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# CONSTRUCTION

A · JOURNAL · FOR · THE · ARCHITECTURAL  
ENGINEERING · AND · CONTRACTING  
INTERESTS · OF · CANADA



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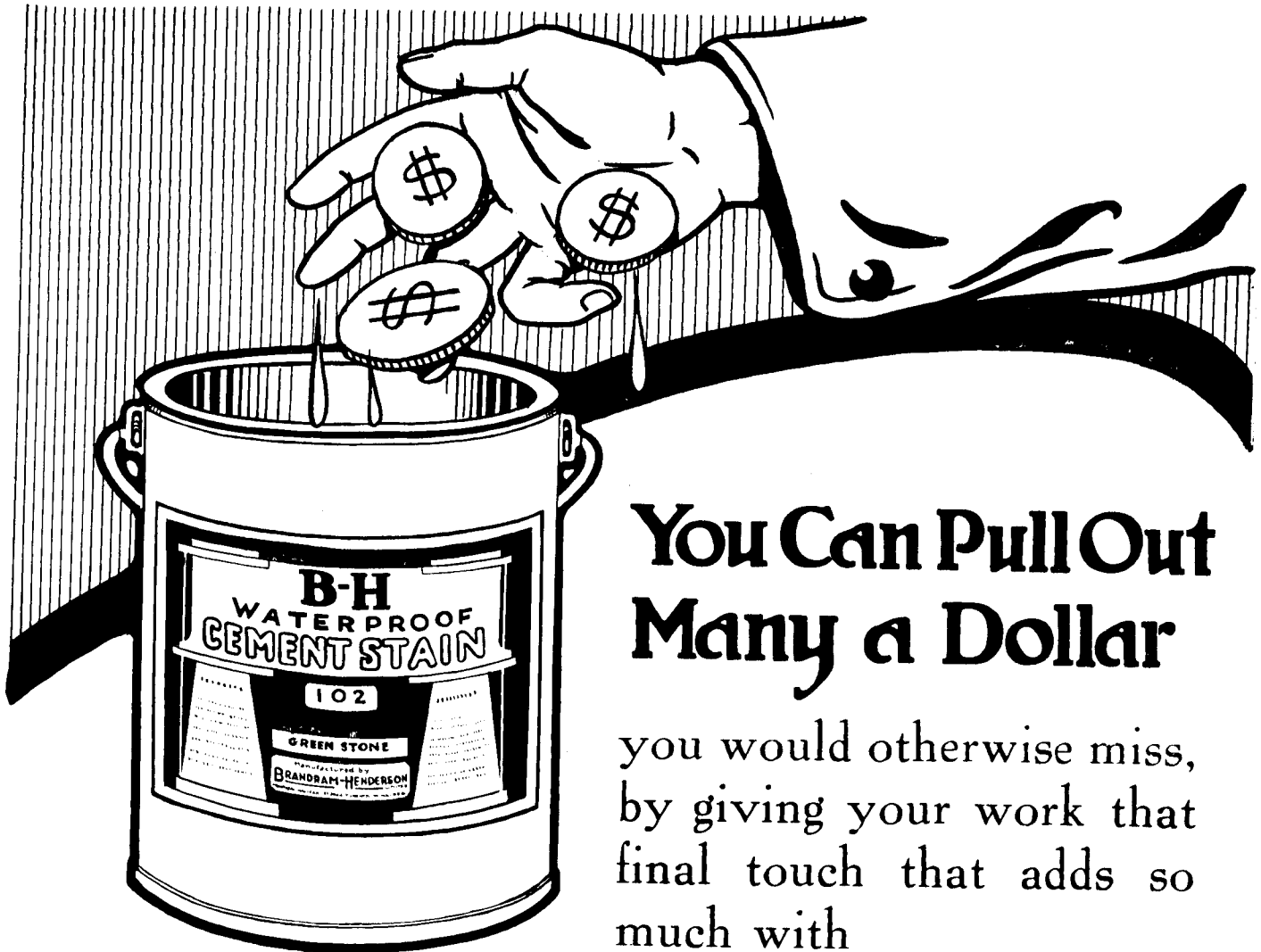
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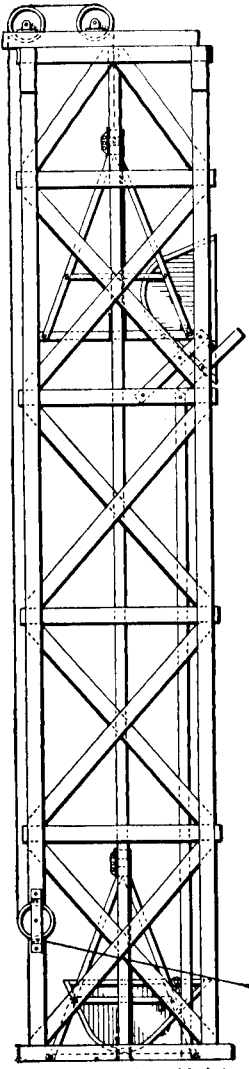
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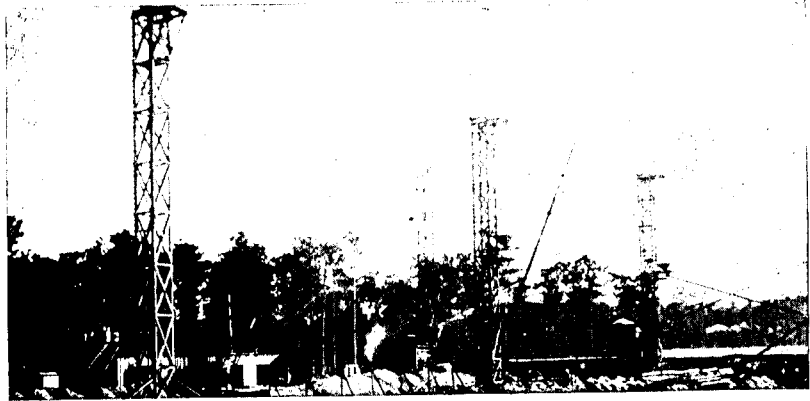
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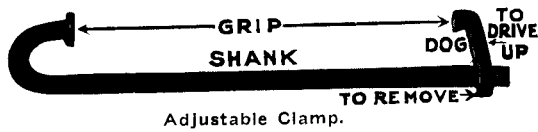


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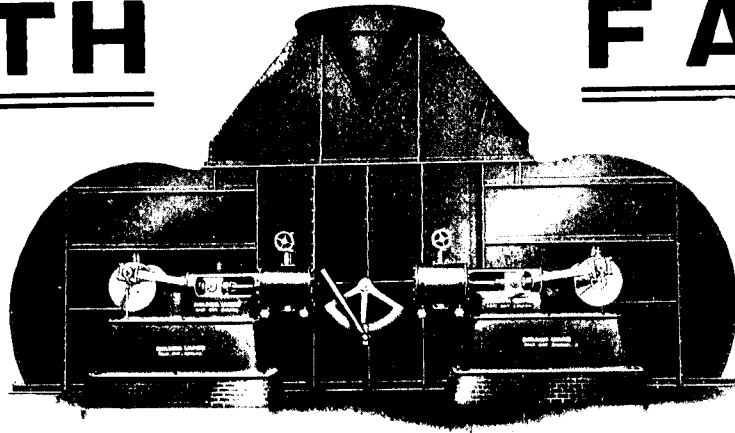
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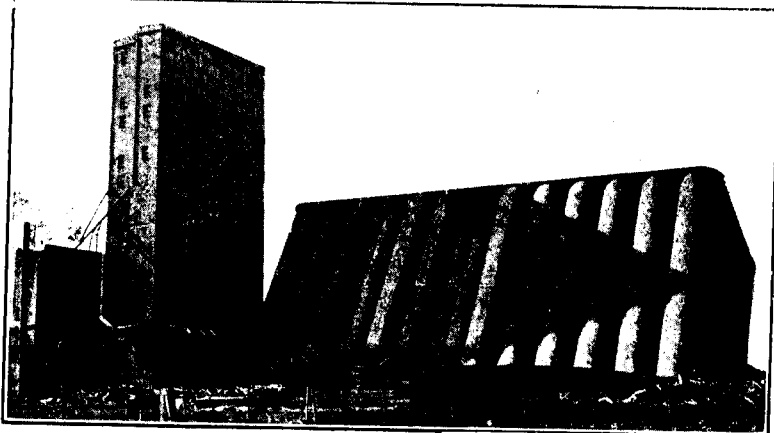
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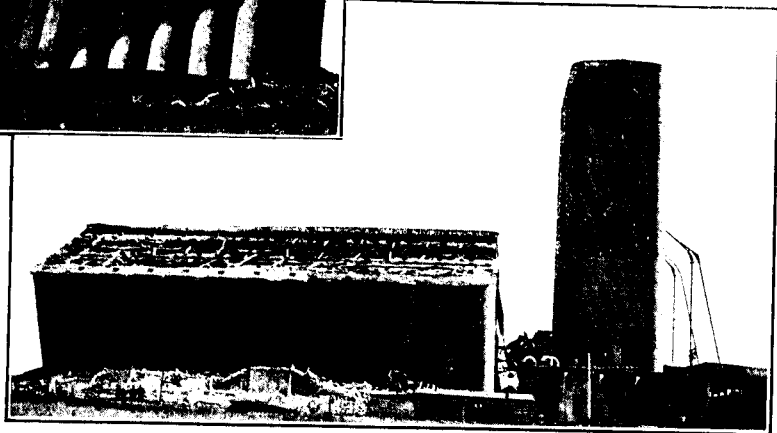
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This great concrete structure, built only to resist the pressure of grain from the inside, while filled almost to capacity with 55,000,000 pounds, or 27,500 tons of grain, settled to an angle of 30 degrees from its original perpendicular position.

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The contract for the restoration of this enormous structure has been awarded to Barnett & McQueen, and it is anticipated that it will be put back into its original position without the slightest injury.

## No Loss of Contents

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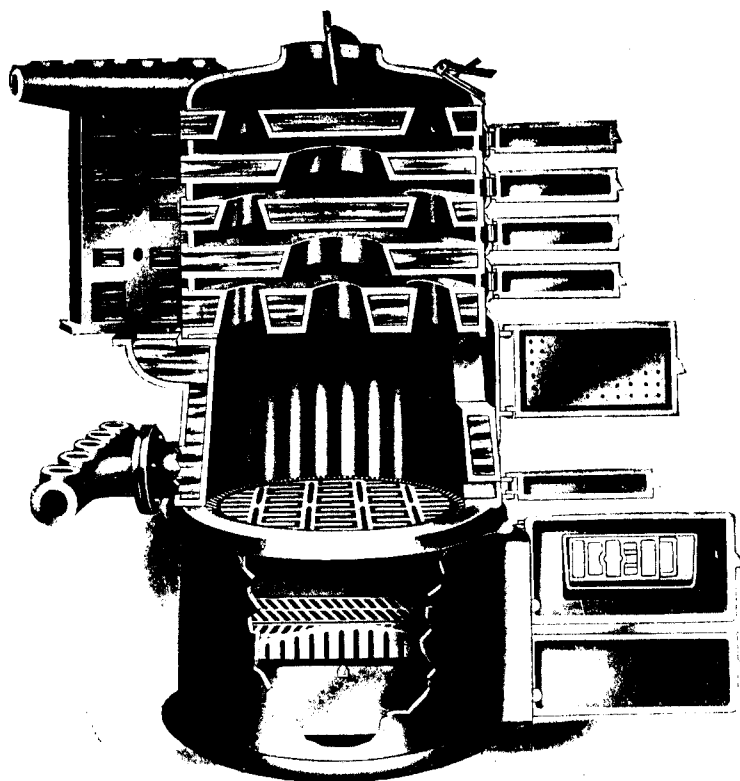
Information Department

# Canada Cement Company Limited

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The "Sovereign" is not a departure from the general lines of the conventional type of hot water boiler.

It consists of an ample fire-pot with sloping, corrugated walls, enclosed in a water-jacket, and having a series of boiler sections above the fire-pot, and a sifting grate and ash-pit beneath it.

Where the "Sovereign" is different is in the arrangement and proportions of the interior parts.

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### LARGER FIRST SECTION:

The first boiler section, the one directly over the bed of the fire, is made one-third larger than the other sections. This brings a larger volume of water into the path of the most intense heat and prevents any possibility of boiling, which would have the effect of raising steam and delaying circulation of the heating medium.

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**INDIVIDUAL CLEAN-OUT DOORS:** Each of the boiler sections has a separate clean-out door, so that soot and fine ashes may be removed from the sections without chilling the boiler and causing a loss in radiation.

**These Apparently Small Improvements in Construction Greatly Increase the Heating Capacity of the "Sovereign" and Adapt it for Burning Hard or Soft Coal or Wood.**

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Radiators*

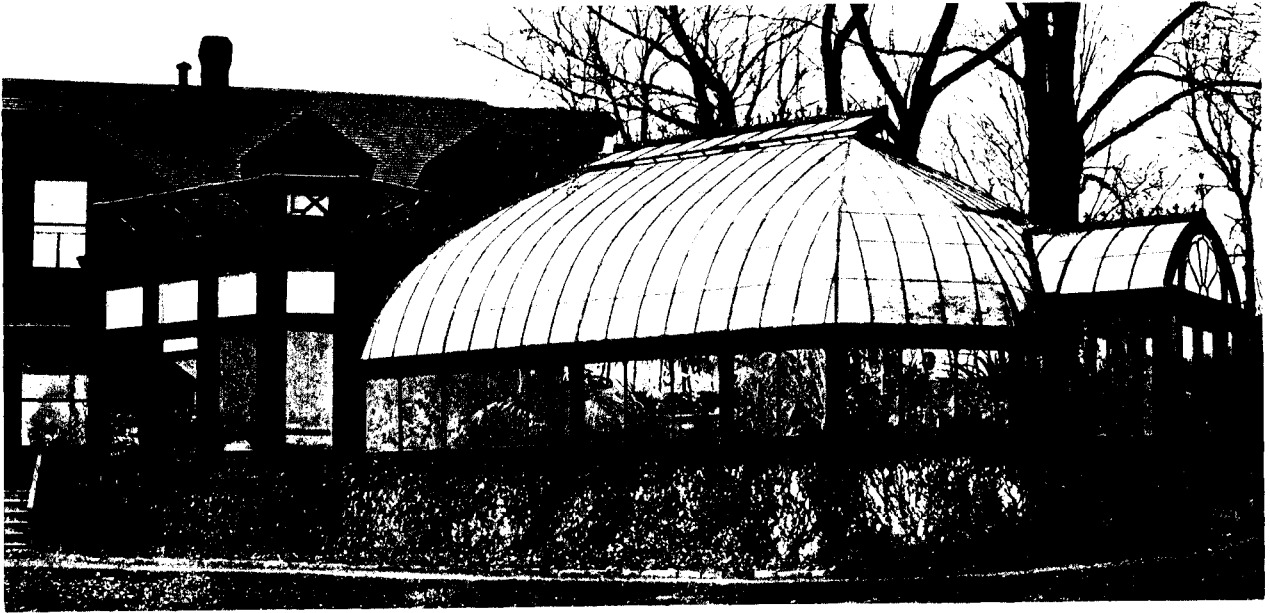
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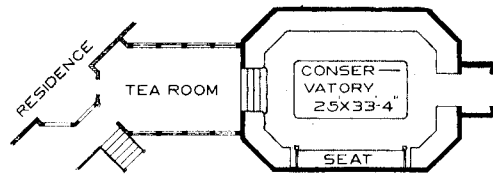
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Plan, Fuller's Conservatory.

they are altogether charming. This one, illustrated in part, is shown in detail in our catalogue, "Some Greenhouses we Have Built." Send for it.

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The "KINGDON-NON-SOIL" Syphon Jet is absolute perfection in Closet Construction, inasmuch as it combines *all* sanitary features.

The "KINGDON" is 14½ inches high. The advantages of a bowl of this height are conceded by physicians and experts.

The Flushing Rim is extended both front and back, making it a most Sanitary Fixture.

The Area of Water Surface is 14 x 11 inches, with large waterway through Trap, while in the

ordinary bowl the area is but 11 x 9 inches.

The "KINGDON" Closet is supplied with the "Robertson" Low Down Tank, fitted with "Monarch" Gravity Flushing Valve, the only perfect mechanism for the purpose ever invented.

It is absolutely noiseless so far as a Closet can be. This feature completes the perfection of its parts.

The "KINGDON-NON-SOIL" will be supplied with Flushometer Valves when required.

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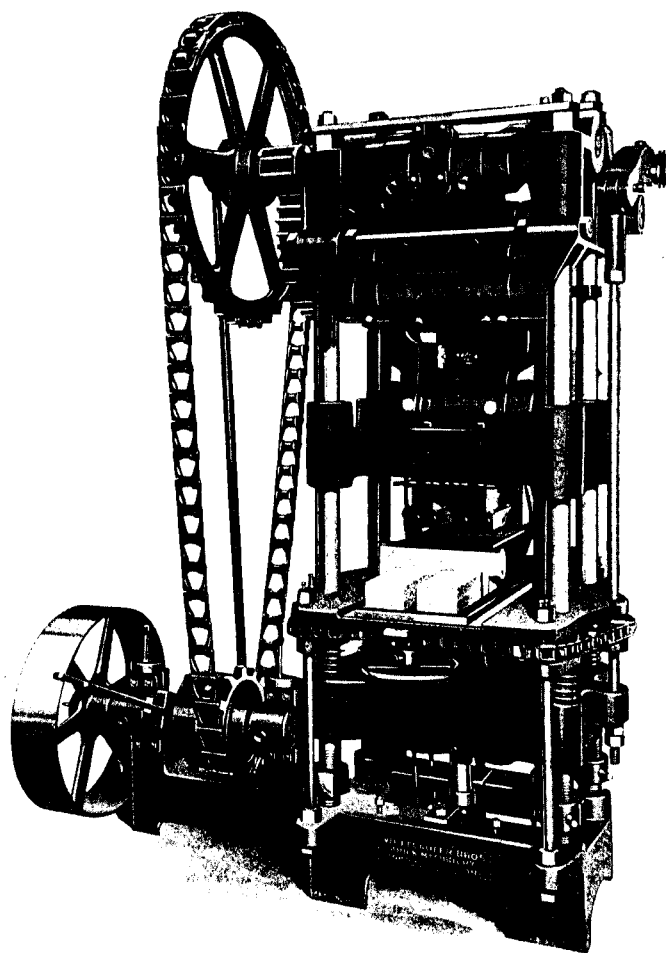
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Will turn out up to 15,000 bricks per 10 hours. Will instantly adjust to make brick of any thickness between 1 inch and 3½ inches, with or without frogs. Requires only 4 or 5 horsepower.

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The material is subjected to an estimated pressure of 200,000 to 400,000 pounds. All voids, no matter how small, are removed by a Double Repress. Every brick is absolutely uniform.

This equipment will enable you to make a substantial profit, after keeping estimates and prices low enough to get the business.

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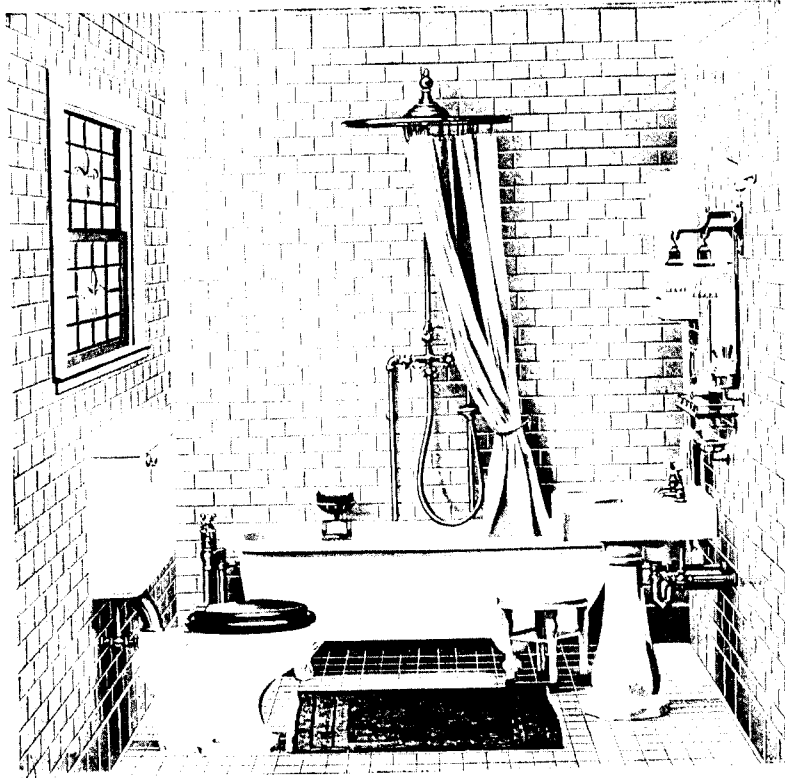
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# “Standard Sanitary”

## MODERN BATHROOM



Design P—60

The bathroom illustrated above is an extremely well planned interior for a moderate sized house. The entire equipment, while inexpensive, is most satisfactory and practical.

The Closet Bowl is of the “Standard Sanitary” “Vitrite” porcelain, the surface of which is hard, smooth, and non-absorbent, therefore highly sanitary, while the Tank is porcelain enameled.

Our long experience has particularly demonstrated the special fitness of porcelain enamel as the ideal material for Closet Tanks.

Enameled Tanks will not sweat, crack, need no lead, copper or other lining, and will not rust. There is no wear out to the porcelain enameled Tank.

“Standard Sanitary” plumbing fixtures can be obtained from all leading plumbers, and are carried by jobbers and sales agents throughout the Dominion.

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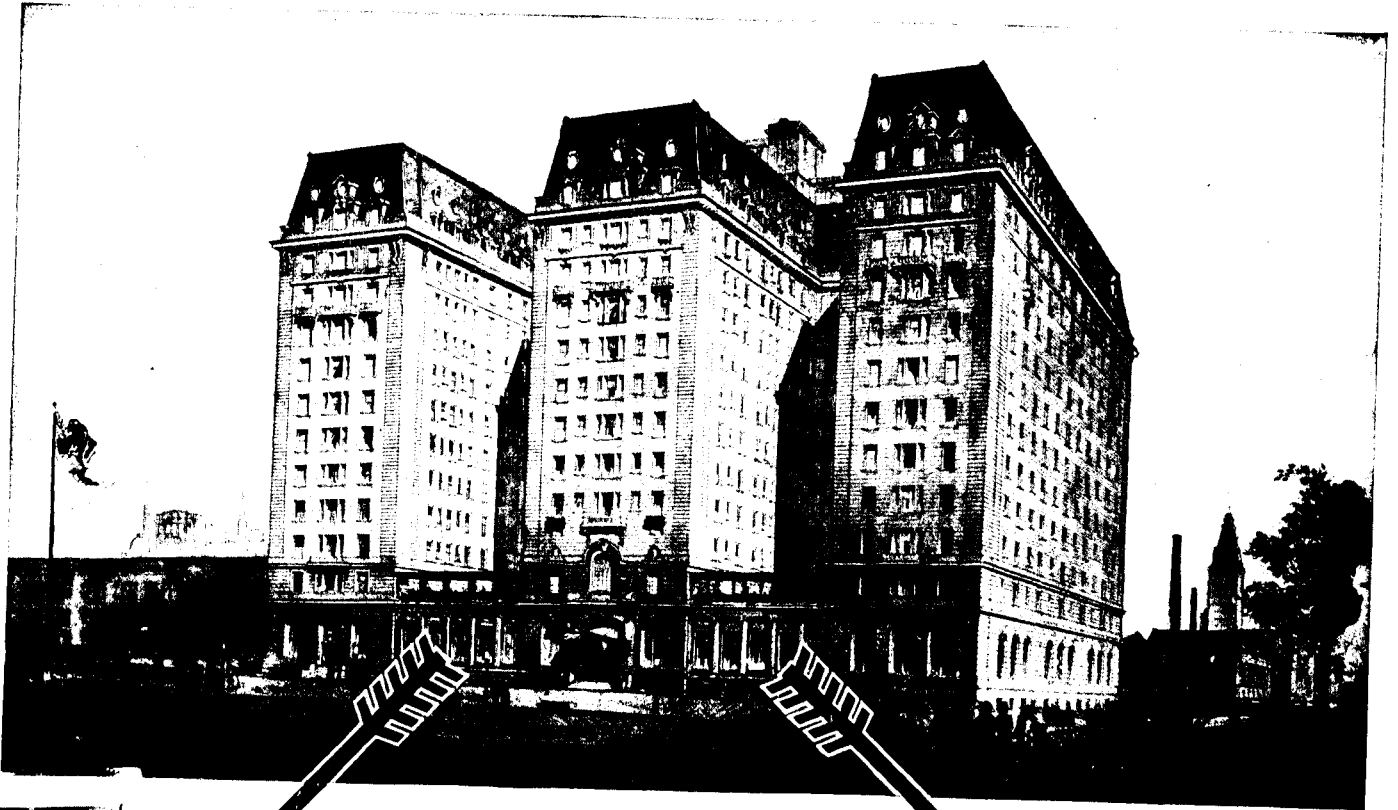
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# CALGARY'S NEW HOTEL

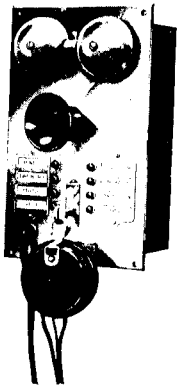
## Has a Made-to-Measure Inter-phone System



C.P.R. Hotel, Calgary, Alta.

For Telephone Service the Best Equipped Hotel in the World.

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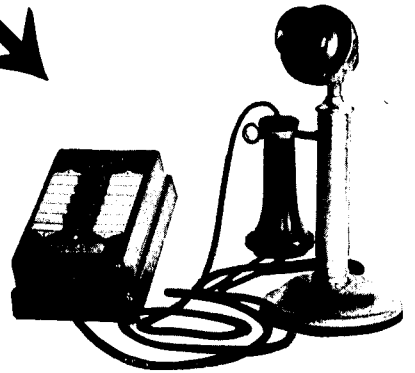


Two separate and complete Inter-phone Systems are installed in this hotel.

One system, of 12 stations, is for the use of the executive staff. This system is absolutely non-interfering.

The other system has 24 stations. This system is the Selective Ringing, Common Talking Type. It connects the Main Office, Manager's Office and Housekeeper's Office with the quarters of the house servants, situated in various parts of the building.

Besides these there is a telephone in each guest-room. These connect with a large Multiple Type Private Branch Exchange that has a capacity for 580 lines.



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C. Eaton's Residence.<br/>                 Sir Henry Pellatt's Residence.<br/>                 Sir Henry Pellatt's Stables.<br/>                 Bell Telephone Bldg.<br/>                 Orr Brothers' Bldg.<br/>                 Toronto Electric Light Co.</p> <p><b>Recent Montreal Buildings.</b><br/>                 Masonic Temple, Dorchester St.<br/>                 Montefiore Club.<br/>                 Residence of George Summer.<br/>                 Residence of W. W. Butler.<br/>                 Residence of Thos. Hodgson.<br/>                 Residence of Geo. Fraser.<br/>                 Apartment House, Cote de Neige Road.<br/>                 McNamee Bldg.<br/>                 Stuart Co.'s Bakery.<br/>                 St. Lee's Presbytery.<br/>                 Roxborough Apartments,<br/>                 Ottawa.<br/>                 Excelsior Life Bldg., Ottawa.</p> |
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## Best By Test

### DON VALLEY BRICKS

#### TEST AS TO ABSORPTION

* * * * *	1st Class	11.9
" " " " "	2nd "	14.9
" " " " "	3rd "	17.8
* * * * *	1st Class	22.7
" " " " "	2nd "	26.7
* * * * *	1st Class	12.6
" " " " "	2nd "	12.7
Don Valley	Red	9.3
" "	Buff	9.7

#### TEST AS TO COMPRESSION STRENGTH

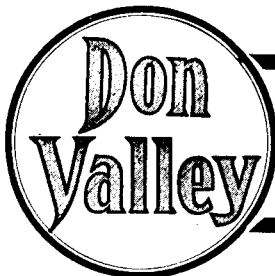
Class of Brick	Crushing strength in lbs. per square inch
* * * * *	1st Class 3,783
" " " " "	2nd " 1,670
" " " " "	3rd " 1,821
* * * * *	1st Class 4,637
" " " " "	2nd " 3,057
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The complete article from which these figures were taken may be found in the December (1908) number of "Applied Science."

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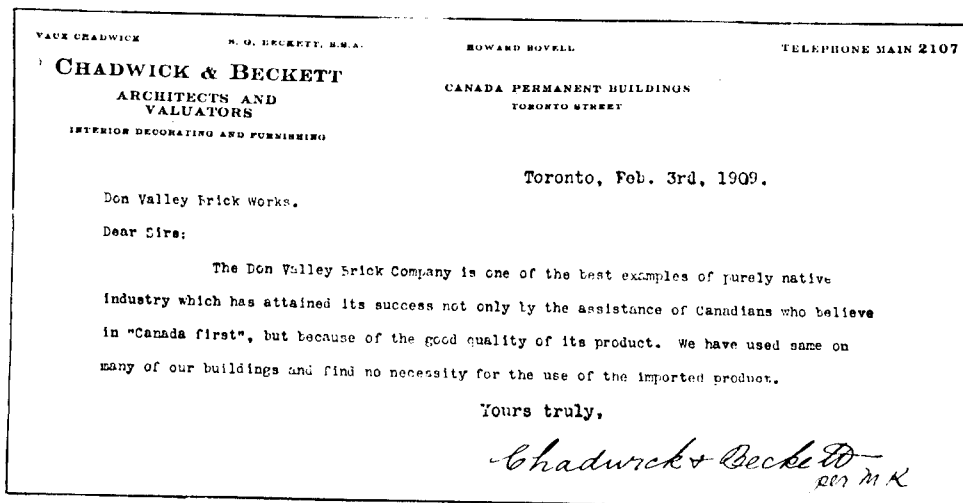
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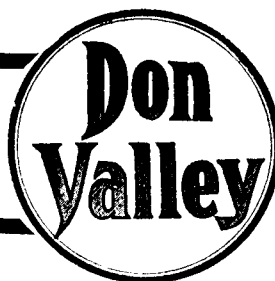
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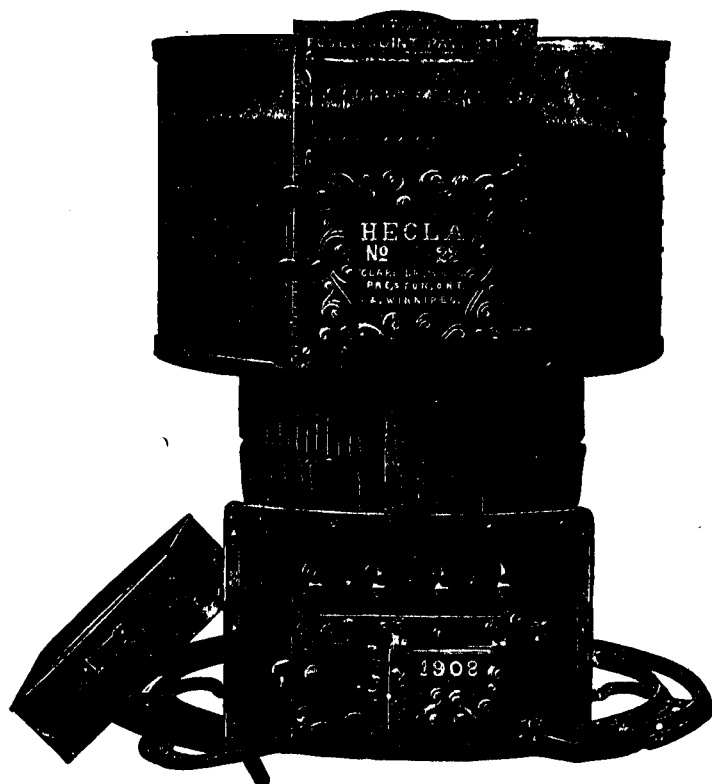
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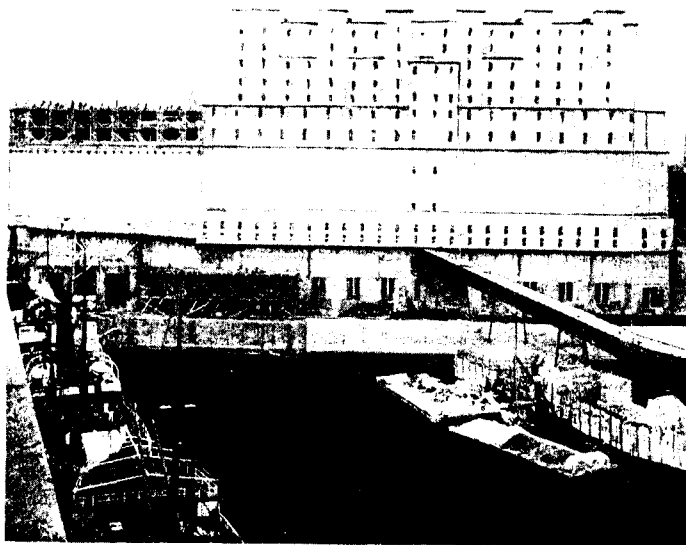
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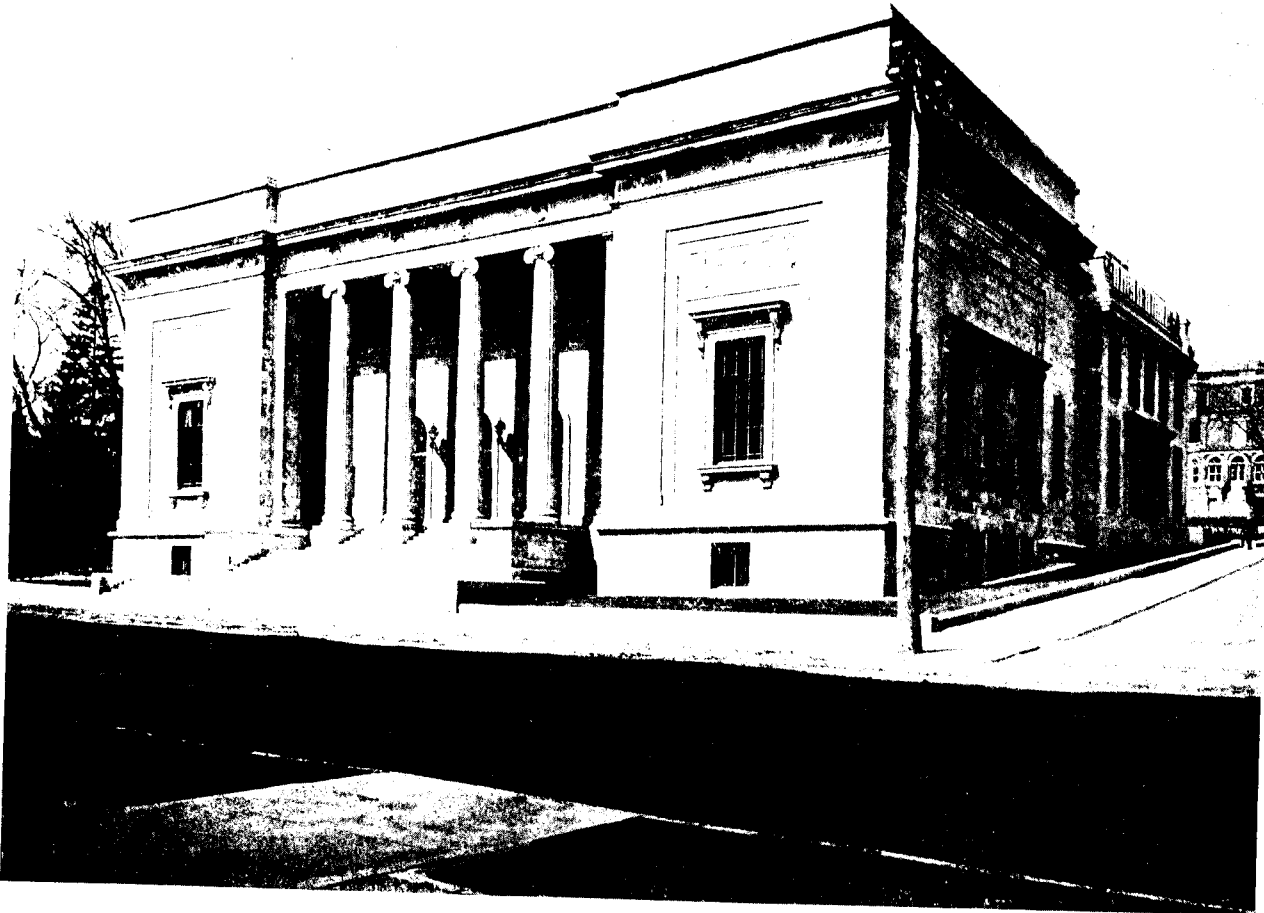
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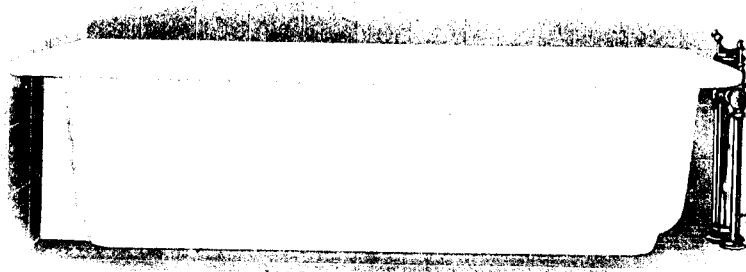
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# CONSTRUCTION



January, 1914

Vol. 7., No. 1

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A PEASANT'S HOME,  
NORMANDY, FRANCE.  
PHOTO BY F. R. MAJOR.



*The Panama Canal—Viewed from an engineering standpoint; also in respect to sanitation—The Panama-Pacific Exposition in honor of its completion.*

*The great need of a city planning exhibition—An opportunity for the Government to benefit the esthetic, social and economic interests of Canada.*

THE PRESENT AGE will live as a period of invention and achievement. Scarcely a day goes by during which the wireless does not announce to the world some remarkable accomplishment. So accustomed are we to reading such accounts that the unusual often fails to receive more than a passing reflection. Probably the greatest engineering feat of recent years and in fact of all ages is the Panama canal. Practically finished and ready to revolutionize the commercial activities of the whole world, this fifty-miles channel stands as a monument to the rapid and substantial progress of engineering.

This tremendous undertaking reveals itself now as a broad strip of clear water. The locks represent a work of infinite skill and ingenuity; the excavated portions depict the despatch and facility of modern methods; the Gatun Dam with its huge spillway and hydro-electric plant stands as one of the engineering sights of the world.

The whole character of the peninsula has changed; the swamps and fever-breeding districts having been eradicated, while the cities of Colon and Panama are well paved and made thoroughly sanitary. Groups of picturesque buildings surrounded with palms line the canal course and it is safe to predict the healthful and enjoyable conditions in the future of this narrow neck of land.

In honor of the completion of this vast undertaking will be held the Panama-Pacific International Exposition in San Francisco, 1915. The architecture of the main buildings will symbolize the union of the two oceans. For one-half a mile the encircling walls will present a facade on the water front representing the romance of our early days embellished with sculptured likenesses of Columbus, Balboa, Pizarro, Cortez, Ponce de Leon, De Sota, and others who endured the hardships of a new and hostile country. The world expects an artistic ensemble to this Exposition unequalled up to the present time and these expectations will more than be realized if the present efforts are a true indication of the completed work.

PROGRESS is founded on knowledge and the scientific handling of existing problems. The nation advances in ratio to its enlightenment among the people in general, for it is upon them that the burden of a country's greatness rests. Given the advantages of past experience among all races in every age, there should be no excuse for serious mistakes unless the matter at hand be an entirely new problem. If such be true then the far-sighted Government is the one which seeks to educate her people and especially those of the smaller cities and towns where the questions of to-morrow will be similar to those already handled by large and compact communities.

Considerable interest is being manifested in the planning of our congested centres, a matter of considerable embarrassment to the large cities throughout the world. The same mistakes should not be made in the new and rapidly growing municipalities of Canada. Let us give them the opportunity of seeing and studying the various schemes which have either resulted in the evolution of a beautiful and practical city from the beginning, or which have changed the chaotic growth of a thoughtless community into a dignified and artistic plan. Why not make a careful selection of drawings and photographs? Have them representative of the best work which has been accomplished in Germany, France, England and the States. Let them treat of all phases in city planning from the layout of bridges, markets, parks and playgrounds up to the comprehensive study of large cities. A collection of this nature could be secured and would unquestionably prove of immense value to the average layman as well as to the professional and administrative authorities.

We see no reason why the Government should not make a move in this direction. It should do this not only because it would be of universal interest to the people, but would also educate them to love the beautiful and adopt measures whereby the city would save the tremendous cost and torn-up conditions resulting from a lack of such knowledge. New projects for civic im-

provements could be more easily settled and handled in a masterly and satisfactory manner if the similar ideas already executed in other places were brought to the attention of those to whom the undertaking has been entrusted. All material and physical advancement would be the outcome of a harmonious and sane plan conducive to the best interests of the whole community.

Sufficient pressure might be brought to bear upon the proper authorities through the Dominion Conservation Commission which meets in Ottawa on the twentieth of this month; also at the City Planning Convention to be held in Toronto, June 1-3. The Conservation Commission has already appointed a committee to draft a model city planning and housing act as a suggestion to the Provincial Governments. In this way the great immigration problem can be settled, the present unsanitary conditions eliminated and a sane growth guaranteed.

---

*Concentration of capital and congestion of thoroughfares well regulated in German cities—The zone system now successful in many European countries.*

---

THE PROBLEM of concentration seems to be the key-note of the present age. Our large cities are carefully considering the question of tall buildings from the standpoint of economy, congestion and sanitation. In doing so the thought of colonizing certain interests should not be overlooked and if the question is properly analyzed it will be seen that large commercial institutions must be housed within the smallest area possible. This would lead us naturally to the evolving of a scheme whereby all the objectionable points could be eliminated and at the same time provide suitable accommodations for the steady growth of commercialism.

The cities of Germany furnish striking examples in this connection. As far back as 1875 Baumeister, a theoretical city planner, evolved the idea of the zone system. By this method the individual character of the different parts of a city is recognized and the height, density and plan of a building allowed accordingly. In Berlin the ordinances allow buildings of five stories with an area covering seventy-five per cent. of the building lot in the city proper, and in the near-by suburbs two stories and thirty per cent. of the ground area. Their regulations by zones have helped to make effective the sanitary conditions of the city.

The chief objection to the scheme in Berlin comes from the business world, which claims that the buildings should be taller in order to permit of the centralization of capital. This cry might not be necessary if the whole structure at the present time were used for business, but even in the main thoroughfares the upper

stories are used as dwellings. It is very seldom one finds a business block containing no living quarters. Transplant the home seekers to their proper zone and the great drawback to Berlin's trouble would be in part, if not entirely, adjusted.

Would it not be a wise plan for our large cities to study the advantages of the zone system? Instead of setting a certain height for structures which can be built in every part of the city, let the regulations cover the needs of the various sections. This would prevent the shopping district from suffering on account of the additional congestion of tall office buildings; it would also protect the residential streets from the tall apartment. As each city of a certain size develops districts it would be wise to express their difference by building regulations conforming to their diversity of character. For is it not self-evident that the commercial district and the residential section should each be protected from unjust encroachment through the lack of proper by-laws?

---

*The Royal Gold Medal for 1913—Its value to the recipient as well as the benign influence resulting to the profession—Honor bestowed on all peoples.*

---

THE ROYAL GOLD MEDAL is given annually by His Most Gracious Majesty the King to the architect, or man of science and letters with architectural instincts who is deemed most worthy of such an honor by the Royal Institute of British Architects. The presentation furnishes an occasion of extreme importance in the artistic field of England and is accompanied by dignified ceremonies. For such a reward in recognition of distinguished services to architecture tends to elevate this phase of art and bring its refining qualities forcibly before the people. One cannot overestimate the value of such an honor as an incentive towards a wholesome and conscientious endeavor upon the part of the recipient, as well as the other members of the profession, to build for art's sake, eliminating the baser motives which often evidence themselves in modern work. It is also worthy of note that such merit is not confined to the narrow bounds of England but may be, and has been, conferred upon men of foreign nationalities whose life and energies are devoted to the pure and broadening influences of their work. Reginald Blomfield, the recipient of the Royal Gold Medal for 1913, deserves the honor bestowed upon him as his work will exert a lasting influence upon the efforts of future generations. His address in response to the presentation of the medal is given in this issue, and reveals the character back of the man who has so deservedly won this high distinction.



---

*Excavations made in public places—Works of art discovered which connect the illustrious ages of yesterday to the present in a decisive manner.*

---

SO ENGROSSED do we become at times with local affairs that the real import of foreign events scarcely receives our thoughtful attention. During the past few years the museums of the world have added many valuable examples of art to their already famous collections. The race who ruled yesterday is depicted to us through graphic descriptions and we marvel at the intimate knowledge of the author with the subject in hand. Back of his cleverness, hidden as it were by the vivid and entertaining treatise, lies the source from which he derives his knowledge. Isolated in regions which live with memories of the illustrious past are groups of men representing the various countries whose ambition is to unearth some secret hidden for centuries. These men are young, energetic and well educated, with a keen love for archæological links which alone can unite the past to the present. How successful they have been is revealed by the tombs, temples, palaces, statuary, jewels, pottery and inscriptions dating back beyond the period of 2,000 B.C. H. E. Winlock, of the Metropolitan Museum of Art, New York City, who has spent seven seasons digging among the historical places of Egypt, gave to the museum recently a huge door jamb which came originally from the large red granite temple built by Rameses the Great. This stone is covered with hieroglyphics and immediately becomes one of the priceless discoveries which are enlightening us as to the hidden past.

Another sensational announcement comes from Professor William Niven, who claims to have discovered within a short distance of Mexico City, sufficient Mongolian relics to prove a civilization preceding that of the Toltecs and the Aztecs. The expedition under Prof. Niven with the financial assistance of the Mexican government, unearthed the city of Otumba beneath the ruins of the ancient Tootihuacan. Among the evidences of a high state of civilization is a pyramid seven hundred feet square at the base, with its apex one hundred and ninety feet high; a house, the walls of which are richly painted in green, red, pink and brown colors displaying the elaborate garments and head dresses of the people. Directly beneath Otumba a third city was found with tombs representing a civilization beyond calculation. Here was found the image of a Chinaman in a tomb beneath two other races which, as Prof. Niven suggests, may solve the enigma of the New World's beginning.

During the third expedition conducted by the University of Pennsylvania, a tablet was found

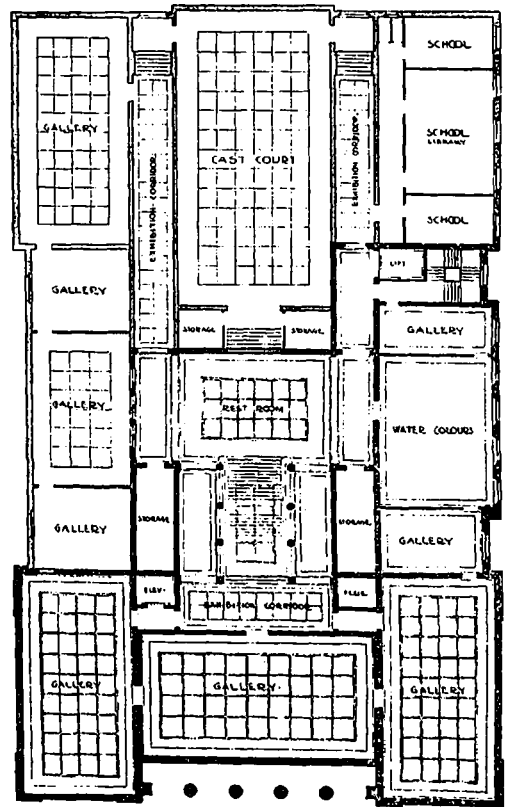
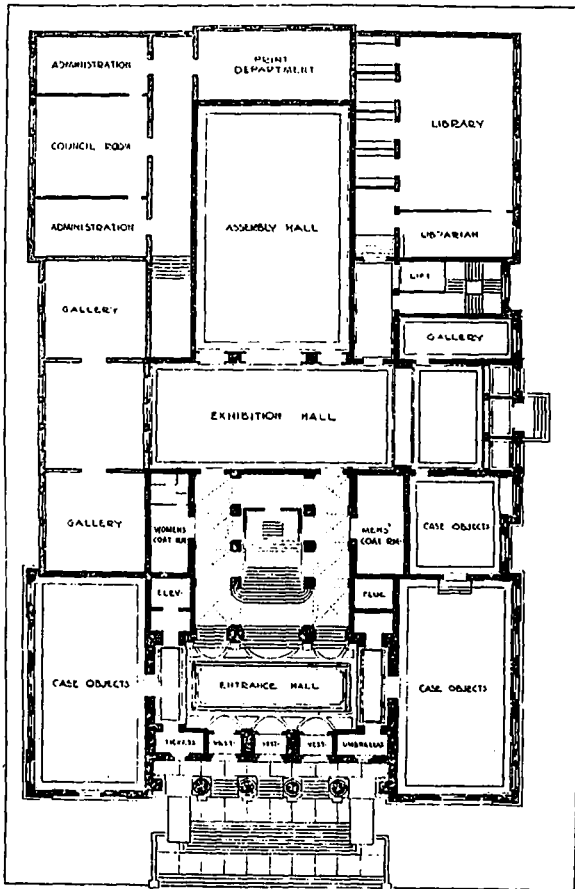
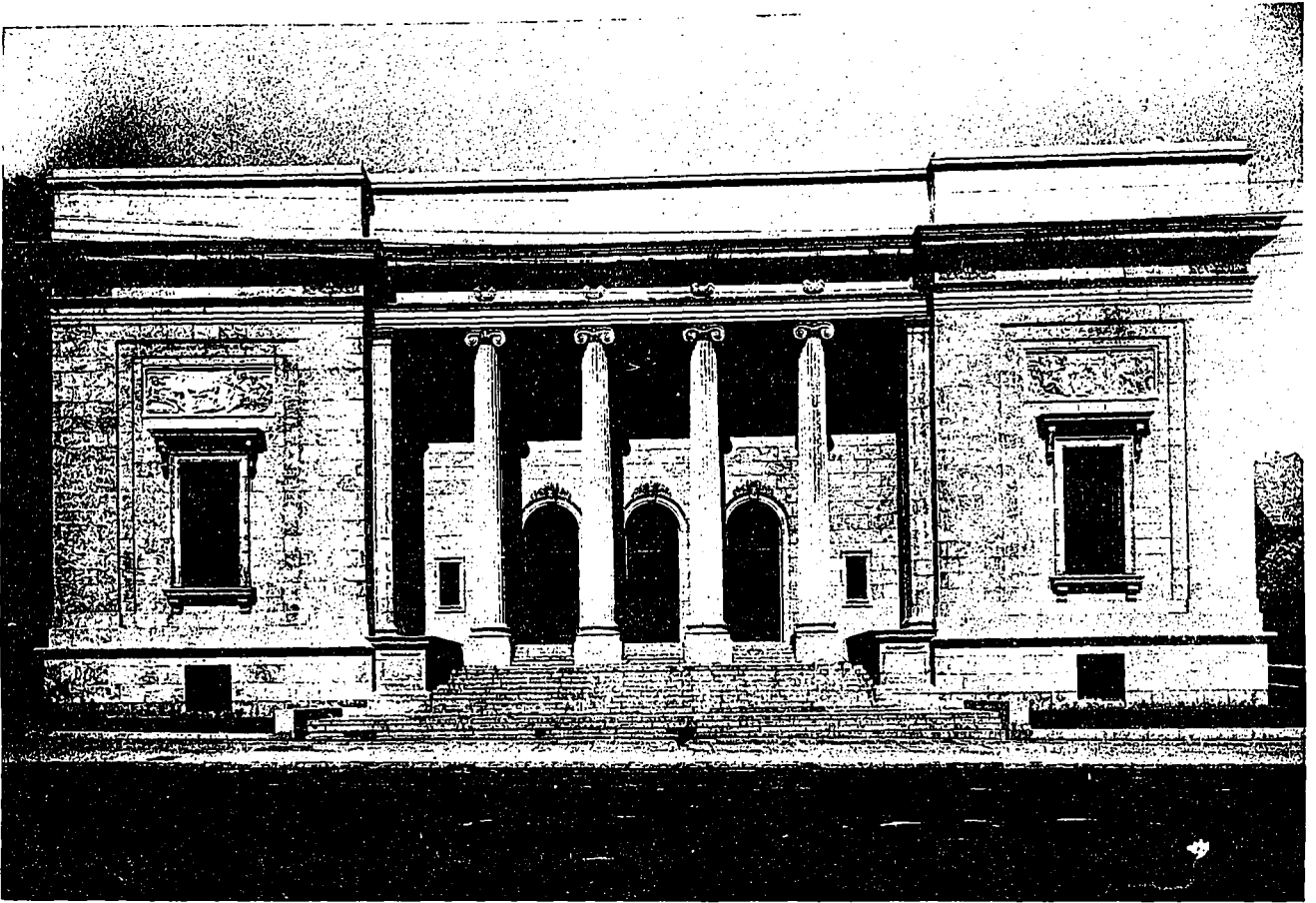
which tells the story of the deluge and antedates the Biblical account by fifteen hundred years. Dr. Arno Poebel, a distinguished Oriental scholar, has deciphered the Babylonian tablet in addition to hundreds of others which refer to historical events before and after the flood. Here are found the essential facts as told of the creation and flood in the book of Genesis.

For many years the archæologists of the world have been searching for the Sabine Farm, celebrated as the home of the great poet, Horace. At last the villa given him by Maecenas has been authentically located at the foot of Mount Lucretile, near Licenza. It is rectangular in form, surrounded by a double wall for the prevention of land slides. The garden which occupies four-fifths of the surface is enclosed by an arched gallery in the centre of which is a large swimming pool. Broad steps lead to the vaulted portico, thence into the house, which was divided into two parts, one for Horace and his guests, the other for the slaves. Finely cut mosaics, beautiful sculptured marble, etc., have been found in abundance. Bricks have been found with the inscription of "*Numeri Nevi*," which are the oldest known to Latin archæologists.

M. Vaglieri, director of excavations at Ostia, tells of the theatre, temples and shops unearthed under his direction. The meeting places of the various guilds, the forum, market place and other spots have been exposed, although four-fifths of the city remains still to be excavated. The ancient city of Ostia may still rival the wonderful finds in Pompeii and in time reveal the wealth of former days when the Emperors embarked to conquer the Mediterranean.

At Acqui the excavators found a solidly-built rectangular brick basin of large dimensions, surrounded by three steps leading from the water. Near by was a smaller basin, used for hot mud baths with two caves for conserving the mud. As this town is famous for its hot sulphur water, we can see how the modern system of hot mud and sulphur baths is similar to the old Roman idea.

Others of equal importance are taking place in all countries, making authentic our historical events, although changing some of the minor details. From the record of the past decade it might safely be said that in years to come only the future will remain a mystery, and our efforts will then strive to accomplish future prophecies. In doing this we will once more draw away from the purely commercialistic spirit and work for art's sake, producing with the thought of future generations and eliminating the perishable construction of to-day. Then we will appreciate the sacrifices made by our present day excavator.



GROUND FLOOR.

THE NEW ART GALLERY, MONTREAL.  
EDWARD & W. S. MAXWELL, ARCHITECTS.

FIRST FLOOR.

# The New Art Gallery, Montreal

Edward & W. S. Maxwell, Architects

THE New Art Gallery was officially opened in November, 1912, by His Royal Highness, the Duke of Connaught. On that occasion there was shown a remarkable loan collection of paintings, representing the more important schools of the Renaissance as well as those of modern times. The erection of a building in which paintings and sculpture can be shown in a suitable environment, without crowding, has resulted in an increased interest in artistic matters and a material growth in the membership of the Association.

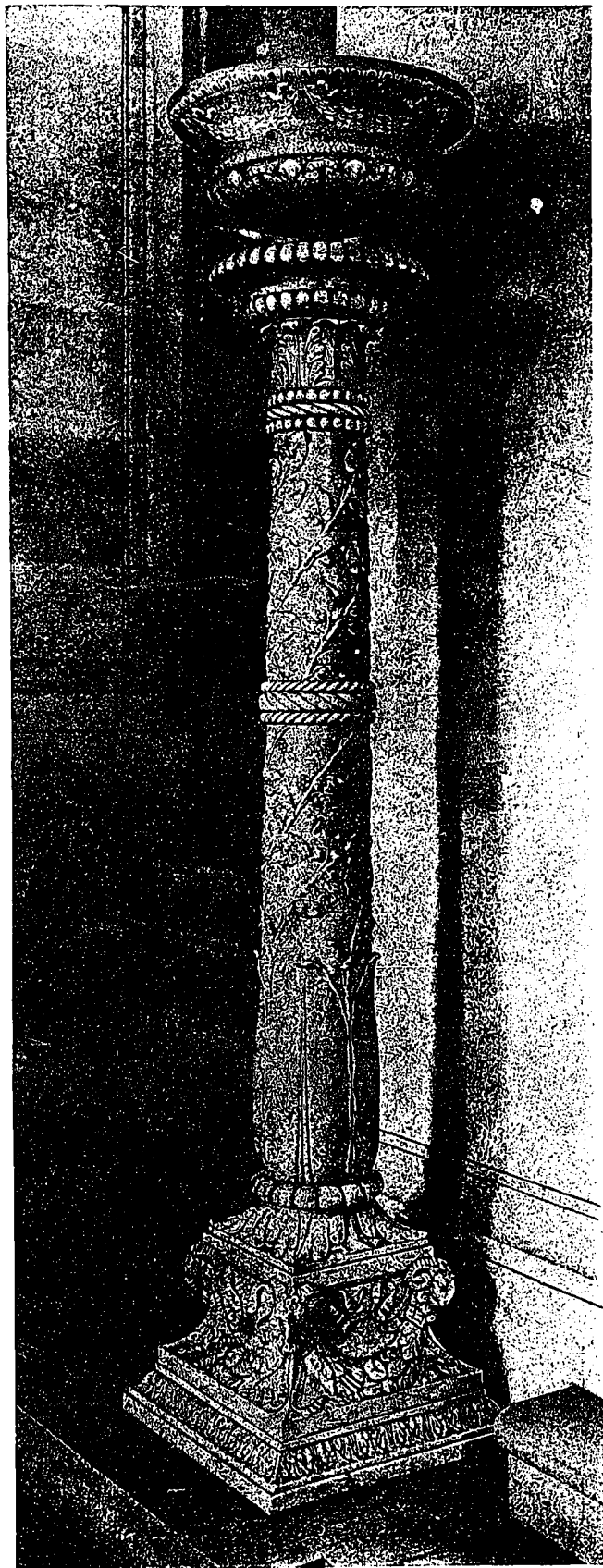
The selection of the Architects was the result of a well conducted limited competition. The late Edmund M. Wheelwright, owing to his connection with the new Boston Museum of Fine Art, was selected to advise the building committee. The data collected by him in Europe and America and the conclusions arrived at as a result of experimental research previous to the erection of the Boston Museum, was placed at the disposal of the architects of the Montreal building, with the result that the planning and lighting are considered most satisfactory, and in some respects, are improvements on the older examples.

The Museum is situated on Sherbrooke street in the heart of the residential district. The present construction represents about two-thirds of the original scheme and the additions can be made without disturbing the plan or usefulness of the existing structure. Accommodation is provided for the exhibition of paintings, sculpture, and objects of art, a library, a school of art, and the necessary administration and utilitarian offices.

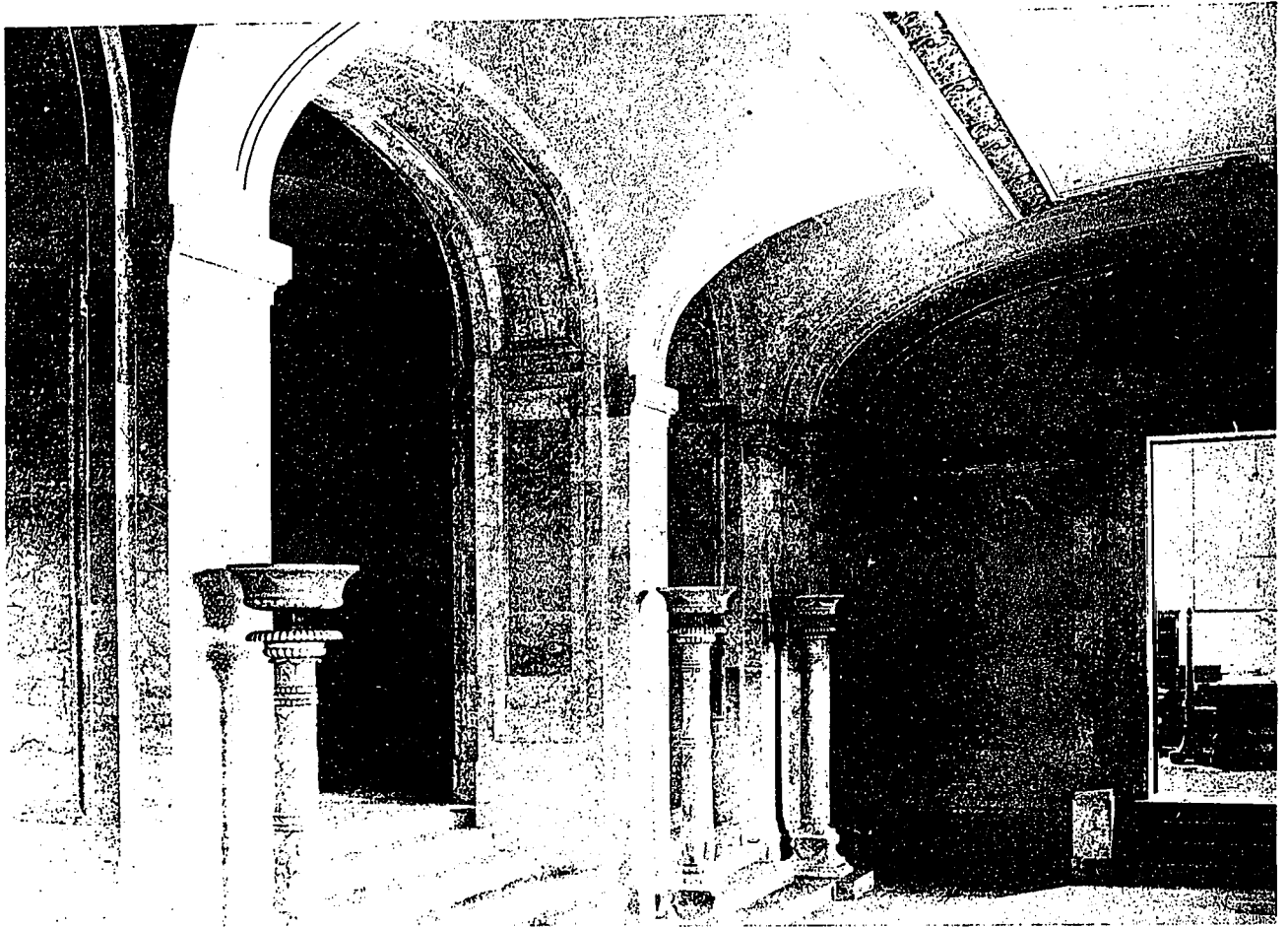
The exterior is of classic character, and there is evident a frank acceptance of conditions of lighting demanded by the introduction of side lighted galleries, and top lighted studios for the school of art. The feature of the Sherbrooke street facade is a large portico with Ionic columns. Three arched entrances with Ionic columns. Three arched entrances with key stones having symbolical heads. The doors of oak are surmounted by bronze grilles. Figures symbolizing the Arts are flanked by acanthus scrolls, the surrounding grille work being rather open in type in order that light may enter into the vestibule and hall.

The wide flight of marble steps is flanked by pedestals which may receive groups of sculpture in the future.

The projecting wings express the interior, the large windows which light the library and exhibition room for case objects have panels of



ALABASTER LIGHTING STANDARD,



MAIN ENTRANCE HALL.

sculpture in low relief carried out by the Bromsgrove Guild of Canada under the architects' directions. These panels are conceived in the best spirit of the art and represent the traditions of Greek and Roman art being explained to groups of sculptors, artists, painters, etc. The difficulty of obtaining unity in panels of such size and shape has been accomplished by the introduction of a colonnade in the background. This touch, rather Italian in inspiration, is successful in execution. There are three top lighted galleries on the first floor, the skylights being screened by the plain attic.

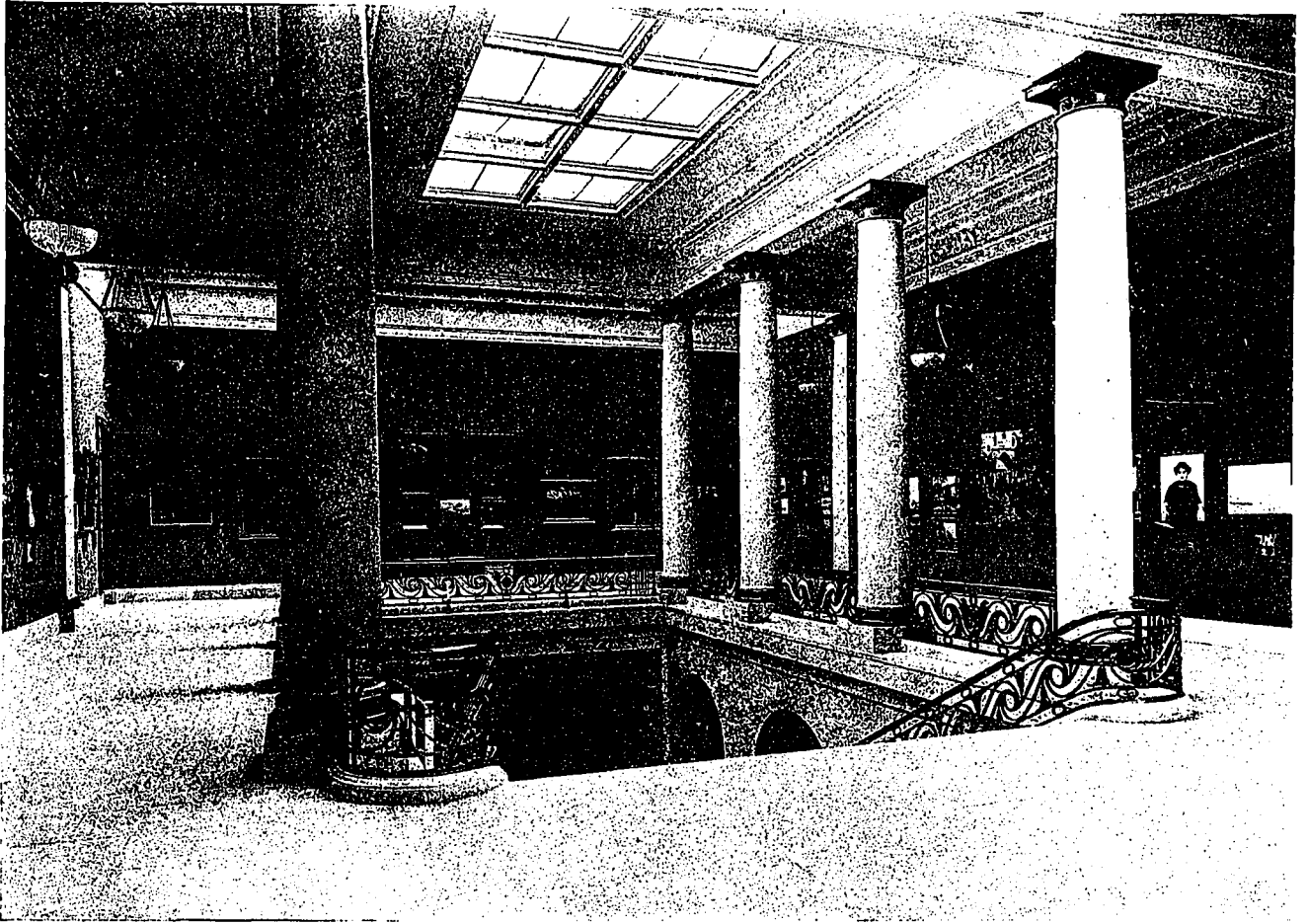
The Ontario avenue elevation is two-thirds completed, the central wing has large windows lighting the ground floor rooms, those of the first floor open into side lighted galleries. The studios of the Art School are frankly in evidence, the U-Bar construction, usually confined to greenhouse practice, has been used with success. The studios are very well lighted and the curved eaves permit light to enter them when most desirable and do away with the ice and snow troubles incident to the usual cornice at the intersection of the sloping and vertical surfaces of glass. The future wing will in mass balance the south one, but the character will be different owing to windows required for the ground and first floors.

The ground floor is reached from Sherbrooke street by the steps and three portals already



ENTRANCE TO GALLERY.

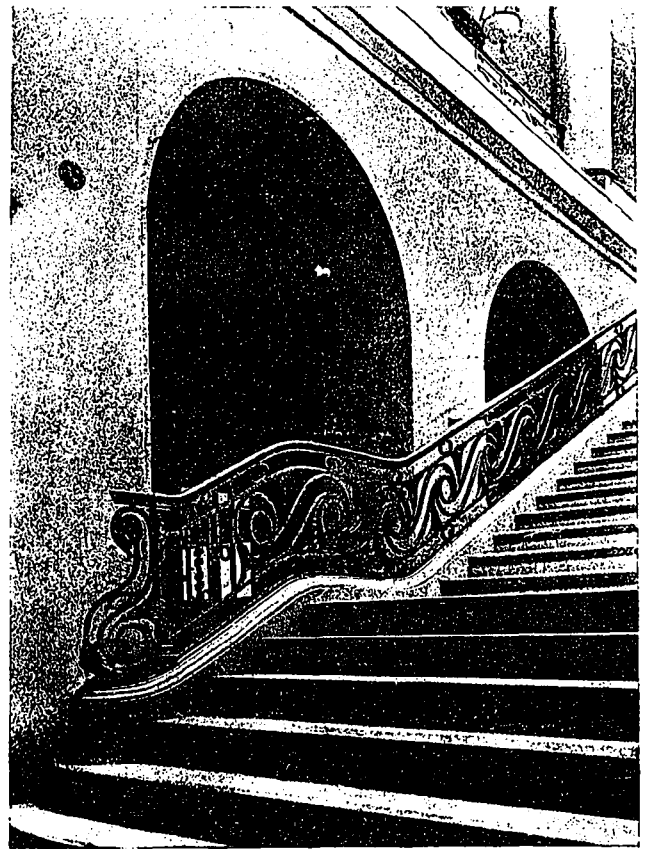
## CONSTRUCTION



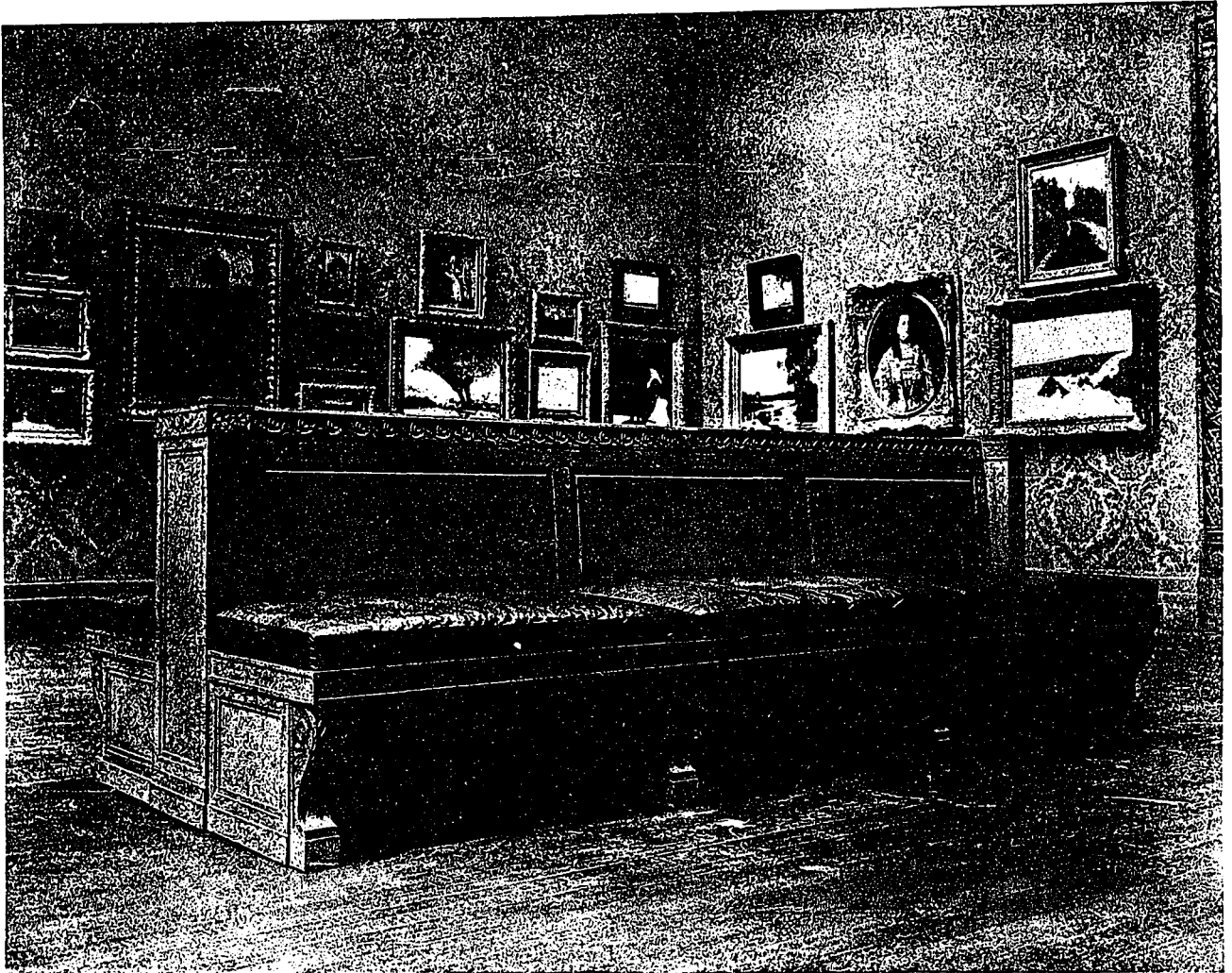
STAIRCASE OF HONOR.

described. The oak entrance doors stand open in day time and double swing glazed doors of light construction take their place in the entrance hall. This entrance hall extends across the greater part of the building, the staircase of honor which is magnificent in scale ascends directly opposite the entrance, ending at the first floor in a large rest room provided with tables, chairs, palms, etc. While used as an exhibition gallery, it, by means of alcoves, provides a place of rest where one can view a great part of the first floor, the staircase, entrance hall, etc., the view thus obtained being very comprehensive and interesting. The whole of the above portion of the interior is built of solid pavanazzo marble, the columns having solid bronze bases and capitals, while the railing of the staircase is of a similar material in a richly wrought pattern. The ceilings of the entrance hall and surrounding passages are vaulted and decorated, while the lighting is by means of eight carved alabaster columns and bowls which give a diffused, soft light that is most agreeable and effective.

It is of interest to note that one can make the circuit of the six galleries and hallways on the main exhibition floor without retracing one's steps. There is, therefore, always a new note of interest in going from one gallery to another, that one misses in a less skilfully planned structure.



DETAIL, STAIRCASE OF HONOR.



DETAIL OF GALLERY SEAT.

The apartments for teaching are very complete, consisting of three large side and top-lighted studios, cast rooms, modelling room, lunch and other rooms, for which accommodation is found in portions of the building apart from that used by the public.

In the construction of the building, nothing but the highest grade, of a fireproof character, was used. The system of ventilation, heating, lighting, vacuum cleaning, etc., have all been carefully studied and adapted to suit the exacting conditions of a building of this nature, with perfect success in each case.

As one inspects the building, however, critically, there is forced upon one the feeling that a quiet but forceful reserve has been brought to bear upon all the intricate carefully studied details that go to compose the whole, a reserve that showed latent force and intuitive knowledge, and how to apply it to the best advantage.

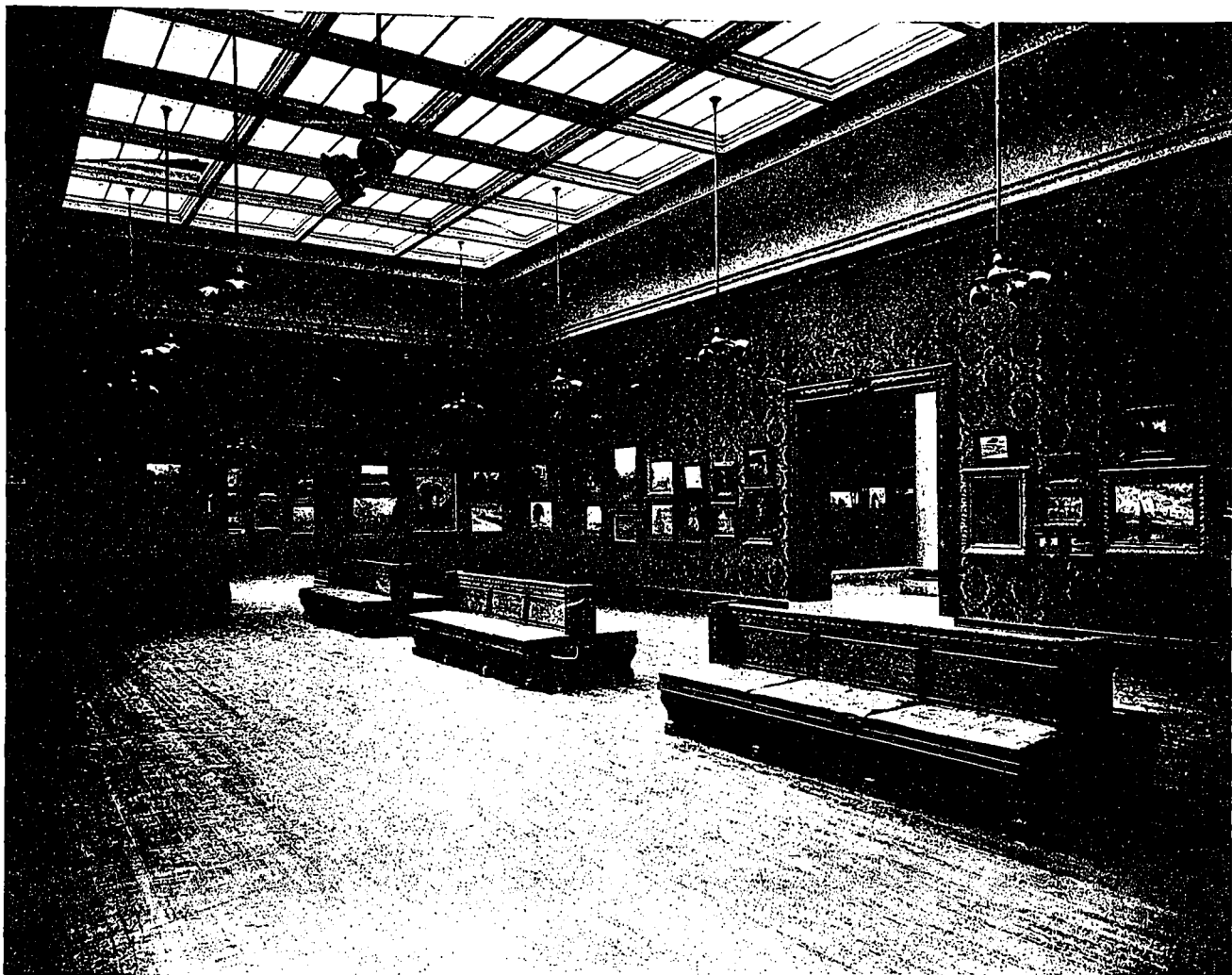
It is this feeling that stamps itself upon the mind, even of a layman; a feeling that leaves a sense of satisfaction and completeness of what should prove to be an enduring and lasting monument for centuries to come.

In referring to the new Art Gallery, the "Canadian Real Estate News" recalls the history of the founding and growth of the Association during the last fifty years.

As early as 1849 a few of the citizens and artists banded together and began the struggle to foster a feeling for art and beautiful things, and from that time onward small groups of public spirited men devoted their time and drew largely upon their resources towards continuing the movement then begun. Naturally, as in the beginning of any movement, they encountered many difficulties and want of interest, but their efforts from year to year bore fruit, and finally in 1860 the Art Association of Montreal was duly incorporated, and some of the members of the present Council were members of the Association at that time, and aided it as generously as they still are doing.

The first President of the Association was the Right Reverend Bishop Fulford. The objects of the Association were stated to be the encouragement of art, the establishment of properly equipped schools, and the maintenance of the Association for these purposes.

The Association was empowered in the usual



MAIN GALLERY, FIRST FLOOR.

way to acquire and sell property, and the constitution and by-laws were drawn up defining the mode in which the business of the Association was to be carried on. Having so formulated their position, matters began to improve and interest in art became more widely spread, but the cost of maintaining the institution still had to be borne by a small number of citizens, among whom were still some of the earnest men through whose incentive the movement was first started. No municipal or government aid was given and no financial encouragement whatever was received by them, their only reward being that they were furthering the culture of their fellow-citizens, and filling thereby a great want in the life of the community.

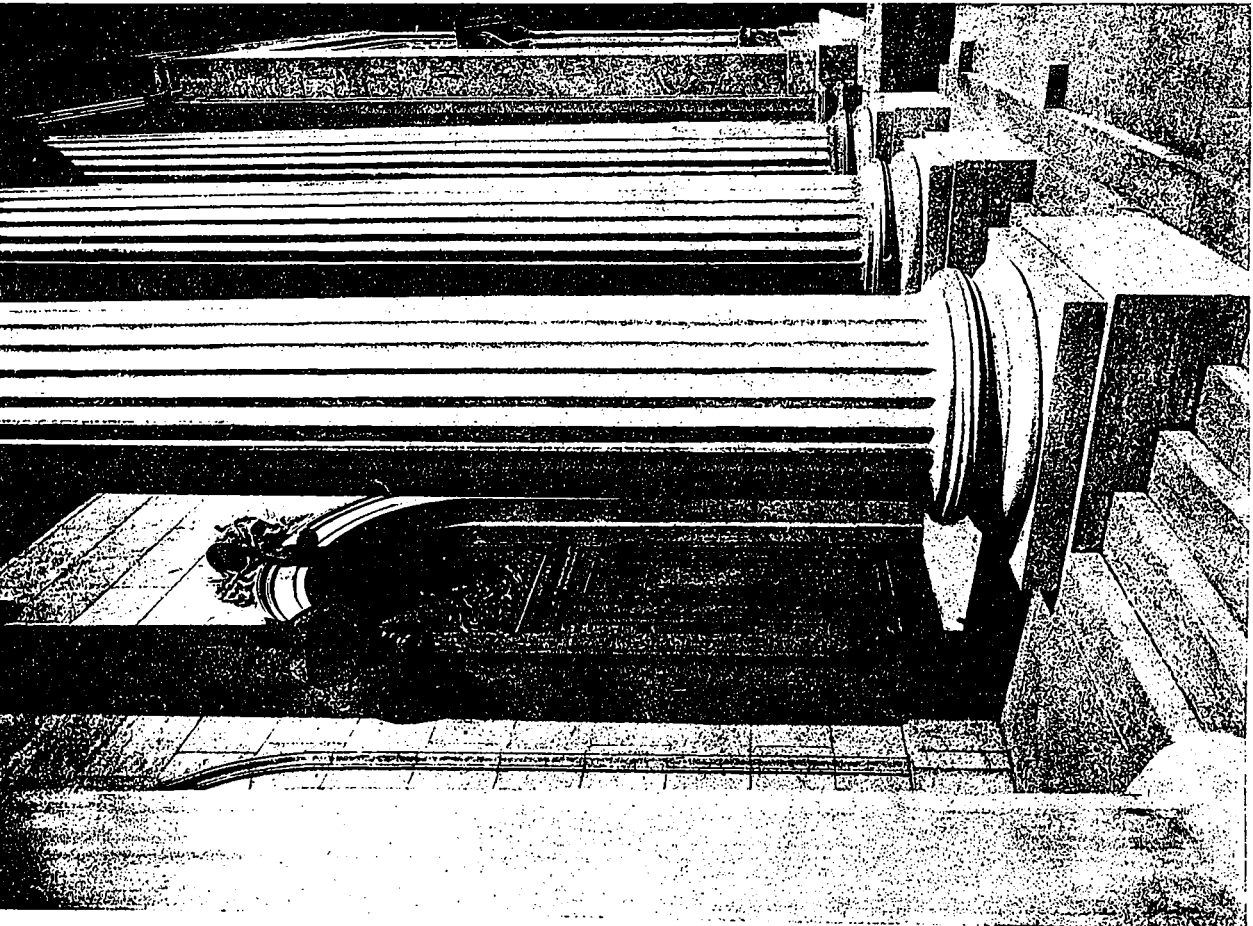
Among these men was the founder of the present Art Association, Benaiah Gibb, Esq., who died on the 1st of June, 1877. His great services to the Association and to this city are summarized as follows on the bronze tablet in the hall of the gallery in Phillips Square:—“This Art Gallery owes its existence to the liberality of Benaiah Gibb, Esq., who died in this city on the 1st June, 1877. By his will he devised and bequeathed to the Art Association

the land on which this building stands; \$8,000 in money; over 90 oil paintings, and eight valuable bronzes. This Association has placed this tablet here in honor of the donor, and as a small token of respect and gratitude to him, and to aid in perpetuating the memory of his generosity and public spirit—1881.”

This bequest gave a home to the Association and some important pictures with which to commence their collections. Upon receipt of this bequest the Council proceeded immediately to the erection of what is called the “Old Gallery” with rooms and shops below, and by aid of private subscriptions and this bequest were enabled to complete the building, which was opened on the 26th May, 1879, by the Marquis of Lorne, then Governor-General, and Her Royal Highness Princess Louise.

In his opening address His Excellency worded the ideals of the Council in respect of the need in a young country like ours where the pursuit of material things is so strenuous of a movement stimulating the love of art and beautiful things.

He said in part:—“We not only believe that the love of the beautiful in nature and art is a



EDWARD & W. S. MAXWELL, ARCHITECTS.

THE NEW ART GALLERY, MONTREAL.

DETAILS, FRONT ENTRANCE PORTICO.



source of some of the purest pleasures of life, but that it stimulates and supports our highest aspirations, and we think that the influence of the fine arts is specially important in refining and ennobling those practical aims which necessarily tend to absorb the energies of a people actively engaged in developing the material resources of our young and rapidly growing country."

The year 1893 saw the completion of an addition to the Old Gallery, containing a fine picture gallery, commodious rooms for the Antique and Life Classes, and a library and reading room built entirely by private subscription. This portion of the building in Phillips Square was formally opened on the 29th November, 1893, by His Excellency the Earl of Aberdeen, who in his address emphasized the need of such an organization as the Art Association, and referred gratefully to the services of the public spirited citizens, to whose efforts the erection of the building was due; and he also called attention to the need of such an organization as the Association—especially in a country like this where the demands upon the energy and enterprise of the people make it difficult for them to find time for the development of other departments of national life—and he concluded by expressing his hope for the growth of a Canadian School of Art, of which germs were already seen.

The completion of this building gave a new impetus to the Art School which was then in charge of William Brymner, R. C. A., now President of the Royal Canadian Academy. From that time on the attendance in the schools increased, and it annually instructs a large number of students in the most modern principles of art in oil painting, drawing, from life and cast, and in modelling.

In 1892 John W. Tempest, Esq., gave a large and valuable collection of paintings, and a considerable bequest of money for the purpose of purchasing paintings. Later in 1909 a magnificent collection was received from the executors of the late William, John and Agnes Learmont—which entirely fills the new Gallery, and contains many most important paintings.

In short, the transactions of the Association during the past half century form a remarkable record of unceasing effort and generosity upon the part of small groups of men, many of whom are still generous friends who devoted themselves to the furtherance of its objects. The result of the untiring energy and practical aid of these men is that the Association has been raised from modest beginnings to its present position, with a membership of nearly 1,000; with collections of paintings which compare favorably with those of most institutions of its kind. The Art Gallery building, of such im-

posing proportions, and so well constructed and equipped, is the pride of those who are entitled to the privileges of the Association, and a lasting monument to those who may have contributed towards its erection.

The interior of the building provides accommodation for the existing collections of pictures, objects of art, etc., and for future expansion. The exterior of the building is of white marble from the Dorset Quarries in Vermont. In no case have the practical features, such as windows, doors, etc., been sacrificed to obtain an effect which did not correspond with the interior requirements. The style may, therefore, be called "Classic" adapted to fit the complicated requirements of a modern building.

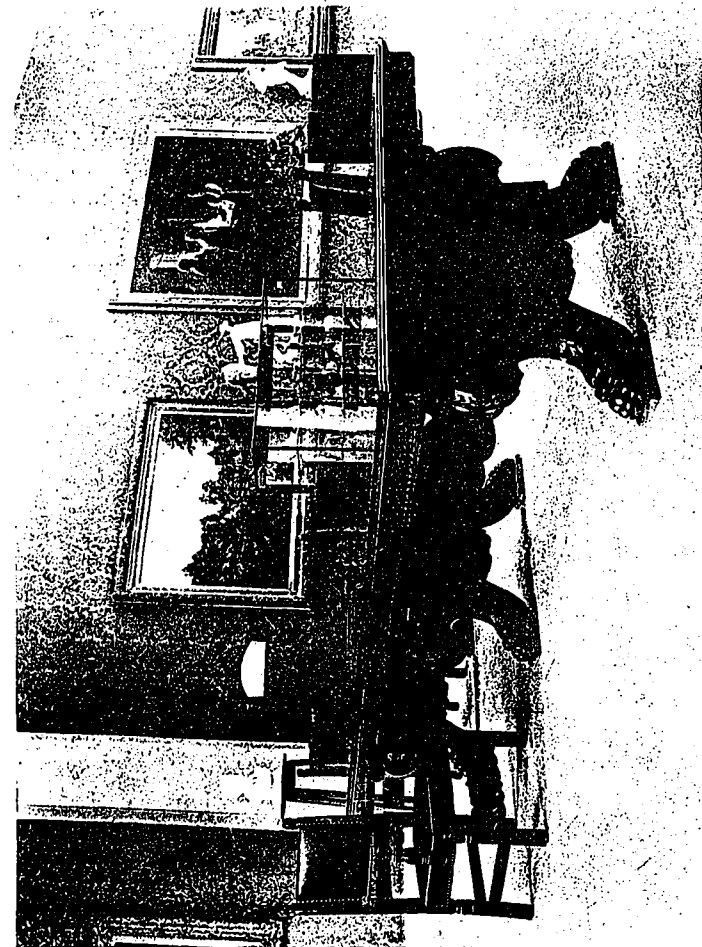
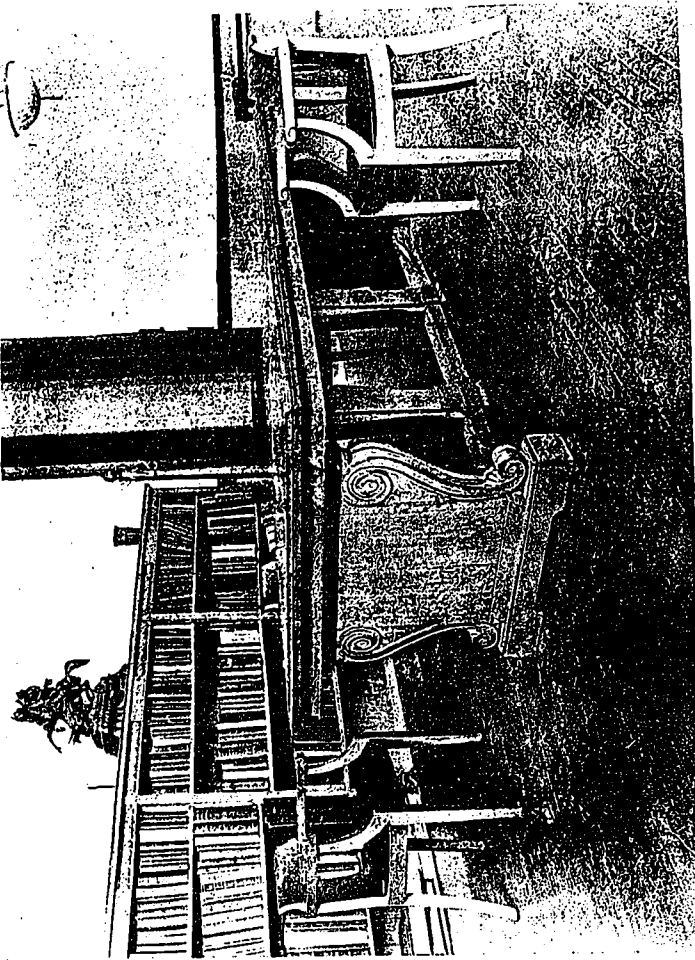
The Sherbrooke street front has a recessed portico approach by a broad flight of granite steps. The monolithic columns are of the Ionic order and are said to be the largest shafts quarried so far in this material in America, the length from base to capital being slightly over 31 feet. The flanking pavilions express galleries on the inside, the ground floor ones being lighted by large windows set six feet from the floor, the lintels being close to the ceiling. The proportions and the placing of all windows, it may be added, are based upon a series of experiments carried out in Boston, the details of mouldings and carving being particular to this building.

The main entrance to the building is through the three arched portals into small vestibules and thence into the large vaulted entrance hall, which is sixty-two feet by twenty-four feet six inches. The walls of this hall are of Botticino marble from Italy, the vaulted ceiling being of plaster. Continuing across this hall one comes to a broad flight of marble steps with ample landings leading direct to the first floor, at either side of the staircase are vaulted passages leading to the large transverse exhibition hall beyond which is a large top lighted gallery which will be used for lectures and exhibitions. Returning to the entrance hall one finds to the right a large room, 31 ft. by 62 ft., which will be used for a library. On the west of the building is a gallery of similar size, which will receive case objects. Ample provision is provided at either side of the main staircase for a ladies' coat room and a men's coat room.

A separate entrance is provided on Ontario Avenue, entering through a vestibule into the Exhibition hall. Adjoining these entrances, is the council room and secretary's office, and on the opposite side a staircase leading to the first floor and thence to the Art School. The first floor is devoted almost together to the top lighted picture galleries.

Ascending the main staircase one arrives in a top lighted exhibition hall, 66 ft. by 29 ft. 6 ins.

CONSTRUCTION



READING ROOM.

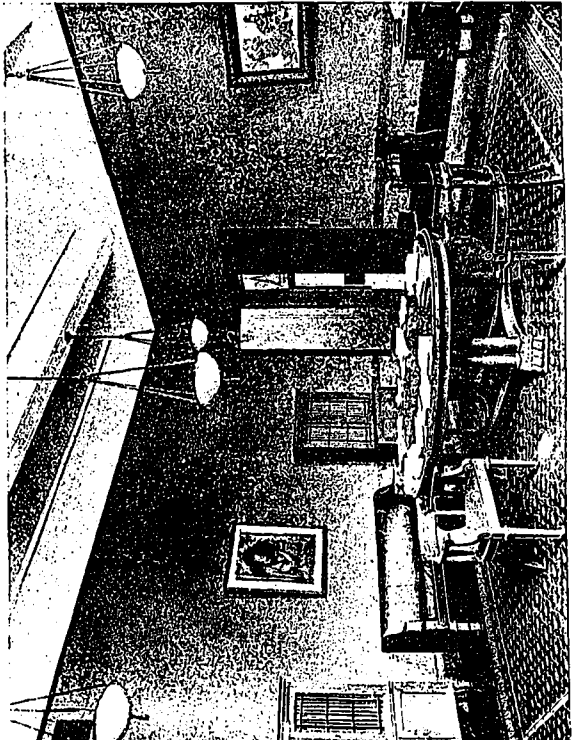
REST ROOM.

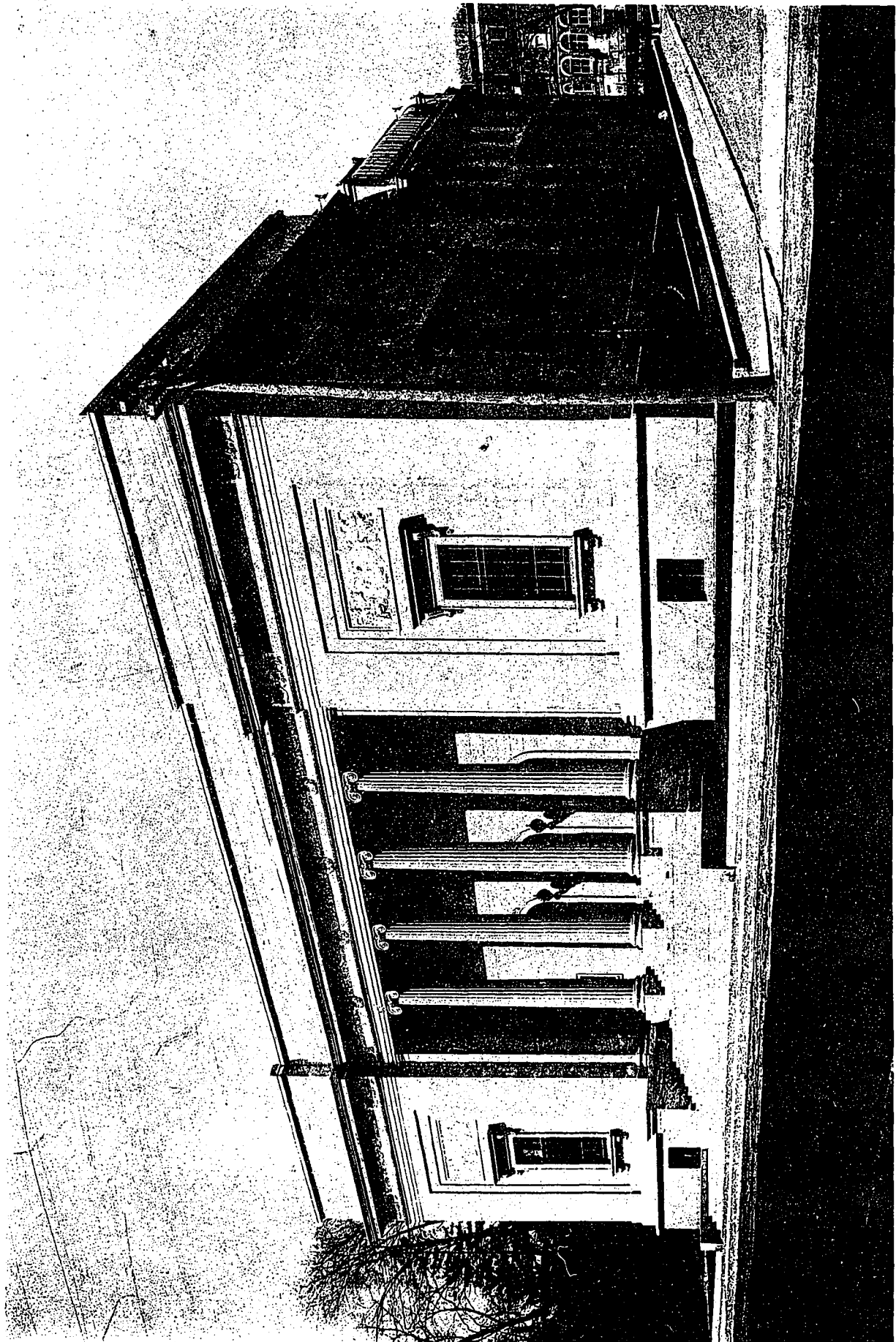
THE NEW ART GALLERY,  
MONTREAL.

EDWARD & W. S. MAXWELL,  
ARCHITECTS.

EAST  
GALLERY.

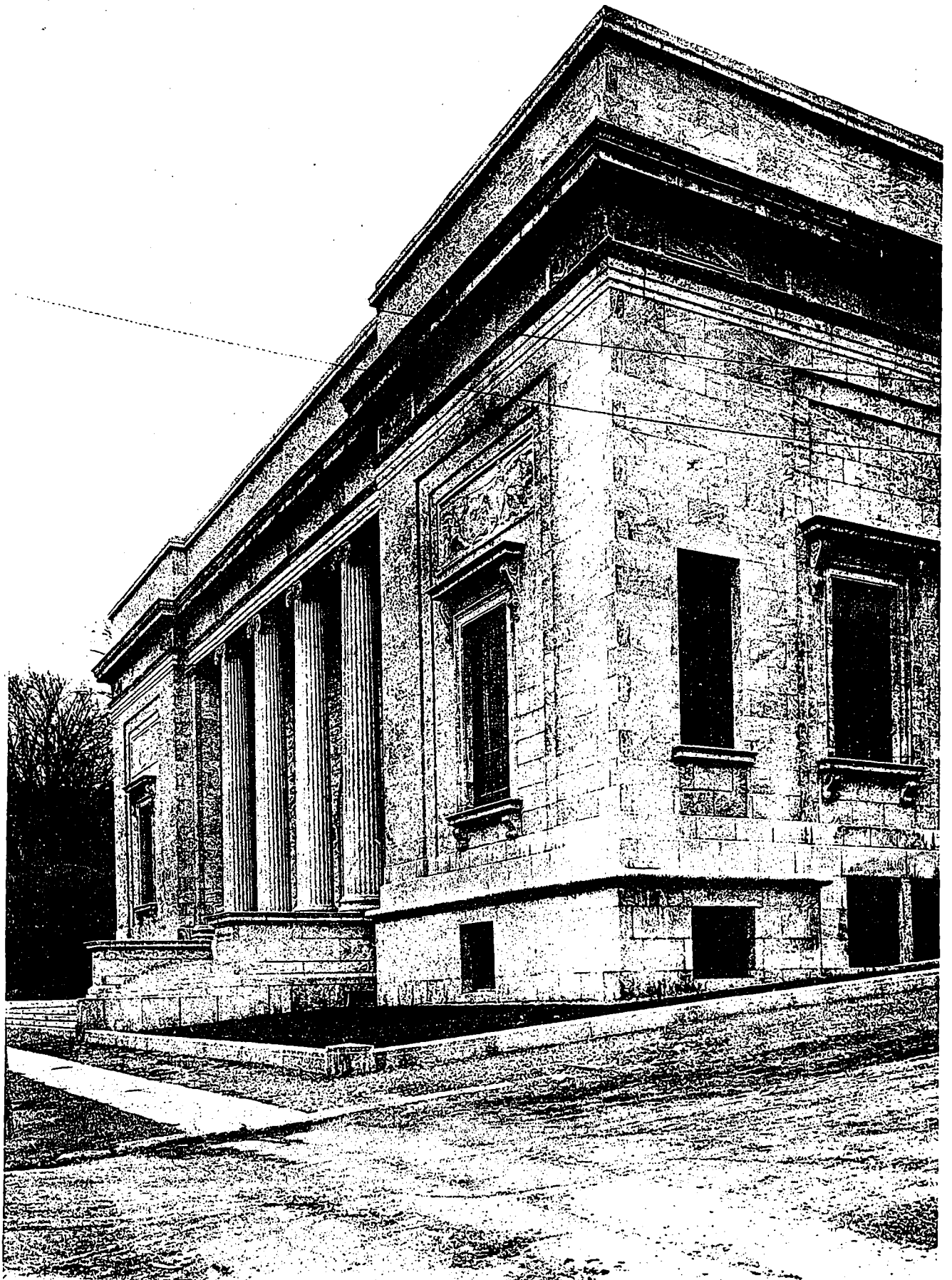
COUNCIL  
ROOM.





"Construction," 1914.

**THE NEW ART GALLERY, MONTREAL.**  
EDWARD & W. S. MAXWELL, ARCHITECTS.



"Construction," 1914.

THE NEW ART GALLERY, MONTREAL.  
EDWARD & W. S. MAXWELL, ARCHITECTS.

Plate II.



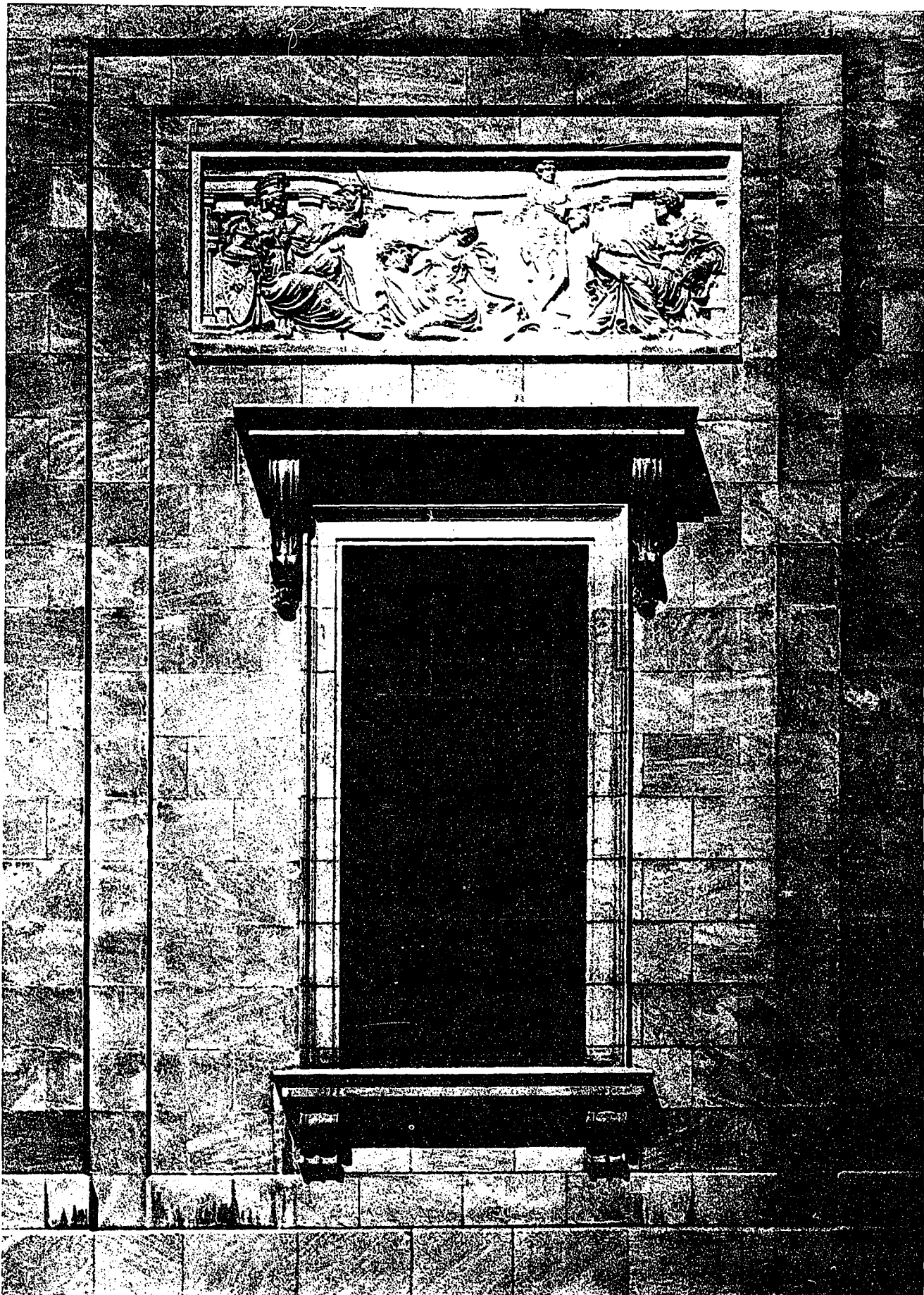
"Construction," 1914.

ENTRANCE, ONTARIO AVENUE.

Plate III.

THE NEW ART GALLERY, MONTREAL.

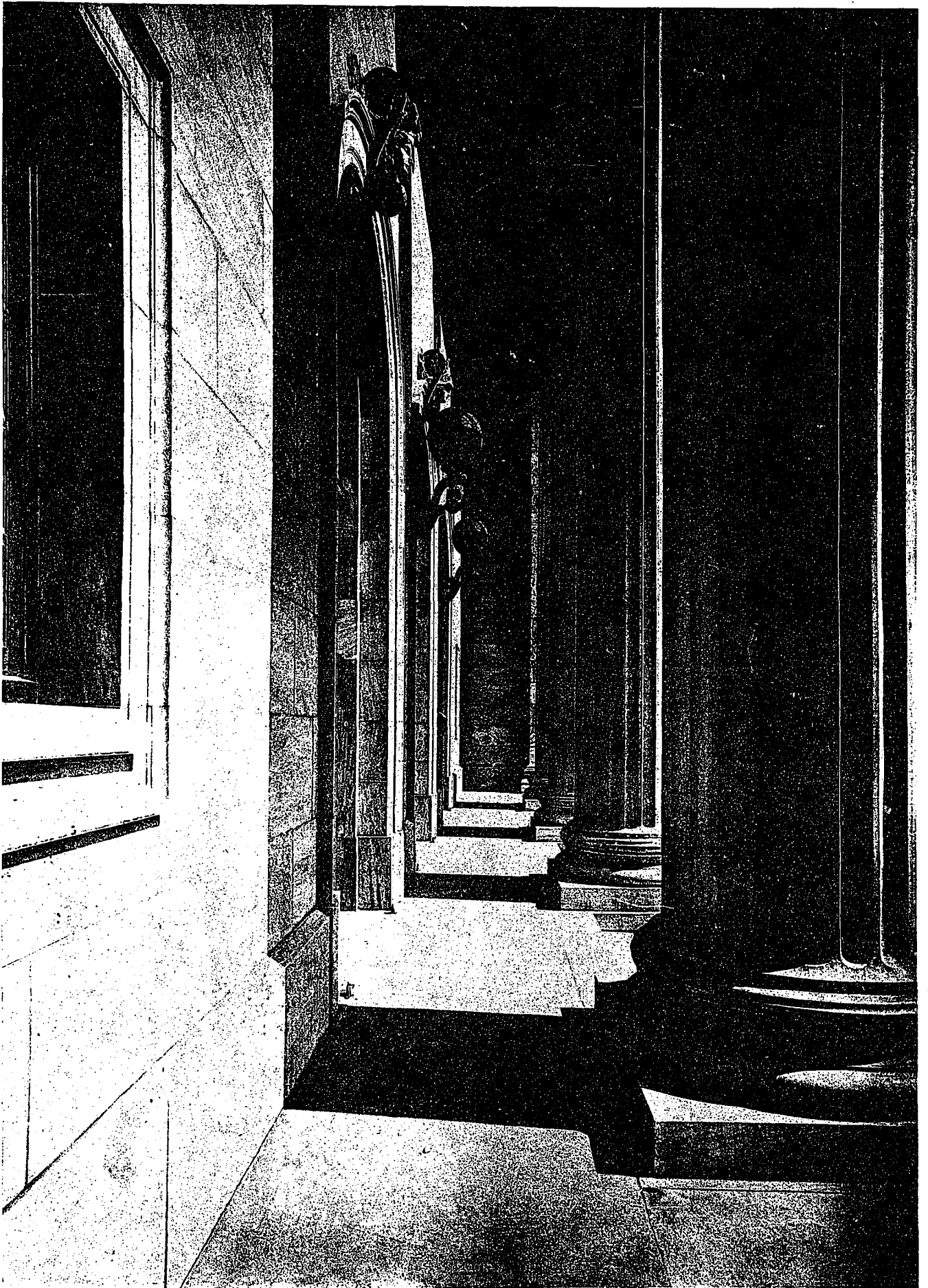
EDWARD & W. S. MAXWELL, ARCHITECTS.



"Construction," 1914.

WINDOW, SHERBROOKE STREET.  
THE NEW ART GALLERY, MONTREAL.  
EDWARD & W. S. MAXWELL, ARCHITECTS.

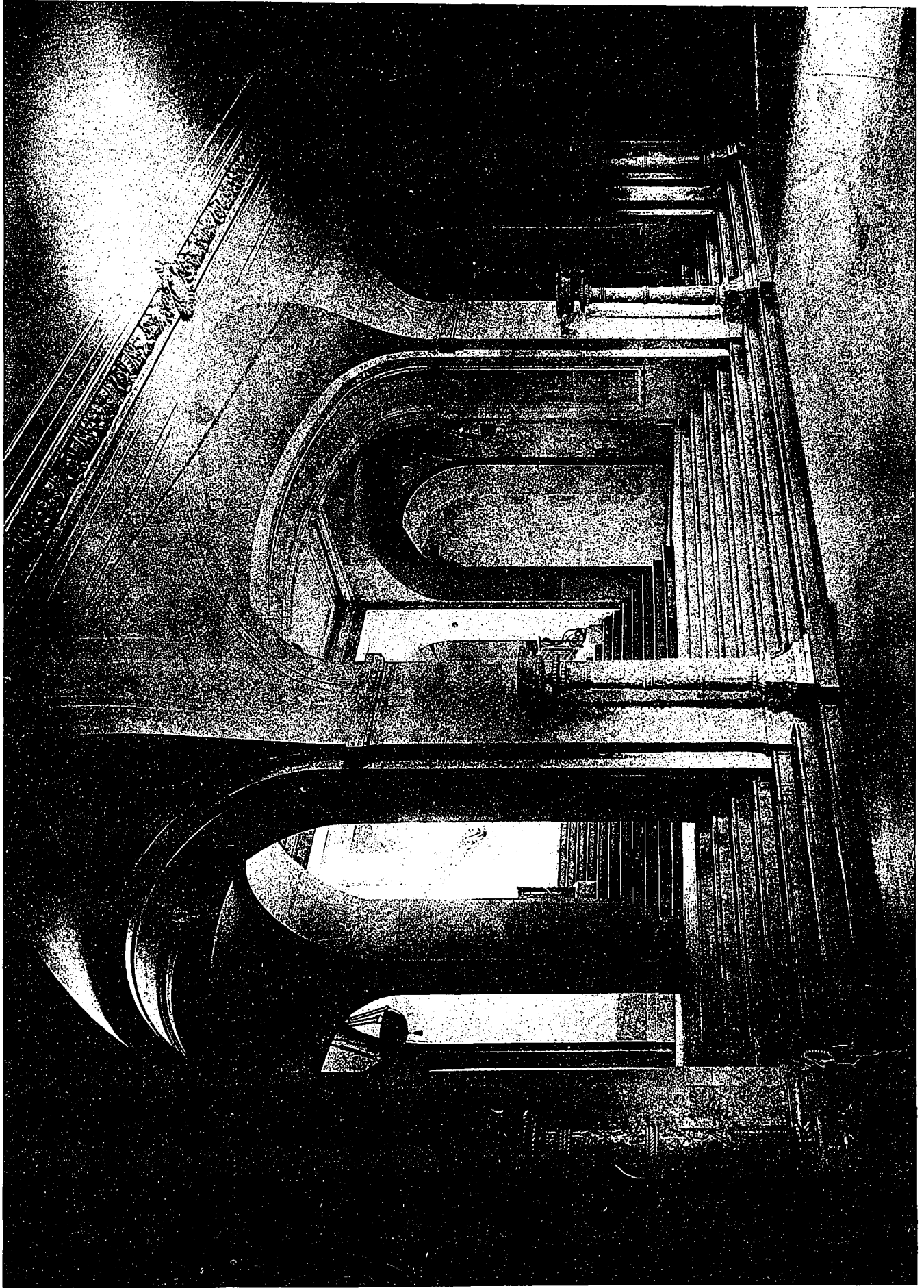
Plate IV.



Construction," 1914.

PORTICO, SHERBROOKE STREET.  
THE NEW ART GALLERY, MONTREAL.  
EDWARD & W. S. MAXWELL, ARCHITECTS.

Plate V.



"Construction," 1914.

MAIN ENTRANCE HALL, GROUND FLOOR.

Plate VI





"Construction," 1914.

STAIRWAY, GROUND FLOOR.

Plate VII.

THE NEW ART GALLERY, MONTREAL.  
EDWARD & W. S. MAXWELL, ARCHITECTS.



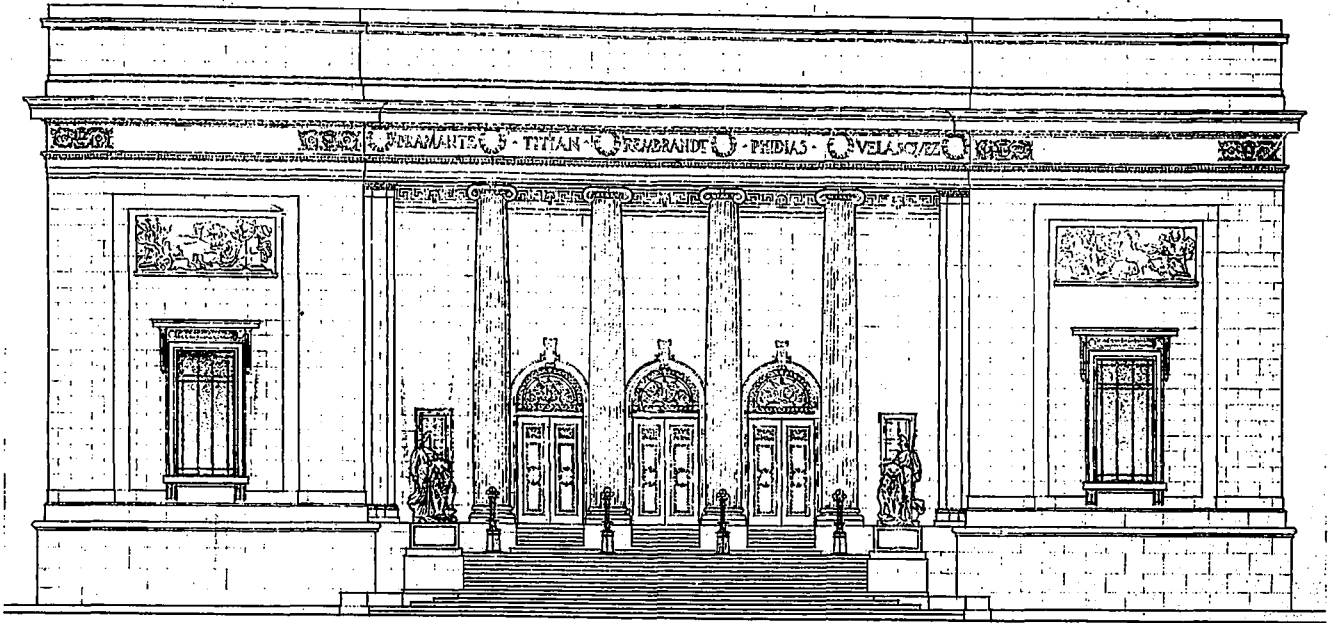
"Construction," 1914.

CORRIDOR, GROUND FLOOR.

Plate VIII.

THE NEW ART GALLERY, MONTREAL.

EDWARD & W. S. MAXWELL, ARCHITECTS.



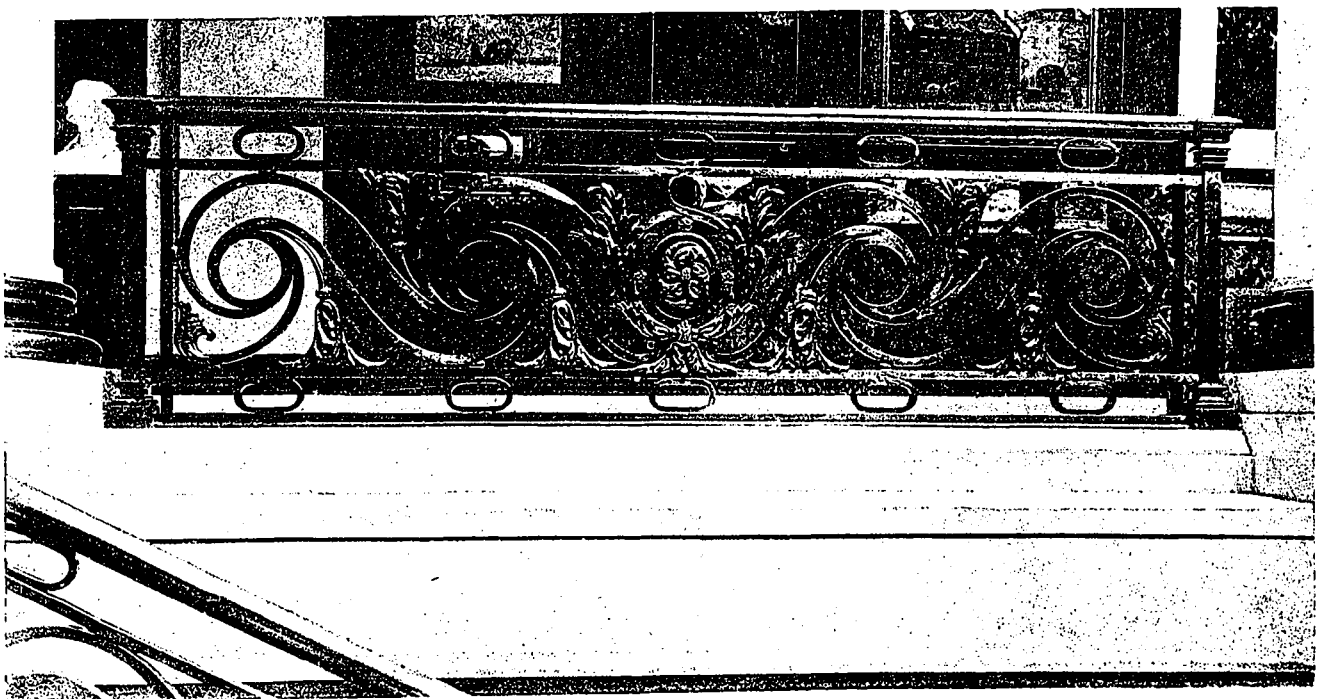
SHERBROOKE STREET ELEVATION.

This hall breaks the circuit of the picture galleries. The main gallery facing Sherbrooke street, is reached by passing around the staircase well through exhibition passages 12 feet wide, having on the well side columns of Botticino marble with bronze caps and bases and a wrought bronze handrail, and on the opposite side plain walls for exhibition purposes. The main picture gallery is 63 ft. by 33 ft., top lighted.

Adjoining and on the west is another picture gallery, 31 ft. by 60 ft. 6 ins., top lighted, and in a corresponding position to the east is a similar

picture gallery. On Ontario avenue there are three side lighted galleries for the exhibition of special paintings, water colors, etc., the balance of the floor is taken up with storage spaces, elevators, etc.

The top floor contains the Art School facing Ontario Avenue. There are three large studios provided and the necessary accessori. The basement contains the modelling room for the Art School. Quarters for the caretaker, lavatories, ample storage spaces, and boiler room, etc. The general furnishings are of a simple dignity characteristic of the building itself.



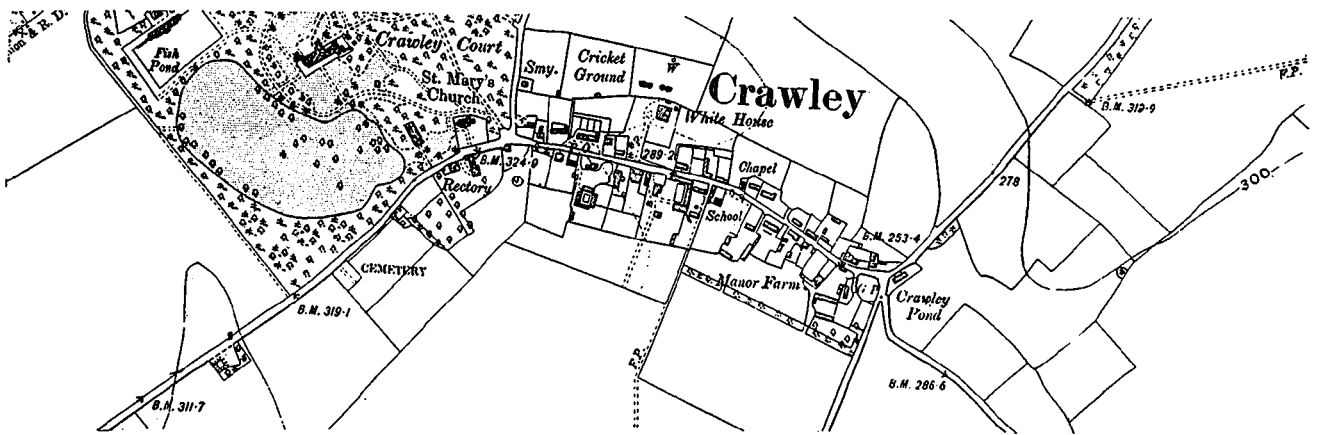
BRONZE STAIR RAILING.



MAIN FACADE.

CRAWLEY COURT, HAMPSHIRE. ENG.

UPPER HALL.



## Crawley Court in Hampshire, England

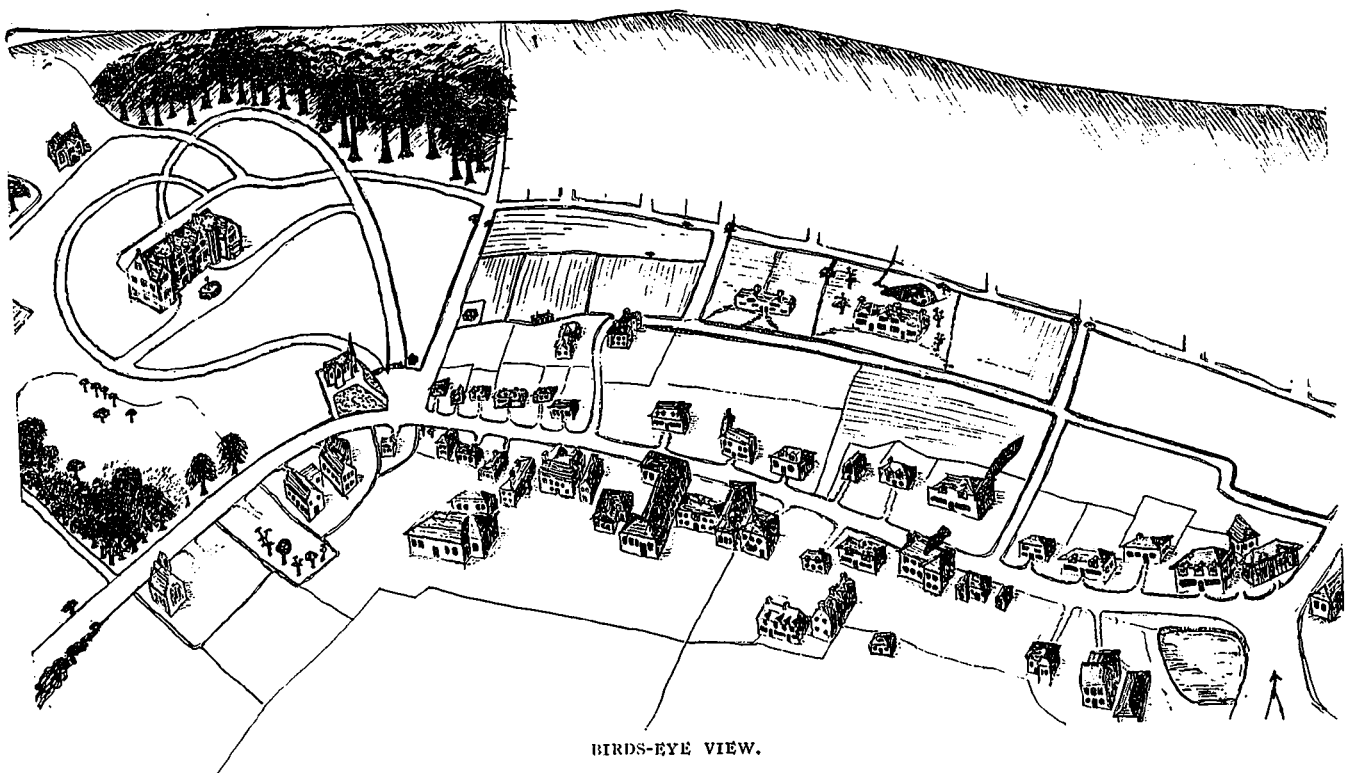
John Y. Dunlop

THE conditions of rural life in Hampshire throughout the various townships and tithings were very much under the control of the people in early times. In many districts the tenants, assembled in their annual court, appear for centuries to have elected their own lord of the manor who had in virtue of his office the right to certain claims and the privilege of hunting in forests all over the county.

In the old Hampshire towns no courts are now held. Some of the manors acquired the right of holding markets and fairs at certain times and so became the centre where people went to sell their corn and live stock and buy other commodities in return. It was not until the beginning of the present century that some of the large villages possessed shops—the privilege being in all cases a market privilege, and if

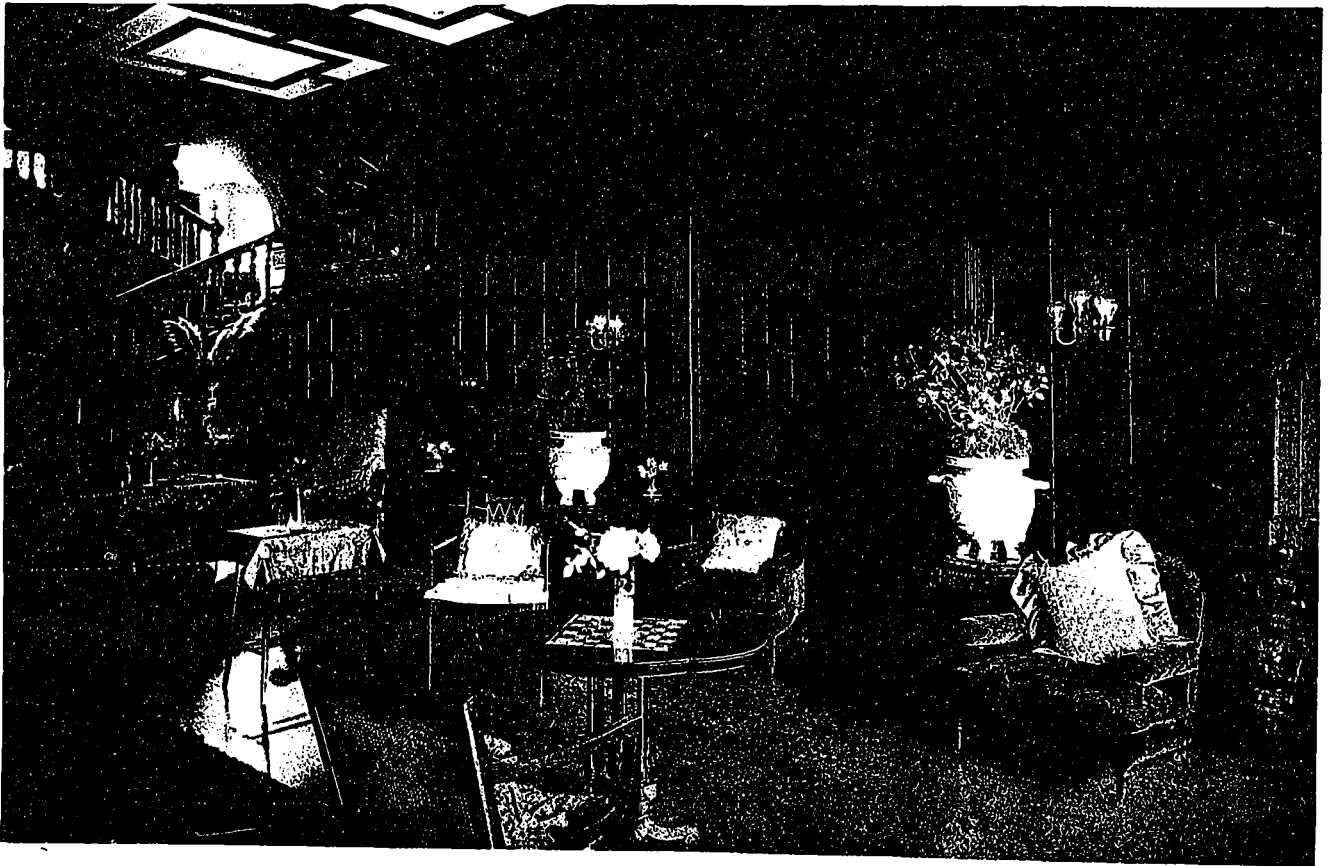
no authority existed for the market no shop could be opened.

Not until the eighteenth century did the Hampshire landscape begin to present the characteristics of enclosed meadows and fields, hedge rows and private woodlands. One effect of these inclosures was the marking off of the common land which belonged to the people and on which when sub-divided the people could build themselves cottages and homes. Thus it happened that most of the small towns arose where the common land was located. In many cases afterwards, the commoners appeared to have sold their portion to the lord of the manor for a money payment, and in such instances no new towns sprung up at a near distance from the ancient town which still remains the habitable site of these parishes.



BIRDS-EYE VIEW.

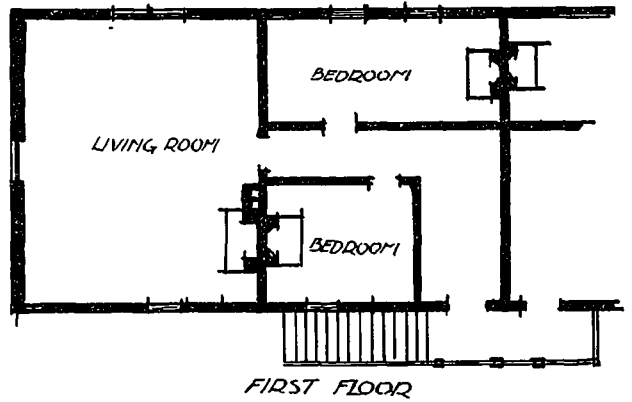
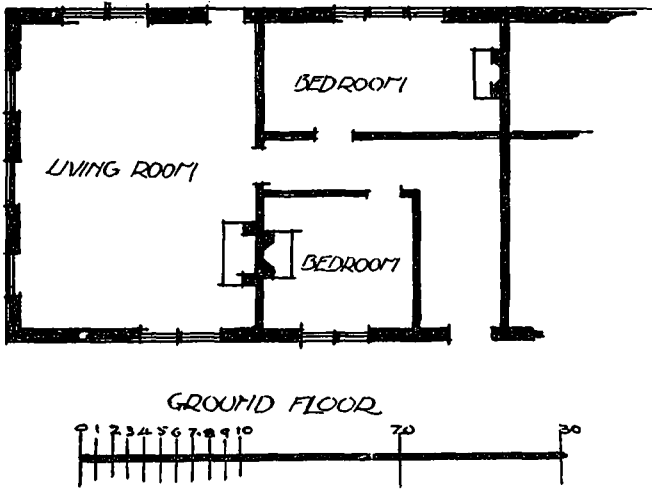
CONSTRUCTION



DINING ROOM.

CRAWLEY COURT, HAMPSHIRE, ENGLAND.

LOWER HALL.



In those early manors such as Crawley Court, many fanciful designs showing extreme originality were erected. The general type was evolved from the quadrangular plan arranged round a large internal court yard after the lines of the fortified houses of the Middle Age. The later Elizabethan architects tended more and more to renounce this quadrangular plan by omitting the sides forming the entrance and thus producing a three sided court.

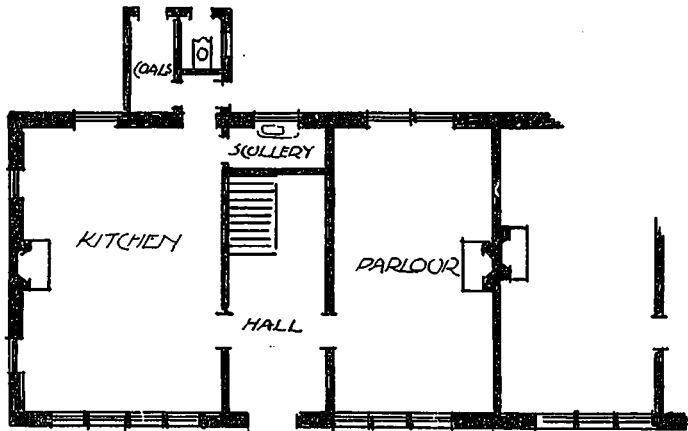
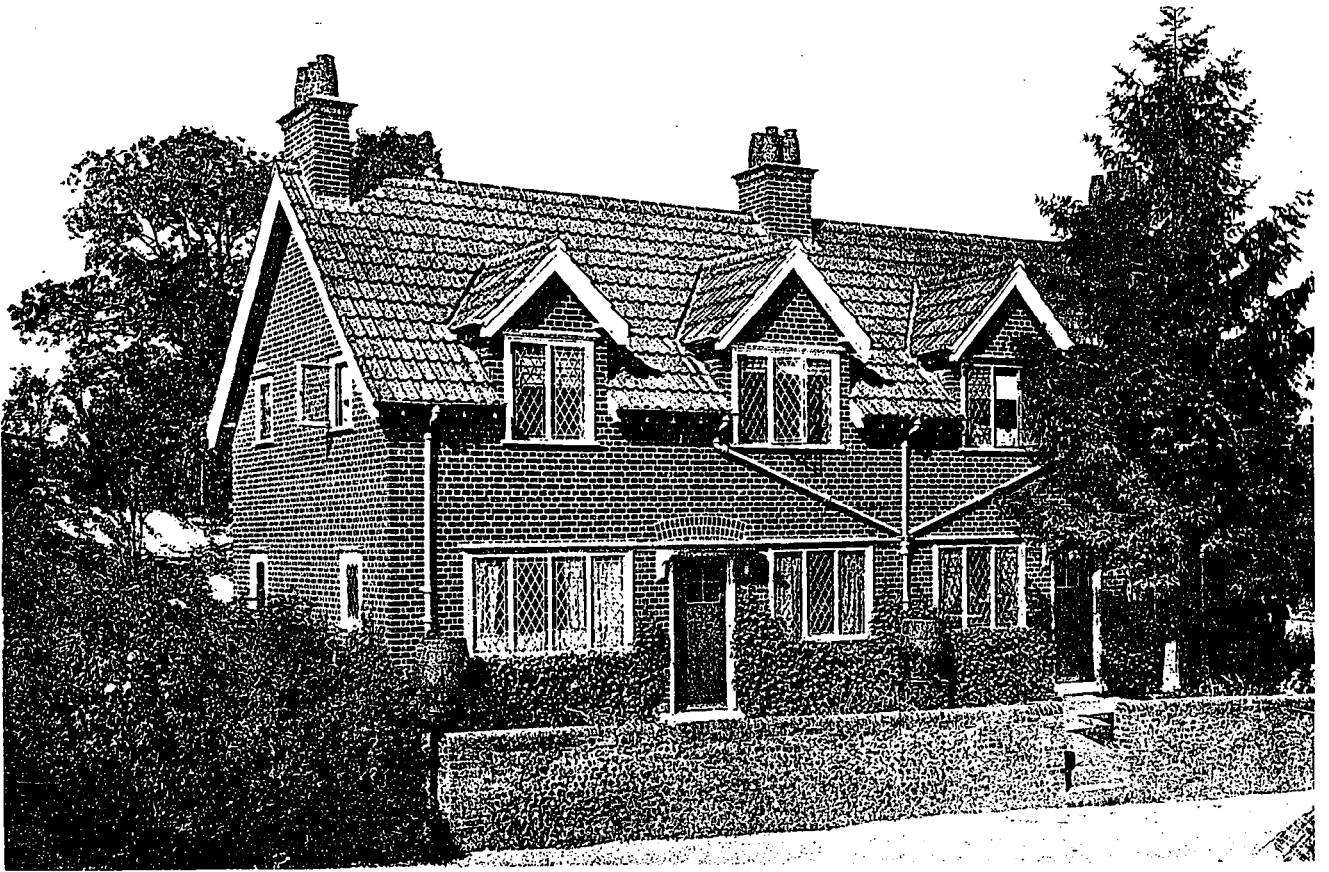
The H shaped plan of Crawley Court was evolved by extending the wings on both fronts so that we have a three-sided court on both the rear and the front.

The interior of the house is bright with ample space and very complete and massive in its furnishings. In the lower or great hall the oak panelling is 10 feet high above which is an oak

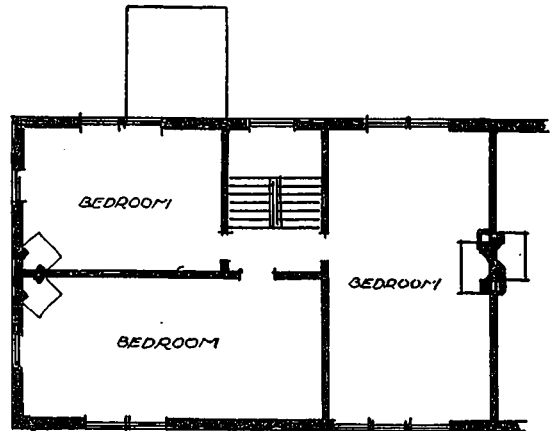
frieze carved in relief. At one end is the oak screen forming the balustrade of the staircase, and at the other end is the raised dais with a tall bay window, the sill reaching nearly to the floor.

The hall fireplace is much elaborated and richly carved with the coat of arms of the owner while the timber ceiling is finished with plaster panels. The staircase in Crawley Court is a special feature with its heavy and richly carved newels and its moulded balustrade. In the upper hall the ceilings are on a vaulted principle with moulded ribs at the groins and main ridge.

In all the principal rooms the walls are panelled in wood and the ceilings richly modelled in wood and plaster. Many of the finishings of the rooms owe their excellence to the great delicacy and elegance of the mode in which the



GROUND FLOOR



FIRST FLOOR



BRICK HOUSE, CRAWLEY COURT.

details have been carried out rather than to the vigor and boldness with which the masses have been shaped and disposed. Although grandeur is the noblest quality attributed to the Renaissance style, yet the architect of this house, with simplicity and elaboration has rarely failed to charm by the picturesque effect obtained.

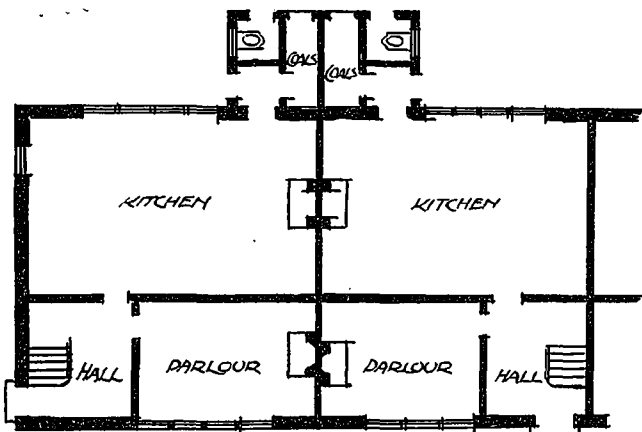
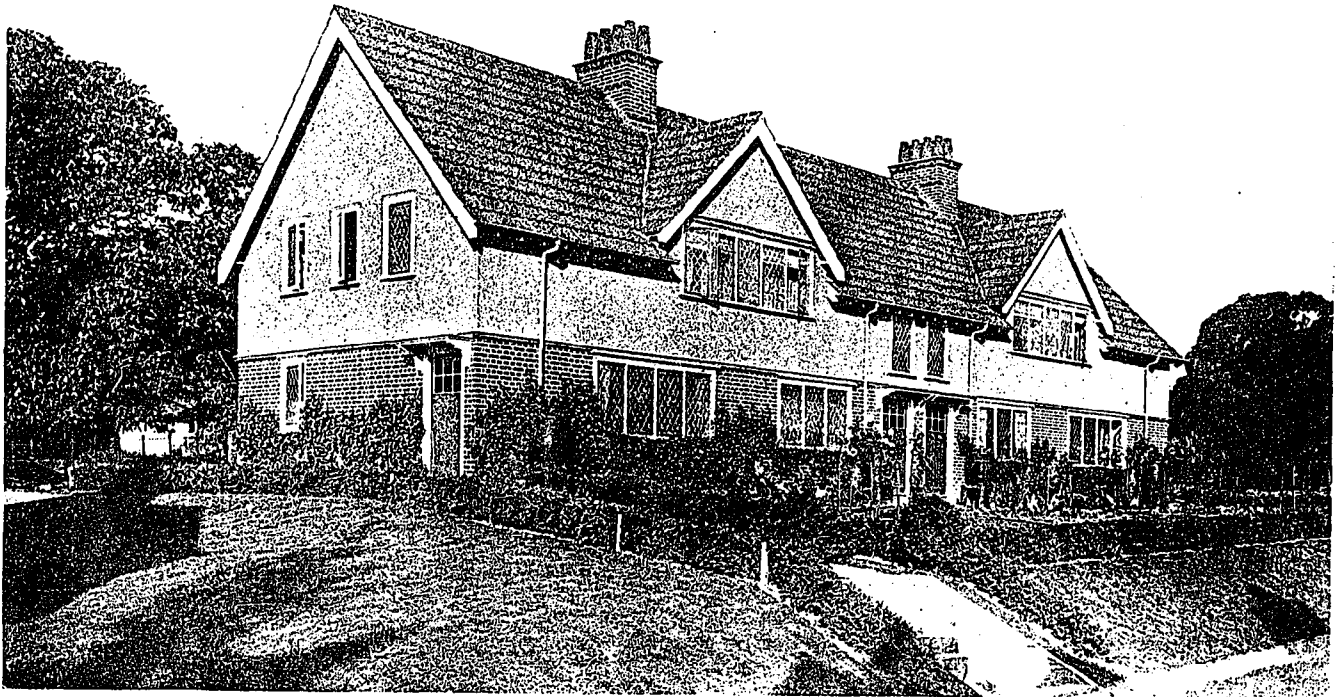
In the houses of the people in Crawley, there are many factors which make home building in this town a matter for the architect's consideration. Each house presents a new problem which creates a demand and furnishes an opportunity for the individual character which is the first essential of artistic houses for the working class.

The present Lord of the Manor idea is that

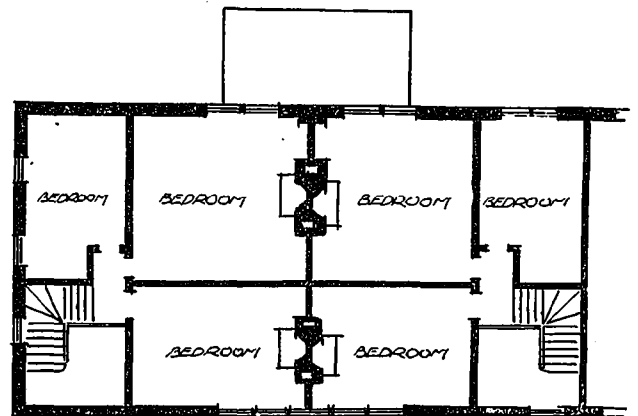
the design of the house is governed by the view of the surrounding country which one seeks to obtain from the principal rooms. For example, the desire to obtain the maximum amount of sunshine in the living rooms or the appearance of the trees that are to be retained in the garden. The material of which the house is to be built is also a consideration which is governed in a great measure by the building material that is traditional in the neighborhood.

The architect who builds in this district is not restrained by the convention which rules in many cities as to placing the best rooms in the front of the house. If the house faces the north he will probably place the principal living rooms





GROUND FLOOR



FIRST FLOOR

BRICK AND CEMENT HOUSE, CRAWLEY COURT.

at the back so that he may get as much sunshine as possible.

There is no reason why the back elevation should not be the main elevation. The kitchen and offices may face the road way, from which they will doubtlessly be separated by the garden ground.

The style of building shown in the accompanying illustrations are, of course, taken from the most recent example erected. They are representative types of the rural cottages owned by laborers who are employed on the estate and the surrounding district; built so as to pay a remunerative interest on the money expended.

These cottages have a large living room which is conducive to the healthiness and comfort of the occupants. Some of the houses have

a parlor, but the general opinion in the district is that it is not always desirable since it costs money and gives little return for the materially increased labor. It is essential for economy in construction that the whole accommodation of the house should be under one roof and only in the cases of dormer windows shown should there be any additional roofing. There is no doubt that the addition of dormers add to the attractive appearance of the design. But it is also well known that the addition of barge boards and external woodwork does not reduce the cost of painting and upkeep. No expenditure was attached to anything that has not been necessary to the stability of the building, nor has any kind of doubtful ornament been used.

The internal finish of each house is of plaster

with wood skirting and finishings, while a large dresser has been provided in the living room. The coal and fuel store is quite handy and has an internal entrance.

In the small houses the salt glaze waste up sink is in the living room, while in the large house the sink is in the scullery, fitted with draining board and plate rack over. On the first floor the bedrooms are arranged with every possible convenience and comfort which any working man's family requires.

The cottages are built in pairs or in four-somes, the flues from the open fire place being grouped together as much as possible for the reason that such a condition helps to produce a satisfactory draught. By the cottages being built in pairs some outer walls have been eliminated, while it is much easier to give a pleasing exterior appearance. But in no case does a group consist of more than four houses.

The material used for the fabric is brick, cement and tile. In each example the facing brick is of a very uniform color and machine made. In using the English bond the bricks have been set with scrupulous regularity making a most complete mechanical repetition of heads and stretchers throughout the wall. Every wall, angle, window frame, chimney and roof line is cut so exactly to the pattern that one would say some great machine had turned out the wall and its accompanying features. Although there is no doubt that the work through-

out has been inspired by the plumb line and rule yet the general appearance is very effective.

In the first story of the brick and cement house the upper walls are built of common brick and finished with two coats cement and a finishing coat of rough cast to imitate a poured in story. In the cement house this same method is adopted for all the external walls. This type of walling has unquestionably been adopted to effect a saving, but with this kind of fabric no great saving could be effected since, at the most, the difference in cost of a cottage with concrete walls and with brick wall would be  $\frac{1}{2}$ c. per cubic foot, while in many cases where the material is not found on the spot the saving for a cottage would only be about \$50. Therefore, it would be unsafe to conclude that with one story of concrete finish it would mean a great reduction on the cost of the house. All the roofs are of red tile, made by a mechanical accuracy which prevails throughout.

The interiors of these houses are not papered but are treated with some water paints obtainable in the local market. These are not expensive and possess excellent sanitary qualities in addition to their durability. The cost of these cottages on a basis of nine cents per cubic foot is for brick cottages, \$1,530 per house; brick and cement cottages, \$1,265 per house; cement cottages, \$725 per house. In many districts the cement walls might reduce the initial cost but are decidedly the most expensive in the end.

IT IS CLEAR that the same governing principles involved in designing houses for suburban garden schemes or town planning projects equally concern small undertakings, such as individual isolated cottages, or groups of small houses erected on separated sites by independent owners or landlords; and so far it really matters but little whether cottages form part of a large estate of this sort or not. The main differences consist in the scheme of a lay-out considered in the relation of one dwelling to another, and in the disposition of varied buildings when planned for communities, and grouped together in due conformity to a comprehensive lay-out as generally understood to apply under the term of a "garden city." Such undertakings as these as a rule are contrived to accommodate the maximum number of tenements without actual crowding, though set out in compliance with a commercial basis. The dwellings themselves differ in values, of course, to meet differing means. They may be built in blocks of two to five, six, or even more houses, and these groups are interspersed with detached residences contrived singly or in combinations to fit the allocation of the land to the best financial advantage without perhaps detracting from the pictorial point of view, which is fully recognized as an economic value. Proportionate use

is made of the physical peculiarities of the estate, and a due regard is allowed to the immediate environment of the property. . . . forethought further provides that the scheme shall be so designed as to facilitate social considerations. After recognizing all these admirable provisions, it remains to remember that the personal requirements of those who live in properties of this kind differ after all but slightly from other people, and their needs and habits are equally applicable to homes elsewhere. . . .

The artistic or architectural fitness of every sort of garden city dwelling must invariably be reliant upon the capability of the architect employed, notwithstanding the socialistic ideals permeating such comprehensiveness. This fact brings into prominence in a remarkable degree how essentially individualistic good design always is and inevitably must be. . . . There is no reason why in capable hands the buildings should not also be made picturesque and homely. A workmanlike result is by no means identical with ugly and ungainly farmsteads spoiling the countryside, and which are quite as likely to prove unsatisfactory, while they certainly are not only ungainly in appearance, but detrimental to those who have to continually see and use them. It costs very little more to employ the right man fitted for the work.—*M. B. Adams.*

# The Royal Gold Medal for 1913

REGINALD BLOMFIELD, A.R.A., F.S.A., was the recipient of the Royal Gold Medal for 1913, the gift of the King, bestowed on the recommendation of the members of the R.I.B.A. The Right Hon. the Earl of Plymouth, in performing the ceremony of investiture, said in part:

“It is—the Royal Gold Medal—I think I may say, the highest award that can be given, the most important recognition that can be won in the architectural profession throughout the British Empire, and Mr. Reginald Blomfield is about to join that small body of eminent men who in past years have been deemed worthy to receive this honor. It has been my good fortune to be associated rather closely with Mr. Blomfield on more than one occasion lately, and I have learned to appreciate his breadth of view, his knowledge, his wide sympathies, and the very high position he maintains as the representative of the great profession of architecture in England. I have had a happy feeling of security in these cases that if any responsibility rested upon me it would be he who would take the larger share. He will, I hope, forgive me for adding this personal note—namely, the very deep regard I feel for one who is so sensitive, as I know him to be, for the honor and repute of the great profession which he adorns. With regard to his achievements, apart from his architectural work: as you know, he has written much, he has written upon Renaissance Architecture, not only in this country, but also in France. He has written most ably upon the Formal Garden in England, and on other subjects relating to architecture, wherein the knowledge of his subject and his sound criticism are clothed in a literary style which makes these volumes no less delightful to the amateur than useful to the student. No one who has followed Mr. Blomfield’s career from Haileybury, where he was educated, through Oxford University, at Exeter College—of which he is now an Honorary Fellow—can be surprised at this achievement, showing, as it does, the refining influence and the clear expression of the scholar. As to his works in stone and in brick, it would be presumptuous in me to attempt to review them in detail. They are necessarily more familiar to most of those present than they are to me. But I do know and admire not a few of them. We can all refresh our memories by examining the photographs and drawings displayed on these walls; and, so far as his work in architecture is concerned, I think it may be safely left to the judgment of all lovers of good architecture. I have now only to hand this Medal to Mr.

Blomfield on behalf of every one in this room, and, doubtless, with the congratulations of many more outside it. I offer him our sincere congratulations, and on behalf of the very few in this room who are entitled to do so—if they will allow me the privilege—I venture to express their welcome to him most heartily amongst the elect who have received the highest award of merit that can be given in this country to the great profession of architecture, of which he is so distinguished an ornament.”

Mr. Blomfield, acknowledging the award of merit, said: “It is usual for our Gold Medallists to make an address on such occasions as this. But before I do so, let me thank you, Lord Plymouth, for the extremely kind things you have said—much too flattering, I am afraid, as they always are on these occasions, but it is nice to hear such kind remarks. I thank you also for the graceful compliment you have paid the Institute by coming here to-night to present the Medal, and you, my colleagues, most sincerely for the honor you have conferred upon me. There are honors that may seem to result from a fortunate combination of circumstances, and though the recipient may feel like a man who has suddenly come into a fortune, he does not value them so much as those which he owes directly to the choice of his colleagues: because it is by their judgment in the long run that he stands or falls. They know his limitations as well as his powers; and if with this knowledge they still feel able to nominate him for such an honor as the Gold Medal conferred by his gracious Majesty the King, he has some ground of hoping that his success is not a mere flash in the pan. I need hardly say that I esteem it a very high honor to be included in the list of our Royal Gold Medallists. There can be no greater encouragement to any architect who still has his eye fixed on the future. But these things lie in the lap of the gods; and it is well to look backwards as well as forwards, and to endeavor to place ourselves in touch with the mighty men of old. I am a firm believer in tradition. In the pride of youth one is tempted to say, with Sthenelus, son of Capaneus,

*Ἡμεῖς τοι πατέρων μέγ’ ἀμείμονες εὐχόμεθ’ εἶναι  
Τῷ μὴ μοι πατέρας ποθ’ ὁμοίη ἔνθεο τιμῇ.*

“We boast ourselves much better than our fathers, rank them not therefore with me.”

“Yet our fathers before us put up a good fight for what they believed was right, and though the methods and occasions of fighting vary with every age, the essential thing is to remember

and maintain that gallant spirit, that high standard of honor, that brave endeavor after noble aims, which are of more value than any particular success. Therefore this evening I shall take as my text the words of the Preacher: 'Let us now praise famous men . . . leaders of the people by their counsels . . . wise and eloquent in their instructions.'

"It is a far cry back to that little meeting at the Thatched House Tavern in the year 1834 when some half-dozen architects met together to consider the formation of an Institute of Architects. There were present, among others, Barry, Bellamy, Decimus Burton, Fowler, Goldicutt, Gwilt, and Hardwick; and of these we may say with the son of Sirach: 'There be of them that have left a name behind them that their praises might be reported, . . . and some there be which have no memorial, but these were merciful men whose righteousness hath not been forgotten.' Their buildings have been less fortunate; so we may leave them there, and pass on to Decimus Burton, who, after long years of neglect and oblivion during the days of the Gothic revival, has now come into his own again, and recovered the appreciation that he fully deserved, for he was a very accomplished architect, learned in his art and fastidious in his taste. Few, if any, better things in their way have been done in London in the last hundred years than the screen at Hyde Park Corner, and the hall and staircase of the Athenæum. Burton had caught something of the spirit of the architects of the great Imperial Therma. His work is genuine Classic, but it is the Classic of a civilization not remote as that which inspired the Parthenon, but in a way familiar to us and relatively scarcely less advanced than our own. Burton lived to a great age; he was not a Gold Medallist, or a member of the R.A., and, though his career must have been singularly successful, when he died at St. Leonards a few years back he was almost forgotten by the general public.

"Of the others who met at the Thatched House in 1834 Barry became Sir Charles Barry, Gwilt wrote his immense *Encyclopedia*, and Hardwick was the well known architect of Euston Station, and of the Goldsmiths' Hall. The Institute was established the same year as this meeting. Lord de Grey was elected President, Donaldson and Goldicutt Hon. Secretaries, and among the Council were Barry, Decimus Burton, Basevi, and Philip Hardwick. Sir John Soane made the new Institute a handsome donation, and in 1837 a Royal Charter was granted by William IV. All these things are stated in our Kalendar, but I make no apology for introducing them tonight to those of our audience who are not members of this Institute, or even for reminding those who are, of the long and distinguished

tradition of the Body to which they belong. It is a good thing now and again to hark back to the hill on which we were born.

"I now come to the Royal Gold Medallists of the Institute, and here I have a curious piece of information unearthed for me by our Librarian, Mr. Dircks, to whom I am indebted for some very interesting notes which he has been good enough to collect for me out of the Records of the Institute.

"In the year 1846 Queen Victoria consented to grant annually a Gold Medal for promoting the purposes of the Institute, and the Council decided that this should be offered annually for 'designs calculated to promote the study of Grecian, Roman, and Italian architecture.' (You will note in passing that the Council, so far, was faithful to the tradition of classical design; the possibility of Gothic was not even thought of.) Tite, Charles Barry the elder, Angell, Donaldson, and Sydney Smirke drew up the conditions, and the subject set was 'a building suitable for the purposes of the Institute, at a cost not to exceed twenty thousand pounds.' The result was disappointing. The assessors reported that 'not more than one of the designs possessing the slightest pretension to consideration as an architectural composition could be properly executed for less than double the sum specified.' Our grandfathers did not beat about the bush, and there is a fine flavor of the polemic of the previous century in this extremely blunt announcement.

"No award was made, and the Council thereupon revised their arrangements and decided to award the Medal on the basis that holds to this day, for distinguished services to architecture without regard to nationality. It would be impossible to deal with all the names of its recipients. They include famous architects and writers on architecture from France, Germany, Austria, Italy, Holland, and America, in addition to most of the best-known architects of this country during the past three generations. I find that it has been awarded in France to such men as Hittorff, Viollet-le-Duc, the Marquis de Vogue, Garnier, Choisy, and Daument; in Germany to Schliemann and Dorpfeld; in Italy to Canina and Lanciani; in Austria to Von Ferstel and Hansen; in Holland to Cuypers; and in America to Hunt and McKim; and if you pass in review the names of the Gold Medallists of this country you will get a pretty clear insight into the movement of architecture and the trend of artistic thought from the period when the Medal was established down to the present day. The old Guard was gradually worn down; Cockerell, Barry, Smirke, and Hardwick were succeeded by the champions of the Gothic Revival, and now their day is past and their lesson learned, and we move again, at least I person-

ally hope so, in the calmer waters of the older tradition, developed and extended by its applications to modern needs. I can select only a few typical names from among the distinguished men who have been awarded the Gold Medal of the Institute.

“Early in the list appears the name of Thomas Donaldson, who received the Gold Medal in 1851, and was President in 1863 and 1864. Though not the first to receive the Medal, he did so much for the Institute that we look on him to a great extent as one of its founders. Donaldson was typical of men whom we have always been fortunate in possessing as members of this Society. He was not a great architect, but he was a man of much energy and business capacity, with a high sense of public duty, and he devoted his considerable powers as an organizer and administrator to the formation and development of this Institute. He laid the foundation of a tradition of public utility and high educational purpose which I am glad to say has never been forgotten or abandoned within these walls. He added largely to our splendid architectural library, both in the way of books and drawings, and the badge of office which I have the honor to wear was presented by him to the Institute. Romance appears but rarely in the careers of modern architects, and some, at any rate, of these eminent men had a more adventurous youth than is given to most of us nowadays. Donaldson, who died at the age of ninety in 1885, had gone out to the Cape of Good Hope in 1809 intending to enter a merchant’s office; but he joined a force of volunteers that was proceeding to the attack on the Mauritius in the hope of obtaining a commission in the Army. As, however, the French retired without firing a shot, Donaldson’s vision of military glory vanished. He returned to England, entered the school of the Royal Academy, travelled widely in Greece and Italy, became an architect and Professor of Architecture at University College, and devoted a long and most useful life to the public and professional aspects of architecture, and to the development of research into all that concerned the history of the art.

“Charles Cockerell, who received the first Gold Medal in 1848, was a few years older than Donaldson, and represents, to me at any rate, the other type of architect—the man absolutely immersed in his art, a scholar and an artist with a passionate enthusiasm for all that bore on the history and technique of architecture. That enthusiasm never flagged to the end of a long and fortunate life. I have heard Norman Shaw describe the fascination of the lectures that Cockerell gave at the R.A. when he himself was a student there. Whatever his subject, Cockerell was very soon back among the scenes of his

travels and adventures. He forgot his audience in living again those brilliant enterprises of his younger days; and went on pouring out reminiscence after reminiscence till something recalled his attention to the fact that he was not in Greece or Asia Minor, but in the Lecture Room of the Royal Academy. Cockerell—who, besides being a beautiful draughtsman and a sensitive artist, was a fastidious gentleman—had certainly exceptional advantages, but he used them well. He steeped himself in the architecture of Ancient Greece, and carried into his own work something of its delicate and austere reserve. That an artist of such enthusiasm should have his limitations was inevitable. A certain coldness of temperament and a certain academical perfection and propriety may sometimes arouse in more warm-blooded artists an irresistible desire to kick over the traces; but his buildings have always a distinction rare in modern architecture, a certain well-bred personal quality that reveals itself as something beyond the reach of merely conventional accomplishment.

“Sir Charles Barry, received the Medal in 1850, and on the death of Lord de Grey, who had been President of the Institute from 1835 to 1859, he was offered the Presidency but declined it, probably for reasons of health, for he died in the following year. Barry was a thoroughly well-trained architect, and it is to be noted in the case of nearly all these famous men that they devoted a good deal more time both to their apprenticeship and to subsequent study abroad than is the fashion at the present day. Five years’ apprenticeship, followed by two or three years’ study of ancient buildings abroad, was by no means unusual in the training of architects eighty years ago; and though fashions change and the technical detail of that generation may be out of favor with this, there can be no doubt that these men were thoroughly well trained in the technique of architectural design, the more so as they were able to concentrate on it exclusively, instead of having to devote a considerable part of their energies to the acquisition of that applied science which has become a necessary part of the equipment of the modern architect. Barry travelled extensively in France, Greece, Turkey, Syria, Palestine, and Egypt, and this Institute is fortunate in possessing the diaries of J. L. Wolfe, his travelling companion during these three years. Quite recently a very high compliment was paid to Barry in these rooms by a well-known American architect. Mr. Hastings referred to him as one of the most remarkable architects of the nineteenth century, for his powers of planning a big design. Most of his detail is out of fashion and rather dull, but his great ability as an architect is so generally recognized that I need not remind you of his buildings. Two points,

however, are noticeable in his work: signs of the rift in the great tradition of English Classic, warnings of the upheaval that was to supersede it. The first is his choice of model, the second his complete surrender of it on a memorable occasion. Whereas Cockerell had definitely elected for Greek models and inspiration, Barry reverted to the more florid traditions of the Italian Renaissance, even following Italian originals pretty closely in his designs for such clubs as the Travellers' and the Reform. Up till comparatively recently Barry's lead was followed in most of our public buildings. Now the pendulum has swung back to Greek motives seen through French spectacles. My personal impression is that both Cockerell and Barry were a little off the line, and that those who have blindly followed either the one or the other of these distinguished men may perpetuate a fundamental mistake, that of a too direct revivalism and reproduction, which must be sterile in its results however ably it is done. Had either of these men picked up the simple tradition of English Classic at the end of the eighteenth century, and used it frankly to meet the conditions of the day, we should have been spared years of wasted effort; but owing to causes far too intricate to be touched on now, the Lord of Misrule had flung his cap into the arena of architecture, and the first momentous intimation of this was the decision, forced upon Barry, to design the Houses of Parliament in the Gothic manner. There is a suggestive sentence in the Report of the R.I.B.A. Council for 1839. Referring to the Commission appointed to investigate the stones to be used in building the Houses of Parliament, it says: 'The investigation may lead perhaps to the adoption of a stone more brilliant in hue than those at present in general use, so as to shed somewhat of the glow of an Attic or a Roman tint upon the architectural features of the public edifices of London:' a pious aspiration scarcely realized in the Houses of Parliament designed by Barry with details by A. W. Pugin. There is no need to revive the worn-out controversy as to who did it. Probably it was a genuine case of co-operation, Barry giving the scheme and general arrangement, and Pugin the detail—detail, by the way, as good as anything of its kind that has ever been done in modern Gothic.

"Pugin never had our Gold Medal; in the light of what followed he surely deserved it, for it was the zeal and enthusiasm of this apostle of modern mediævalism that brought out the fighting qualities of the younger generation, and won the day for Neo-Gothic. When one considers that there were solid men such as the Smirkes, the elder Hardwick, and Tite, who practised their weighty Classic with unvarying success, it was a remarkable thing to have done. Later on,

Tite, who became Member of Parliament for Bath, made a violent attack on Scott's Gothic design for the new Government buildings and, faithful to his convictions, founded the Tite Prize of the R.I.B.A., for the best design of a given subject, according to the methods of Palladio, Vignola, Wren, and Chambers—a counterblast to the Pugin Studentship, established some ten years earlier, for the promotion of the study of the mediæval architecture of Great Britain and Ireland.

"Hardwick, it is true, designed the Lincoln's Inn Library, but I have always understood that the late John Pearson was a young man in his office at the time; and Hardwick's real quality as a designer is best shown in the Propylæa and the impressive Hall of Euston Station, and in the Goldsmiths' Hall.

"Sir Robert Smirke takes us back into the eighteenth century, for he was born in 1781. He was made an R.A. in 1811, and received the Gold Medal in 1853. One of the best of his buildings, and one of the best examples of the masculine Classic of his time, the General Post Office, has disappeared within the last year, not without a gallant effort to save it on the part of this Institute. Sydney Smirke, his younger brother, who designed the Reading Room in the British Museum, was awarded the Gold Medal in 1860, and from 1861 to 1868 was Professor of Architecture at the Royal Academy, a post which has now been filled by five of our Gold Medallists. The Smirkes were, I take it, the last representatives of a tradition of Classic derived from Sir Wm. Chambers, filtered through the publications of the Dilettante Society and later of Hittorff and Zanth. Robert Adam's manner, graceful and accomplished as it was, was to some extent an original invention of his own, as indeed he believed it to be himself. Cockerell's manner was not less personal than that of Adam. The final version of Chambers' ideas of civil architecture, somewhat debased and a good deal vulgarized, appeared in the work of Tite and Robert and Sydney Smirke.

"In this rapid survey I have now come to the point at which we reach men with whom some of us, at any rate, were personally acquainted. We have passed the disastrous days of the great Exhibition. Digby Wyatt, a man of wide knowledge but no definite bent in design, received the Gold Medal in 1866; but I take it, it must have been a little in the nature of a consolation prize, for the eclecticism and compromise of his generation were things of the past, architecture was deep in the whirlpool of the Gothic Revival, and the cry was raised, that is being raised again to-day, that the architect and his T-square are the *fons et origo malorum*, and that salvation is only to be found in the untrammelled

genius of the working man. But the architects were energetic and astute, and they rode the storm with most remarkable skill.

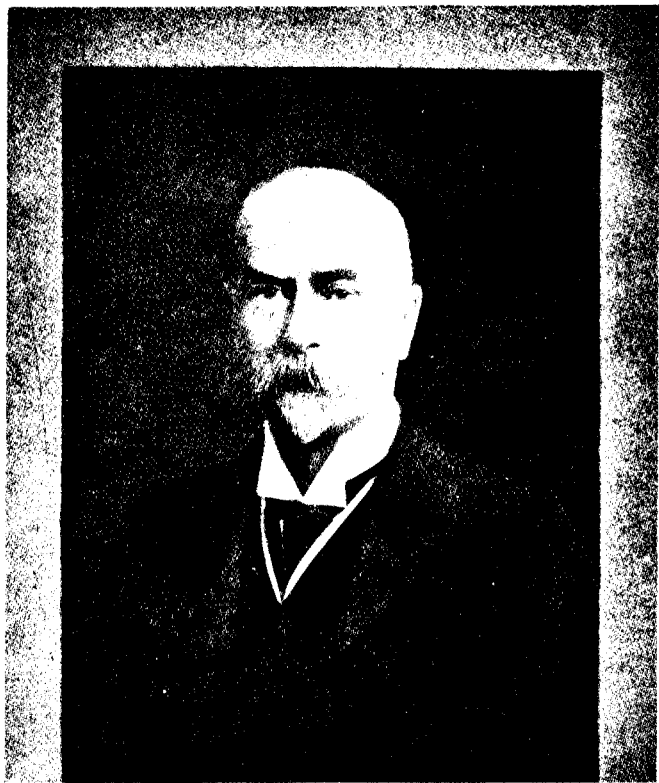
“George Gilbert Scott, who received the Gold Medal in 1859, was President of this Institute from 1873-76, and was, I take it, quite one of the ablest men of his time.

“How many hundreds of churches he dealt with has never been known, possibly Scott never knew himself. There is a story that I had from a well-known pupil of his, that Scott once found himself at a remote station in Yorkshire, and was compelled to wire to his head clerk: ‘Why am I here?’ Probably no other architect has ever left his mark on the historical buildings of his country to such an extent as the late Sir Gilbert Scott. In his *Recollections*, written in 1873, he stated: ‘I had been one of the leading actors in the greatest architectural movement which has occurred since the Classic Renaissance.’ The value of the movement is open to question, but there can be no doubt of the fact that Scott was for a time its most redoubtable protagonist; and the *Dictionary of National Biography* informs us that ‘his excessive energy in restoration and renovation led to the formation, in the last years of his life, of the Society for the Protection of Ancient Buildings.’ I fear our generation is not particularly grateful to the zeal and enthusiasm, amateur or professional, of the sixties and seventies. From the point of view of professional practice, those days must have been a glorious time for architects. There were not too many architects about, the landed interest was extremely prosperous and ready to support its views on art and religion by putting its hand deep in its pocket. Everywhere there was a fine glow of sentiment and romance, unimpeded by a too exact knowledge of the facts of architecture or practical understanding of its functions. A heavy reckoning has had to be paid for those happy days of romance. It is not only that our historical buildings have suffered. That has happened elsewhere, as in France, to an even more disastrous extent. The real mischief has been the confusion that has arisen between architecture and craftsmanship—a confusion that eighty years ago would have been inconceivable—and the result of this ill-balanced zeal for craftsmanship was that the purpose of architecture was all but forgotten in England, and it is only within the last few years that there has appeared unmistakable evidence of a return to a saner tradition. It is useless to write history backwards, but one cannot help speculating what men of such great ability as George Gilbert Scott, Street, Pearson, or Bodley might have done for modern architecture if they had been trained in Classic design instead of in the details of Gothic.

“Yet as the movement approached its end the conviction of its leaders became almost fanatical. In 1855 Street had written: ‘I have no reason whatever for doubting that if we wish for a purer school of art we must either entirely forget the works of the Italian Renaissance architects, or remember them only to take warning by their faults and failures.’ Some twenty years later Street could hardly forgive Bodley for straying beyond the orthodox boundaries of Gothic into the amiable French Renaissance of the London School Board Offices; and he himself nailed his colors to the mast in the last great effort of his life, the new Law Courts, a really monumental work, however much one may criticise it in detail. Street was not only a very able architect; Norman Shaw used to say that Street was a man who would have made his mark in any calling that he had put his hand to, and, though without academical training, he wrote most excellent English. He was also a man of strong convictions, and a very dominant individuality. My impression of him remains as I saw him in 1880-81. I was working against time in the schools of the Royal Academy, being indeed anxious to get away for a cricket match in the country; our old friend, Phene Spiers, brought in a burly bearded man, who tramped across the room and asked me what I was doing. In my haste I answered shortly, but was met by a good-humored smile, and the visitor retired. I learned afterwards that this was Mr. Street, and the impression that I formed of him as a strenuous and most capable personality, strong in his views, and indifferent to convention, was, I believe, the right one. I just recollect, too, that memorable election, in the last year of his life, when the forces of Art and those of Business were set in battle array, and Art won a brilliant victory: a victory cut short, alas! by Street’s untimely death.

“Since these days we have learned from adversity the necessity of combining business aptitude and art. Since these days, too, the battle of the styles has dropped into oblivion. The point of view has shifted, or rather we have come to see that all vital art must be a personal expression—that architecture, not less than the other arts, is the expression of an idea, with this condition added, that it must also be the fulfilment of a particular and specific need. Thus these questions of archæology fall away of themselves. We use in architecture a language based on the past, just as in common parlance we use the language which has resulted from long generations of use; but we do not use language for the sake of using it, we use it to express a definite idea, we have no more use for the mere stylist than we have for the mere rhetorician. The days of the revivalist are, I hope, finally numbered.

"But I have wandered from my point. I set out to praise the mighty men before us, and on that note I should like to conclude my address. We live so fast nowadays that we have little time to look behind us; yet it is well to pause now and then to pick up our place in the line of long descent, and to remember the tradition of the past. This Institute has been in existence for nearly eighty years. It is second in point of age only to the Royal Academy and the Royal Society of Painters in Water Colors. I have mentioned to-night a few only of those who in past years have played a great part within the walls of this Institute. Others, scarcely less distinguished, might well be mentioned, and I have said nothing of our contemporaries. Yet I have hoped to suggest to you something of the great tradition of this Institute, and to recall to your memory the part that it has played in the development of modern architecture. I do not doubt that that tradition will be worthily maintained by this and succeeding generations. We ourselves are in the position of trustees for the younger generation, and we are bound to take a far-reaching view of the duties of our trust. Much of the work of the Institute must necessarily be concerned with details of administration, and members have always given their services for the purpose in the most ungrudging spirit. But a wide outlook in the arts is in accordance with our best tradition, nor do I think its members are likely to forget the high purpose for which this Institute exists, for the advancement of architecture, '*usui civium, decori urbinum.*'"



REGINALD BLOMFIELD, A.R.A., F.S.A.

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In offering a resolution of thanks, the Rt. Hon. J. A. Pease, P.C., said that Mr. Blomfield reminded them of the last eighty years, of the traditions of the past and the development of architecture. He has recalled Decimus Burton and his wonderful constructive genius displayed at Hyde Park Corner, he has gone down the list of many leading architects to the more recent ones of Scott and Street. He has reminded us also of various types and styles of architecture which are pleasant to recall and which have interested us all. I feel myself somewhat fortunate to be allowed to move this vote of thanks to Mr. Reginald Blomfield. Personally, I have for many years felt greatly indebted to him for perhaps one of his most humble works, but at the same time to me most attractive production, his "Formal Gardening in England." Government departments have often been indebted to him. No Government department has hesitated to seek his advice, because we have always known that his advice would be readily and also forcibly given. I also think it is not inappropriate that the Board of Education may to-night be associated with this resolution of thanks, because there are so many points of contact between education and architecture.

Mr. Blomfield in responding, said: "I thank you, Mr. Pease, for the very kind things you have said, and I should like to thank you and other visitors here for coming, because I consider it a compliment to the Institute. For public men to come here shows that they appreciate the importance of architecture in the life of the community."



BANK IN CHELSEA BY R. BLOMFIELD.



# CONSTRUCTION

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## CURRENT TOPICS

THE MOST NOTED architect in Japan, Matusnosuke Moriyama, who recently made an extended visit to America for the purpose of studying the engineering phases of our modern buildings, in commenting on the skyscraper, says: Generally speaking, there is no architecture in America, in the real sense of the term. When I say that there is no architecture in this country, I make a clear distinction between a product of architecture and a mere building. There are many immense buildings in New York, but there are few that can be rightly regarded as the products of architecture proper. Most of them are nothing but mere accumulations of wood, stone, iron, and clay, because they have no artistic value at all. If you travel in Europe you will see many buildings of high architectural value. When you look at them they will appeal to you, and the impression you get will be entirely different from that you get out of most of the American buildings. The former impression comes from fine arts, while the latter comes from the mere accumulation

of the building materials put together unartistically.

Mr. Moriyama attributes the lack of high-class architecture here to America's short existence; her lack of a delicate aesthetic taste, and her haste in building the nation. In referring to the possibility of a characteristic style in this country, he says: America has not her own school of architecture as yet, but a mere imitation of the French school. In the near future, however, the Americans will have their own. They will begin to modify the skyscrapers. They can not be satisfied with the mere accumulation of big boxes when their artistic nature demands a better type. I can see with a clear vision that the time is coming when there will be many beautiful skyscrapers in New York with high architectural merit. As the skyscrapers are an American production, America will have her own school, distinctly different from other foreign schools, when she has skyscrapers with architectural merit.

The Woolworth Building indicates this tendency. There has never been such a skyscraper as the Woolworth Building. It has beautiful sky lines, harmony and good proportion from an architectural point of view. I do not hesitate to say that it has been successful in all respects. When America has such skyscrapers as the Woolworth Building, the world's opinion of the American architecture will be entirely different from now.

In architectural engineering America is ahead of all nations of the world. You can find no country with a more scientific system of heating or better building materials. Though I can learn almost nothing about the architectural side of the buildings here, I am expecting to get more benefit in this country from the engineering character of them than in any other country in the world.

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THOMAS HARDY, the English author who is to be awarded the Nobel Prize for literature, was born in Dorsetshire, England, June 1840. While Mr. Hardy is better known as an author of fiction, it is interesting to know that his early life was devoted to the field of art. After an education obtained in local schools, from Latin and French tutors and in King's College (London) evening classes, he became articled to an ecclesiastical architect in 1856, and worked at Gothic architecture under Sir A. Blomfield. He was a prizeman of the Royal Institute of British Architects in 1863.

Mr. Hardy's latest work, published this autumn, is "A Changed Man, and Other Stories." The prospective recipient of the Nobel honor, (a medal and sum amounting to \$40,000), is frequently referred to as Britain's foremost living novelist.

ISIDORE FELDMAN has opened up an office for the practice of architecture at 44 Adelaide street west, Toronto.

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SEVERAL of the recent buildings which have marked a progressive step in the progress of architecture, have used the Apollo-Keystone Copper bearing sheets, black and galvanized, in connection with the roofing, skylights and ventilators. This material is handled by the B. & S. H. Thompson & Co., Ltd., Montreal and Toronto. The selection was made after a thorough test and a guarantee by the United States Steel Products of an absolute corrosive resistance.

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"THE YEAR BOOK of Canadian Art, 1913," compiled by The Arts and Letters Club of Toronto, contains some forty articles covering the whole field of art in Canada. The work treats of painting, literature, sculpture, music and architecture in a concise, wholesome manner, and contains illustrations relative to the various phases of our progressive art. Copies of this extremely interesting as well as instructive book may be obtained from the publishers, J. M. Dent & Sons, Toronto, for \$1.00.

\* \* \*

THE SEVENTH Annual Convention of Bird Neponset salesmen was held in Hamilton, Ont., December 15, 17. Bird & Son opened their Hamilton plant in 1905 and in spite of the general depression, announce the year 1913 to be the largest sales year in their history. Some twenty-five representatives attended the convention and enjoyed the elaborately arranged program along with a special tour of the industrial plants of the city. George E. Messer has managed the Canadian work for two years, while H. F. Everett has had charge of the mill superintendency.

\* \* \*

BEGINNING December 11th, the Asbestos Manufacturing Co., Limited, of Montreal, held a two days' conference of salesmen and branch managers, at their Montreal offices, in the E. T. Bank Building. The discussions included a paper on Asbestos Textiles by H. V. Everham, Jr., of Boston; a discussion on Asbestos Pipe Coverings and contract covering work, by F. F. Cooper, of New York city; addresses on the manufacture and uses of Linabestos, their new wall covering, and other items of manufacture of this company. The representatives were entertained by the company at luncheon on the 11th, and on the same afternoon an inspection trip was made to the large plant at Lachine. The convention was concluded by a dinner on the night of the 12th, which was presided over by the President, R. V. Mattison, Jr., of Montreal and Ambler.

OFFICIAL BUILDING STATISTICS from the various centres throughout the Dominion present some food for careful thought. Certain cities which grew faster than necessity demanded have slowed up in the building line to allow their business activities to catch this over-growth. Others have gradually surged ahead and are setting new marks which will be hard to surpass. Two examples are indicative of the vast difference between the depressive tendency and the growth in face of this false condition. During the month of November, 1913, the city of Montreal had three hundred and thirty-six permits at a valuation of \$4,293,746, as against two hundred and ninety-two for the corresponding month of 1912 at a value of \$2,983,986. The total amount for 1913 exclusive of December is \$25,723,867, while that of the same period in 1912 was \$18,957,280. Vancouver, on the other hand, for eleven months of the last year, totals \$10,248,803 as against \$17,898,067 in 1912.

\* \* \*

A DECISION that will be of interest to architects was handed down recently by Justice Elwood when the claim of Munro & Mead, a firm of architects, for services in preparing plans for a grandstand, against the Yorkton Sask.) Agricultural and Industrial Exhibition Association, Ltd., was allowed. Some time ago the defendants asked the plaintiffs to prepare plans for a grandstand, with a seating capacity of 2,000, to cost not more than \$14,000. When the tenders were opened, it was found that the lowest was \$19,000. The plaintiffs were, therefore, instructed to get out plans on a smaller scale. The tenders again were higher than the estimates, and the defendants decided not to proceed with the work, and declined to pay for the plans. For the judgment, the plaintiffs are awarded \$680, made up as follows: \$490 for the first set of plans; \$180 for the second set, and \$10 for staking out the ground.

\* \* \*

### THE LAST WORD

in the art of manufacturing High Grade Surveying and Drawing Instruments has been developed in the Dietzgen Instruments, the possession and use of which guarantees accurate results.

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## Not An Experiment

THE Reed Building, Montreal, has the largest rentable floor space for commercial purposes of all buildings in Canada. When practical men have a building like this to roof, they cannot afford to take any chances. They do not want an experiment. They want a roof of proved merit. That is why a Barrett Specification Roof was built on the Reed Building, and why these roofs are so widely popular.

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Such a roof is constructed of five plies of tarred felt, with coal tar pitch as the waterproofing material, and covered with a top surface of gravel, slag or tile. Its life is 20 years or more; it rarely requires attention during that period, and is fire retardant.


Ask our nearest office for a free copy of the Barrett Specification. It will show you why such a roof is bound to give satisfaction.

### Special Note.

We advise incorporating in plans the full wording of The Barrett Specification, in order to avoid any misunderstanding. If any abbreviated form is desired, however, the following is suggested:  
ROOFING—Shall be a Barrett Specification Roof laid as directed in printed Specification, revised August 15th, 1911, using the materials specified and subject to the inspection requirement.

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### The Western Hospital

Construction made use of Port Credit Brick. This brick is full size, stands high compression tests, and has a notably low absorption. This makes Port Credit Brick highly desirable for facades and elaborate structures, subject to the grime of city conditions. The Port Credit Pressed Brick is graded No. 1, No. 2, and No. 3.

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(12)

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**HERRINGBONE METAL LATH**

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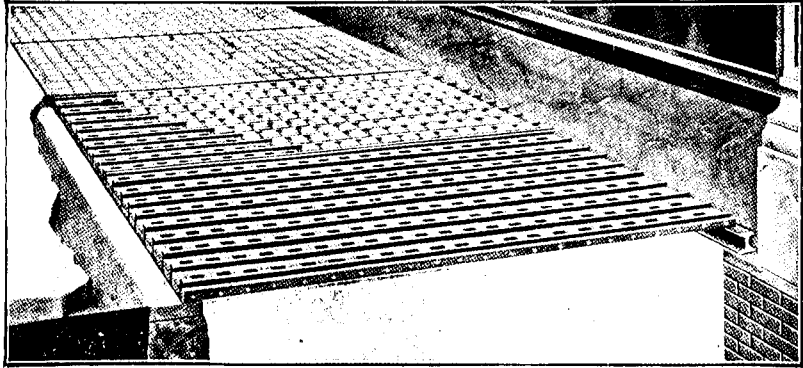
117 Home Life Building, Toronto

## PAVEMENT SIDEWALK GLASS

### SIMPLEX CONSTRUCTION

Simplex double reinforced concrete construction consists of a pre-formed slab 1 inch in thickness which is cast in the factory ready to receive the glass when slab is set in place at the building. The holes in these slabs are made so that the glass is self-centering and absolutely true and straight, making it impossible for the lens to get out of alignment. The reinforcing of this slab is the heaviest that has ever been put into vault light construction, consisting of 1 1-2 inches x 5-8 inch I bar crossed transversally by 5-16 inch square twisted bar. The I bars are the carrying members in the construction, the twisted bar forms the bonding member and supporting member for the glass, so that the usual old fashion method of furnishing stiffening beam every three or four feet is unnecessary and in fact superfluous.

In this way additional glass area and consequently additional light is secured. Furthermore, our material is shipped in slabs ready to fit openings and can be installed



by any competent cement finisher at a very nominal sum, giving a purely reinforced concrete construction at a price which is less than the labor alone in concrete constructions which are set in the usual manner with wood forms and cardboard centering. In addition to this, expert mechanics are not required, as any ordinary cement finisher can install these lights at a cost not exceeding 8 to 10 cents per square foot, depending on the size of the job.

This construction is furnished with the soft Tanex annealed glass made from a special process which prevents the action of contraction and expan-

sion upon the glass which results in breaking and shading, in addition to which each lens is coated with a soft cushion of our malleable coating further insuring the life of all the lenses against contraction and expansion. The pre-formed slab is thoroughly water-proofed at the factory insuring an absolutely watertight construction free from rust or corrosion from beneath or on the surface which is common with vault light construction having cast iron or wrought steel forms.

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**The Hobbs Manufacturing Company Limited**

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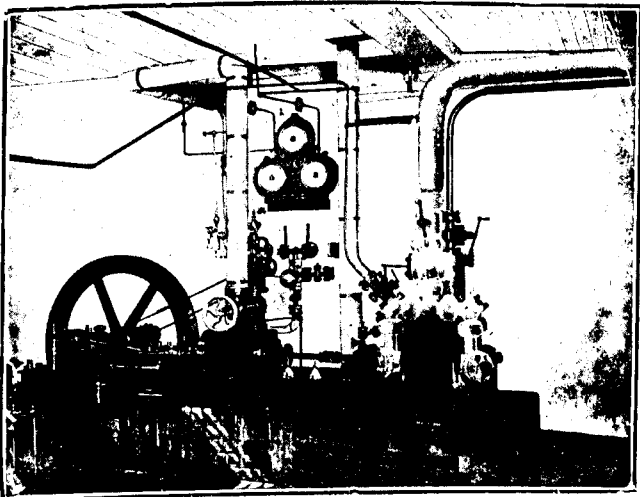
WATERPROOF BUILDING PAPER  
 it means scientifically, positively  
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MAKERS OF NEPONSET BUILDING PAPERS, SOUND DEADENING FELT, WATERPROOFING FELT, ROOFINGS AND WALL BOARD.



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Great covering capacity.

Possesses great elasticity and tenacity.

Dries quickly and hard with a smooth surface.

Will not crack nor peel off.

Easily applied, does not require heating or melting.

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Is unaffected by 1 per cent. of boiling caustic water.

Absolutely waterproof, as a coating for foundations of buildings to render them waterproof it has no superior.

Walls coated inside before being plastered will be rendered perfectly damp-proof.

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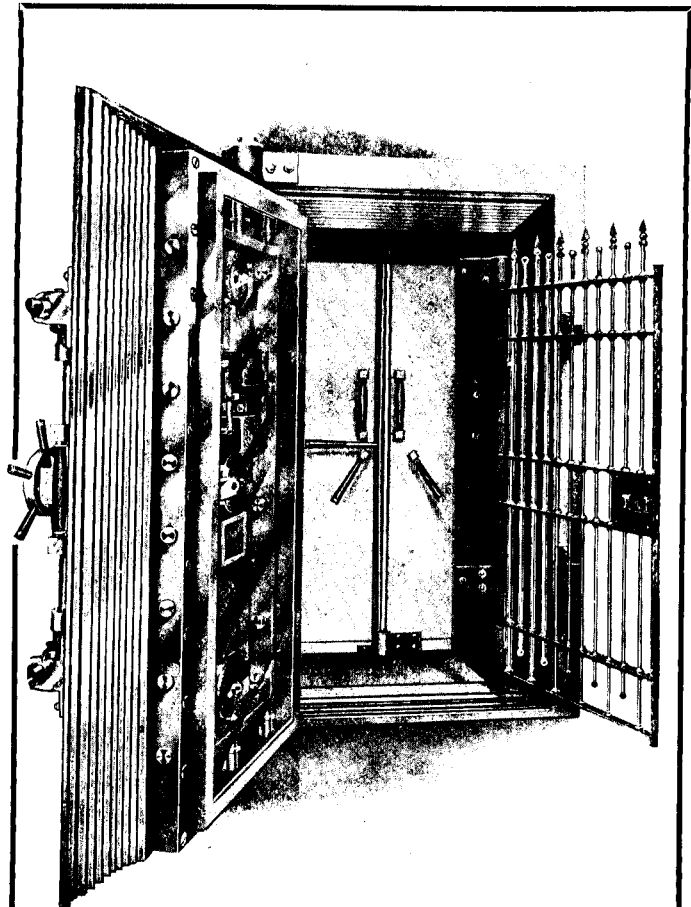
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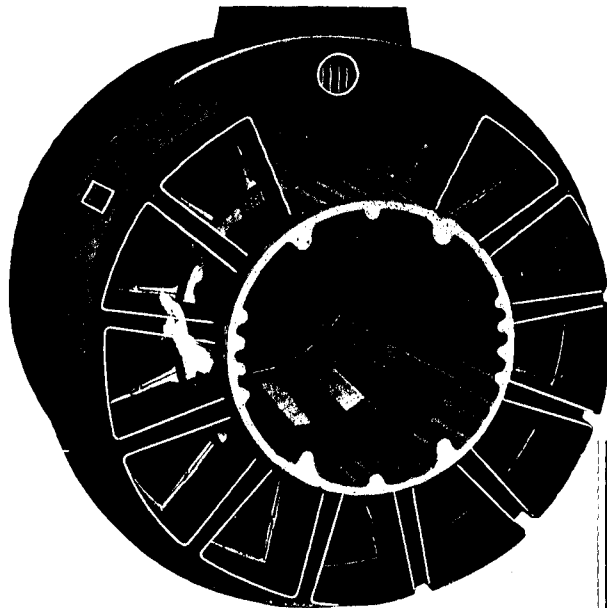


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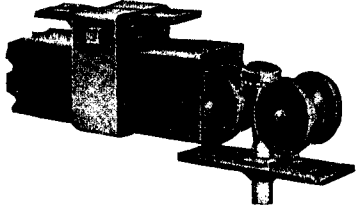
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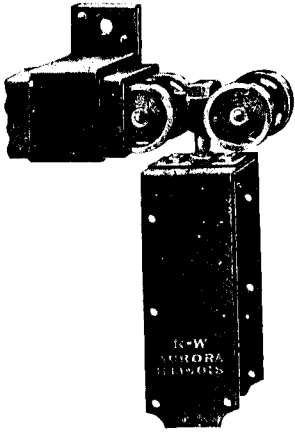
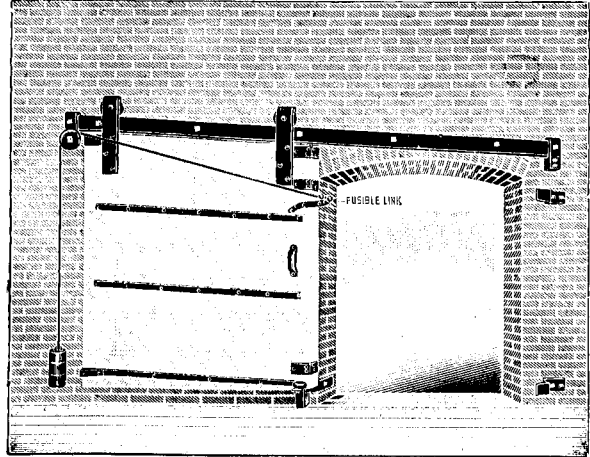


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Folding Door Hanger.  
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Trolley Hanger 150 1/2 B.  
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Vertical and Lateral Adjustment.

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There is a right hanger for every purpose in the R-W Line—our catalogue (mailed on request) enables the conscientious engineer to select it.

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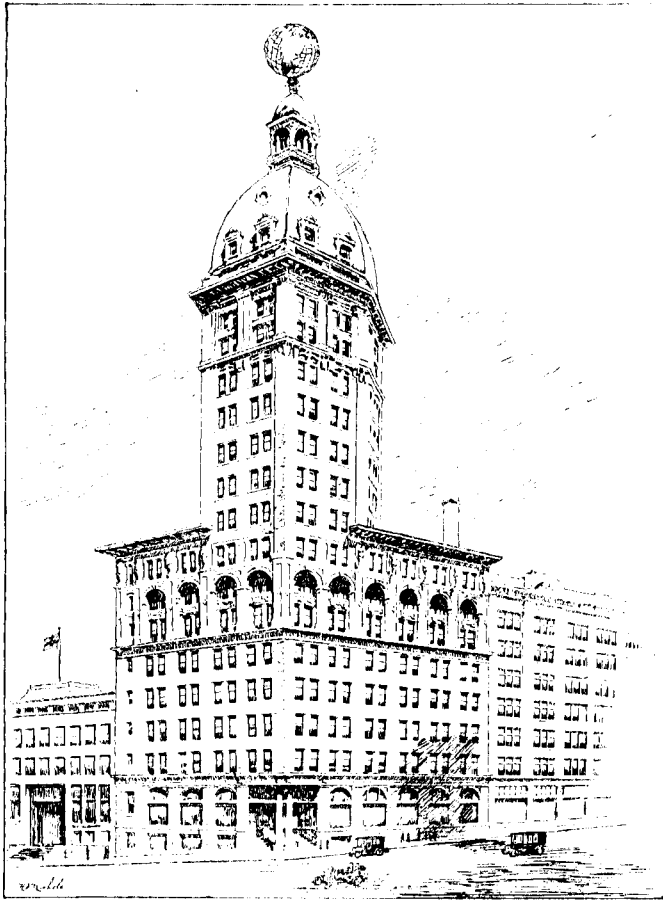
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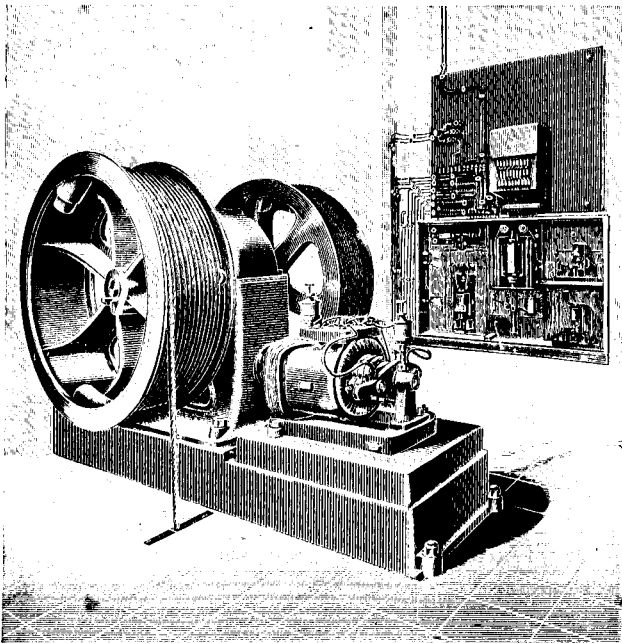
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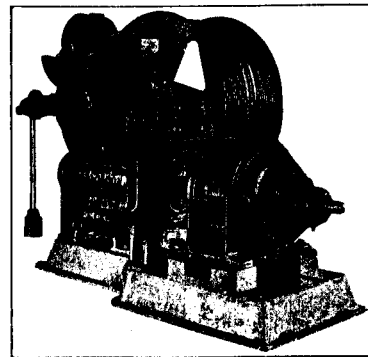
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Shingle stains can be as cheap and worthless as the maker's conscience will allow. Kerosene is the favorite—cheapest, mixed with coarse and adulterated colors. Such stains are not worth applying, because they cost as much to apply as good stains, and the colors wash off and fade, and your shingles are made dangerously inflammable. *Don't accept any stain that smells of kerosene or benzine.*

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are made of refined Creosote and no kerosene. The colors are lasting, clear, and beautiful. They are the original and standard shingle stains, and every gallon is guaranteed.

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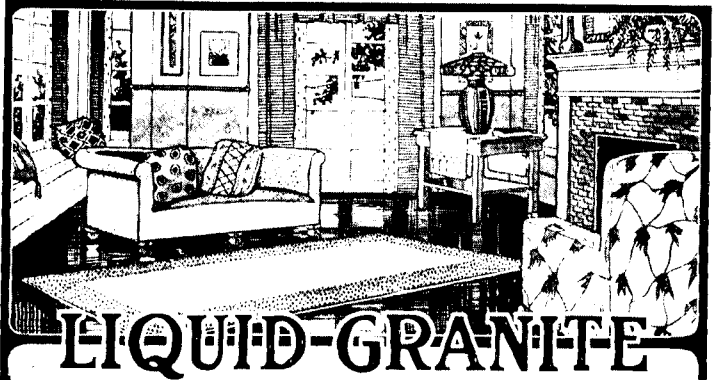


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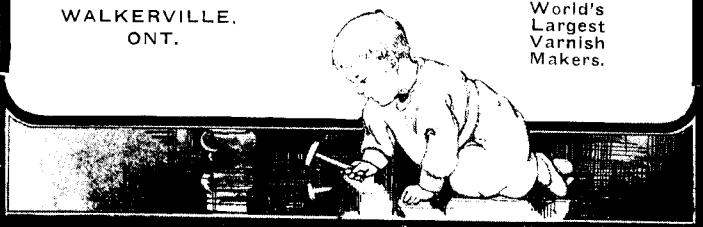
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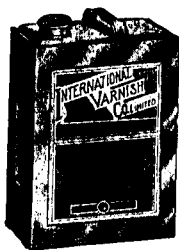


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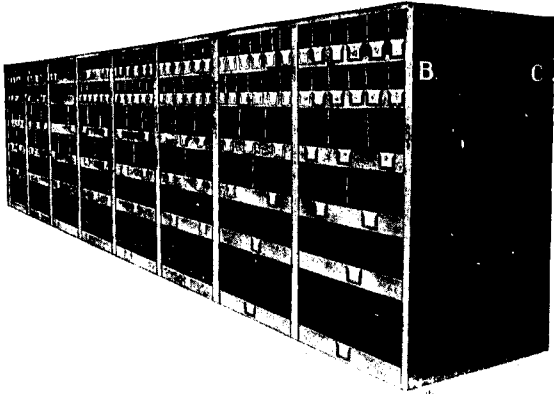
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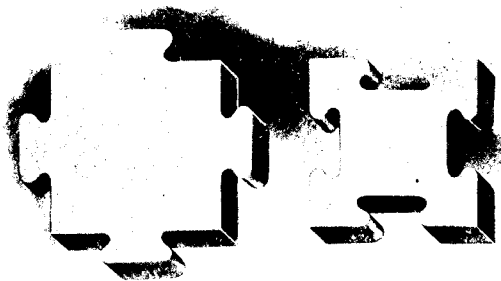
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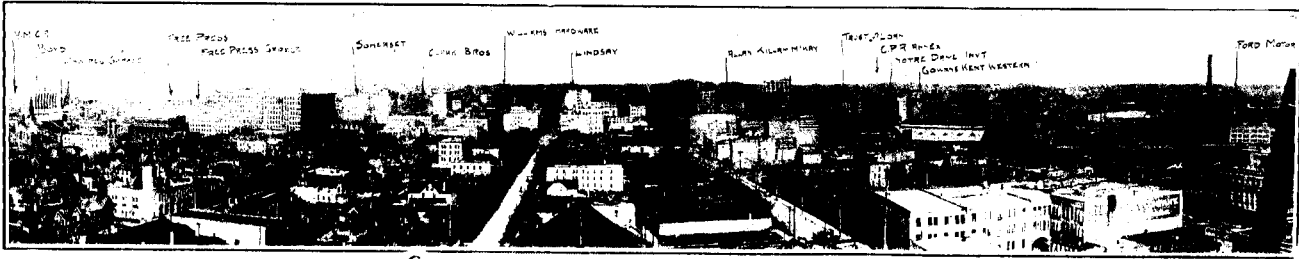
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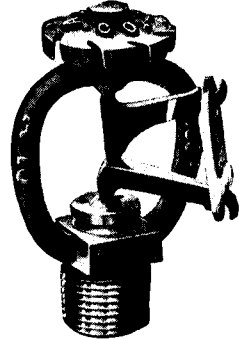
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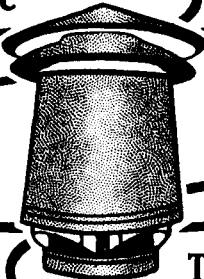
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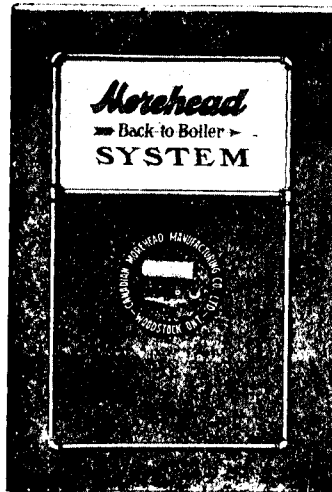
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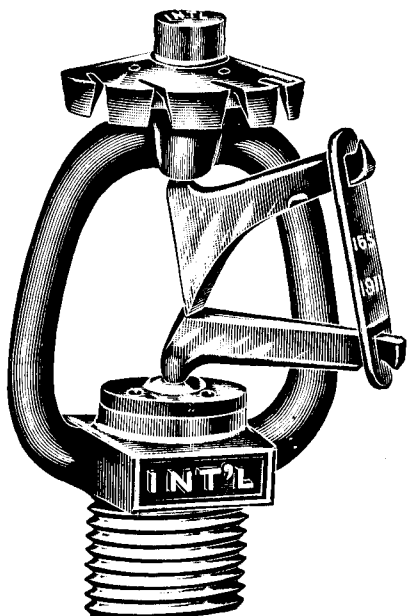
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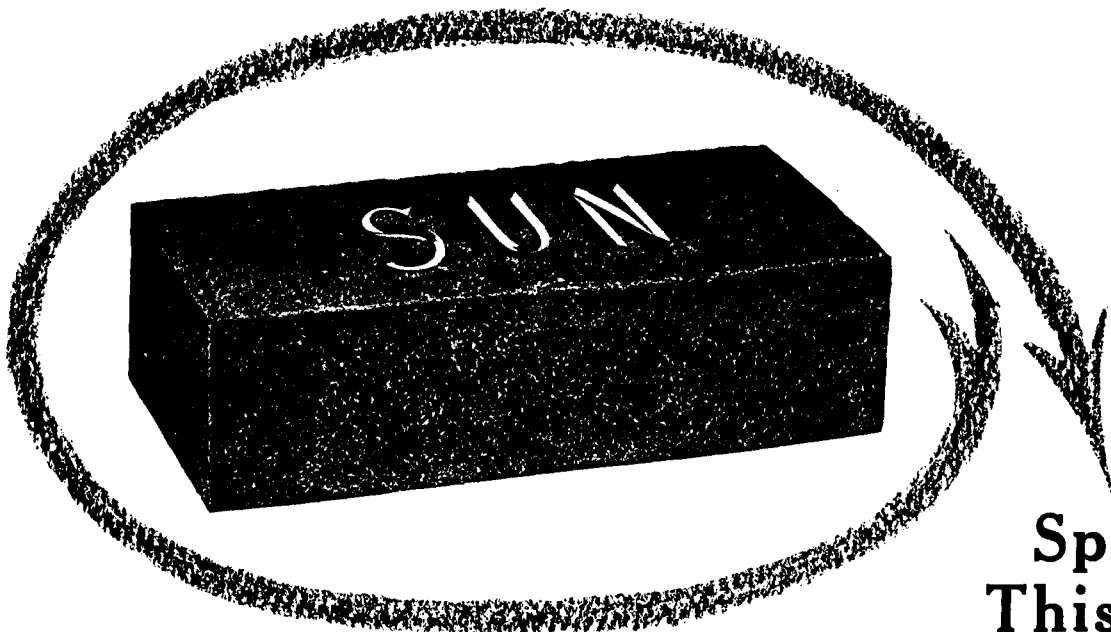
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