested it. As to the establishment of a home of their own, he thought that was most desirable; the Association had now been in existence some ten years or more, and he did not think they ought to continue year after year to be under an obligation for the use of the rooms they occupied without paying anything for the privilege. Then, as to the point made by Mr. Bond, that passing the examinations of this or any other Association was not necessarily a proof of a man's competency, he thought the inference sought to be drawn was hardly fair. It was well known that there are exceptions to every rule, and no doubt some men would pass the examinations who were not brilliant, but at least they would possess the knowledge they had acquired to pass, and the possession of the diploma was absolute proof to the public that they were to that extent qualified. He thought Mr. Bond might in fairness have said he knew numbers of other men who had gone through the same course who were in every way successful and competent architects. Most of the eminent men in all professions to-day were members and graduates of institutions similar to their own. There was always a number of men of the aesthetic class, who objected to having anything to do with the practical, business-like side of architecture. They were excellent men, their work was always delightful to look at and a joy for ever—men like Jackson and Norman Shaw—and no doubt they advanced the standard of architecture. But, after all, there was a practical side, and this Association was intended to protect the public; it was in every sense *pro bono publico*, no matter what might be said of its selfishness, which might, in a sense, be true; in a broad sense it was not true. Everything that had been done was for the good of the public, and would work out for

the good of the public, and if they went on there was no necessity for changing the constitution at all. They had failed in securing the legislation asked for, but there was no reason why they should not go on and make the most of their Act in its present form.

Mr. Helliwell regarded the discussion which had been taking place as one of the most important which they had ever had. It had become apparent that the point was reached when they must either sink or swim, and with a view to swimming he thought the suggestions made were exceedingly valuable. He thought Mr. Langton had put the pith of the whole thing into a sentence when speaking of the Toronto Chapter, that if they had a right to exist, let them prove it; if they had not that right, let them die. He thought that applied equally well to the Association as a whole. A gentleman in conversation with him had remarked that the Council was the whole Association, and that ought not to be, and instanced another society, in the old land, where, while the Council had the responsibility of conducting affairs, yet standing committees were appointed to deal with practical questions and confer with the Council. It seemed to him that some of the questions now brought up might very well be dealt with by such a committee, who would deal with them vigorously and effectively. He thought it would be a great misfortune to let the Association die a natural death, because, as had been pointed out, there was really nothing to prevent it achieving beneficent results. He sincerely hoped that it would not be allowed to drop without earnest effort to accomplish the practical results which he felt confident were attainable.

Mr. Gemmell said that while the President, the Treasurer and some others were pointing out that it was hardly possible for the Association to do more than eke out an existence on its present resources, Mr. Baker was seeking to inaugurate a kind of new dispensation, and to induce the Association to embark in a number of new projects. No doubt, if there were ample funds in hand, it would be justifiable and perhaps wise to undertake many things. The idea of medals, he thought, was a good one, and something quite in line with the policy pursued by similar associations elsewhere. He thought the most important thing for the present was to raise the fees sufficiently to place the society on a self-sustaining basis, which he thought would enable it to assume a more commanding position in the eyes of the general public. It had been suggested that the term "Registered Architect" had been too much despised, and that if the Association had gone to work with the powers conferred by its Act, without amendment, and stuck to it, they might have found themselves nearer the realization of their hopes than was now the case. He advocated proceeding now on those lines, by endeavoring in all available ways to educate the public and the rising generation of architects, and he hoped that the younger members of the profession would throw in their lot with the Association, and try to make the title "Registered Architect" so distinctive that in time the government would without pressure see the wisdom of passing some such legislation as that which had been sought, but thus far without success. The immediately pressing point, he thought, was, "What can be done to prevent the continuance of this leaking away of the funds of the Association?"

Mr. Wickson believed that if every member would make use of the title "Registered Architect" on his office stationary, his sign and in other available ways, the public would be led to inquire the meaning of the title, and in that way would come to know more about the Association and its objects than they did now. He quite agreed with the policy of accepting the situation, and going to work under the powers they possessed and making the most of them.

The Registrar, Mr. Langton, was unable to agree with the inferences apparently drawn by Mr. Bond from the experience he had related regarding the Royal Institute men who had shown themselves lacking in ability. It was not reasonable to argue that failure was the result of too much education instead of too little ability. At the time when he first accepted the

registrarship of the Association he had done so without any great degree of enthusiasm as to its educational features, but in the performance of the duties devolving upon him in that office he had grown to regard the educational scheme as something of great value to the public. At present, however, it was out of the question to hope to secure that amendment to the act, for those with whom the power of making the amendment lay did not seem able to understand that it was possible that the Association desired the amendment for motives of public spirit and not for some selfish ulterior reason. There was, therefore, nothing for it but to accept the situation and make the best of it. He was thoroughly in accord with the views of the young men, of whom he accounted himself one, that architecture is an art. He would go so far as to say that no man could be a good constructor who was not an artist. If it is to be a question of talking about the art of architecture he would always be glad to attend meetings. Now that they were forced to abandon the idea of securing the amendment, he thought their object should be to strengthen and draw closer the bonds which held together the best and most thoughtful members of the profession, and to devote themselves to educate the public in a just appreciation of that which was best in architecture.

Mr. Bond disclaimed any intention whatever of decrying the value of education, but desired to point out that the passing of examinations and the holding of certificates or diplomas did not necessarily afford indisputable proof of the competency of their holder. He was fully in accord with the other ideas put forward by Mr. Langton.

Mr. Baker thought Mr. Bond ought to withdraw his statement. That gentleman had met two members of an association who had proved to be incompetent. He would undertake to produce for Mr. Bond 100 men who were not members of any association who were most utterly ignorant and lacking in qualification.

Mr. Bond said he had no intention whatever of casting any slur upon the institution in question, but was merely drawing attention to an instance which had come under his notice.

Mr. Gemmell said he had heard that not less than six or seven of the young men brought up under the influence of the Ontario Association had been able to take and hold positions in the city of New York and other parts of the United States, with credit to themselves and to the Association. He was not able to give the names, having merely heard it mentioned incidentally.

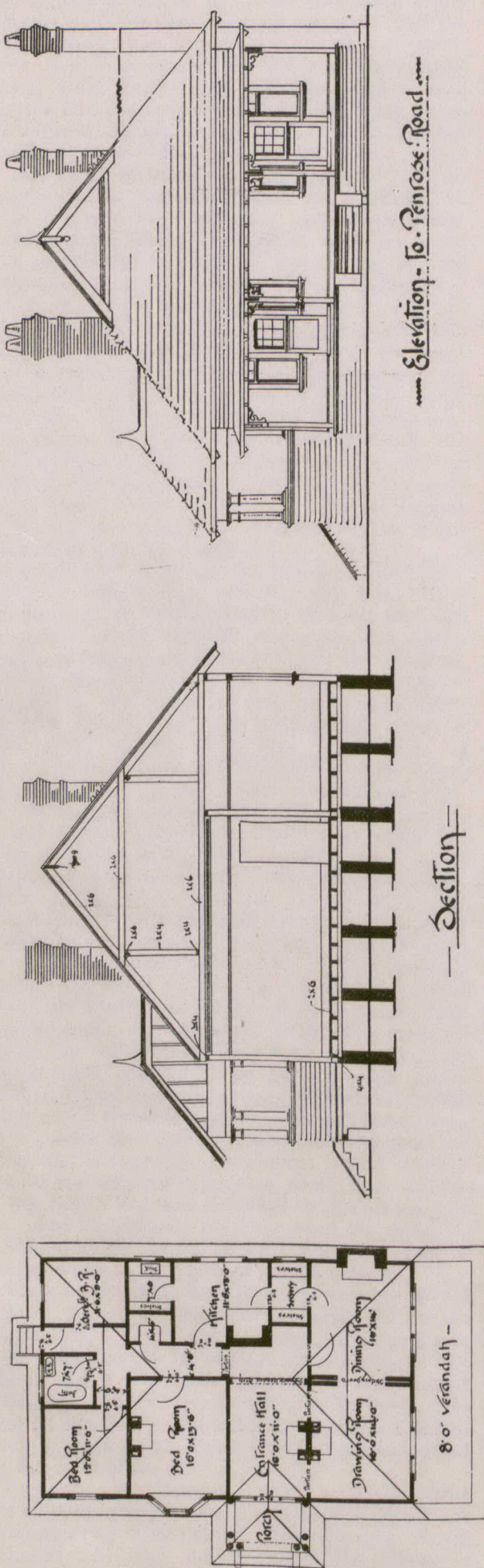
Mr. Wells said there was no doubt that was true, but he thought the young men themselves were entitled to a certain degree of the credit, their success being due in a very large measure to their own effort.

Mr. Bond said that while he did not wish to appear ungrateful to the Association, he felt bound to say that he had learned more by burning the "midnight oil" and in sketch clubs than other ways, and he thought students all derived the greatest good from their own individual effort.

Mr. Langton was glad Mr. Bond had raised that point, because among the good things the President had enumerated of the Association, he had not mentioned that, in drawing up the curriculum, it had made a list of things that an architect ought to know, which was very helpful in directing individual study and effort. Speaking for himself, he was glad to acknowledge that he had been very much helped by merely assisting to draw up that curriculum.

Mr. Burke said that something must be done in order to avoid the defection of members. Members complained that the Association was run on lines that were too expensive. He found that many objected to keeping up their membership for this reason. Others thought they were not reaping any material benefit, and as they did not see any cash value in the concern to them, refused to pay their fees. He was forced to the conclusion that unless some radical change is adopted the income of the Association would not be sufficient to meet the expenses, and a constant deficit would result. The only way to make ends meet, with the prospective small income at our disposal, would be to have no paid officers, the work being done by an honorary secretary, and expenses cut down to a minimum. Certainly the work of the Association cannot be carried on indefinitely if it is to be conducted on the existing lines. That was something which could not be ignored. He thought the suggestion of Mr. Wickson, as to making use of the title "Registered Architect" on signs and letter-heads, &c., was a good one. If the members agreed as an association to adopt that course he thought it would have the effect of inducing these members to keep up their subscriptions as a matter of self protection, which would provide the funds necessary to carry on some of the desired projects.

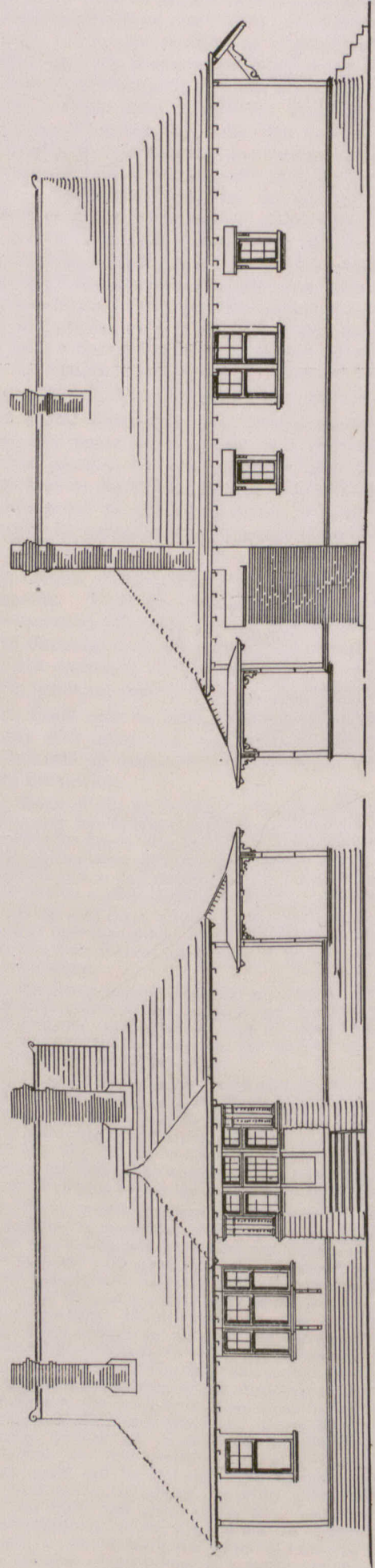
Mr. Wickson, following on the line of Mr. Burke's remarks,



Section

Plan

Elevation - To - Penrose Road



Elevation To S.W.

Elevation - To - Jubilee Road

PROPOSED COTTAGE AT ELLERSLIE, NEW ZEALAND.

R. M. FRIPP, F.R.I.B.A., AND G. S. GOLDSBROUGH, ARCHITECTS.

BANK  
OF  
MONTREAL  
BRANCH  
NOTRE DAME ST.  
MONTREAL  
Andrew T. Taylor, F.R.I.B.A.,  
Architect.



A.T.

pointed out that at first, when everybody was in the Association, there was no incentive to use the title, whereas now that a number had dropped out there was something distinctive about it. He thought the adoption of the use of the title, in conjunction with some of the projects suggested by Mr. Baker, would advance the interests of the society.

Mr. Burke then moved the following resolution, "That it be an instruction to the Council to take into consideration the advisability of the assumption by members of the Association of the title, "Registered Architect," and that if upon inquiry it is found to be a popular suggestion, the Council issue a notice to members in good standing to assume the title."

Mr. Wickson seconded the motion.

The President said that while Mr. Burke's motion was a good one, yet there was at present a motion before them, which must be dealt with before taking up that of Mr. Burke.

Mr. Baker explained that the reason he had moved for a committee instead of referring the matters to the Council was that the Council had always enough work on hand, and a committee would be better able to deal with the proposals made.

Mr. Dick thought it was desirable that every member present should express his views on the subject matter of the discussion; he had to confess his consciousness that his own ideas needed crystallizing before he gave utterance to them. He regretted very much the fact that another appointment rendered it impossible for him to be present in time to hear the President's address, but he had been very much interested in the discussion which was in progress when he entered the room. He thought Mr. Baker's suggestion that a committee outside of the Council should be appointed to consider the proposals made was a good one; the committee to confer with the Council and act in concert with it. From the remarks he had heard, he gathered that there was a general feeling that it was time to cease, for the present at least, the efforts to obtain amended legislation, and that the energies of the Association should now be devoted to bringing itself more prominently before the public, with a view to spreading a wider knowledge of its aims and desires, and, perhaps, to some extent at least, becoming an educator of the public taste. The people who furnished the money for the erection of buildings in many instances have very little artistic taste, and were chiefly actuated by a desire to obtain for their money a building that would yield the largest possible return for their investment. Now, something more than that was required of the public; it was desirable that they should have an intelligent interest in architecture, and should be able to criticize the designs submitted to them, and, in the case of competitions, be able to select with some degree of certainty the best of a number of designs submitted. Of course, it was well known that at present, in many instances, by no means the best designs were chosen. Even intelligent and educated persons take so little notice of architectural objects that they will often mistake for a view of some building with which they are perfectly familiar a drawing or photograph of some other building which has not the slightest resemblance to the one they have in mind. That showed how little interest they took in architecture. It was surprising how many people did not know enough of architecture to enable them even to distinguish between Gothic and Classic. Now, something had been said of popular public lectures. There were some difficulties about that. Architects, as a rule, were not facile writers or speakers. This was an attainment which an architect actively engaged in the practice of his profession had little opportunity of acquiring. It was his opinion that in the preparation of papers to be read too little attention had been given to the aesthetic side of the question, and too much condensation of books indulged in. It should be borne in mind that the preparation of a really valuable paper was a task not to be lightly entered upon, but one that involved a great deal of work and study. It was no use sitting down hurriedly and throwing together a few stray thoughts; a paper prepared in that way could not be expected to benefit anybody. It was true that some men had an inborn genius for throwing forth flowery effusions, but it would generally be found that such productions lacked the solidity and accuracy which were necessary to make them of value. The little interest evinced in the proceedings of the Association did not afford much encouragement to anyone to take the time and trouble necessary to prepare a really good paper, but he had no doubt that if the effort were made, gentlemen could be found in this city both willing and able to prepare and deliver lectures on architecture, which large audiences would be glad to come to hear. He had been much gratified at the large attendance at Rev. Mr. Shortt's lecture under the auspices of the Toronto Chapter, and thought it would be a good thing to arrange for a course of such lectures, because no doubt those who were present on that occasion would be glad to have another opportunity of listening to a lecturer who, in addition to knowing his subject, was skilled in the art of public speaking. A great deal had been said about the meagre number of good designs submitted in competitions, and the large number of inferior designs executed. It had to be remembered, however, that the conditions prevailing in this country were somewhat different to those existing in England, for instance. It was well known to all that an architect in this country had a great deal more to do than an English architect; he had to be not only the architect, but clerk of the works, and, in many cases, practically foreman of the trades. When a man's time was taken up in superintending the work and looking after all sorts of petty details he had too little time left in which to study his designs. He might burn more of the midnight oil, but that was something to which as a man grows older he is less inclined, and which he becomes physically less capable of doing with justice to himself. Speaking with regard to the future of the Association, it might be that the present scale of fees was too low, but he did not think it would

be politic under existing circumstances to raise it. As to the retrenchment in expenditure, the expenses at present were not very heavy, and there was still a surplus on hand, and he thought things might very well be allowed to run along another year or two on the present basis. He felt sure that all would agree that no man could better fill the position of Registrar and Librarian than Mr. Langton, and that the salary was no adequate remuneration for the time and trouble which the office entailed. Then as to the use of the title "Registered Architect." The general consensus of opinion at the time the act was passed was that they would be stultifying themselves by using the title, and, as had been pointed out by Mr. Wickson, at that time it carried with it no distinction whatever, because as every Tom, Dick and Harry through the country was taken in, there was no distinction in using that title. But if the names of all those who had not paid their fees were dropped, it would reduce the number very much, and he did not feel at all sure that Mr. Burke's suggestion was not a good one; at all events the Council might consider the advisability of now adopting it. He thought a great deal would depend on the number who would agree to make use of the title, whether it would be wise or not to adopt it, and it would be well to ascertain what number of members of good standing were prepared to fall in with the suggestion.

The President then put Mr. Baker's motion for the appointment of a committee, which was carried.

The President then put Mr. Burke's motion, with regard to the assumption of the title of "Registered Architect," which was carried.

The Convention then adjourned until 10.30 o'clock on Wednesday morning, the 18th inst.

#### SECOND DAY.

The second day, Wednesday, was occupied for the most part by the papers: "The Advancement of Public Taste in Architecture," by Mr. J. W. Siddall; "Plastering, Plain and Ornamental," by Mr. W. J. Hynes, and "Terra Cotta," by Mr. M. J. Hynes. These papers, which were discussed at some length, will appear in subsequent issues of the CANADIAN ARCHITECT AND BUILDER. A luncheon was also discussed at some length, and with apparent interest. It was discovered by a scientific gentleman present that 45 per cent. of architects, 66 per cent. of the staff of the School of Practical Science, and 100 per cent. of reporters for the CANADIAN ARCHITECT AND BUILDER are smokers. After the papers were read, Mr. Harkness, of the School of Practical Science, gave an exhibition by stereopticon of some of the slides belonging to the Architectural Department of the School. Business was then resumed.

Mr. Gregg said there was a matter he desired to bring before the Association. As they were no doubt aware, the Quebec Association had got further in the matter of legislation than we in Ontario, having obtained an act forbidding the use of the title "Architect" in their province except by members of the Quebec Association. It might happen if there was a competition in Montreal, open to architects in Ontario, or in the case of any member of the Ontario Association removing to Montreal, that complications might arise, and he would therefore ask that the Council be instructed to communicate with the Quebec Association, asking that members of the Ontario Association in good standing should be recognized as architects and members of the profession in the province of Quebec.

Mr. Belcher seconded the motion, which was carried.

On motion by Mr. D. B. Dick, seconded by Mr. J. E. Belcher, moved the following resolution, which was carried: "Resolved that the members of this Association have heard with deep regret of the death of Mr. Thomas Fuller, the late chief architect of the Department of Public Works for the Dominion, who was a member of this Association, and for some time a member of the Council. They mourn his loss as that of a man whose genial disposition and personal worth endeared him to all who came in contact with him, and who in the course of a long and honorable career did much to raise the standard of architectural design and practice, both in Canada and the United States." Ordered that this resolution be engrossed in the minutes and a copy sent to his family.

On motion by Mr. Baker, seconded by \_\_\_\_\_, it was resolved that the following be a recommendation to the Council: "That the Lieutenant-Governor be made an honorary member of the Association.

"That the City Council be urged to expedite the printing and issuing of that portion of the city by-laws which relates to building and kindred matters.

"That a register be provided so that those attending meetings may register their names on entering, and a correct record of those attending be kept in that way.

"That clause 1 of the by-laws passed by the Association be altered to read: '1. The Association shall meet each year, on the first Tuesday after the 10th of each month, except June, July, August and September, the meeting in January to be the annual meeting, at such time and place as shall be determined by the Council and designated in the notice calling the meeting.'

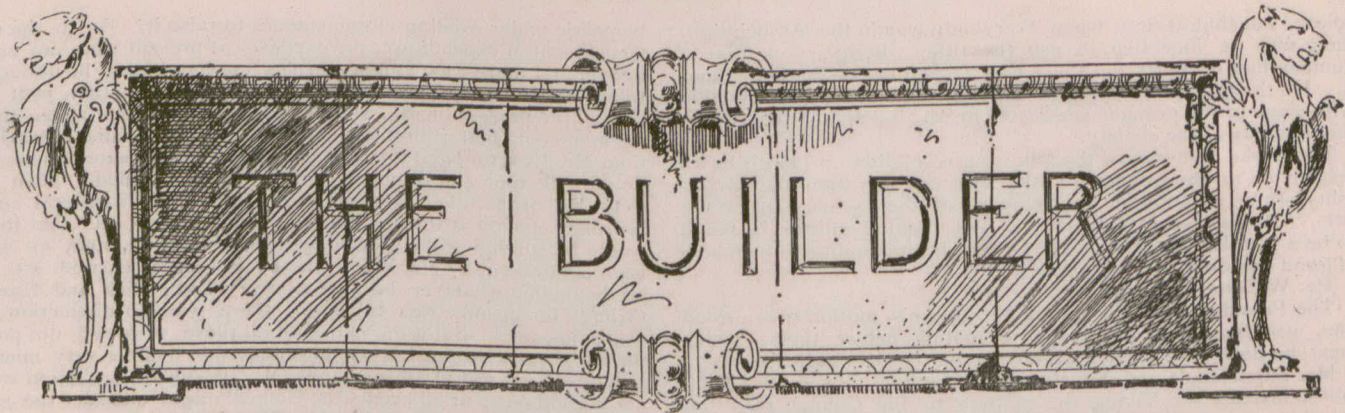
The six members of the committee appointed under Mr. Baker's motion on the previous day were then named by the President. They are Messrs. E. Burke (convener), H. B. Gordon, W. A. Langton, J. A. Pearson, J. W. Siddall, and Eden Smith.

The election of members of Council then took place, resulting in the election of Messrs. F. S. Baker and Grant Helliwell, of Toronto, and Mr. Fred. Henry, of London.

The auditors, Messrs. H. Langley and W. R. Gregg, were thanked and asked to act again.

Votes of thanks were also passed to the Hon. Minister of Education for granting the use of the room of meeting, to Professor Galbraith, the principal of the School, and Messrs. C. H. C. Wright and A. H. Harkness, of the Architectural Department of the School. The meeting then closed.





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**Preparing for  
Roughcast.**

To prepare the outside of a frame building for roughcasting, great care should be taken to have the ground work dry and well put together. If possible, the framework should be erected on a stone or brick foundation, but where this cannot be done and where the building must rest on timber posts or piles, the posts or piles should be put in the ground at least four feet, or deeper in places where frost would likely strike deep enough to lift the posts. These posts should not be more than eight feet apart—six feet would be much better—and they should be of good size, not less than eight inches in diameter. Where posts are used, their tops should not be more than six inches above the ground grade, and they should be leveled off all round to receive the sills. While two tiers of 2 x 4 inch scantling would answer very well—if bedded in mortar—for the sills of a balloon frame on a stone or brick foundation, it will not do to make use of anything less than timbers having a 6 x 6 inch section for sills that are to rest on posts, as lighter timber would be apt to sag between the posts, to the detriment of the building, and the roughcasting in particular. The studding employed in building a balloon frame which is intended to be boarded inside and outside, need not be closer than three feet, but the boarding should be dry, the edges laid as close as possible, and the whole well nailed to the studding. It is not necessary that the boarding be nailed on diagonally, as is practised in some communities, as horizontal boarding, if joints are kept tight and the whole well nailed, has all the advantages of strength and rigidity that diagonally laid boarding has; besides, the former method is more economical in material and labor. If the groundwork is now ready to receive the lathing, in accordance with the foregoing, the first thing to do is to cover the whole boarding with one of the many kinds of building paper—it is suggested that “tarred” paper be used, though this is optional—wrapping it well around the corners, and around the studding and boarding at all the openings before the frames are placed in position. Much of the warmth of the house depends on the honest and thorough manner in which this papering is performed, therefore great care should be exercised in doing the work. Strips of lath may be nailed here and there on the paper to hold it in place until the lathing proper reaches it. The lathing should then be nailed on at an angle of about 45° with the line of foundation. The laths should be spaced to about one inch apart and should be well nailed to the boarding. This will not only hold the paper rigid in place, but it will aid very much in strengthening the whole structure. Another tier of lath must then be nailed over the first lathing, and must

be put on diagonally in a contrary direction to the first lathing. This should be well nailed to the other lath, thus bracing the building in the opposite way. When the work is well done, the walls will be quite rigid and immovable. It is considered by old hands the better way to leave out the window and door frames until after the first layer of lath is nailed on. This admits a “key” of the plaster to get in behind the outside casings, cutting off any chance for wind making its way into the house from behind the window or door frames. Of course, the second layer of lath would have to be fitted against the casings, which will require to be thick enough to receive lath and two coats of plaster. Water table, corner boards and cornice boards may be nailed in place over the paper before any lath is put on, but they must be sufficiently thick to receive two thicknesses of lath and two coats of plaster, or be padded out with band mouldings, or like the casings, have the thickness of a lath as furring behind them. One of the main things to be considered in planting finished stuff on a building to be roughcast is to have all the work nailed well to the boarding and timbers.

**Roughcasting.**

THE first coat for this kind of work should consist of rich lime mortar, with a large proportion of cow’s hair well mixed through it. The mortar should be made at least four days before being used, and longer if possible. The plasterer when applying the mortar should be sure and use pressure enough to force the mortar well into the keys or interstices of the lathing in order to give it good bonding. The face of the work must then be scratched to form a key for the second coat, which must not be put on before the first coat is thoroughly dried out. The mortar for the second coat is made the same as for the first coat, and is applied in a similar manner, with the exception that the wall must be sprinkled with clean water before the second coat is put on, in order to keep the second moist and soft until the “dash” or roughcast is put on. The dash, or roughcast, is composed of fine gravel, washed clean, and perfectly free from all earthy particles, and mixed with pure lime and water until the whole is of a semi-fluid consistency. This is mixed in a tub or pail, and is dashed against the wall with a wooden float about five or six inches square. While the plasterer throws on the dash, with the float in his right hand, he holds in his left a common white-wash brush, which he dips into the dash from time to time and then brushes over the mortar and roughcast, which gives them, when finished, a regular, uniform color and appearance. For 100 yards of roughcasting, finished as above described, the following quantities will be required: 1,800 laths, 12 bushels of lime, 1½

barrels of best cow-hair,  $1\frac{3}{4}$  yards of sharp sand,  $\frac{3}{4}$  yard of washed gravel and 16 pounds of cut lath nails  $1\frac{1}{4}$  inches long. A quarter barrel of lime putty should be mixed with every barrel of prepared gravel for the dash. The dash may be colored to suite taste by using proper pigments. To color 100 yards in any of the tints named herewith use the following quantities of ingredients: For a blue-black, 5 pounds of lamp-black; for buff, 5 pounds of green copperas, to which add one pound of fresh cow manure, strained, and mixed with the dash. A fine terra cotta is made by using 15 pounds of metallic oxide, mixed with 5 pounds of green copperas and 4 pounds of lamp-black. Many tints of these colors may be obtained by varying the quantities given. The colors obtained by these mixtures are permanent; they do not fade or change with time or atmospheric variations. Earthy colors, like Venetian red and umber, soon fade and have a sickly appearance, and they tend to weaken the mortar. Buildings rough-cast in this manner are warmer than when covered with siding or shingles, and are less expensive, quite as durable, and more fire-resisting.

form the corner, and by this arrangement we get all the conditions required to make a good solid corner. D shows a hollow space between the two outside studs, and A shows the outside boarding, which may be dressed and matched stuff, or it may be rough boarding. The centre stud projects out just two inches, and forms a good backing to nail to from one side, while the inside stud forms a good basis to nail to from the other angle. The projecting stud may be notched out at the proper height to receive the joists, which would give the latter a solid bearing. This method of forming a corner is simple, cheap and effective. There are a number of current methods employed in laying down sills for balloon framing on a brick or stone foundation. At Fig. 2 is shown one method that may be considered a fairly good one, but unnecessarily costly, as a  $2" \times 4"$

Some Points in Balloon Framing.

THERE are several ways of making corner posts for a balloon frame building, some of which have considerable merit, and others that ought not to be permitted to obtain. It is very bad construction to simply spike two  $2" \times 4"$  studs together to form a corner  $4" \times 4"$  in section, and then spike a third piece on these to receive

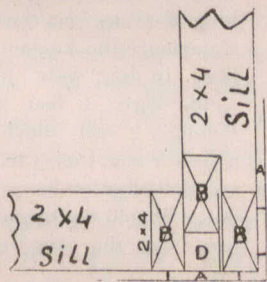


FIG. 1—CORNER POST.

the boarding or lath on one of the return angles. By this method, one of the sides of the wall is dependent altogether for its adherence to the corner post to the draw of the nails or spikes holding the third piece to the doubled studs. Sometimes, though not often in these days, the corner post is formed of  $6" \times 6"$  timber, which has a rebate of  $2" \times 2"$  taken out of the internal angle in order to allow of the inside boarding or lath-

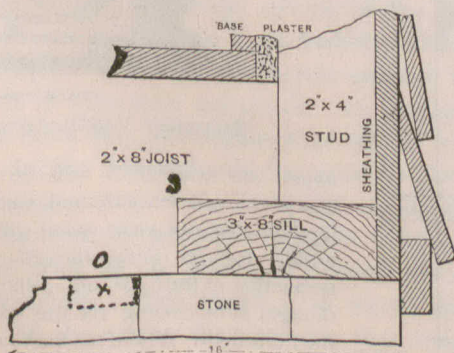


FIG. 2—SHOWING SILL.

ing being nailed to it from both walls. This is a very good method, but is a costly one, and often an inconvenient one, as  $6" \times 6"$  posts are not always obtainable. A better method, or at least a more convenient one, and one that is less expensive is shown at Fig. 1. Here we make use of three  $2" \times 4"$

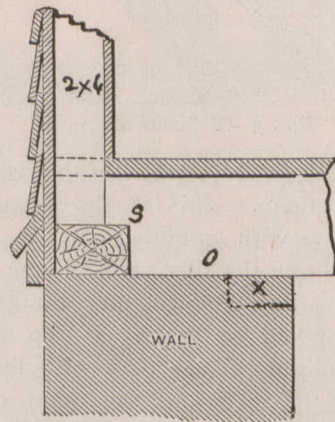


FIG. 3—ANOTHER METHOD.

sill would answer just as well and the notching out of the joists could well be dispensed with. Fig. 3 exhibits another method in which there is not so much timber employed, but the same amount of notching is required. While both these methods are effective, as the full strength of the joists is retained because of its resting on the wall at O, it is better when it can be done to have a  $2" \times 4"$  hard timber at the point X, as this will prevent any splitting of the joists at the angles S S. Two other methods, taken from Magginis' "How to Frame a House," are shown at Fig. 4. The first

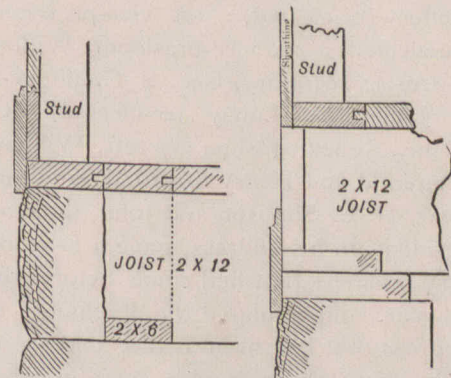


FIG. 4—SHOWING TWO METHODS.

method shows the joists resting on a  $2" \times 6"$  sill, and having a portion of the foundation wall built up the depth of the joist to the foot of the studding. This method is not to be commended for general use, but there are sometimes situations when its use is necessary, and it is to meet these conditions that the author intends it. The second example is much better. The sill consists of two pieces of plank bedded in the wall, the lower plank being quite wide, the upper one being much narrower. By this arrangement the joist gets a bearing on the lower plank, which gives the whole strength of the joist to resistance of floor pressure. At

Fig. 5 is shown a method that is better adapted to balloon framing than any of the foregoing examples, and it is the most economical. Here, the sill is simply laid on the foundation wall—bedded in mortar—and properly levelled up; the joists are sized at the bearing points, laid on in their proper places and firmly toenailed to the sill. The studs may then be notched over the joists at the ends of the building, or they may stand

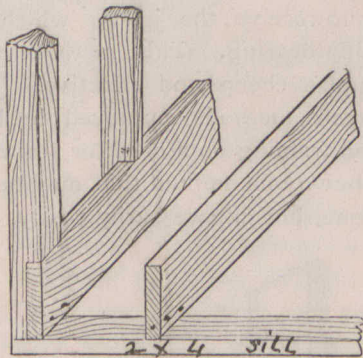


FIG. 5—A GOOD METHOD.

their whole width on the outside of the joists, the latter being spiked to them. This is the better way when nothing interferes with adopting it. In all cases the studs should foot on the sills, and if the spacing will admit of it, the studs should stand alongside the joists and be well spiked to them. If the wall is wide enough, there might be two tiers of sills, one on the outside edge of the wall and the other on the inside edge. This would give a double bearing for the joists.

**LONDON BUILDERS' EXCHANGE.**

THE annual meeting of the London Builders' Exchange was held on the afternoon of the 16th inst., in the Exchange rooms. There was a very good representation of the members present. After the ordinary routine business had been disposed of, the auditors' report was received, showing receipts for the year \$405, disbursements \$375, with a balance on hand of \$30. The report was certified by Messrs. John Shopland and Wm. Tytler, auditors.

The election of officers resulted as follows: President, William Jeffery (re-elected); 1st vice-president, Scott Mutray (re-elected); 2nd vice-president, William Smith (of Smith Bros.); secretary, Geo. S. Gould (re-elected); treasurer, James S. Luney (re-elected); directors, Messrs. Thos. Jones, Joshua Garrett, William Tytler, Ernest Fitzgerald and Henry Stratfold; auditors for the ensuing year, H. C. Simpson and John Shopland.

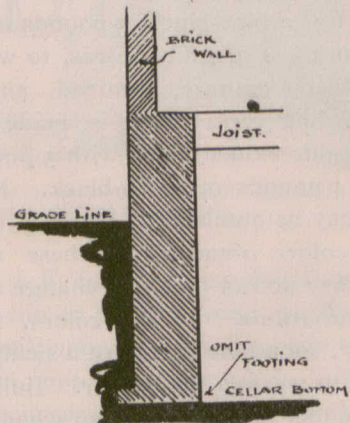
The President, in his address, gave a brief resume of the principal business that had come before the Board during the year, congratulated the Exchange upon the steady progress that had been made, and strongly emphasized the fact that although every member of the corporation had been benefitted through belonging to and meeting with the Exchange, still there were far greater benefits to be derived by each trade being properly organized as a section of the Exchange, and every member of every branch making it a point to be punctual at each sectional meeting, and using their influence to improve the standing of their craft. The matter of a Provincial Association was also broached, and in the near future we hope to obtain the opinions of the other Exchanges along this line.

Under "Good and Welfare," it was decided to have a banquet as soon as possible, and a good committee was appointed to make the necessary preparations for the same.

GEO. S. GOULD, Secretary.

**INTERIOR FOOTINGS.**

It is customary in light buildings to put footings on the cellar side of walls. Considering that the weight of the superstructure bears directly on the outer half of the foundation wall, and that from 9 in. to 12 in. of it only are required to carry the ends of the joists, these internal footings seem to be unnecessary, and, when used, a great inconvenience and useless waste of stone.

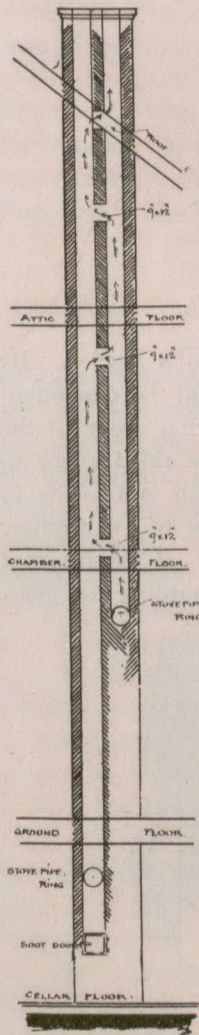


INTERIOR FOOTINGS.

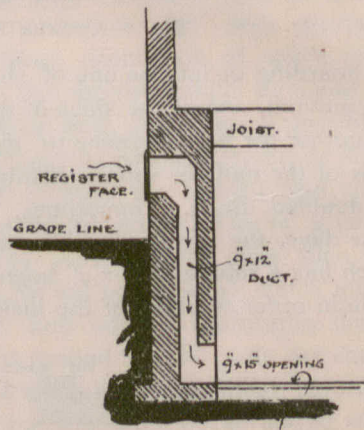
The concrete or wooden cellar floor must cover them, causing a diminution in the height of the cellar and an additional expense to deepen the cellar if a high basement is required. Interior chimneys of from 40 to 50 feet in height should have their bottom at least one foot below other walls, to save trouble with floor.

**METHOD OF VENTILATING CELLARS.**

THE disagreeable odors from a cellar laundry or vegetable room can be drawn off by an arrangement of a double flue, (by utilizing the passage of smoke from one flue to the other, forming a double loop). The long flue runs from the basement upwards. Commence the kitchen flue below ceiling line. In the "wafe" leave a hole 9 in. x 12 in. high, 3 feet above the kitchen thimble; 7 feet above this hole leave a similar one, then 5 feet above it another, and finish with one 3 feet above the last one. Should the height of the chimney be low, then the proportional distances be-



VENTILATING FLUE.



BASEMENT VENTILATION.

tween the wafe-holes will be reduced. The continued warmth and smoke of the kitchen flue the year round will ensure a perfect draft for venting the cellar. The introduction of fresh air into cellars is only thought of as coming via the windows or the area door. Where the flues are extended to the cellar level, and are applicable for ventilating purposes, the building of duct flues in the external walls will create a channel for the colder outside air to drop into the cellar. The warm vent flue, causing an upward draught, will draw the air from outside and into the cellar. In building the stone walls, commence a 9 in. x 12 in. flue starting from the floor line, and extend two feet above the grade line, turning its outlet externally into the finished stonework. To prevent foreign matter clogging this air-shaft, cover upper vertical front with a register

plate, the lower end being open to cellar. Vent flues in stack should be placed as near floor as possible, and should be controlled either by a door or register face. A larger flue of this type would be suitable as a cold air inlet to furnaces.

### LONDON MASTER PLUMBERS' ASSOCIATION.

THE following are the officers elect of the above association: E. Russell, president; C. Needham, first vice-president; J. R. Haslett, second vice-president; T. S. Partridge, treasurer; William Smith, secretary, 265 Dundas street; William Skelly, corresponding secretary; C. W. Walker, inner guard.

### HOW TO FIND THE SPECIFIC GRAVITY OF BRICKS.

In estimating the weight of any particular structure made of bricks, especially for engineering purposes, it is quite a common thing, says the British Clayworker, for the engineer to weigh half-a-dozen or so of bricks and multiply for cubic contents of the structure. This weighing may be done by the direct method, or by ascertaining the specific gravity of the bricks. When the latter is carefully calculated it is the best method, for the following reasons, but if it is not carefully ascertained (and it very rarely is) the results are of very little real practical value. In the direct method of weighing the brick there are usually several uncertain factors. The brick having remained in the office for some time becomes dry, and will not, of course, weigh as much as when it was first received from the maker, unless the latter had previously kept it in a dry place. It is safe to assume that in the building it is better to estimate on a maximum basis. At the same time, if to gain that end the brick be saturated with water, and then weighed, the result must be very unsatisfactory, as it greatly overestimates the normal weight under any circumstances if it is to be regarded as a unit in calculating the weight of any solid piece of brickwork. Very few people understand the way to take the specific gravity of a brick properly. If the brick is practically non-porous the result comes out right enough, but that is not very often the case. To take the specific gravity correctly the brick must first be well dried, not artificially, because that may lead to the formation of microscopic cracks. Then it must be weighed, either actually, or relatively as in a spring (Joly's) balance, or specific gravity steel-yard. After that the brick may be immersed in water, taking care that one face of it just projects (about  $\frac{1}{8}$  in.) above the water. It should remain in the water for at least 24 hours, and longer if air bubbles still rise to the surface, and in fact until these latter cease to be formed. The brick is then fully saturated. If, during the process, the brick has disintegrated at all (as rubbers are wont to do) the water should be carefully decanted and the disintegrated particles weighed, the amount being subtracted from the gross dry weight. Now weigh the saturated brick in air, which will give the amount of water absorbed. Then weigh it in water and add the amount of the water absorbed to that weight. The weight thus ascertained must be subtracted from the weight in air, and the weight in air being divided by the product will give us the true specific gravity of the brick. The part of the work usually neglected is the addition of the amount of water absorbed to the weight in water; also experimenters habitually fail to leave one face of the brick above the surface of the water when testing for absorption.

### AN ARCHITECTS' CLUB.

A SOCIAL club has been formed among the younger architects of Toronto. The first meeting took the form of an informal lunch at Coleman's new restaurant on Monday afternoon (Jan. 24th) at 1.30, where a pleasant hour was passed in discussing the organization of the club and topics of mutual interest. It is proposed to meet at lunch every Monday at the same hour, when such other meetings as may be deemed advisable will be arranged for. Those present were: Messrs. J. Francis Browne, Eden Smith, C. H. Acton Bond, Henry Sproatt, Charles Langley, A. H. Cassels, William Rae, J. P. Hynes, Sandford Fleming Smith, S. G. Beckett, J. C. B. Horwood, Arthur E. Wells, W. C. Vaux Chadwick.

### LEGAL.

G. BEAUCHAMP ET AL VS. TOWN OF MAISSONEUVE, QUE.—This was an action before Mr. Justice Curran in the Superior Court at Montreal, for a balance due on the account of plaintiff, for work done, and for the price and value of the hire of certain stoves and scaffolding used in the new building of the town. The plaintiffs claimed \$238.55. The defendant offered \$60. The only item disputed was that for the hire of the stoves, eight in number, used for the drying of the building, and the cost of the scaffolding. The plaintiff had proved that a reasonable charge for each stove was 25 cents per day, and 50 cents per day for the scaffolding. There was considerable delay in the completion of the works, but not through the fault of the plaintiff. Several experienced contractors had established the reasonableness of plaintiff's charges. He claimed for 90 days, but the proof did not cover that period. Judgment for \$226.05 and costs of suit.

SHERLOCK VS. POWELL.—Judgment by Justices Falconbridge and Street in the Divisional Court at Toronto on appeal by defendant from report of Neil McLean, an official referee, in favor of plaintiff for \$166.10 and costs, in a proceeding to enforce a mechanics' lien upon certain houses on Alice street and Trinity square, in the city of Toronto, in respect of work done by plaintiff under a contract for plumbing. Defendant contended that there was one entire contract between himself and plaintiff for the plumbing work in the houses in question and other houses in Glenbaillie street, in the same place, and the plaintiff was not entitled to payment until all the work under such contract was done, and also that the work was not properly executed, etc. Held, that the contract is what must govern the parties, and not the tenders upon which it was founded, and the contract was an entire contract for the performance of the whole of the work set forth in it, for the whole price of \$867 agreed to be paid, and it is plain from the evidence of the plaintiff himself that he has not yet completed the work according to the contract. Held, also, that there was no evidence of any acceptance of the work as completed or any waiver of compliance with the contract. The taking possession of the houses, with a protest against the plaintiff's assertion that his work was completed, is not an acceptance of the work or a waiver of objections to it. Appeal allowed with costs and action dismissed with costs.

The firm of Roy & Content, architects, Montreal, has been dissolved.

**TORONTO BUILDERS' EXCHANGE.**

THE annual meeting of the Builders' Exchange was held in their offices in the Yonge street Arcade on Monday, January 16th. The meeting was largely attended, nearly all branches of the trade being represented. Among those present may be mentioned the following firms :

Thos. Cannon & Son, David Williams, Jno. Aldridge, F. Saunders & Son, Harrison & Lewis, Geo. Wright, C. W. Neale & Co., Edward Terry, Jno. E. Webb, Smallwood Bros., Jno. Vokes, Geo. Henry, C. C. Mitchall, Jas. Scott & Son, Bather & Oakley, Richard Chalkley, Maloney & Connolly, Wickett Bros., Thomson Bros.; the Ontario Lime Association, represented by Thos. Christie; Ben Brick, Jas. Crang; the Credit Forks Mining & Manufacturing Company, represented by F. Behaviell; Jos. Russell, Robt. Rennie & Son, Duthie & Sons, Hy. Martin, Jno. M. Gander, Oakley & Holmes, C. S. Boon, the Hutchinson Brick Company, Jno. Bourne & A. P. Steward representing Ohio Stone Company.

The President, Mr. Thos. Cannon, jr., presided. The

reports of the Finance Committee and the Board of Directors showed the Exchange to be in a prosperous condition, and with a steadily increasing membership.

The election of officers for the current year resulted as follows: President, Henry Martin; 1st vice-president, Thos. Christie; 2nd vice-president, Jas. B. Thomson; treasurer, David Williams; auditors, Frederick Holmes and Geo. Clay; directors, Thos. Cannon, jr., Geo. Duthie, Jos. Russell, James Crang and Jno. E. Gander.

The President-elect took the chair and acknowledged the honor of his election in suitable terms.

The retiring President, Mr. Cannon, received an unanimous vote of thanks for the energy and ability displayed during his term of office.

The Exchange decided, by an unanimous vote, to present the Treasurer, Mr. David Williams, with a testimonial, marking their esteem and appreciation of his services for the past 21 years, he having during that time been Treasurer of the Association.

After passing votes of thanks to the retiring officers, the meeting adjourned.

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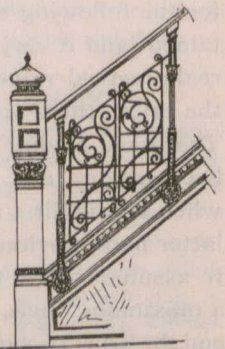
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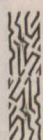


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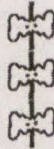
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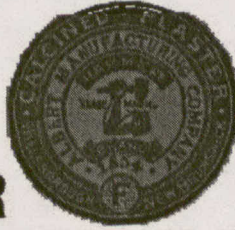
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