The
ARCHITECTVRAL
RECORD

VOLUME 61 APRIL, 1927 NUMBER 4

DECORATIVE PAINTING on CONCRETE

CEILING IN MAIN AUDITORIUM, TEMPLE HOUSE OF THE UNION TEMPLE, *Brooklyn*

Arnold W. Brunner, Associates, Architects
Vincent Maragliotti, Mural Decorator
Nathan C. Johnson, Consultant on Chemistry of Concrete

By SIDNEY F. ROSS

THE MODERN TREND in architecture is toward such utilization of materials as will produce a desired result with the least expenditure to the owner. Any means of expressing frankness in construction or in the use of any particular medium is worthy of consideration, experiment and study. The trend toward economy and frankness in construction and expression has encouraged a wider resort to color in architecture, and as concrete is so important a factor in present day building, occasion frequently arises to consider using it as a base for applied decoration. The average concrete ceiling, with its exposed fireproof beams covering the steel members and rough ceiling panels forming the floor construction above, offers an unusual opportunity for this sort of decoration. There should be also a considerable saving in cost by the omission of the bond coating and plaster, which will go far to offset the cost of the decorating. The concrete surface offers a most pleasing finish and texture for many applied color decorations.

Some months ago, in designing the ceiling for the Cadet Mess Hall at West Point, it was our intention to cover the concrete beams and panels with wood. As the ceiling is approximately five hundred feet long and seventy-five feet wide, this would involve a considerable expense. Mr. Gehron, considering various ways of overcoming this objection, conceived the idea of utilizing the proposed rough construction, with such additions of false concrete beams as might be necessary to produce a satisfactory design and then painting directly on the exposed concrete

surface. As this work, however, will not be started until the coming year, the decorative design is still in the initial stages.

Meanwhile, in designing the Temple House for the Union Temple of Brooklyn, an opportunity was presented to carry this method of decoration into actual execution. The first floor of this building is devoted almost entirely to a main auditorium, seating approximately 1,200 people, with a ceiling height averaging twenty-eight feet. In the engineering of the ceiling the structural members were placed to conform to the given design, and false beams were added as required.

Form work in concrete construction is perhaps as haphazard as any trade in the building industry, and for that reason particular supervision was given to it, without, however, obtaining any appreciable betterment over past performances.

On account of the height of the ceiling, the forms had to be hung from the structural steel, and the wires holding the bottom members were carried through the joints at the intersection of the side and bottom, which necessitated a certain amount of cutting and patching after the forms were removed. Contrary to our expectation the roughness and board marks in the concrete did not prove detrimental to the decoration.

The mixture used for this ceiling was cinder concrete as a matter of economy, which in this instance was a mistake, as it made the problem of painting much more serious on account of the poor quality of the present day cinders obtainable, and the chemical reaction of the sulphur content on the base coat of paint.

At the time the decoration of the ceiling was studied seriously; investigation was made for existing examples to see what had been done with color on concrete, what effect had been obtained and how permanent the colors had proved to be after a period of time. It was surprising to learn that there was no such work in this immediate neighborhood. In a vague way we were informed of its being done in the extreme west, but to what extent or how satisfactory no one seemed to know. To us therefore it was an entirely new problem.

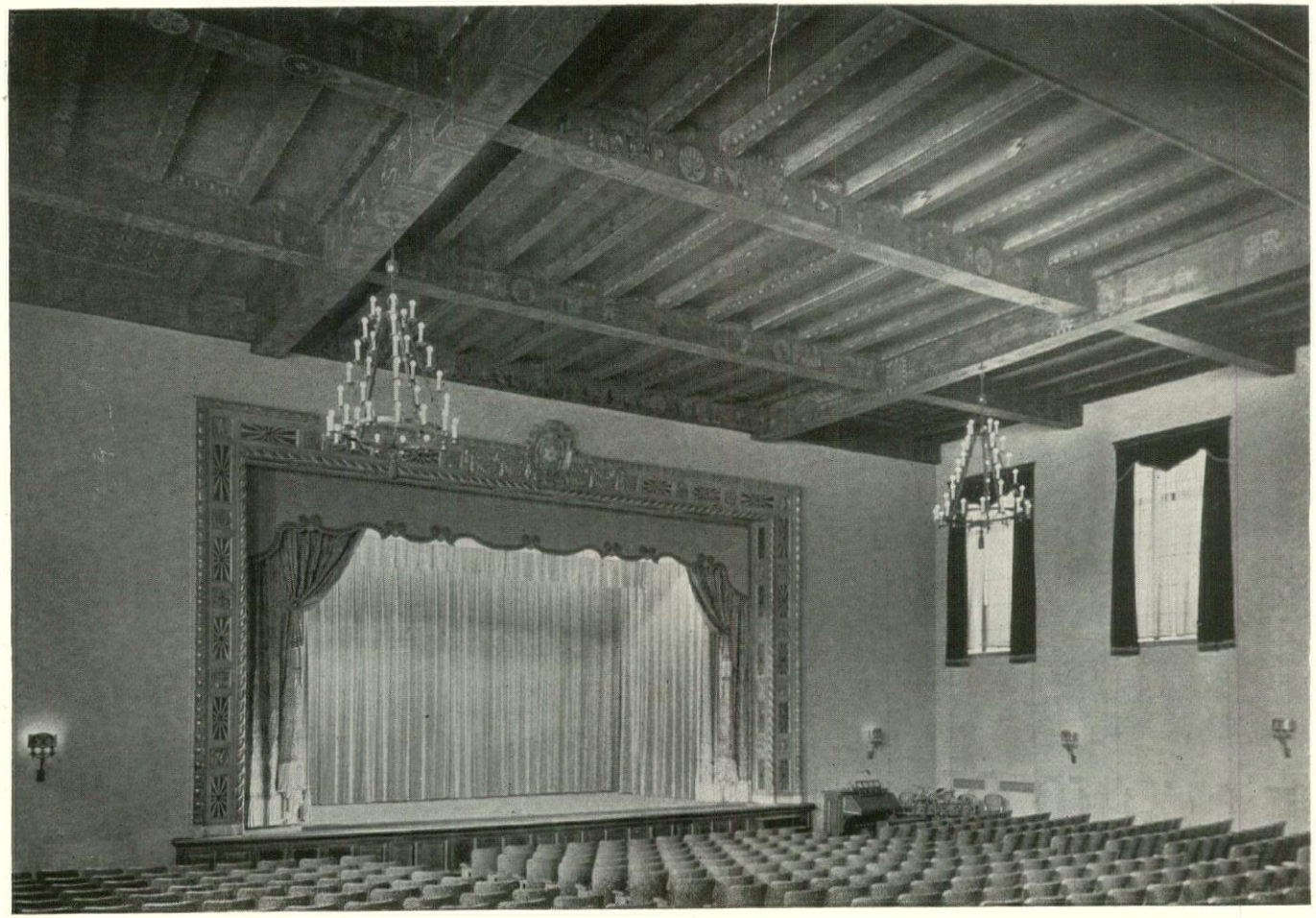
The next step was to proceed with actual experiments. A large-size section of the ceiling was cast as a model, using the same mixture as the ceiling to be decorated, on which numerous cement paints and base coatings were applied. All of these proved unsatisfactory. Samples of these and other materials were then applied on different sections of the ceiling and allowed to stand as long as possible, in order to determine what the effect would be. In some instances a second coating was applied to the samples showing the best results, but eventually all that were tried proved unsatisfactory, as they did not retard the chemical action of the concrete, efflorescence or saponification appearing through the coatings in more or less marked degree.

As the building was approaching completion the problem became serious. A date had been set for the formal opening, and as the concrete had been poured during the cold weather, sufficient time could not be allowed for drying, which added further complications. Mr. Nathan C. Johnson was called in consultation, and through his knowledge of the chemistry of concrete, a formula for the base coating to be applied was worked out which has proven entirely satisfactory.

It appears that concrete as a material is totally unlike any other substance known. The data on the chemical reactions extend back for a period of perhaps sixty years, during which time it has been found that concrete is subject to a constant change somewhat similar to the breaking down and renewal of the body tissues. Only a small percentage of the cement used in the mixture is taken up when the concrete has its initial set, and as time goes on more and more of this unused cement becomes active.

Another factor to be noted is that the bottom of the form is covered with a rich skin cement coating, which dries faster than the remaining mass concrete, and in so doing a tremendous tension is exerted which shortly causes fractures extending in many directions throughout

UNION TEMPLE AND TEMPLE HOUSE, BROOKLYN, N. Y.
(*From the Architects' Drawing*)
Arnold W. Brunner Associates, Architects



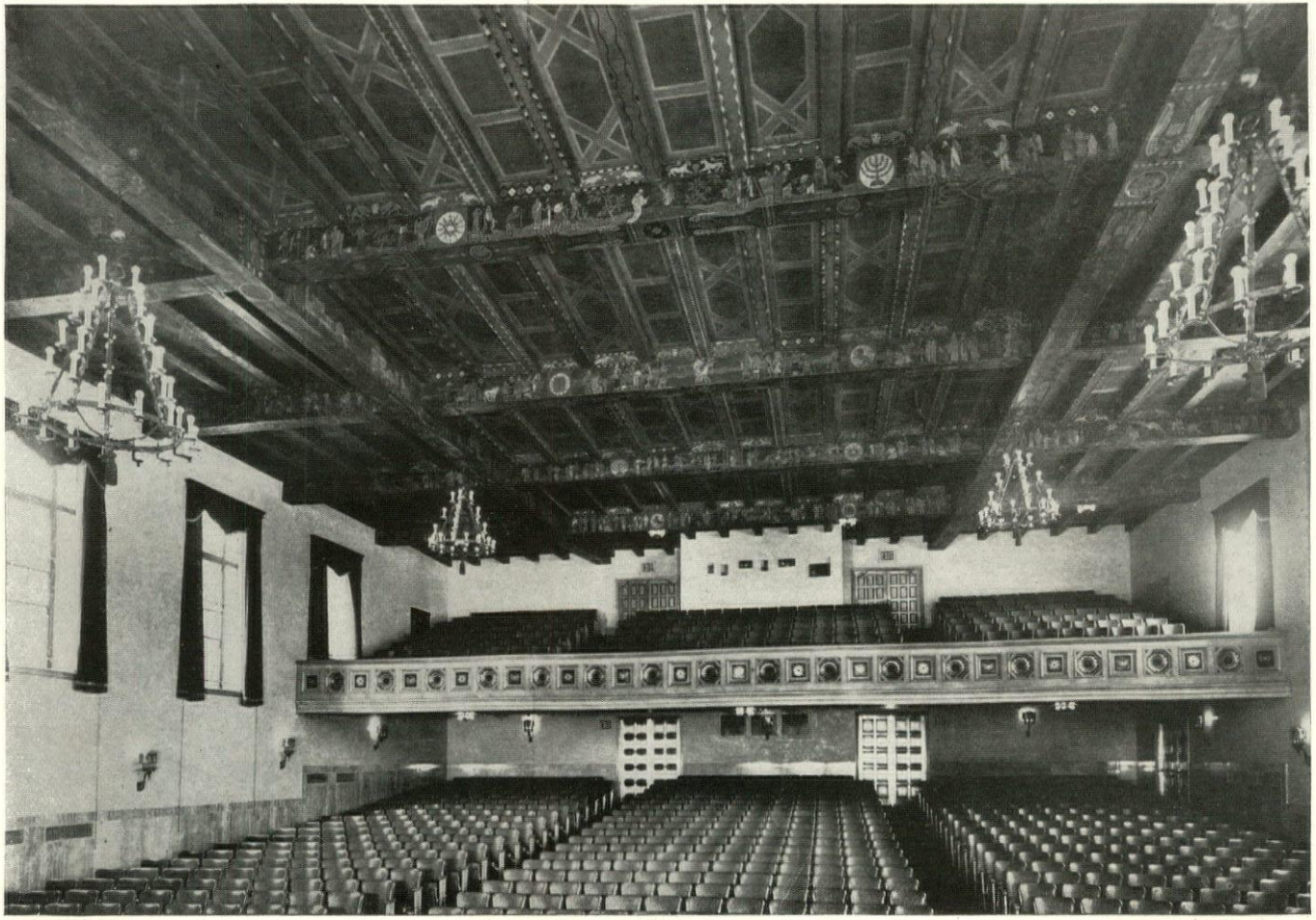
The Architectural Record *April*, 1927

Main Auditorium

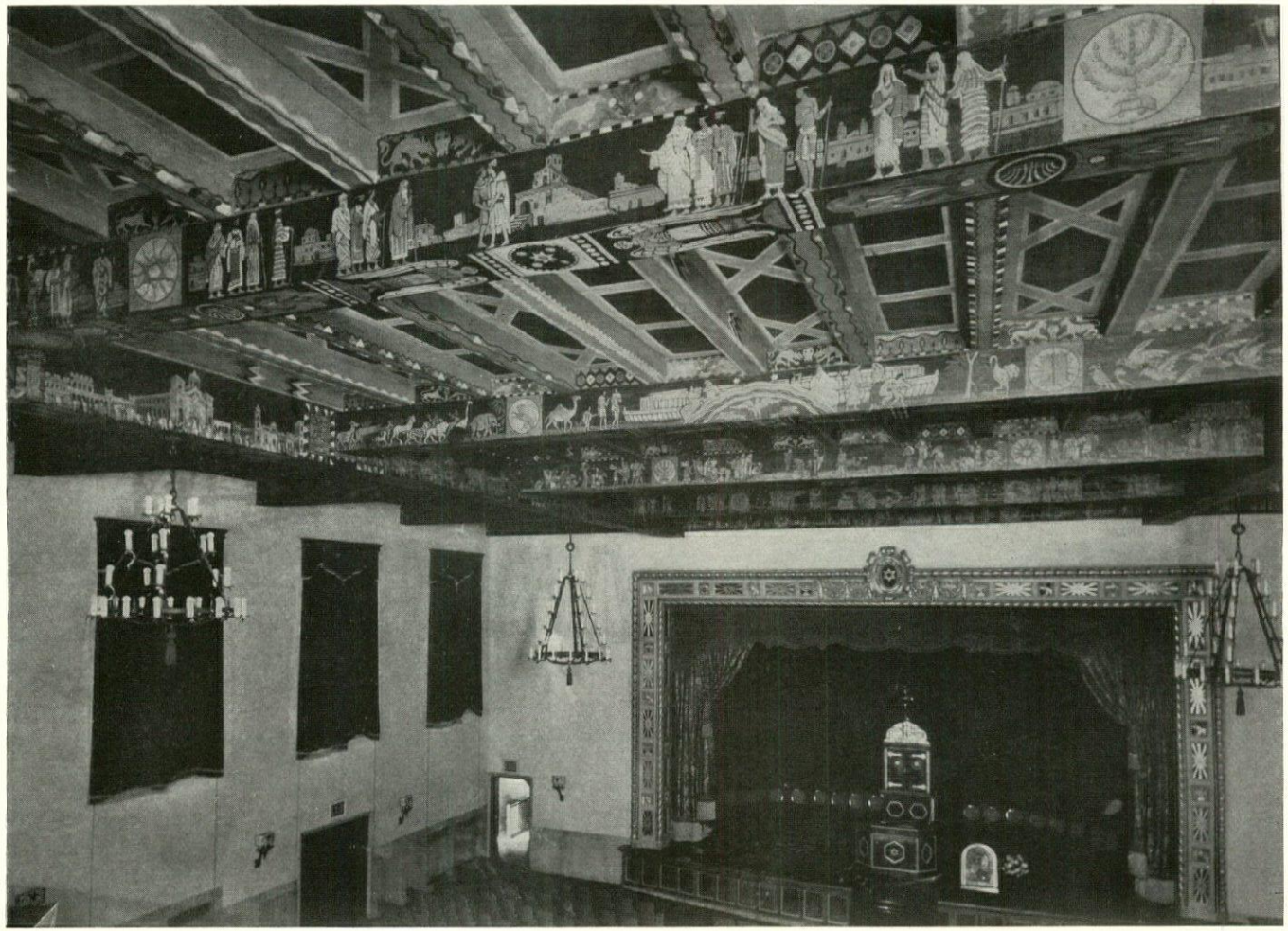
TEMPLE HOUSE OF THE UNION TEMPLE, BROOKLYN, N. Y.

Arnold W. Brunner Associates, Architects

Photo. Sigurd Fischer



Main Auditorium—Rear View
TEMPLE HOUSE OF THE UNION TEMPLE, BROOKLYN, N. Y.
Arnold W. Brunner Associates, Architects



Detail of Ceiling in Auditorium

TEMPLE HOUSE OF THE UNION TEMPLE, BROOKLYN, N. Y.

Arnold W. Brunner Associates, Architects

Detail of Ceiling in Auditorium

TEMPLE HOUSE OF THE UNION TEMPLE, BROOKLYN, N. Y.

Arnold W. Brunner Associates, Architects

the under surface. The base coating for the decoration, therefore, to be permanent, had to have considerable penetration and had to be of a substance not affected by dampness or by the chemical reactions in the concrete causing deterioration and disfiguration or permitting efflorescence and saponification. It was also necessary to present a surface capable of receiving and retaining oil paints and pigments without destroying their permanency.

The formula finally devised by Mr. Johnson contained a cellulose base, to which was added a certain amount of color to permit visual inspection, insuring a thorough coating of all surfaces. After this base coating had been applied it was found that an actual penetration of three-eighths to one-half of an inch had been attained.

The nature of the material used was similar to many of the lacquer preparations, and had an extremely disagreeable, pungent and sickening odor; for that reason and also to obtain the maximum amount of penetration it was decided to spray the original coating. In this, however, difficulties were encountered, as the Unions would not permit painters to operate a spraying machine, and we were unable to obtain a favorable ruling. It was therefore brushed on by hand, the painters using masks, but even with this protection they were unable to work for longer periods than one-half hour at a time, and a similar period had to be allowed for the atmosphere to clear before work could be resumed. As an added precaution, a second base coat was used, and it was found that the rough surfaces of the concrete and form marks were to a great extent obliterated or softened down by the original coatings, which left a surface of remarkably good texture for the decorative painting. For the latter an especially prepared lead and oil paint with various pigments, was used

In designing the ceiling the greatest assistance was given by Dr. Simon R. Cohen as to the subject matter pertaining to early Jewish history which was depicted on the beams. The costumes and colors were taken direct from ancient books and manuscripts. The following list gives the themes selected, starting from the proscenium arch with the

LEFT PANEL

Joshua Succeeds Moses
Samson Slaying the Lion
Visit of Angels to Jacob
Joseph and His Brothers
Abraham's Tent at Mamre
David Playing Before Saul
Return of the Spies
Elijah Fed by the Ravens
Joseph and Jacob Meet
Daniel Interprets the Dream of Nebuchadnezzar
Tower of Babel and Confusion of Tongues

CENTER PANEL

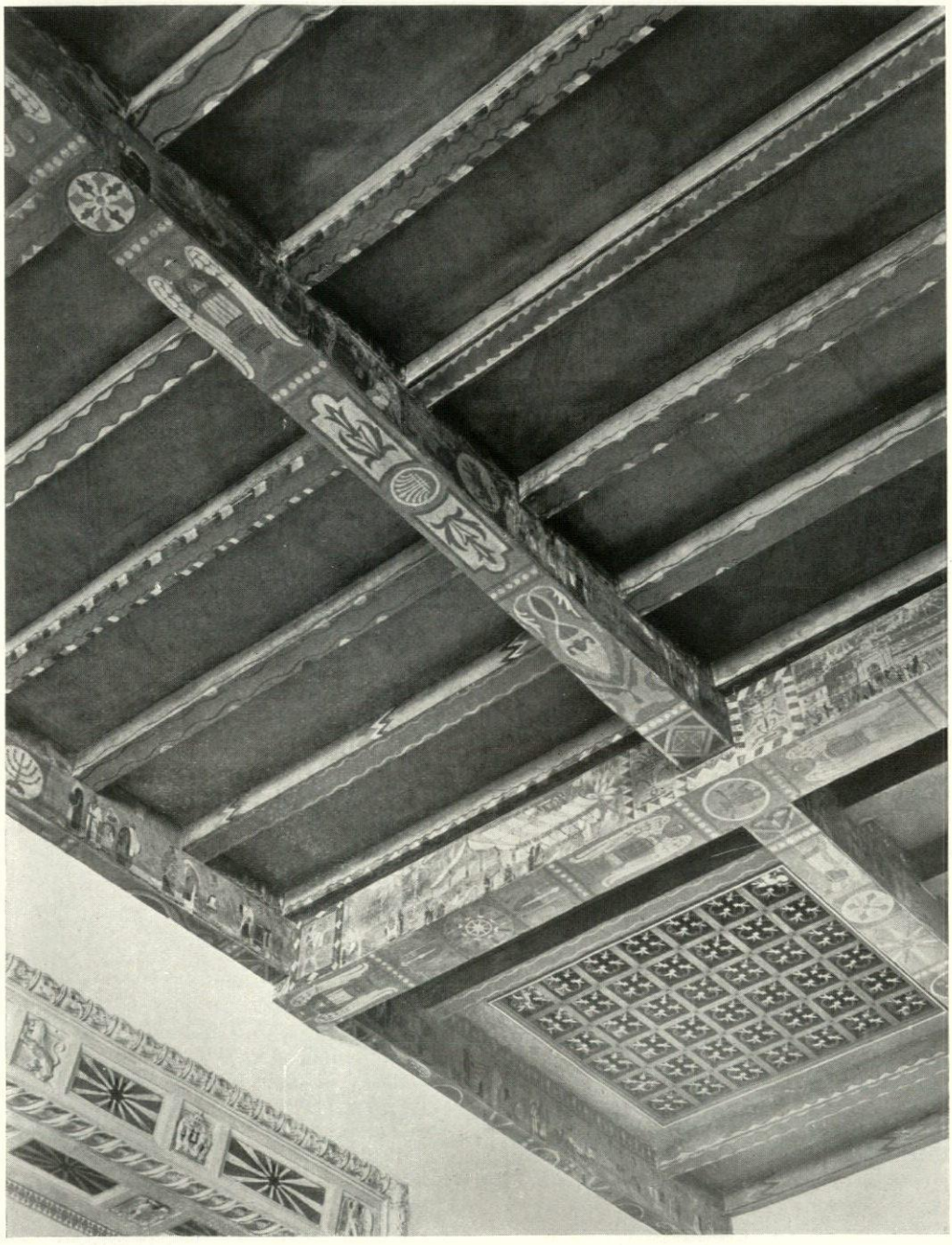
Moses and Children of Israel Receive the Ten Commandments
Deborah Leading Israel
Abraham Sacrifices Isaac
Moses in the Burning Bush
Ruth and the Gleaners
Cain Slaying Abel
Noah's Ark
Jeremiah, Prophet of Evil
Jonathan and David
Esther Before King Ahasuerus
Judgment of Solomon

RIGHT PANEL

Moses Before Pharaoh
Valley of Dry Bones
Joseph's Dream
Walls of Jericho
Crossing the Red Sea
Water From the Rock
Isaiah Addressing the People of Jerusalem
Daniel in the Lion's Den
Israel's Slaves in Egypt
Gideon's Victory over Midianites
Return of the Exiles

On the two large longitudinal beams were depicted in chronological order a history of the development of the Jewish Temples and Synagogues, which include the following:

Tabernacle in the Wilderness
First Temple of Solomon
Temple Rebuilt by Hezekaiah
Temple of Herod
Old Synagogue in Berlin



Detail of Ceiling in Auditorium
TEMPLE HOUSE OF UNION TEMPLE, BROOKLYN, N. Y.
Photo. Sigurd Fischer Arnold W. Brunner Associates, Architects

Old Synagogue in Amsterdam
Old Synagogue in London
Old Synagogue in Frankfort
Temple Beth El, 76th Street, New York City
Union Temple and Temple House, Brooklyn

Alternating patterns in primitive design were used on the edge of the smaller beams and various forms of striping for the ceiling panels. In the case of the figure decorations the outlines were for the most part ponced on or drawn direct and filled in by hand, while stencils were used for the smaller beam decorations. The coloring was extremely brilliant and after being completed the entire ceiling was glazed down to the required tone. The accompanying photographs are somewhat misleading on account of the color screen used by the photographer. The effect obtained is not garish, as would appear from some of the reproductions, but is a rich, harmonious tone which gives a proper balance to the room.

There is every reason to think that work of this character will become general. The possibilities of concrete in construction are unlimited, and where direct application of painting is appropriate, a charm in texture and quality is added to the decoration which is not attainable with a hard, smooth plastered surface or with the artificial effect produced by a trowelled medium.

THE TECHNICAL PROBLEM

By NATHAN C. JOHNSON

It was of particular interest to me to develop with Arnold W. Brunner Associates a medium that could be safely applied to concrete, yielding an impregnable base on which to apply any form of decorative painting.

Failure of success in past efforts has not resulted so much from lack of knowledge of the technology of paints as from lack of knowledge of the habits, behavior and nature of the form skin surface of concrete.

The word "paint" broadly covers any pigment carried in any kind of a vehicle or carrier. Paint in the ordinary sense is essentially any pigment in suspension in any kind of a vehicle or carrier, and although there is a large similarity as well as a large difference between pigments of any given color, there is an even greater dissimilarity in the vehicles employed.

Many of the vehicles are so-called drying or oxidizing oils, others are varnishes or like substances. In older days, before substitution became almost a science, the vehicle was a linseed oil with or without oxidizing or drying substances, known as dryers.

In the more recent sense, vehicles comprise almost any kind of oil, except mineral oil, with a dilution with cheap and often inferior substances almost beyond belief; and there is a keen competition among certain classes of paint makers to see who can make the cheapest product which will endure for a reasonable time and sell at the highest price, regardless of its real value.

Any oil which will oxidize is capable of saponification. That is, with the process of time, any of these oils which are almost entirely of vegetable (organic) origin, are capable of uniting with any alkali to form a soap. Soap is an entirely different substance from a properly oxidized or dried paint, and needless to say, a soap by its nature will expand to an almost unlimited degree when diluted with water (as from the atmosphere) or will contract on protracted drying out with a formation of a non-coherent dry powder which will not retain pigments, nor gloss, nor protective value.

On this rock of saponification most paints commonly advocated for use on concrete have proven ineffective. The saponification may be very slow, but inasmuch as concrete furnishes large quantities of lime hydrate, irrespective of other alkaline substances, this lime hydrate by its action alone is capable of saponifying the oil vehicle of most paints with greater or less rapidity, with, of course, the ultimate result of disfigure-

ment of the paint coating whether it be decorative or plain, as well as the entire loss of value of this protective coating and with a further consequence of the superficial destruction of the concrete itself through abstraction of the surface lime from the concrete. In other words, through destruction of the paint by the concrete and destruction of the surface on which the paint is applied, there is a failure of the entire purpose and object.

Obviously, the remedy is to use either non-saponifiable paint or at least a non-saponifying primer on the concrete. But, inasmuch as it is exceedingly difficult to cause the majority of priming media to enter into the concrete sufficiently to bond thoroughly thereto, the problem has other complexities which must be fully considered in any situation before an attempt is made to produce a permanent surface through painting directly on concrete.

It is regrettable that the majority of primers and of paints offered for use on concrete are either of a character improper for the purpose in hand or of a viscosity such that it is impossible to cause them to enter sufficiently into the concrete to secure a firm adhesion thereto.

Paints using a solution of cellulose as a base have become well known in the market of recent years and have shown a most admirable durability. The technique of their preparation is intricate and the number of solvents capable of dissolving cellulose are of such a number that a mere specification of a cellulose in the paint, or of a cellulose primer on the concrete as a base for oil and pigment paints, is not sufficient as a general prescription.

A cellulose primer is a most excellent primer and base for oil paints as a finish coat, or, even better, for cellulose paints as a finish coat, provided they can be worked fast enough to produce the design and effect desired without undue tackiness, through evaporation of their solvent. But, in the use of cellulose solutions as a primer, it is necessary so to choose the solvent that it will have the ability to penetrate into the concrete sufficiently to insure full adherence, and, further, it is necessary that this solvent shall be sufficiently low in volatility to permit its application in a commercial and effective manner.

Still further considerations, in regard to both primer and paint, must be given to the composition of the concrete aside from the cement, because of the effect of the compounds brought to the surface of the concrete by evaporation or by leeching through to the concrete of water from one source or another, when the concrete contains as aggregates, materials other than stone.

In modern building construction, cinder concrete is very frequently met with. "Cinder concrete" is almost as embracing a term as is the word "paint" for cinders may consist of anything from the rawest kind of ashes down through tin cans, rubber shoes and other things, including unburned and slack coal, or other material of like nature.

A well burned vitrified cinder is a most respectable and advantageous aggregate for concrete. But recognition of this fact does not preclude equal recognition of the fact that much of the material that is sold as "cinders" has no right to that designation in the proper sense, except that it is delivered to trucks by an ash or waste conveyor or dumped into trucks from the well known ash can.

This means that a variety and multitude of products enter into most cinder concrete. By solution and later evaporation, these substances are brought to the surface of the concrete on which it is desired to put a coat of paint of one kind or another and are there deposited.

The nature of this surface, therefore, must be taken into consideration in preparing or prescribing any primer for painting as well as the problems noted above, which concern themselves with the surface tension of the primer itself and its solvent and the number of applications which must be given to provide a suitable base for oil paints or for other paints.

These problems can all be successfully

solved if due consideration is given to the chemistry of the concrete, and particularly to the chemistry of the surface on which it is desired to paint and the chemistry and physical chemistry of these surfaces as related to and in contact with paints under different conditions of service.

It should be understood that at the surface of any concrete is a much greater concentration of salts and other chemical combinations of material than exist within the body of the mass, inasmuch as a very large precentage of the total content of these materials in the mass is brought to the surface and deposited there by the evaporation after the forms are stripped.

The outward skin is particularly rich in cement—much richer in fact than the body of the mass behind, and both chemical and physical action results from this concentration of cement. For instance, nearly all cement contains as an accident or an incident of manufacture, fairly large quantities of sodium or of potassium or both, as well as calcium in the sulphate and in the hydrate forms. This concentration must be considered if an effective paint job is to result which will endure for more than a limited time.

In the preparation of the ceiling very careful consideration was given to these various factors. In the first place, the concrete was cinder concrete in the usual acceptance of the term. That is, cinders as they come and as they are supplied to users in the City of New York. Second, the nature of the cement used in the job was considered, and third, the length of time during which the ceiling had dried out or would dry out before the surface coating was applied.

To these conditions were suited a cellulose primer in a proper solvent. This solvent was of a specific gravity and of a surface tension (in combination with dissolved cellulose) suited to secure an adequate and thorough penetration when applied with a primer. Care was taken that all areas were thoroughly covered, and that all areas were sufficiently covered to produce a suitable base for the pigment paint thereafter used.

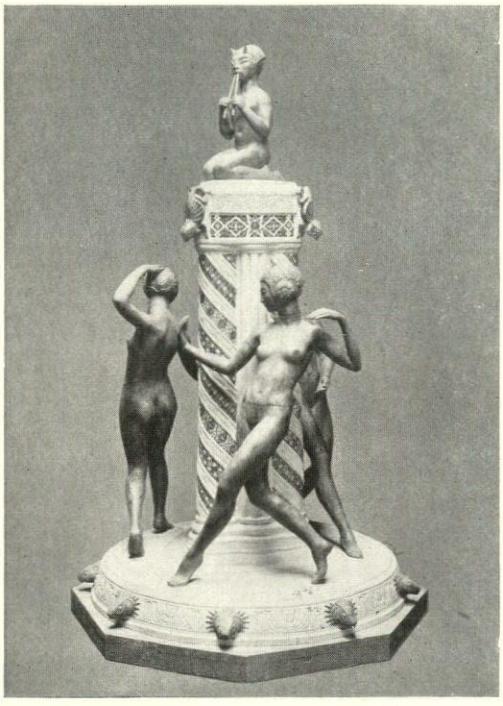
With the highly chemicalized surface of the concrete thus protected by this primer, attention was then given to the nature as well as to the color of the pigments in the paint used as a final coat as well as their vehicles.

In brief, the success of this operation was due to the comprehensive consideration given to all elements of the problem. The securing of a proper primer was not without its difficulties, because the manufacturers had not themselves fully considered either the nature and chemistry of the concrete on which this primer was to be used or the relation of this concrete to the pigments and vehicles which it was desired to use as a final coat.

The Architectural League's Exhibition, New York

By William A. Boring

When we attend an exhibition it is profitable to go in quest of beauty, and such a search is sure to be rewarded at the exhibition of the Architectural League. Some things are always found not to be entirely beautiful, but let us pass them by and try to find our way about to the good things. This is not so easy as it sounds, because there is no plan to indicate locations, no scheme of numbering which will lead one to the desired exhibit, and no scheme of directions which unravels the mystery. It may be best so, otherwise we might not visit some booths which were put there to be seen. Naturally, we could not have this great exhibition of good architecture and the arts which "se rattachent" as they put it so well in France, without inclusion of those industrial activities which pay the main burden of expense.



Design for a Fountain
The Work of Alvin Meyer, Fellow in Sculpture, American Academy in Rome, 1923-1926

Not all people can easily read architectural drawings, but such as can have here a wealth of interest to engage them. The primary purpose of the exhibition is to get a message across to these intelligentsia in terms of our tremendous advance in the science and art of building.

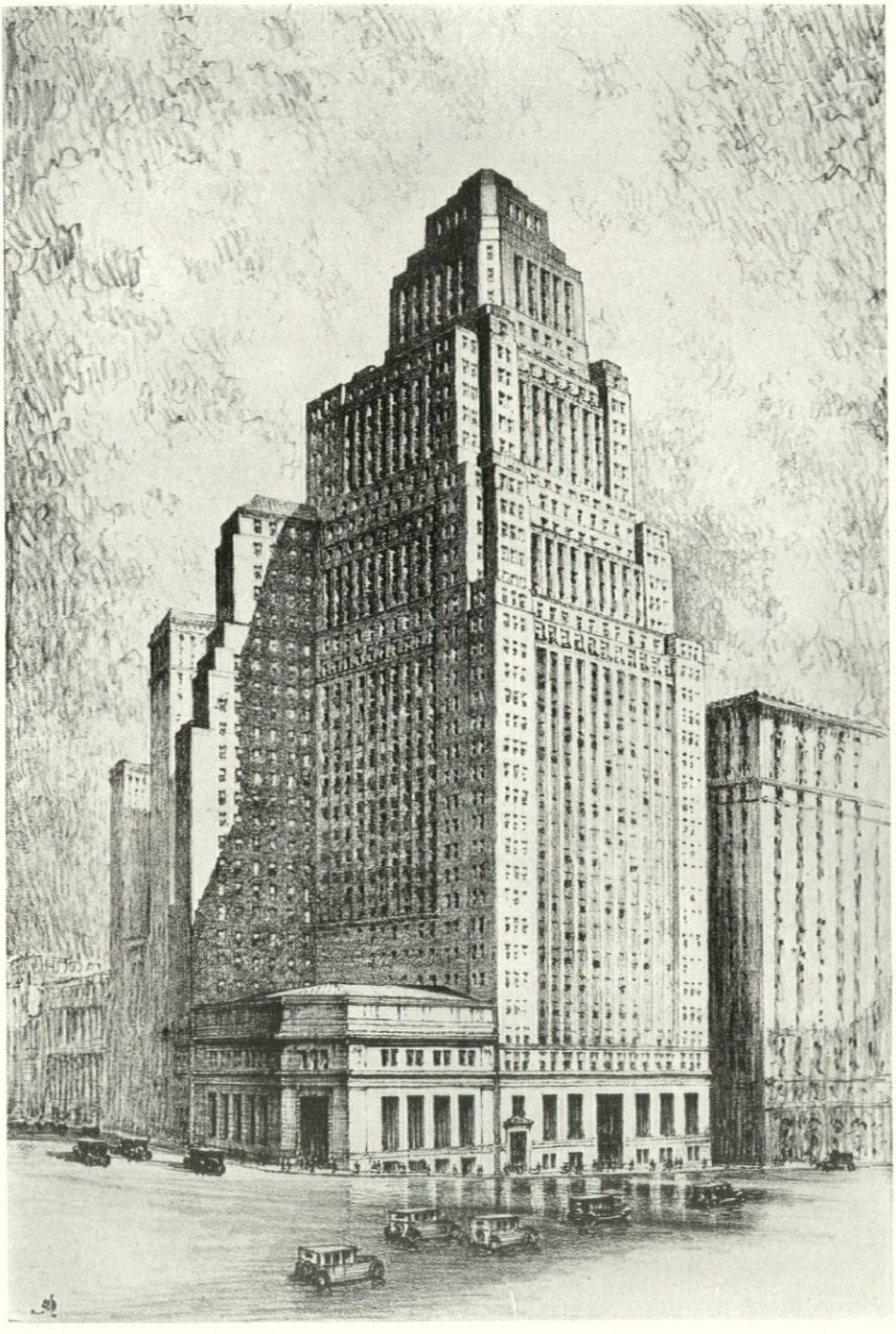
Let us, then, hunt out a few of these outstanding designs among the many other things of interest, and we will find tucked in comparatively obscure places, sky scrapers the like of which man has never before beheld.

The Telephone Building by McKenzie, Voorhees and Gmelin holds one breathless with its force, and compels admiration with its rugged beauty. The handsome oil painting is effective, but a small photograph taken against a dramatic sky tells the story more incisively. Ornament is not so essential to convey the message of this building, but the essay in original enrichment is both interesting and sucsessful. The architects, Messrs. McKenzie, Voorhees and Gmelin, paid a fine tribute to Mr. R. J. Walker, the chief designer, in naming him as the recipient of the League medal of honor in Architecture, the greatest distinction bestowed by the League.

The skyscraper being characteristically vertical in expression, it is interesting to look at its antithesis, a long low building with a horizontal expression as shown in the beautiful design for the Roosevelt Memorial for Washington, John Russell Pope, Architect. A broad open reach

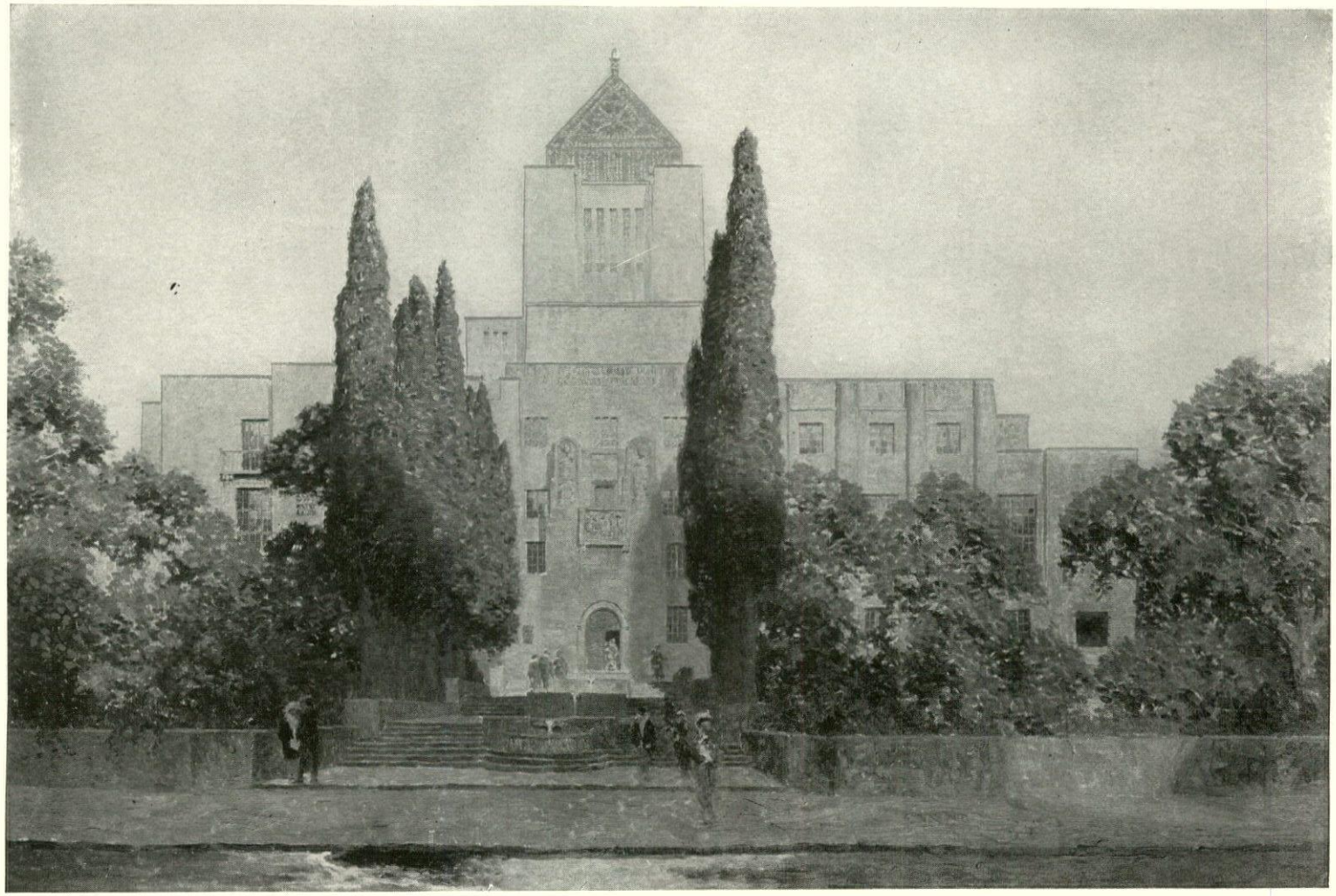
BARCLAY-VESEY TELEPHONE BUILDING, NEW YORK

Photo. Sigurd Fischer McKenzie, Voorhees & Gmelin, Architects



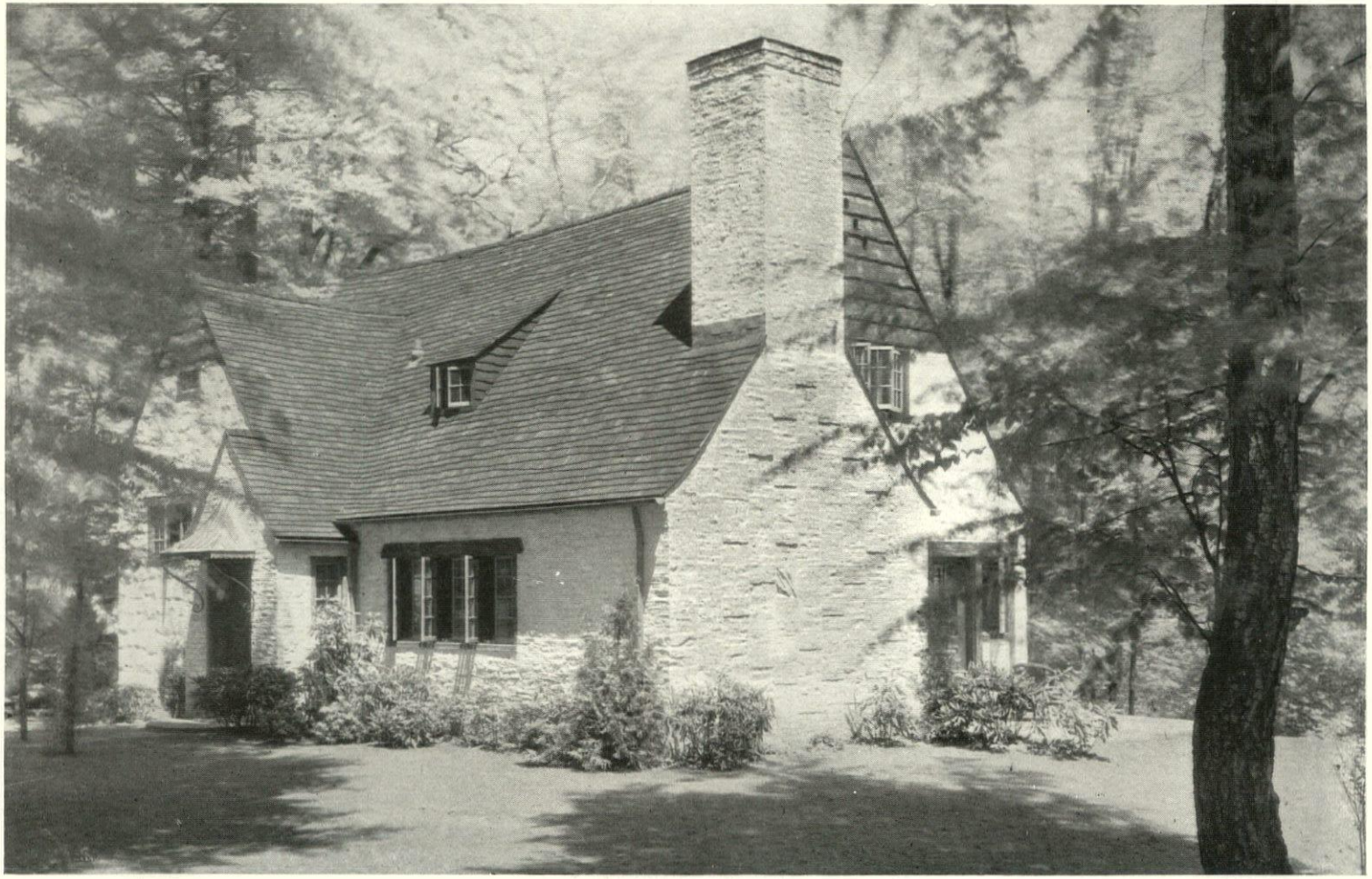
THE EQUITABLE TRUST COMPANY BUILDING, NEW YORK

Trowbridge & Livingston, Architects



LOS ANGELES PUBLIC LIBRARY

Bertram G. Goodhue, Architect; Carleton M. Winslow, Associate Architect



RESIDENCE OF KARL KEFFER, ESQ., SCARSDALE, N. Y.

Frank J. Forster, Architect

CATHEDAL OF ST. JOHN THE DIVINE, NEW YORK
Cram & Ferguson, Architects

The Architectural Record *Photo. Wurts Bros.*

SCHRAFFT'S RESTAURANT, BROADWAY, NEW YORK
Geo. B. Post & Sons, Architects

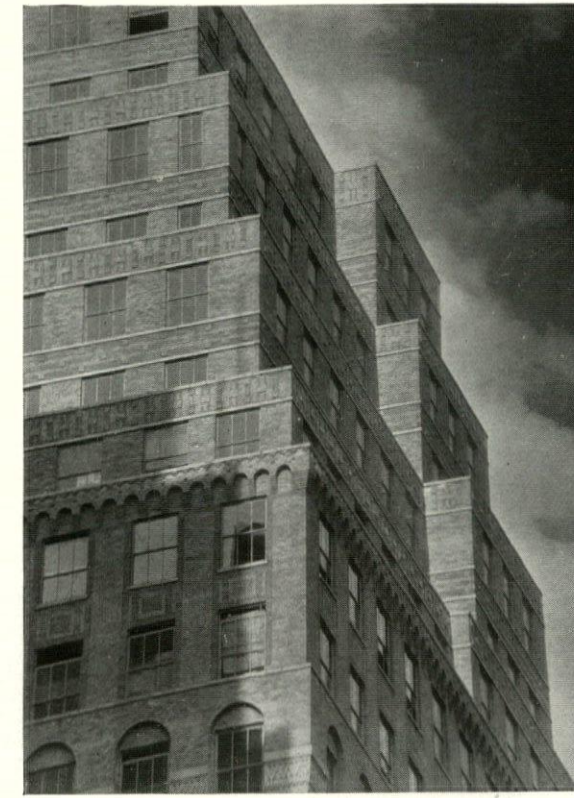
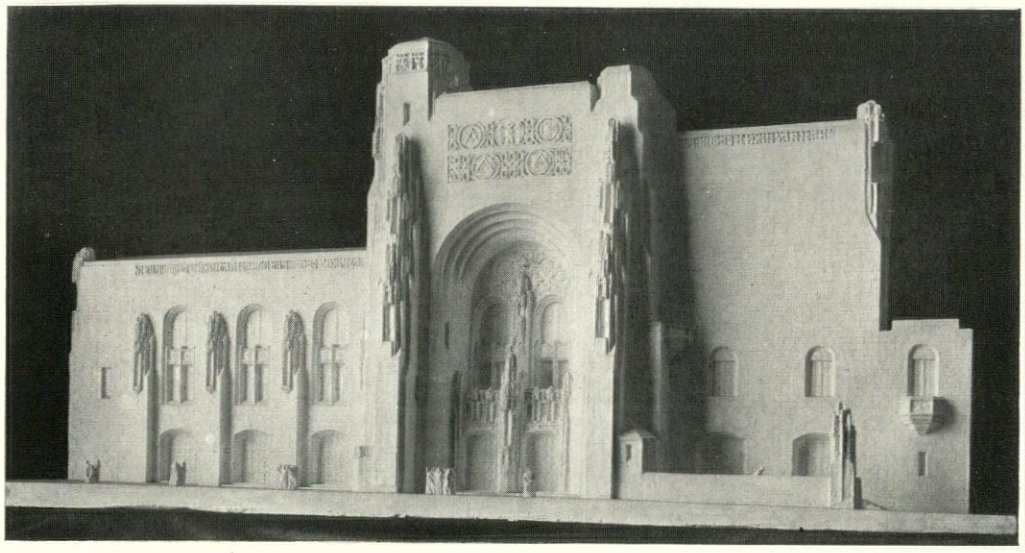


Photo. Sigurd Fischer *April, 1927*

INSURANCE CENTER BUILDING
Buchman & Kahn, Architects

NO. 1 FIFTH AVENUE, NEW YORK
Helmle & Corbett, Architects



MODEL FOR MASONIC TEMPLE AND SCOTTISH RITE CATHEDRAL, SCRANTON, PA.
Raymond M. Hood, Architect

vivified by a single fountain of splendid proportion, with a long curved colonnade of classic simplicity on either side, facing the basin, into which the water falls in abundant volume from high in the air. It has that beauty which Roosevelt loved, a simple dignity of character which goes so well with space and nature.

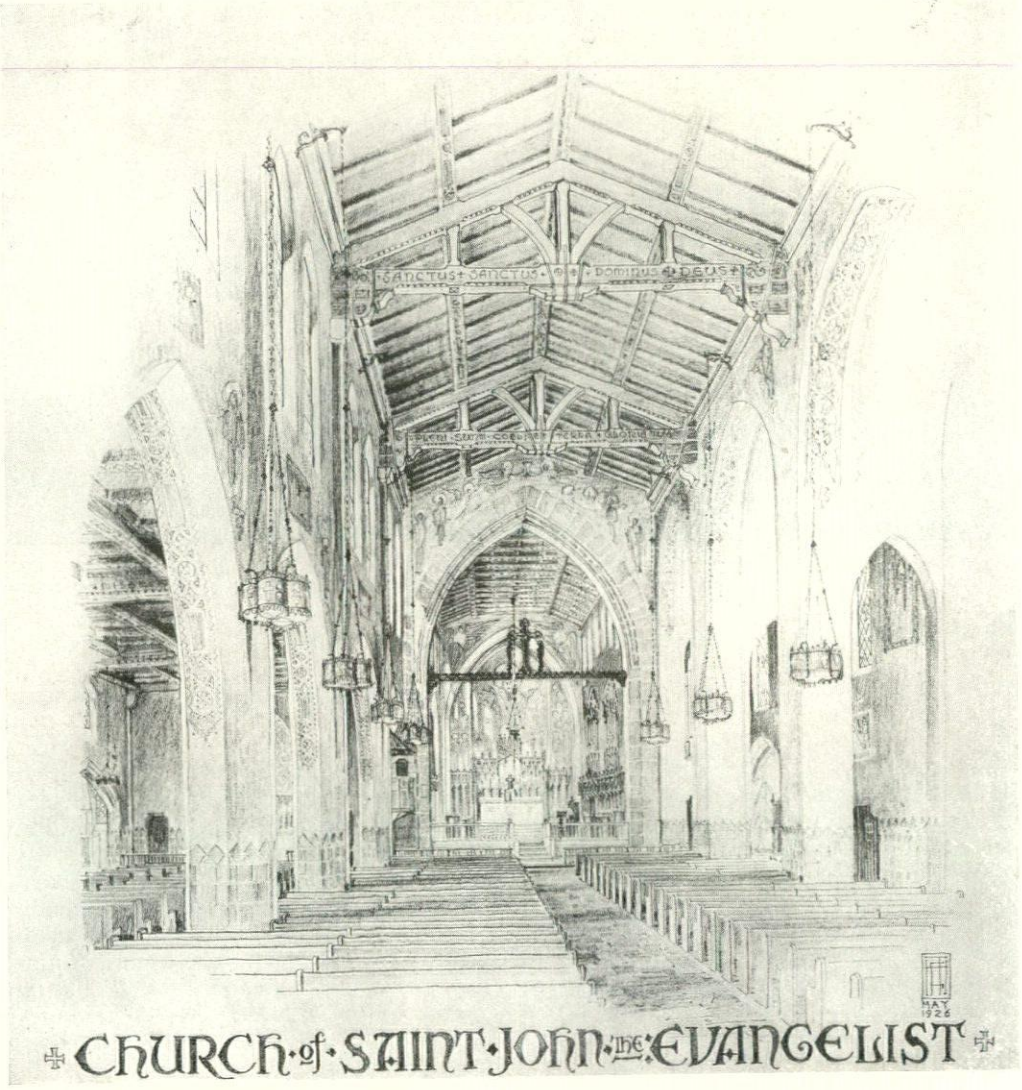
While we seem to be stirred deeply by extreme expressions of buildings—the very tall ones such as skyscrapers, or the very long and low ones, it is the medium normal expression which we see most of, such as houses, churches, and banks.

The houses are more beautiful, and their gardens more luxuriant than ever. Not only mansions and spacious dwellings of the more modest kind, but cottages, even tiny ones peek out to us between the well ordered planting with great allure. For houses and their design, photography is a good medium of illustration, but in most subjects of larger importance drawings are far more attractive than photographs, and color is better, too, than black and white, of which many masterful drawings are shown by such artists as Chester B. Price, Vernon Howe Bailey and others.

The great variety and interesting designs of houses, some of them illustrated with cunningly devised models, can be found well presented and arranged along the Lexington Avenue side on the main floor. Lack of space prevents special mention, although there are so many of great charm that careful looking over of this part of the exhibit will be both illuminating and profitable.

Churches are to be seen in several places on the walls. The new Cathedral of St. John the Divine, with the glorious central tower which has been so much discussed, leads all the rest. The new church of the Heavenly Rest by Mayers, Murray and Phillip is interesting in its original application of detail. A beautiful modest church of St. John the Evangelist is by Henry J. McGill and Talbot F. Hamlin, and in the handsome new Riverside Church on Riverside Drive, which is shown by a well executed model, Messrs. H. C. Pelton & Allen & Collens, associated architects, have solved the problem of an imposing group on a comparatively small lot by erecting a massive, tall and graceful tower over the entrance and the Chapel, while the auditorium of spacious dimensions is comparatively compact.

Speaking of places of worship, is there in the whole world a more sumptuous



Henry J. McGill and Talbot F. Hamlin, Architects

temple for the reverence we pay to mammon than the Bowery Savings Bank by York and Sawyer? Its beauty recalls the near east with its rare colored marble columns of colossal height, and its wealth of mosaic. It might belong to Venice when she was Queen of the East, and Mistress of the Adriatic.

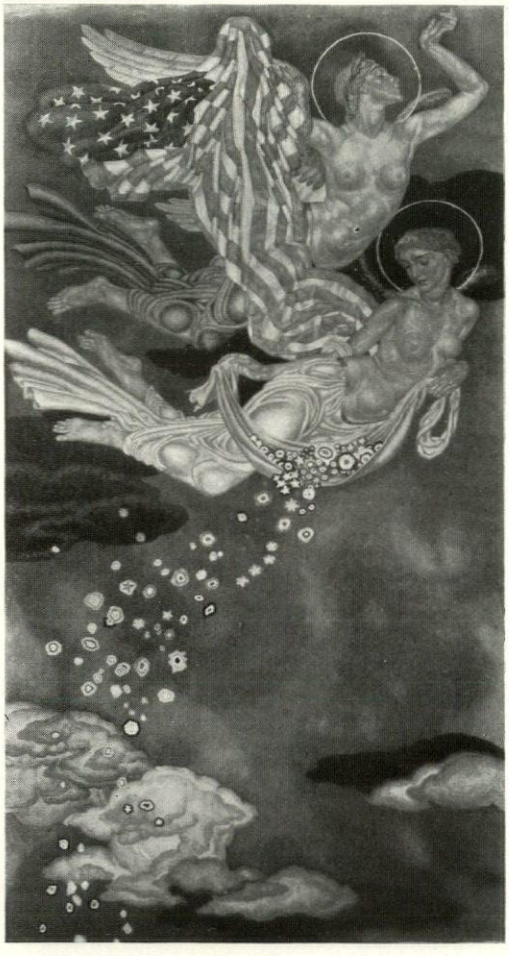
The Elks' National Memorial, Mr. Egerton Swartwout, architect, is so solid in architectural quality, so monumental in design, so interesting and human, that one is impelled to go to it, and in it, where one will presently see the group of wall decorations now seen high up in the big central hall of the Exhibition. These masterly compositions give one a real thrill. The symbolism is convincing and one senses the lofty memorial theme which inspired the painter, Mr. Eugene Savage. The two decorative and symbolical paintings which dignify the entrance at right and left are the work of J. Monroe Hewlett, the distinguished dec-

"THEY SHALL INHERIT THE EARTH"
One of the Studies for Mural Paintings in Memorial Hall, Elks National Memorial Headquarters Building, Chicago
Eugene Savage, Painter

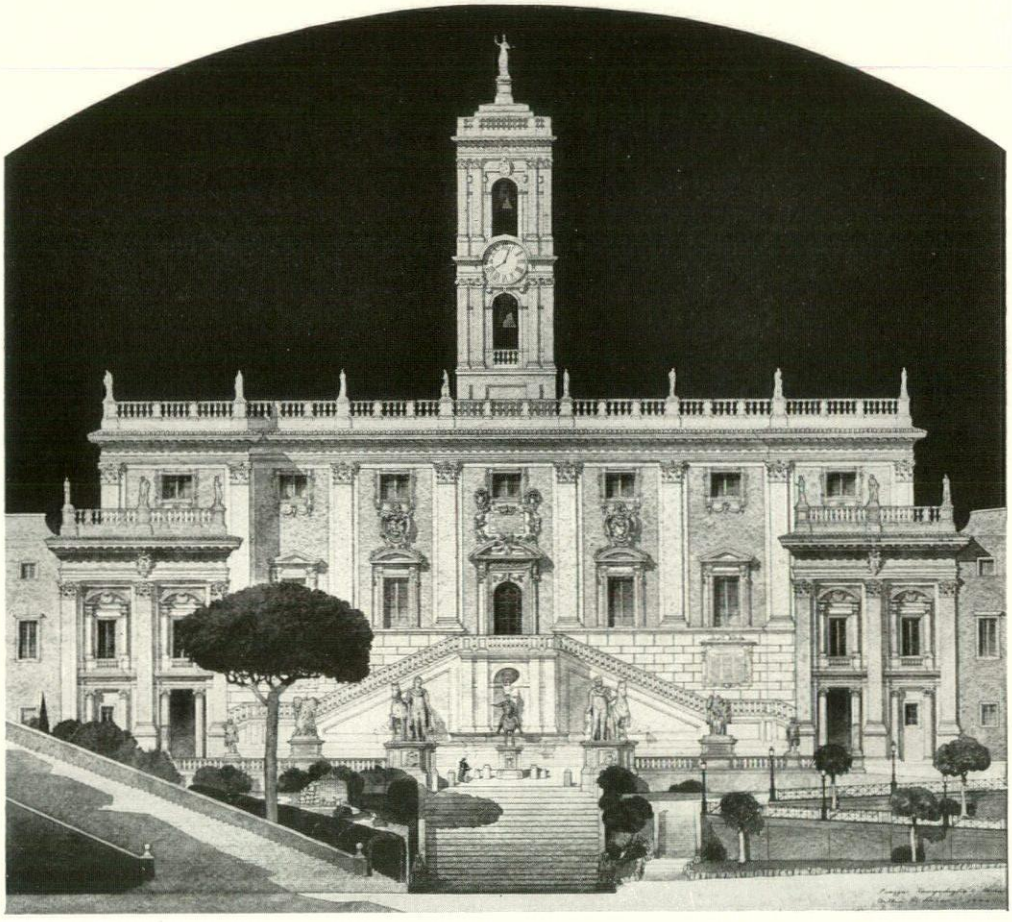
orative artist and architect. His training as architect seems to have contributed to the quality of design and dignity of the compositions, which have beauty of color and recall that essential virtue of belonging on the wall like a tapestry.

An interesting building to study is the Los Angeles Public Library by the late Bertram G. Goodhue, because we see in it a plain concrete structure without the usual mouldings, columns and cornices, quite contrary to the point of view usual in library designs. We expect to see the "Lamp of Sacrifice" burning in classic enrichment on libraries, and I predict that this view will in the end prevail, in response to the feeling for it demanded by the man in the street. It is human and age long, this demand that comes back again after new styles come and go. It is difficult, however, to combat the logic of the utilitarian simplicity of this building; it is also very difficult in pointing to this picture to guess just which is the library, so much are we the creatures of habit.

A picturesque façade of excellent design is shown in the Masonic Temple for Scranton by Mr. Raymond Hood. He has not let it run to hard verticals, but



"CHARITY"
One of the Studies for Mural Paintings in Memorial Hall, Elks National Memorial Headquarters Building, Chicago
Eugene Savage, Painter



CAMPIDOGLIO—ELEVATION

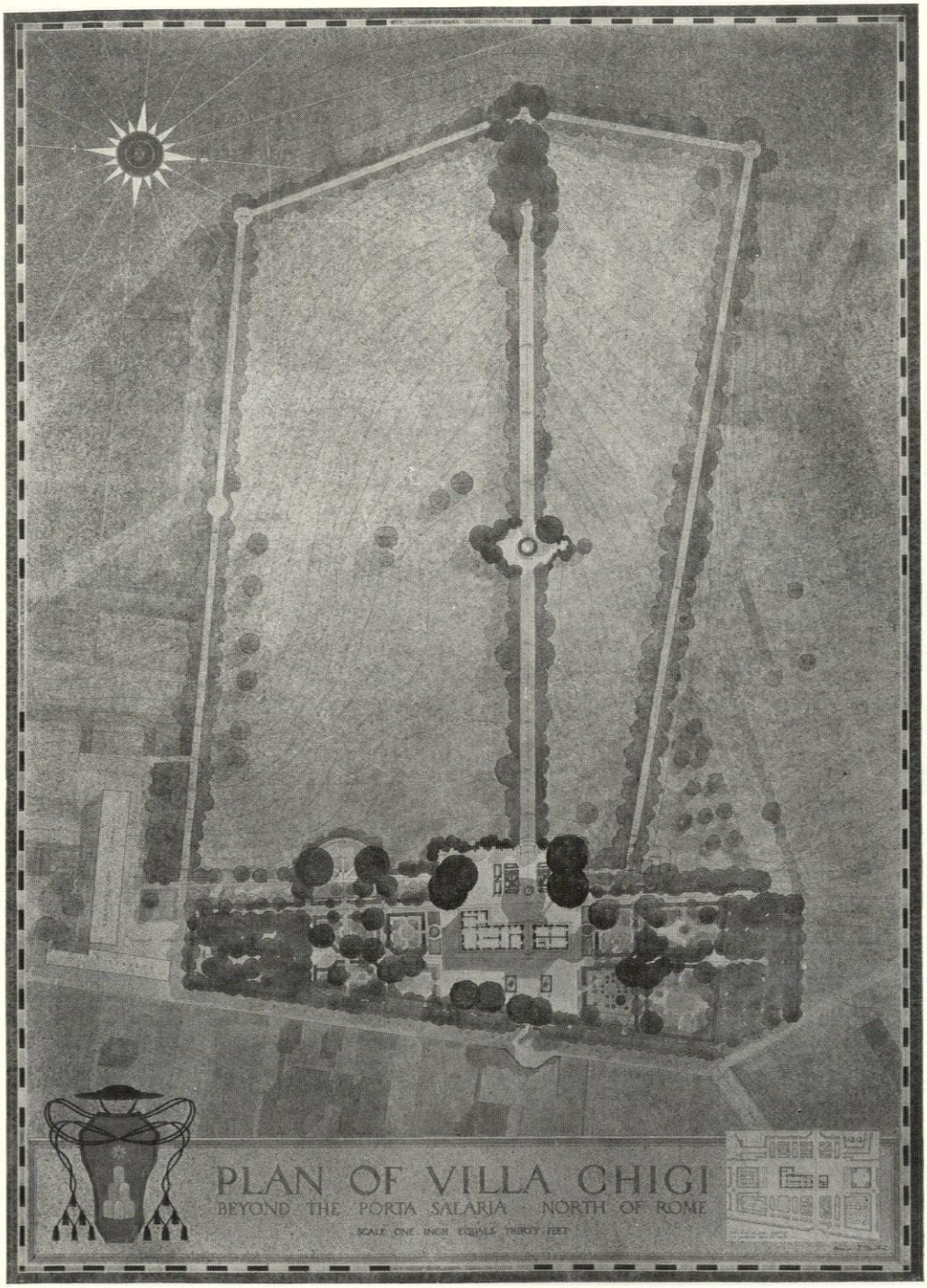
The Work of Arthur F. Deam, Fellow in Architecture, American Academy in Rome, 1923-1926

on the contrary has given it gracious lines and great beauty.

Commercial buildings such as those which line Fifth Avenue do not usually offer much pleasing diversity, but in the three story shop front by Geo. B. Post & Sons we find a charming design and a perfectly good shop front.

A notable experiment which became a real achievement is illustrated by the models of great size showing the application of color to architecture and its sculptural adornment. The Philadelphia Museum of Art, designed by C. L. Borie, Jr., Horace Trumbauer and Clarence Zantzinger, is the subject of this problem in polychromy. It is in a classic style, adorned with colored sculpture by Paul Jennewein and John Gregory, both Fellows of the American Academy in Rome and League medalists. The polychromist was Leon V. Solon, who devised colored glazes on the terra cotta, which simulates the Greek idea of color decoration. It is to be hoped that this achievement will lead to further studies, for the beauty attained in the first effort is most encouraging.

We cannot go far in the show without encountering more skyscrapers. New York is proud of this new kind of building and justly so, for the architects are doing so well with it. For instance it makes a very good looking and conven-



The Work of Norman T. Newton, Fellow in Landscape Architecture, American Academy in Rome, 1923-1926

ient hospital as shown in the design by York & Sawyer for Pittsburgh.

A loft building by Buchman & Kahn illustrates the set back principle carried to its logical conclusion. Rows of utilitarian square windows are woven into the design with excellent effect. The mural treatment recalls, by its simple brick designs, the richness of some of the Mayan wall decorations.

The Equitable Trust Company building by Trowbridge & Livingston gives the impression of great power and good disposition of masses. No. 1 Fifth Avenue by Helmle & Corbett, architects, is also a very handsome building.

Original ideas on the problem of stadia are seen in Exhibits 436-437. Quite unlike the Roman and Greek stadia, these seem to be the relics of some disaster in the surprising, but, after all, probably very practical forms they show.

School exhibits show amazing progress in elemental study of drawing and design, some of it almost professional in quality. Life drawing, the final test of lineation, is studied almost everywhere, and it is to be hoped that this influence will convince our rising artists that beauty of line and subtlety of proportions will prevail after the primitive crudeness now so popular has had its inning.

Landscape architecture is represented admirably in Exhibits 799, 802 and 805, these being only a few examples selected among many delightful pictures in the Lexington Avenue side, where an amazing exhibition is hung.

The new North River Bridge of which Mr. Cass Gilbert is the architect of the shore-ends, is a massive and impressive terminus to the beautiful catenary curve of the steel fabric.

Steel towers such as in No. 245 to 251 seem to lack that sturdy quality one expects to see under a stretched fibrous cord strung like the fiddle string over its sturdy wooden prop. Stone seems the only satisfying expression of this massive support. There seems to be an unsolvable problem in making the towers and anchorages look adequate to the function they perform—they seem oblivious to the terrific strain going on.

The American Academy in Rome exhibits the work of the returning Fellows in a number of media. The copy of Botticelli by Francis S. Bradford, the beautiful fountain by Mr. Alvin Meyer, sculptor, the Piazzi Campidoglio, by Arthur F. Deam, architect, the Villa Chigi by Norman T. Newton (returning fellow in Landscape Architecture), are only a small part of the evidence of the powerful influence for sound art which surrounds the young artists in the American Academy in Rome.

Although almost lost among some unimportant highly colored exhibits, one can find the well studied scholarly designs for the improvement of East River Front of New York and the development of the Harlem River territory in a comprehensive plan which will repay careful study. Included are masterly presentations by Mr. Francis H. Swales, designed for the Committee on the Plan of Greater New York and its Environs of the Sage Foundation.

What would Ictinus, Vitruvius or William of Wykeham say of our show? It is as far away from their ideas of buildings as our aeroplane and radio are from the methods they used for going about and talking to each other. Would their solutions of our problems differ from ours in the essentials? No! They were greater artists, and would make the buildings more beautiful, but they could not vary the essential character of our buildings, which comes from the use of steel. Architecture is the creature of the conditions imposed on it by the peculiar necessities and culture of the time. It cannot be and never has been otherwise.

BOSTON DRY POINTS

By
Hubert G. Ripley

X. The New State House

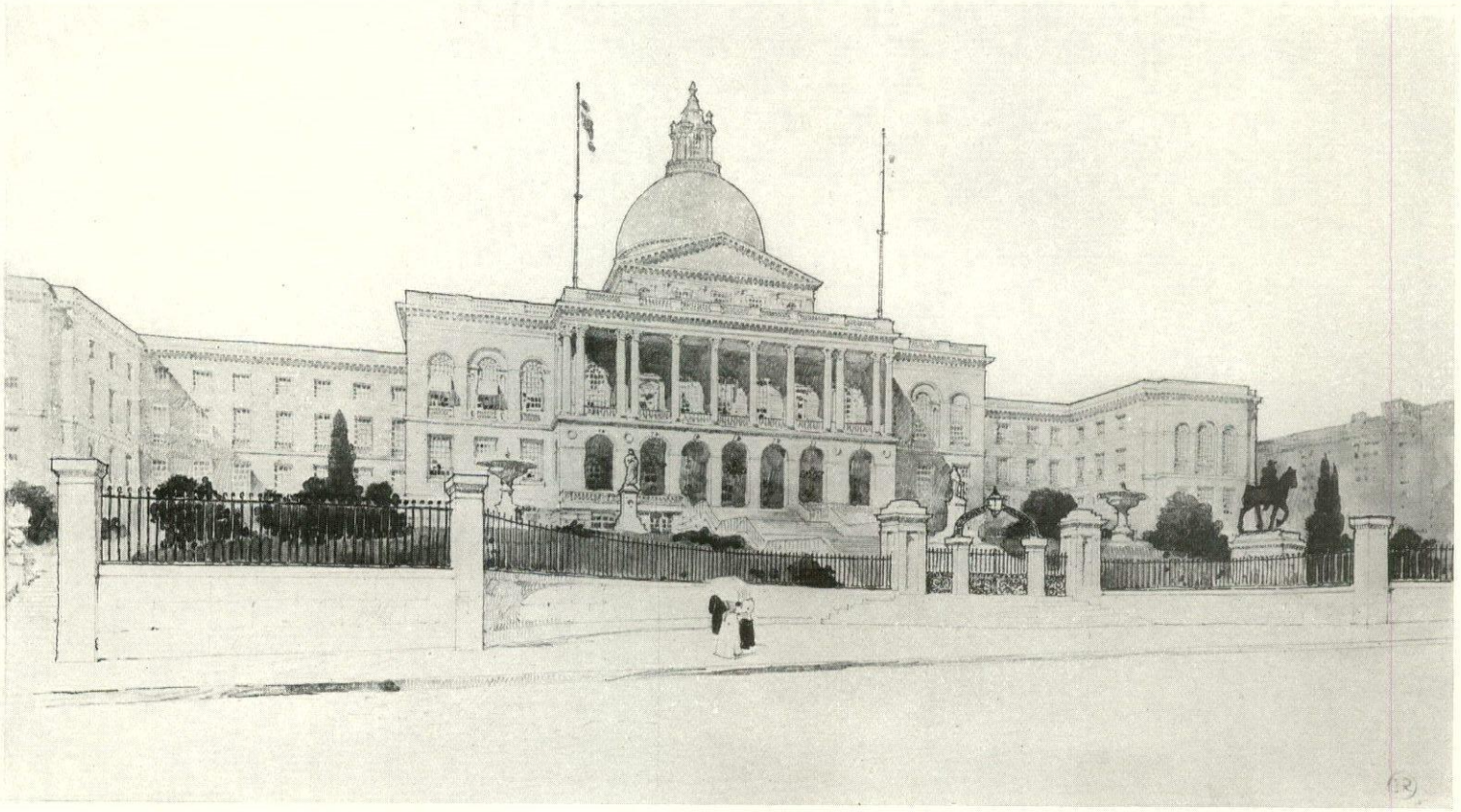
STRICTLY SPEAKING, THE new State House is fairly old. The Bulfinch Front, as it is called, was erected in 1798; the wings were added only a few years ago. Beacon Hill formerly rose higher than the State House itself and was crowned with a handsome Doric shaft topped with ball and eagle, designed by Charles Bulfinch in 1790 to commemorate the battle of Bunker Hill. Bulfinch, when still a young man, had designed the first Boston Theatre in 1794, much to the perturbation of good Samuel Adams who succeeded Hancock as Governor of Massachusetts, to whom the idea of a theatre was a sad commentary on the worldly tendencies of the time. Our Puritan ancestors were fashioned of stern stuff, and took their Rum and Religion very seriously. They had no sympathy with Antinomians.

"Doctor" Edward R. Benton, noted *raconteur*

Dr. Benton took his degree in Rudesheimer Rothenburg in the Heart of the Hartz Mountains. He is pictured going home in a trolley car after the meeting
Drawn by E. F. M.

The present harmonious appearance of the State House is largely due to Bob Andrews, who designed the marble wings in harmony with the old structure which stands between them. While the Gilded Dome may not lay claim as a supreme work of art, it has a quaint, spinsterly quality not without considerable charm. The Boston Society of Architects has always stood as a valiant champion of the old building, barring the path, with drawn truncheon, to those who would lay sacrilegious hands on its ancient bricks, sacred codfish and delicately formed Corinthian capitals.

It is fitting that mention be made of the Boston Society in the hey-day of its virility, and the following account of one of its meetings may serve to picture the Attic mould in which its members were cast. To these men, in conjunction with others should be given the



STUDY FOR THE NEW WINGS OF THE "BULFINCH" FRONT, MASSACHUSETTS STATE HOUSE

(From a drawing made for Mr. Andrews about 20 years ago. It is very like the design as executed)

R. D. Andrews, W. Chapman, R. Sturgis, Associated Architects

credit for the present unique structure that crowns Beacon Hill. As the flashing rays of the setting sun from its golden dome illumine the ships far down the harbor, so the intellectual beams of those whom it has sheltered illumine the nation.

The first Tuesday in April, as every school boy knows, is St. Wiligelmus' day. The first Tuesday in April is also, in accordance with its by-laws, the date of the regular meeting of the Boston Society of Architects. Twenty years ago, it might possibly have been nineteen or twenty-one, it doesn't matter particularly, Tuesday fell on the first day of the month.

Whether that date was chosen for balatronic reasons, or whether the framers of the by-laws wished to pay honor to the memory of that noted XIIth century architect (see footnote) scholar and saint —the man whose art enriched Provence and Dauphiné in the period of commotion and wild strife that followed the dissolution of the empire of Charlemagne, is not certain.

It occurred to Louie Newhall that the triple anniversary demanded some significant form of expression. Louie was President of the Boston Architectural Club and his vigorous administration of the office had brought him national prominence, as one might say, concerning matters of architectural policy. He had just been made an "associate" of the A. I. A. ("Fellow" 1914) and this meeting was in the nature of his debut.

In collaboration with Billy Austin and Waddy Longfellow, both of whom had been members of the Boston Society since birth, a telegram was concocted, purporting to come from the Washington State Chapter, asking the support of the Boston Chapter in a protest against the adoption of the "Competition Code" and "Canons of Ethics," without certain radical changes.

At that time the profession was in virtual accord on the ideas enunciated by the code and the Institute was merely asking for a ratification in principle from each chapter. J. Randolph Coolidge, or Ranny as he was familiarly known to all, was President of the Boston Society. It would be difficult to imagine a more ideal presiding officer. Tall, dignified, strong-featured, endowed with a magnificent voice, the gift of oratory combined with a rare facility of expression, his simplest words commanded deep respect. Had he chosen to do so, it was within the power of his eloquence to wring tears from a stone by the mere recital of the multiplication table. His *tendon Achillis* was his sense of humor.

Louie's plot was laid with the idea of arousing an animated discussion into which Ranny would be drawn, and the conspirators would then sit back and enjoy the fireworks. The meeting was held in the Crystal Room of the old Parker House, now unhappily defunct, like so many of the dear departed.

This room was on the second floor just around the corner from the main stairs, and its walls were covered with mirrors and half Ionic columns so that, once inside seated at table, the room looked illimitable, and even a small gathering of people was reflected a thousand times down the stately aisles of classic colonnades stretching as far as the eye could see in all directions. Large chandeliers of Venetian glass with dangling prisms heightened the effect. Best of all, there was a small bar-pantry just across the corridor next to the serving room, from whence issued handsome waiters in snowy aprons carrying large trays of sparkling glassware containing delectable liquids on which floated bits of orange and lemon peel, or in which nestled olives and maraschino cherries, depending on whether the order was "Manhattan," "Bronx," "Martinez," "Lone Tree," "H. P. W.," "Orange Blossom," "Daiquiri" or otherwise. We usually met

---

Exact dates and information of the works of Wiligelmus are sadly lacking. We know, of course, that he spent considerable time in Northern Italy, where he studied under Diotisalvi, Busketus and Rinaldus, and for a while was clerk-of-the-works under Bonaunus and William of Innsbruck. Following this probationary period, he went to Southern France, where there was great building activity at that time in Arles and Avignon. Many famous buildings are attributed to him, the fruit of his Italian studies and the youthful fermentation of a mind of exceptional genius. May we learn more concerning him!

in twos and threes in the bar just off the lobby at the street level, where the preliminary libations were poured out and mutual health pledged. After a visit to the free lunch table where choice fillets of salted cod, olives, Cheddar cheese, gherkins and oyster crackers were on display, it was a long and exhausting walk across the main lobby and up the stairs, so that more sustenance was needed in the foyer of the Crystal Room. Usually the unrivaled food of the Parker House demanded the accompaniment of a bottle of Haute Sauterne, Old Beauue, or perhaps a large pewter mug of Bass-on-Draught. The "large pewters" held almost a quart and had nice etched rings around the outside, gracefully formed handles that invited a hearty clasp, and clear glass bottoms through which one could see his vis-a-vis across the festive board. Those were the days when a society meeting was a society meeting.

A. P. Rilfirst, F.A.I.A., from Life

After the coffee had been served accompanied by ponies of Hennessy for some, Green Chartreuse for others (George Will always preferred two ponies, and once he ordered a Pousse-café), the meeting was called to order. Routine business being over, Louie rose explaining that being new to the Society, it was with some hesitancy he called the attention of the members to a telegram he had received that afternoon.

He felt that in justice to our brethren on the Pacific Coast, he should acquaint the meeting with its contents and leave the matter to their ripened judgment. He then read the following message to the assemblage:

Louie C Newhall President
Boston Architectural Club
Boston Mass

Washington State Chapter asks Boston Chapter to join with them protesting adoption competition code. Conditions here demand modification, greater freedom and recognition of rights of individual members Urge delay

(Signed) A. P. RILFIRST
Secretary.

An awed silence, interrupted only by a slight spasm of singultus from the far end of the table where Dr. Benton was seated, and the hurried footfalls of the waiter, bringing a glass of Hot Scotch, fell on the vast throng, reflected a thousand times in the mirrored walls of the Crystal Room. Everybody glanced apprehensively about, but all they saw was 1,600 white-aproned waiters carrying 1,600 steaming glasses of Hot Scotch to 1,600 Dr. Bentons.

It was a tense moment. Billy Austin rose slowly from his seat, pushed aside his empty pewter, rearranged the salt and pepper boxes, moved his coffee spoon deliberately to the opposite side of the saucer and addressed the chair, "Mr. President and fellow members of the Boston Society of Architects: I should like to say a word in behalf of our far away brethren, who have appealed to us in their hour of need. May we not be found wanting in sympathy and support for the gallant fight they are making in this struggle for existence against heavy odds. It is difficult for us to realize, seated here surrounded by every luxury, honored by our fellow citizens, treated

"Ruty" or "Little Sunshine"
Drawn by E. F. M.

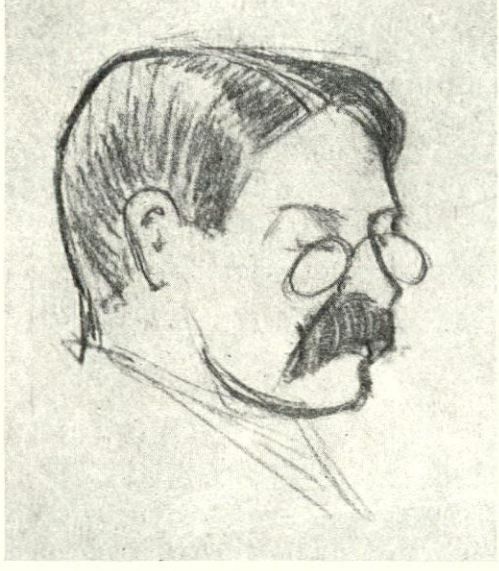
almost as equals by the great captains of industry who control the busy marts of trade, that under the same flag that floats so proudly above the gilded dome of our incomparable State House, far, far away where the thundering billows of the mighty Pacific wash the golden sands of Juan de Fuca, a noble band of lonely comrades is fighting in the cause of Freedom!" There his voice broke slightly and he paused for a moment, while each looked inquiringly at his neighbor. Warming to his subject, Billy launched out in a fervid plea for Freedom. He was well equipped for the part, having on many occasions achieved Thespian laurels.

He could recite long passages from Shakespeare and had appeared on Boston stages in "King Henry VII," "The Merry Wives of Windsor," "King Lear" and "Much Ado About Nothing," for the benefit of the Floating Hospital.

He quoted Patrick Henry, Kosciusko, and Toussaint L'Ouverture, ending with a peroration from "Julius Caesar," when Brutus, filled with the ardor of Liberty, plays on the emotions of the Roman mob as on the strings of a lute. Mopping his brow, he sank into his seat amidst the tumultous applause of the audience.

Waddy Longfellow then jumped up, fired with zeal for bleeding Seattle, Tacoma, Olympia and Bellingham and with keen logic ably defended the insurgents. Next Cram, who was in the secret, spoke so passionately, even if a bit vaguely, that his hearers while somewhat confused and bewildered were persuaded that there must be great merit in the demands of these rugged pioneers of the far West, those "blazers of unfathomable trails in the trackless forests, that shroud the heaving slopes of Mt. Ranier" (or Mount Tacoma, depending on the locus of the speaker). It was a masterly effort of Cram's and a field day for the cause of Liberty.

The meeting was almost swept off its feet. Had it not been for the sage coun-



"R. S. P.", the big boss,
one time doyen of the profession in Boston
Drawn by E. F. M.

cils of a few wise heads, there is no knowing what would have happened. Billy Austin leaned over to Waddy Longfellow and whispered, "For the love of Pete, Waddy, now we've started this thing, how in thunder are we going to stop it?" It looked black for the "Code," that splendid document in the making of

which nobody knows how many highballs and seidels of "dark" had been consumed.

George Lawrence Smith finally got the floor and spoke strongly in behalf of the framers of the Code. George is perhaps one of the handsomest men in Boston. His hair resembles the sculptured locks of the Apollo Belvedere, tinged prematurely with gray, for George at that time was one of the younger members. Being such, he hesitated to criticize the views expressed by his elder confrères, and found himself in a somewhat embarrassing position. But George never faltered; loyalty to the Institute and his plain duty as one of its members urged him to speak out, and he did.

Others followed along similar lines and the room echoed to the phrases, "economic waste," "results previously achieved by men eminent in the profession," "equitable relations," etc., etc.

During all this discussion which lasted far beyond the usual time for adjournment, Ranny had great difficulty in keeping his seat. He had grown perceptibly redder when at last he resigned the chair and rose to speak to the question.

"Gentlemen!" he boomed, and his great voice shook the prisms on the chandeliers; Sam Brown, who always leaves a bit early, jumped and almost collided with the waiter at the door bringing in a fresh tray of glassware. "Gentlemen, as President of this Society, I feel it my duty to talk plainly. The Boston Chapter is antedated by few in membership in the Institute. It has a proud history. It has always stood just as staunchly for the cause of Freedom and Liberty as the early patriots who shed their blood at Concord, Lexington and Bunker Hill!

"I am deeply grieved that some of our honored members seem to have forgotten the hand that nurtured them. It is conceivable that our Western brethren may for a while find the pioneer's task a hard one. Better for them that, after the storm and stress, after their hour of travail, they may seek a safe harbour of refuge where welcoming arms are outstretched to minister to them the soothing balm of conscientious rectitude.

"What shall we say if those who should stand fast are found wanting? Obedience to law is Liberty. In the words of that great patriot, Samuel Adams, 'as Massachusetts led the thirteen colonies, the town of Boston led Massachusetts!' May it be said of us—'They have kept the faith!'"

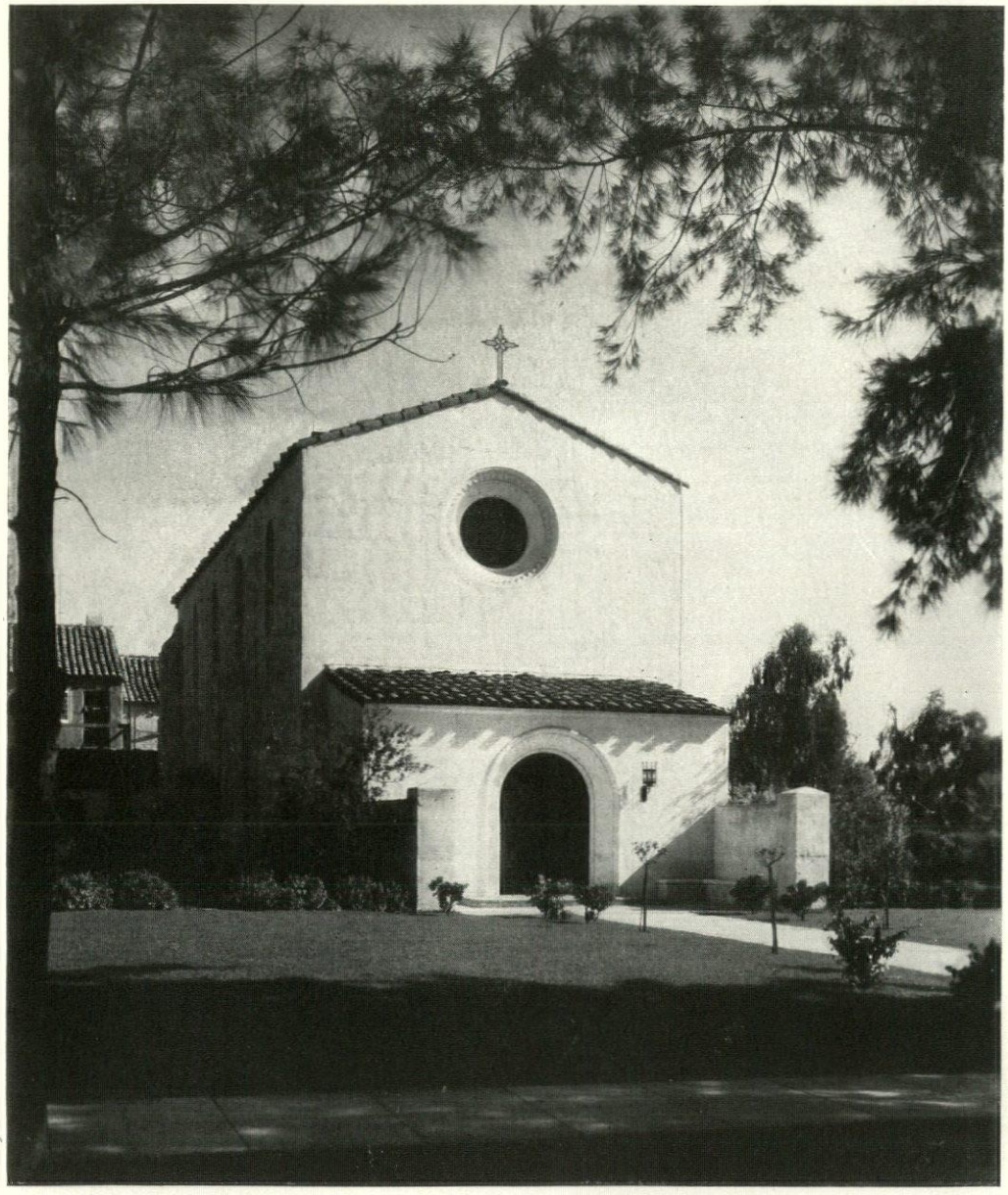
It was twenty years ago, maybe nineteen or twenty-one, and Ranny's exact words cannot be recalled. Their effect on that vast audience, reflected a thousand times in the mirrored walls, was electrical. The memory of it will not soon fade. Louie Newhall was strangely moved. Billy Austin rose and stated briefly that never before had he realized the power of oratory. The speaker was right he had been mistaken. His viewpoint had completely changed. He asked if Mr. Newhall would read the telegram once more. Louie did so, but when he came to the secretary's name, instead of reading it A. P. Rilfirst, he read it, April first.

Prof. H. Langford Warren
(prominent in Institute activities)

From a pencil sketch
by A. B. Le Boutillier

PORTFOLIO

CVRRENT · ARCHITECTVRE



ALL SAINTS EPISCOPAL CHURCH, BEVERLY HILLS, CALIFORNIA
Roland E. Coate, Architect

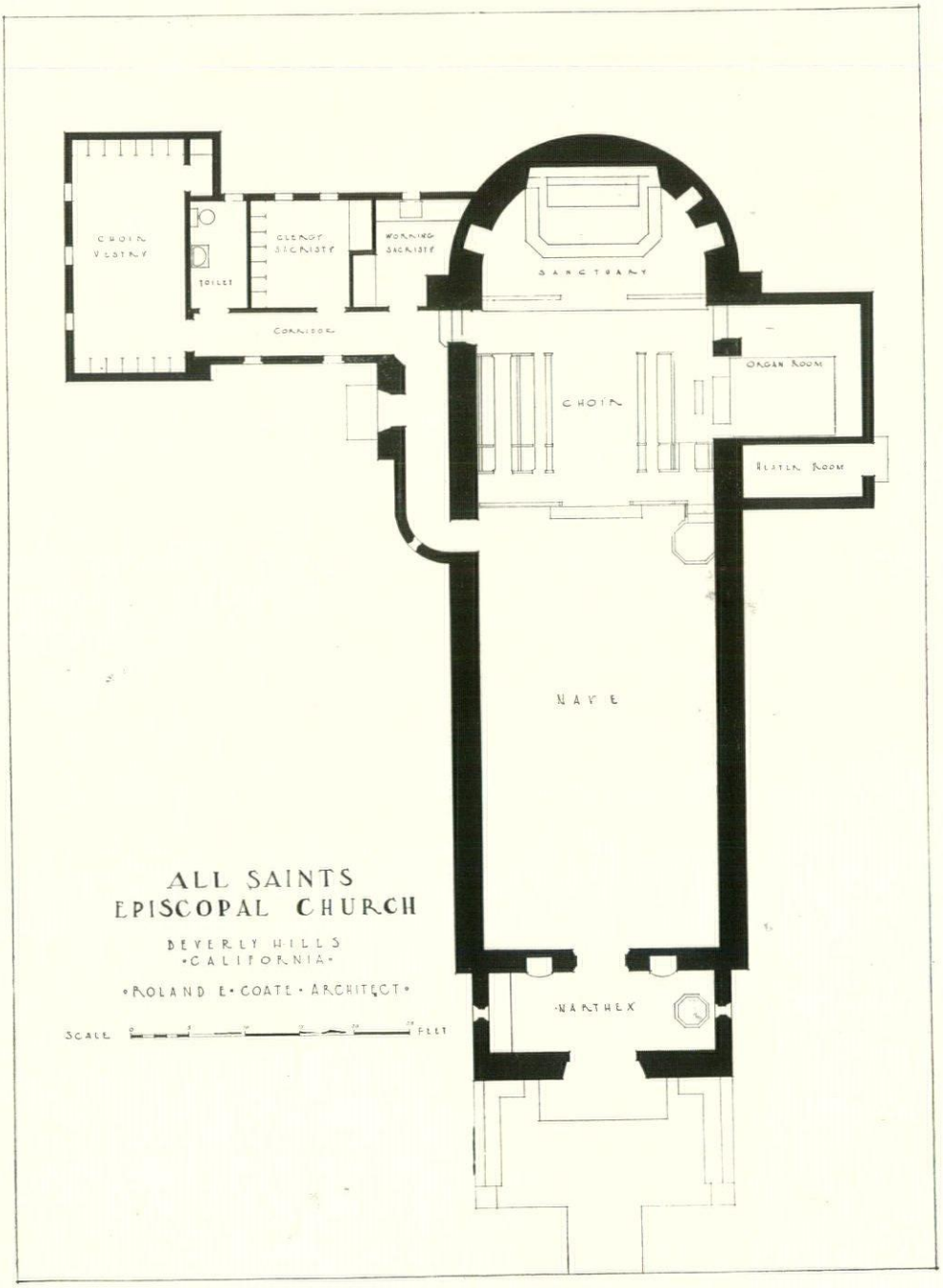
ALL SAINTS EPISCOPAL CHURCH

Beverly Hills, California

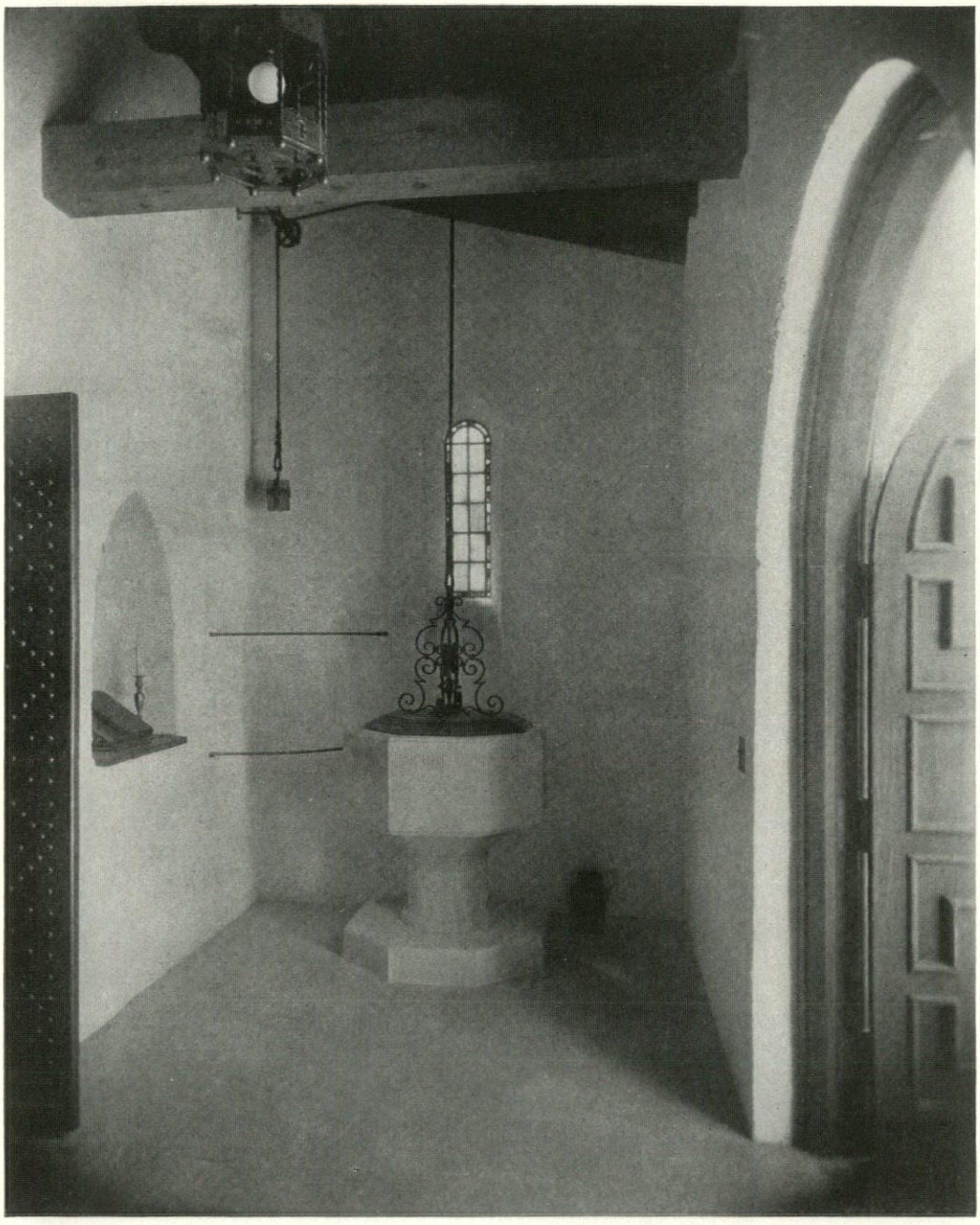
The type of construction used is interesting. Walls are hollow and are built of reinforced concrete without plaster on either exterior or interior. In fact plaster has not been used on any part of the building. All walls have been treated with ordinary whitewash. Floors are of masonry, hand-made Spanish tile being used in the church proper and stained cement in the vestry rooms.

The large hanging at the west end of the church (see page 325) takes care of the acoustics. This hanging was considered as part of the original design and has proved most effective.

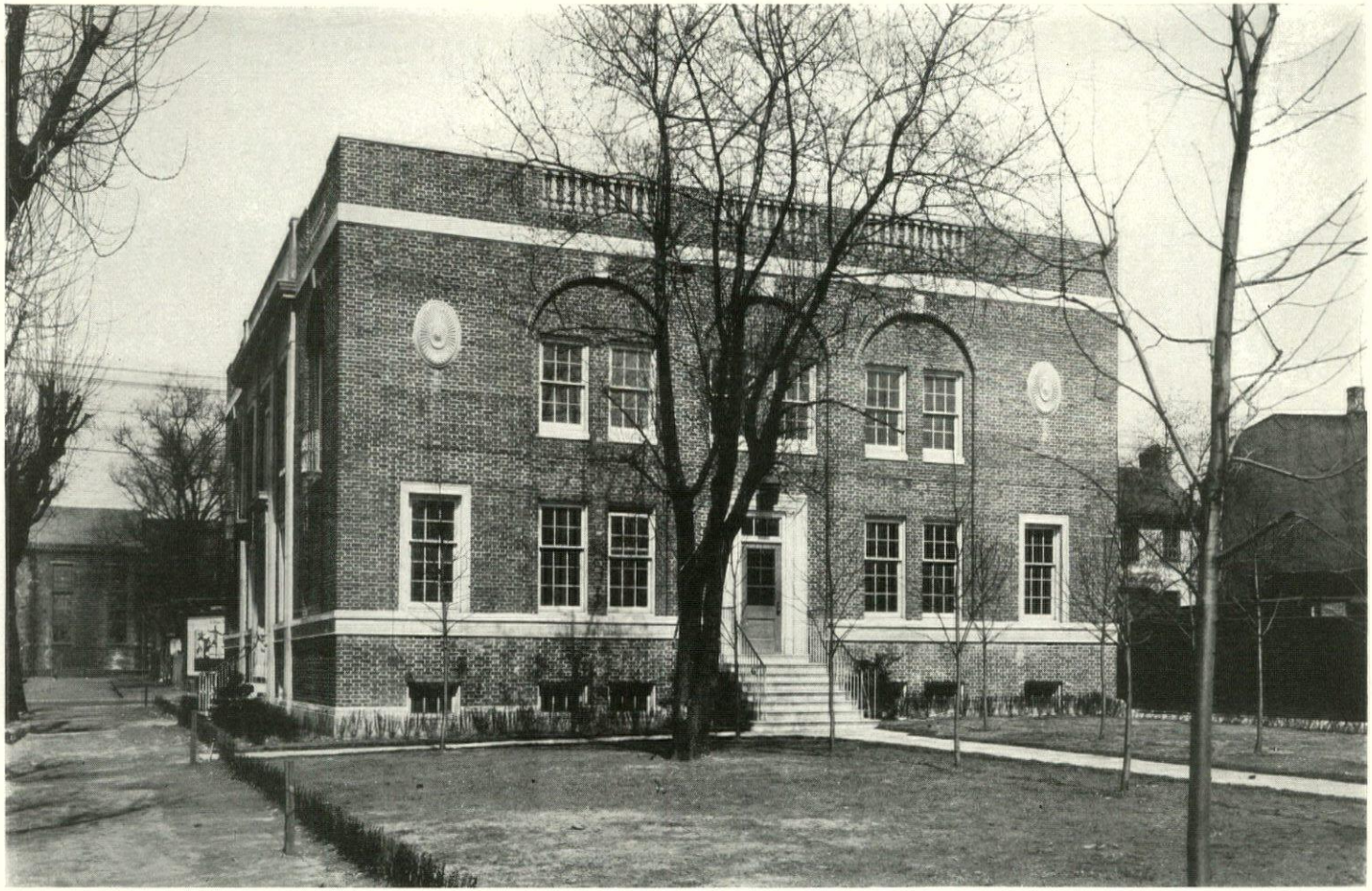
ALL SAINTS EPISCOPAL CHURCH, BEVERLY HILLS, CALIFORNIA
Roland E. Coate, Architect


CHOIR VESTRY
TOILET
CLERGY SACRISTY
WORKING SACRISTY
CORRIDOR
SANCTUARY
CHOIR
ORGAN ROOM
HEATER ROOM
NAVE
NARTHEX
ALL SAINTS
EPISCOPAL CHURCH
BEVERLY HILLS
CALIFORNIA
ROLAND E. COATE · ARCHITECT
SCALE
FEET

ALL SAINTS EPISCOPAL CHURCH, BEVERLY HILLS, CALIFORNIA
Roland E. Coate, Architect

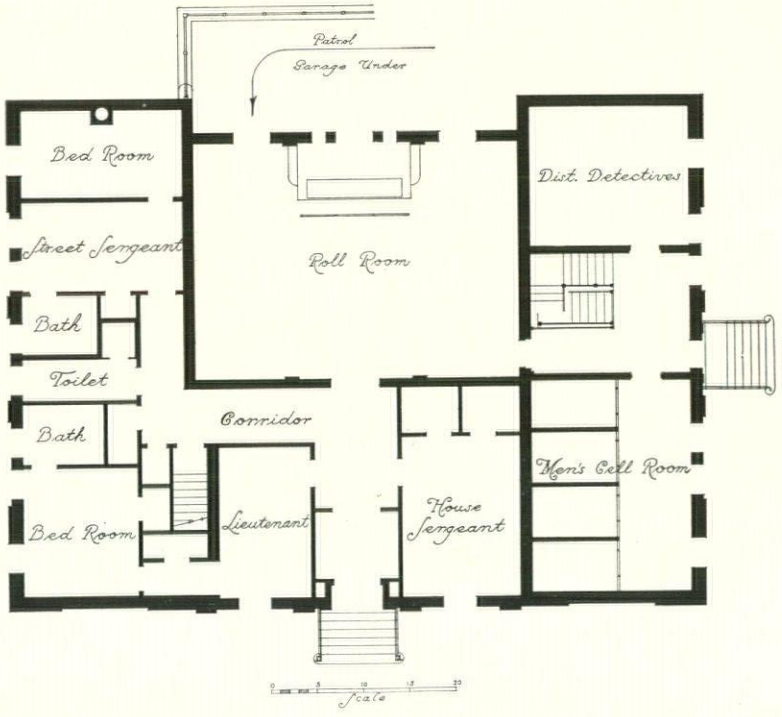


ALL SAINTS EPISCOPAL CHURCH, BEVERLY HILLS, CALIFORNIA
Roland E. Coate, Architect



FORTY-SECOND DISTRICT POLICE STATION, PHILADELPHIA, PA.

Davis, Dunlap & Barney, Architects



Floor Plan

FORTY-SECOND DISTRICT POLICE STATION, PHILADELPHIA, PA.

Davis, Dunlap & Barney, Architects

STREET FRONT, FORTY-SECOND DISTRICT POLICE STATION, PHILADELPHIA, PA.
Davis, Dunlap & Barney, Architects

GARDEN FRONT, FORTY-SECOND DISTRICT POLICE STATION, PHILADELPHIA, PA.
Davis, Dunlap & Barney, Architects

CHANCEL OF THE FIRST PRESBYTERIAN CHURCH, FIFTH AVENUE AND TWELFTH STREET NEW YORK

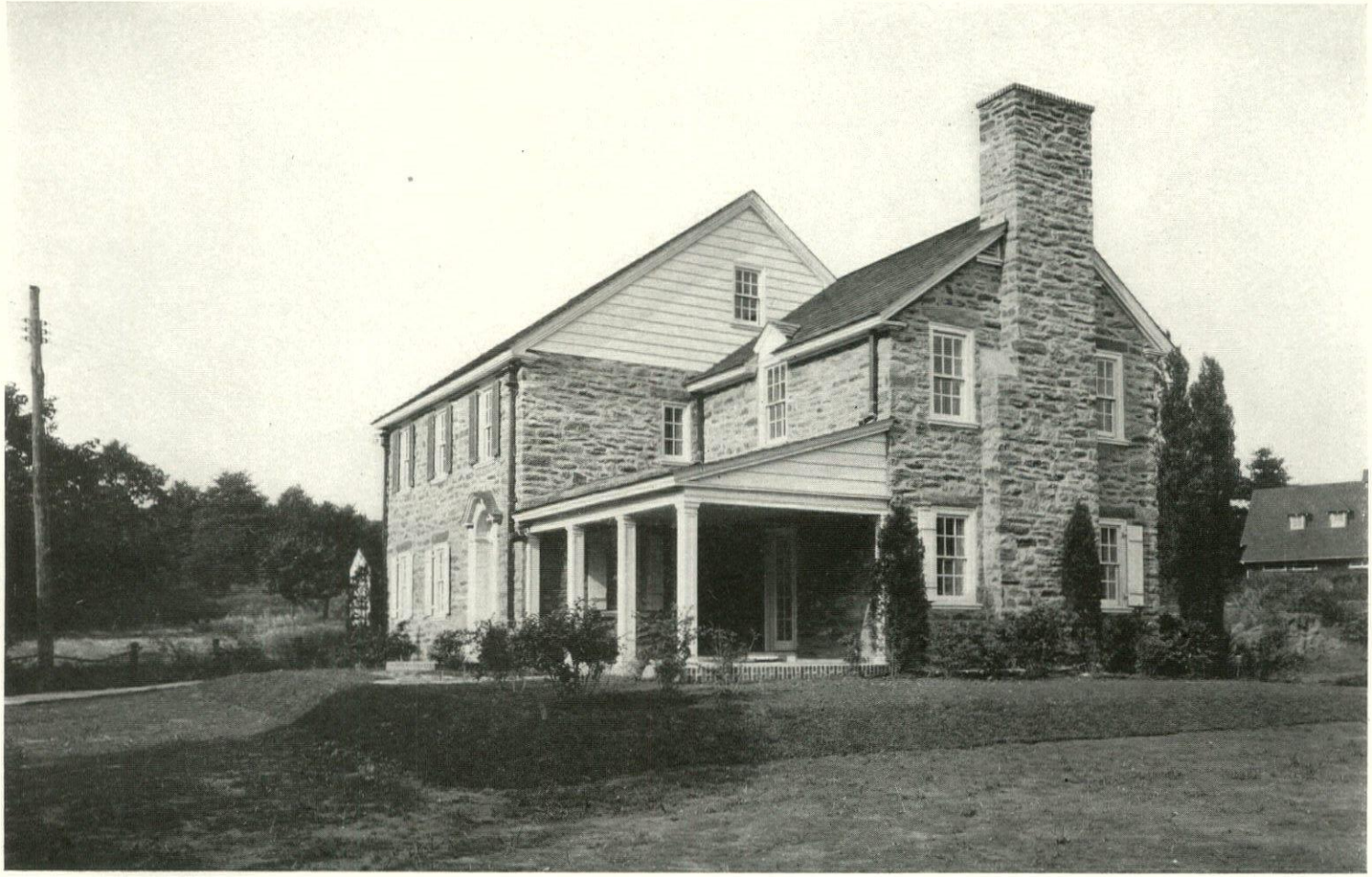
Grosvenor Atterbury, Architect

Stowe Phelps and John Tompkins, Associated

Photo. Gottscho

A HOUSE AT WYNNEWOOD, PENNSYLVANIA

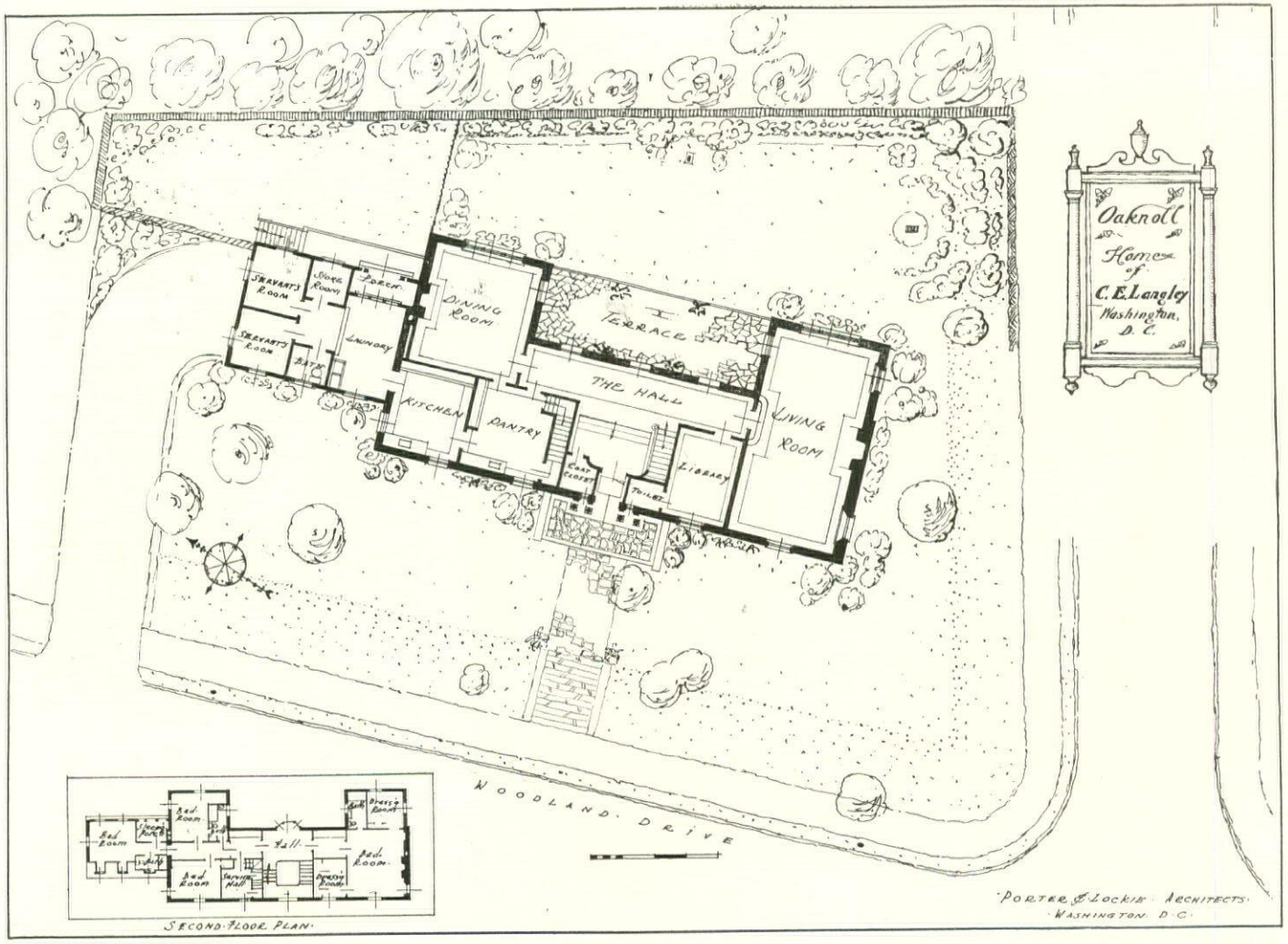
Boyd, Abel & Gugert, Architects

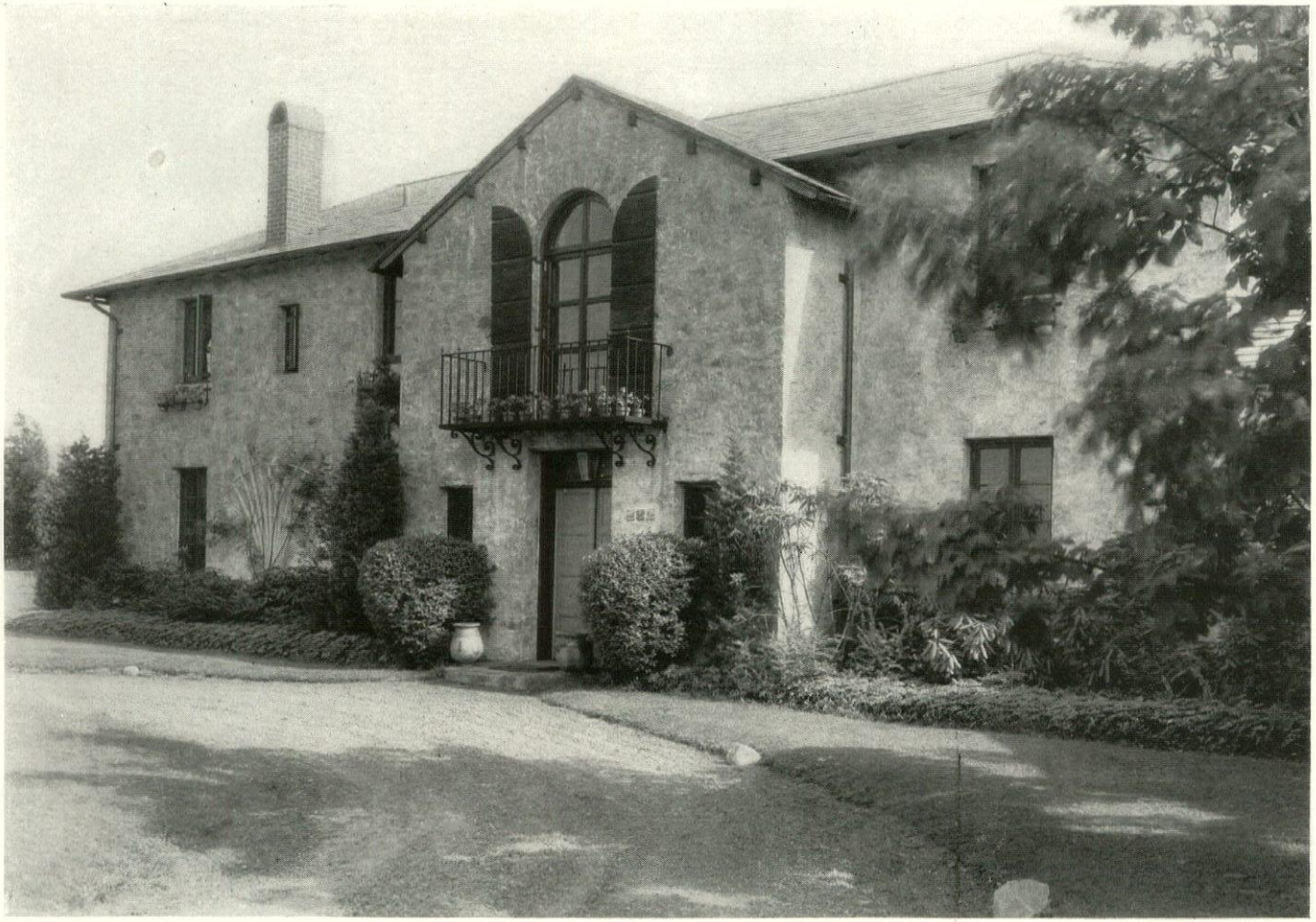


A HOUSE AT WYNNEWOOD, PENNSYLVANIA

Boyd, Abel & Gugert, Architects

"OAKNOLL," RESIDENCE OF C. E. LANGLEY, ESQ., WASHINGTON, D. C.
Porter & Lockie, Architects


Oaknoll
Home of
C. E. Langley
Washington, D. C.
SERVANT'S ROOM
STORE ROOM
SERVANT'S ROOM
LAUNDRY
BATH
DINING ROOM
TERRACE
KITCHEN
PANTRY
THE HALL
LIVING ROOM
LIBRARY
WOODLAND DRIVE
SECOND FLOOR PLAN
PORTER & LOCKIE ARCHITECTS
WASHINGTON D.C.



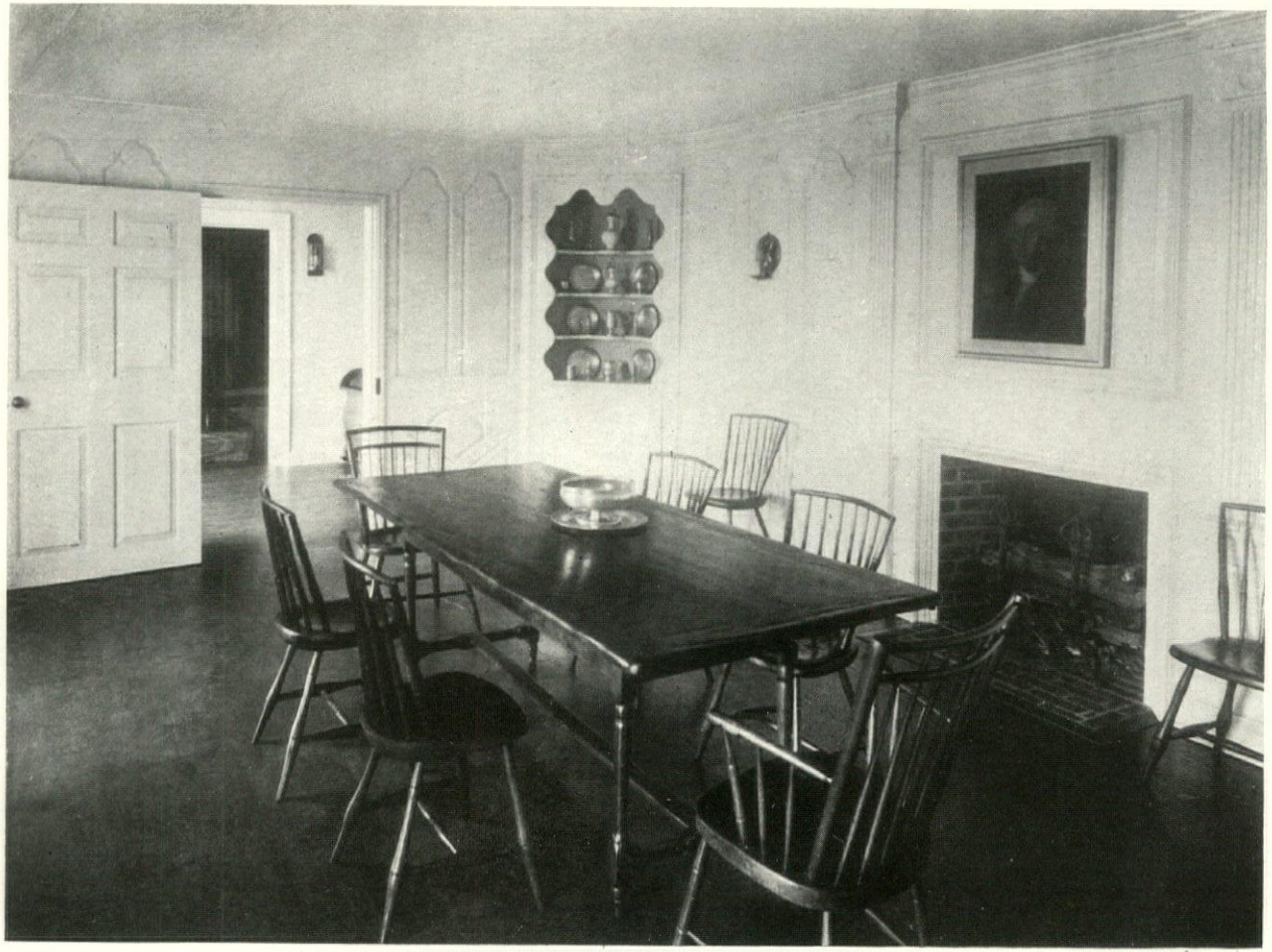
RESIDENCE OF MRS. WM. H. ANDREWS, WATCH HILL, R. I.
Mott B. Schmidt, Architect

RESIDENCE OF MRS. WM. H. ANDREWS, WATCH HILL, R. I.
Mott B. Schmidt, Architect

HOUSE AT GREAT HILL, STAMFORD, CONN.
Treanor & Fatio, Architects

HOUSE AT GREAT HILL, STAMFORD, CONN.

Treanor & Fatio, Architects



HOUSE AT GREAT HILL, STAMFORD, CONN.
Treanor & Fatio, Architects

THE FRANCIS W. PARKER SCHOOL, SAN DIEGO, CALIFORNIA

SMALL PUBLIC SCHOOLS *in* CALIFORNIA

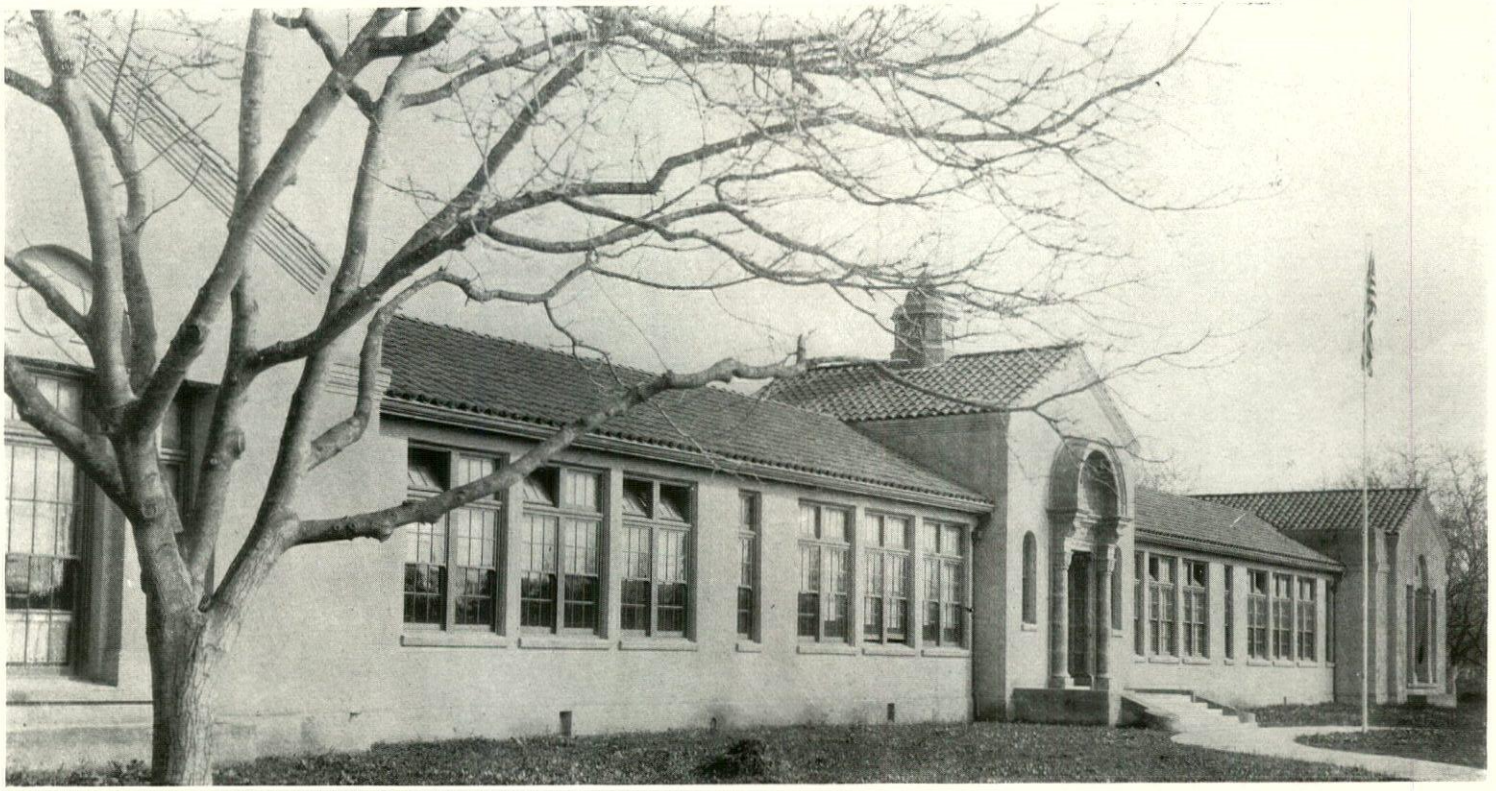
By

Rose Henderson

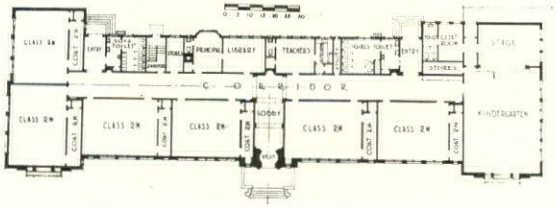
ONE OF THE MOST encouraging evidences of a wide-spread interest in better architecture in America is the increasing attention that is being given to school building. The ugly, utilitarian character of even the small rural school is giving place to more pleasing and harmonious design. Architects and school committees are cooperating more effectively than heretofore and are getting away from the stereotyped conception of a school building as something standardized and independent of its surroundings, a kind of architectural law unto itself with no consideration for its environment. In residential suburbs schools are coming more and more to conform to the general type of residence, if happily there is any general type.

Along with a more consistent regard for the school's appearance both for its own sake and for the sake of the neighborhood, there is a corresponding concern for the best possible adaptation to efficient service in the changing curriculum of the modern educational scheme. Domestic science courses, for instance, are influencing school architecture toward a more home-like and informal expression, and the shop and laboratory requirements of agricultural or other technical high schools are frequently reflected in building features which correspond with community construction and activity.

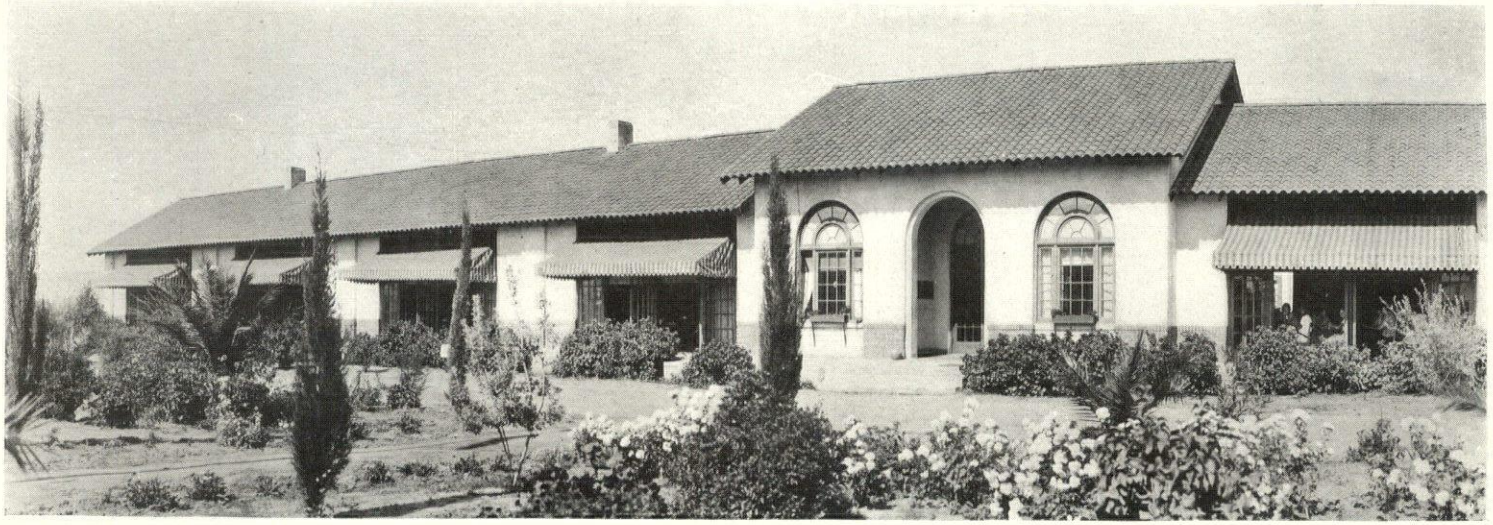
In California and other parts of the West the Spanish style lends itself admirably to schools as well as to churches and domestic and business structures. An open-air elementary school at El Cajon, in Southern California, is a pleasing example of the Spanish type in a simple and practical design. Four class rooms on either side of the main entrance are open to sun and air through the groups of glass doors at the front and rear. Projecting tile roofs and deep awnings subdue the light, which may be further modified by shades and by the curtained doors. Tile roofs, deep plaster walls and the long, narrow design make this building a harmonious unit in a community where domestic architecture shows so generally the Spanish and

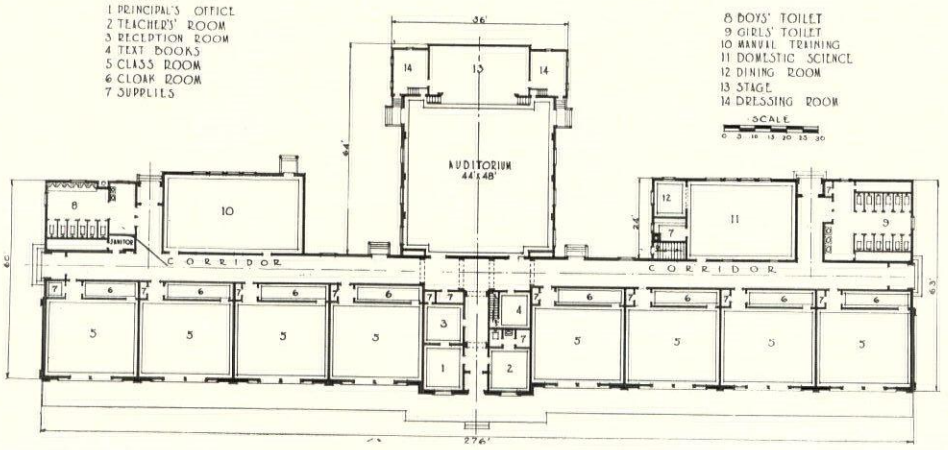


JOHN MUIR SCHOOL
SANTA ANA, CALIFORNIA



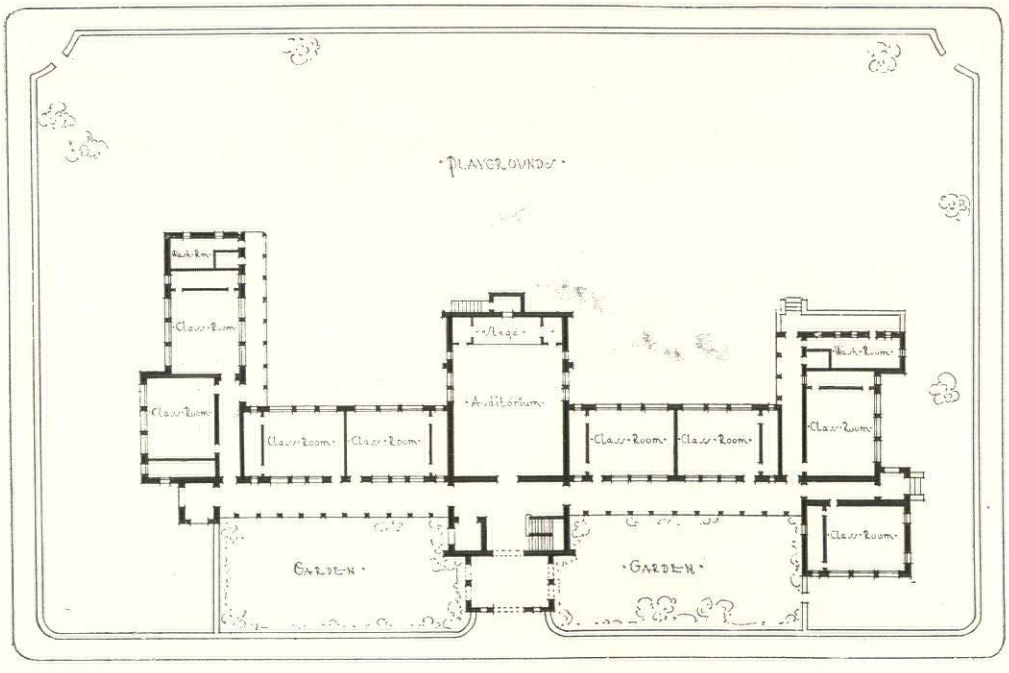
T. C. Kistner & Company and
F. M. Eley, Associated Architects





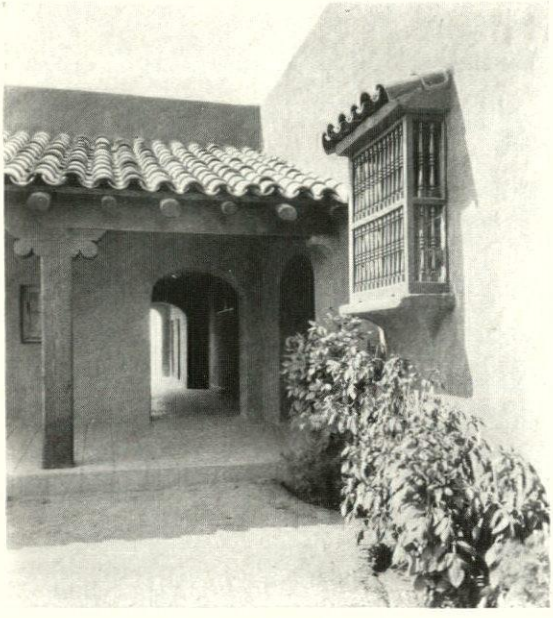
EL CAJON SCHOOL
SAN DIEGO COUNTY
CALIFORNIA

T. C. Kistner &
Company
Architects



SCHOOL AT RANCHO SANTA FÉ, SAN DIEGO COUNTY, CALIFORNIA
Requa & Jackson, Architects

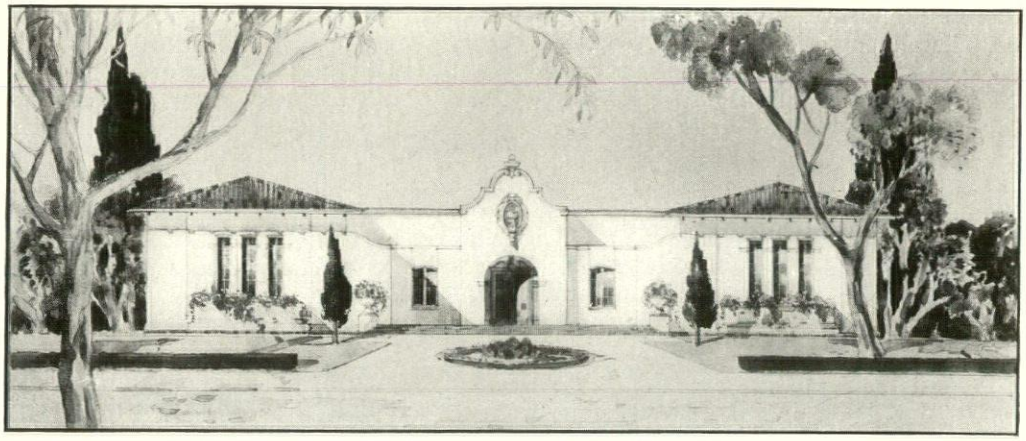
Mexican influence. The auditorium at the rear and opposite the main entrance is exposed on three sides and is easily accessible from entrances outside the class-room sections. It may thus be used for community purposes without disturbing the regular school work. Manual training rooms are at the back of one wing behind a row of cloak rooms and a through corridor which extends back of the regular class rooms. The domestic science department is similarly located at the back of the other wing. The plan is well adapted to the needs of the elementary school and it is as informal and hospitable in its general appearance as a low-roofed dwelling on one of the old Spanish *haciendas*. The plan is one which can be extended easily as more space is needed, and without destroying its interest or its practicability.

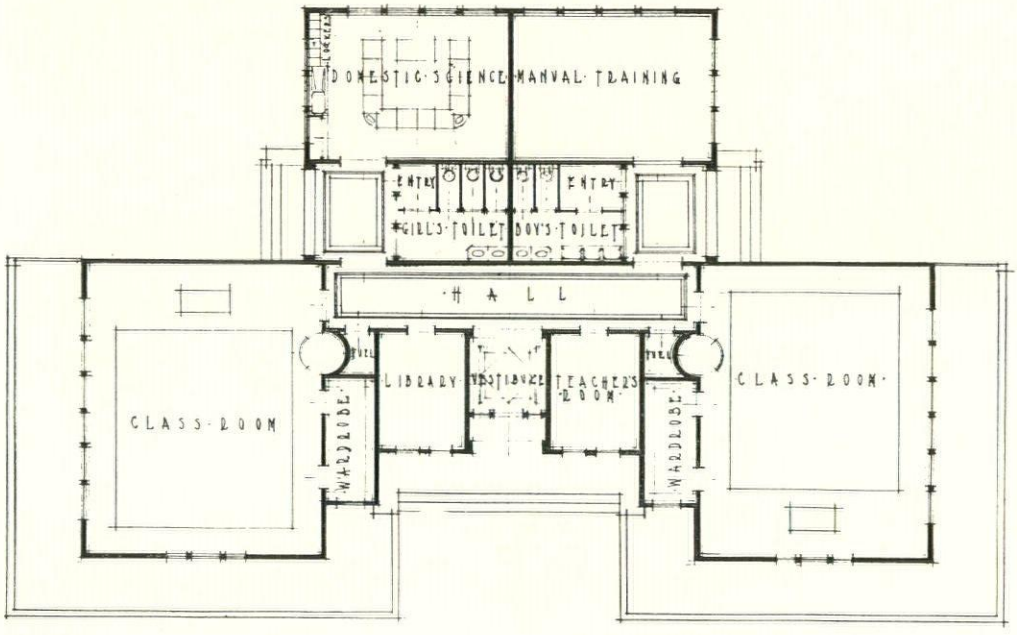


Detail, School at Rancho Santa Fé, California
Requa & Jackson, Architects

An especially attractive open-air structure is the Francis W. Parker School of San Diego. The building extends entirely around a spacious, sunny patio, with the interior sides of class rooms open to an inner covered portico. Tiled roofs, wooden beams and ample spaces of rough plaster wall have been handled with a nice sense of fundamental decorative values. The auditorium opens on the inner court, and the auditorium façade with small grilled windows on either side of the doorway, is pleasing in its simplicity and in the restful proportions of its soft textured walls. There are long, graceful roof lines, projecting eaves, and the deep, cool shadows of typical Spanish construction. Attractive lawns and gardening add to the inviting character of the exterior views, and masses of vines and banks of glowing zinnias make the arcaded patio an enchanting spot and emphasize the charm of the architectural design. Class rooms are simple and serviceable with informal seating and a beguiling sense of the out-of-doors. On one side of the entrance lobby is a small library and on the opposite side an office of the same dimensions. Class rooms with toilets or lockers extend beyond these around the hollow square to the auditorium which projects beyond the center of the back wing. A long screened porch extends across the back side of the large kindergarten room, which may be used also for domestic science activities by classes at work in the adjoining kitchen. The auditorium ceiling beams are carved and painted in simple patterns. The whole building has a delightful sense of seclusion, and the gardening is a unique achievement revealing the possibilities of a few appropriate plants developed in luxuriant profusion.

These two California schools show economy of space and unusual adaptation to environment, as well as architectural distinction. The long porticos of the San Diego school would be an extravagance in most climates, but protected as they are within the patio they can be used in this climate throughout the year





GUINDA GRAMMAR SCHOOL, GUINDA, CALIFORNIA
H. W. Weeks, Architect

for the pupils' study or their recreation.

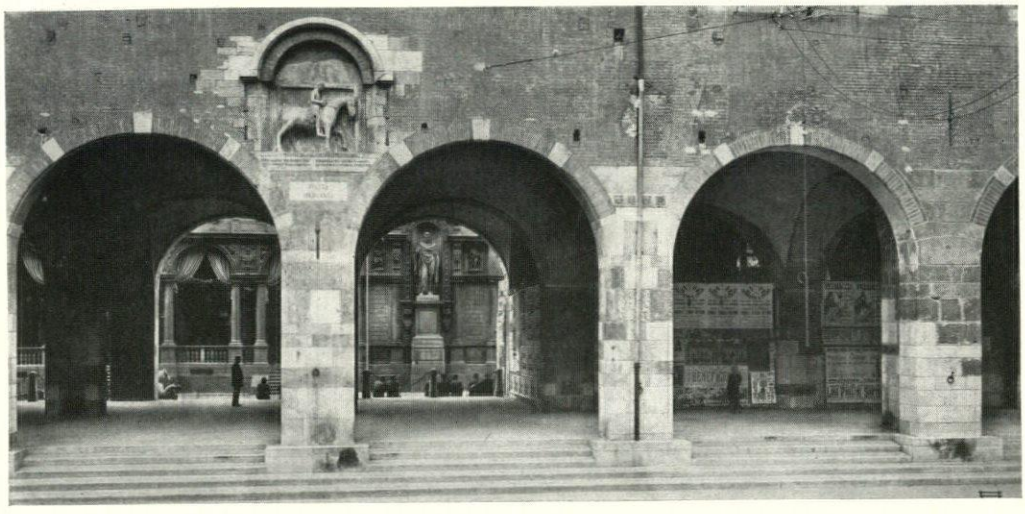
In the Kelseyville Union High School, in northern California, W. H. Weeks of San Francisco has designed a spacious two-room building which illustrates the tremendous improvement in rural school construction in recent years. The school is located in a rich fruit-growing district famous for its natural beauty, and the long, low structure is well suited to the setting. The site is a well-drained knoll near a main highway and the building accommodates sixty-six pupils, most of whom are transported by motor-bus. In addition to the two main class rooms there are cooking and serving rooms, a commercial room, a library, a science laboratory and an assembly hall. The

An Open Air Class Room
FRANCIS W. PARKER SCHOOL, SAN DIEGO, CALIFORNIA
Wm. Templeton Johnson, Architect

plan provides for a combination gymnasium and auditorium to be added in the near future. The Guinda Grammar School is an even smaller building, designed with similar care.

At Rancho Santa Fé in San Diego County, the school forms a congenial unit in a whole community which is being developed in the Spanish Colonial style. Here in the old days Don Juan Maria Osuna, soldier of fortune and first alcalde of San Diego, built his adobe manor on his nine-thousand-acre estate. A model of the primitive grandeur of the time, the old house still stands in the shelter of giant pepper trees, and all new buildings are built to harmonize with it. The four hundred dwellings which are to be constructed must follow the Spanish Colonial style so far as exteriors are concerned, and all plans must be approved by Requa and Jackson, the firm of architects who have charge of the community building. Interesting shops, offices and a guest house have been erected. Sloping tile roofs, thick plaster walls and graceful arcades and doorways are features of the exceptionally attractive school plan. Four class rooms are arranged in irregular wings on either side of the entrance and auditorium. The building faces the plaza, and the design provides for additional construction as needed by the unique community.

Fig. 8. *Chiesa della Certosa*, Chiaravalle, Near Milan
NORTH ITALIAN BRICKWORK, PART IV



LOGGIA DEI MERCANTI, MILAN

NORTH ITALIAN BRICKWORK

By

Myron Bement Smith

PART IV. LOMBARD, GOTHIC AND LATE RENAISSANCE IN MILAN.

RESTORATIONS

WHEN EXAMINING THE illustrations that form the larger and more interesting portion of these articles, the reader will please bear in mind that during the centuries that have elapsed since their original construction these monuments have undergone repairs, alterations and, worst of all, restorations, that have so mutilated the forms that at times they are changed beyond recognition. I shall dwell on the subject of restorations at some length in order to avoid misleading readers who see the brickwork only through the media of the photographs and my poor drawings.

It would embarrass me to learn that I had left the impression that any designer by carefully imitating the form and appearance of the work here illustrated might obtain a Renaissance or a mediæval effect. It would afford me greater discomfort to find that by the publication of this series I had been acting as an accessory, however innocent of intent, to the crime of hanging archæological forms on an ill studied mass and palming the result off on the public as modern architecture. I refer to the eruption of pseudo-Lombard skyscrapers that is spreading rapidly over the Grand Central district of New York City following the well deserved success of Mr. Arthur Harmon's Shelton Hotel and of Messrs. York and Sawyer's Bowery Savings Bank. In both of these buildings there was so much of good design that the selection of Lombard detail became a matter of secondary importance. Either of these might have been detailed in an original modern style throughout. As a matter of fact, Mr. Harmon used some distinctly modern brick detail on the upper set-backs of the Shelton, and certainly not to its detriment. All of which is a way of saying that no amount of archae-

Fig. 1. Detail Showing Intermediate Pier System, *S. Ambrogio*, Milan
NORTH ITALIAN BRICKWORK, PART IV

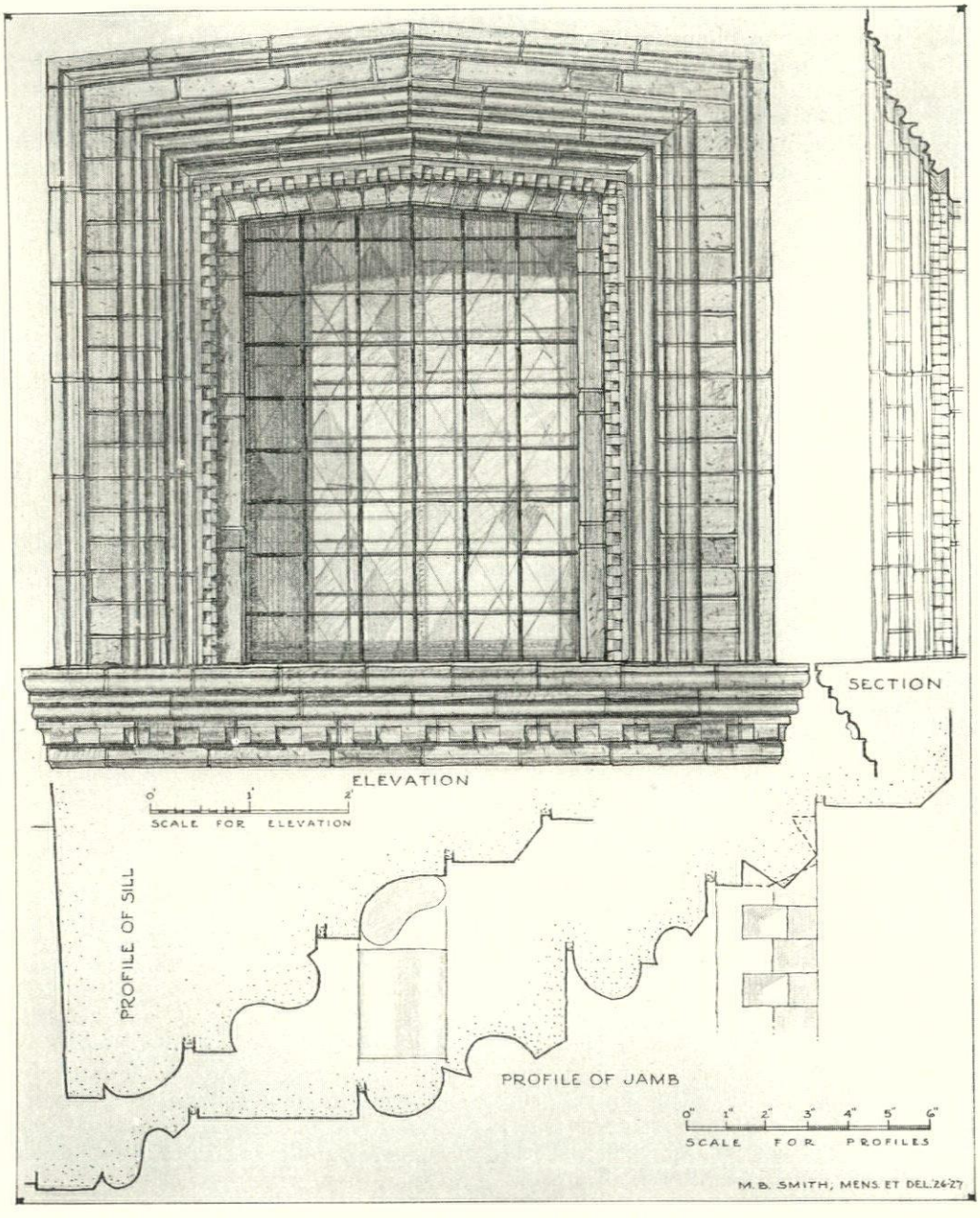


Plate I. Window, Palazzo Borromeo, Milan, Late Gothic, c. 1400
NORTH ITALIAN BRICKWORK, PART IV

ological accuracy will make up for lack of good design, and furthermore, the material here presented is doubtless very little of it archaeologically accurate. In spite of all the unintentioned damage that it may do, I have faith that there are those who will use this material as its author intended it to be used, namely, as an inspiration for fine brickwork designed in the modern spirit. Once our architects appreciate the almost limitless possibilities of brick, there will be some creative designers amongst them who will evolve a new and vital school of brick design that will be distinctively American and equally modern.

The restoration work which is going on quite generally in Italy under the direction of the Minister of Public Monuments is both the delight and despair of archaeologists. The baroque improvements that the well intentioned architects of the seventeenth and eighteenth centuries plastered over the interiors of older churches have been peeled off, exposing the earlier and more original forms and occasionally some of the early fresco decorations. But unfortunately the restorer has insisted too often on restoring and there have been some instances where the extent of the replacements has been limited only by the fertility of the imagination. At first the materials employed so poorly matched the originals that the exact extent of rebuilding is clearly visible. But that is not true of the work carried on more recently. Not only is it more sympathetic in handling, but it is almost perfect in execution, so closely does it resemble the original portions. Archaeologists will be at a loss to date some of this work after it has had a few years weathering. This is particularly true of the work being done in Bologna.

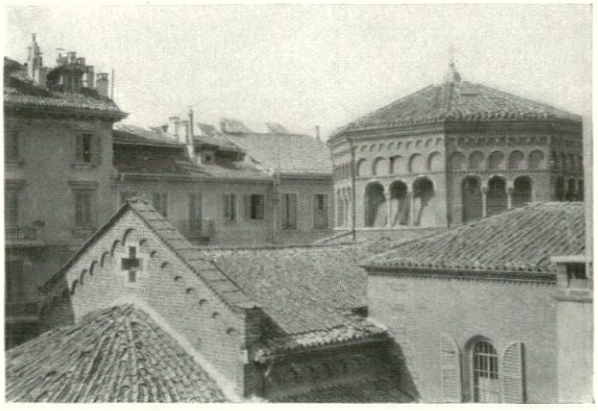


Fig. 2. *Santa Bablia*, Milan

THE OLDER BRICKWORK OF MILAN

Milanese monuments have suffered from endless mutilations and disasters. The great fires that swept the city in the eleventh century, particularly that of 1073, destroyed or damaged most of the churches. Source material on the earlier structures is scarce and fragmentary. S. Ambrogio dates in its present form from the great fire. The original church on the site may have been founded by Ambrose in 386. It was rebuilt by the Benedictines in 800 and the atrium was renewed in 868-881. Following the great fire most of the church was built over. The higher campanile dates from 1128. Ricchini began to remodel the interior and the atrium in the early seventeenth century. His and later Renaissance excrescences were removed in the last century, and the entire structure fully restored. From this typical example, it is not difficult to understand the problem of archaeology that faces the student of brickwork in Italy. With regard to the interior view (Fig. 1), the reader is expected to make generous allowance for all of the above facts and examine it, not as an archaeologically accurate example, but rather with an idea of appreciating the successful use of exposed brick in a dignified interior.

Santa Bablia (Figs. 2 and 3), is variously dated as eleventh and twelfth centuries. It was restored in 1387 and recently underwent another restoration, including a new façade. S. Radegonda (Fig. 4), was a twelfth century church, now destroyed. The corbeled apse of S. Eustorgio (Fig. 5), is undoubtedly restored, and badly. San Sepolcro (Fig. 6),

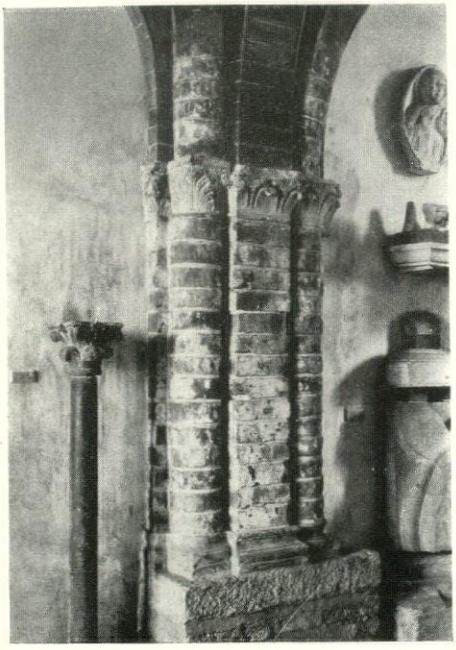


Fig. 4. Museo Archeologico, Milan—Fragment from *S. Radegonda*

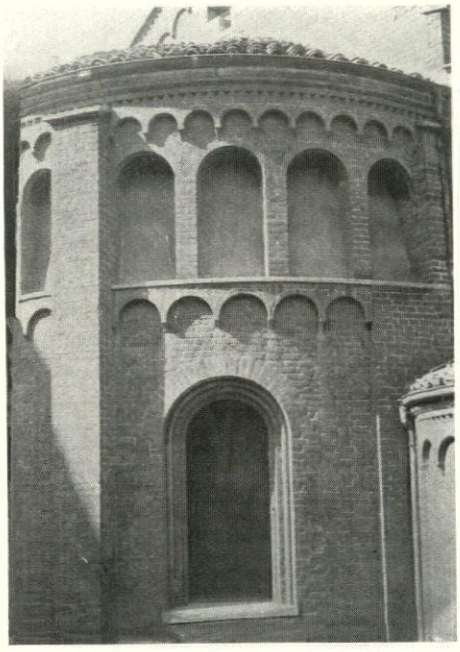


Fig. 3. *Santa Bablia,* Milan—Detail of Apse

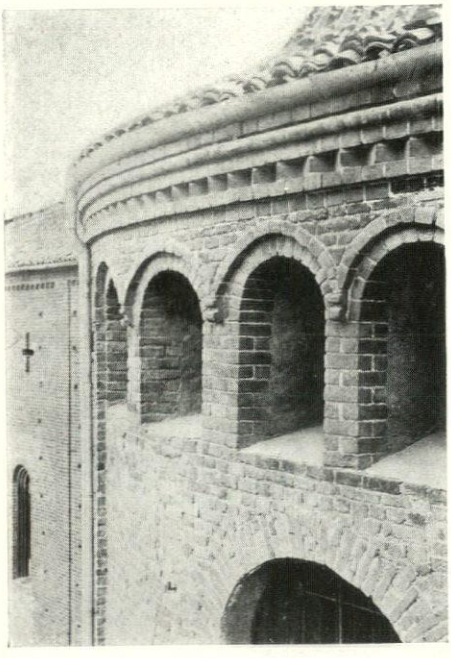


Fig. 5. *S. Eustorgio,* Milan—Detail of Apse

Fig. 6. *S. Sepolcro,* Milan—the Restored Façade

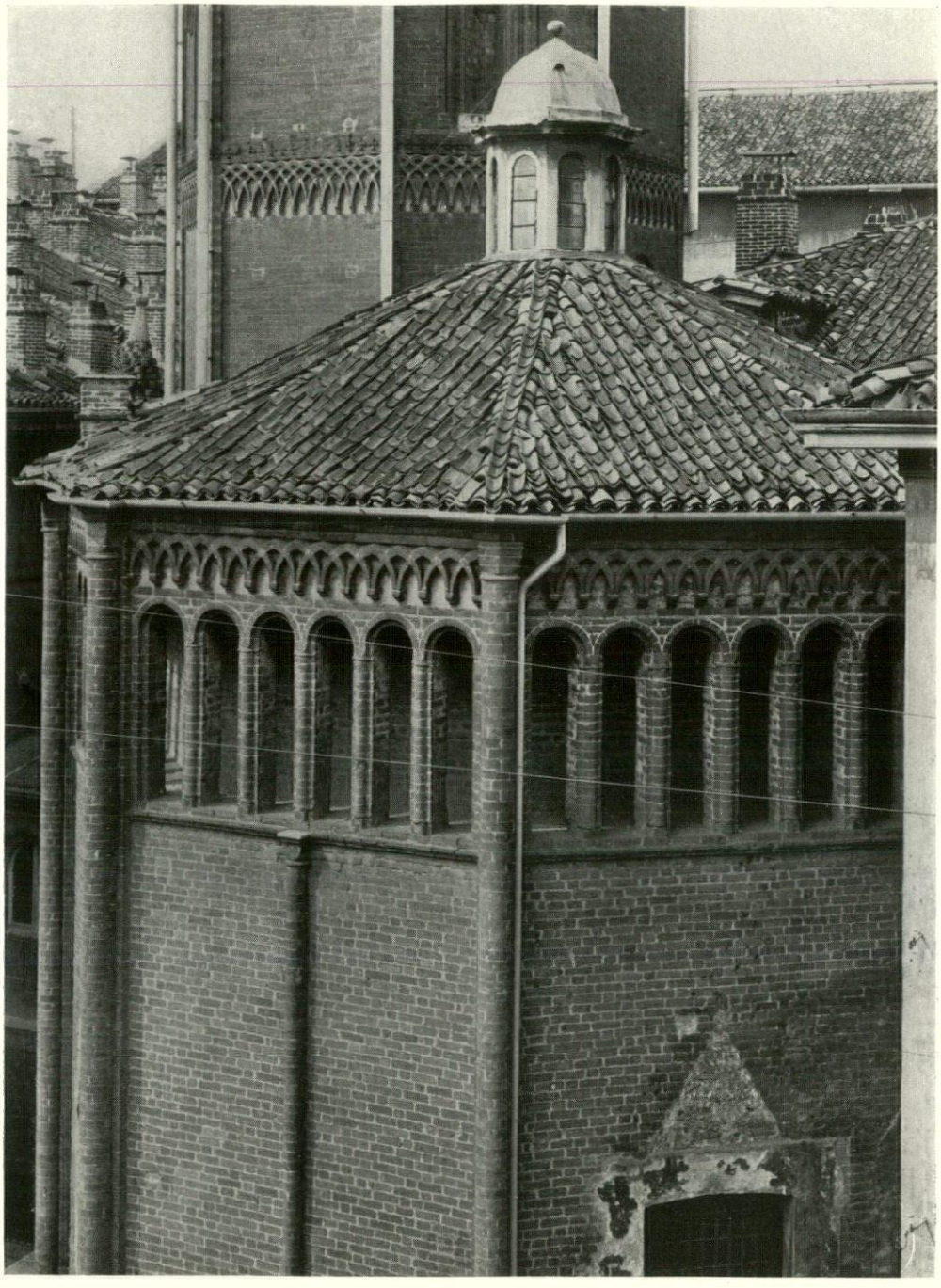


Fig. 7. Detail of Apse, *S. Gottardo*, Milan
NORTH ITALIAN BRICKWORK, PART IV

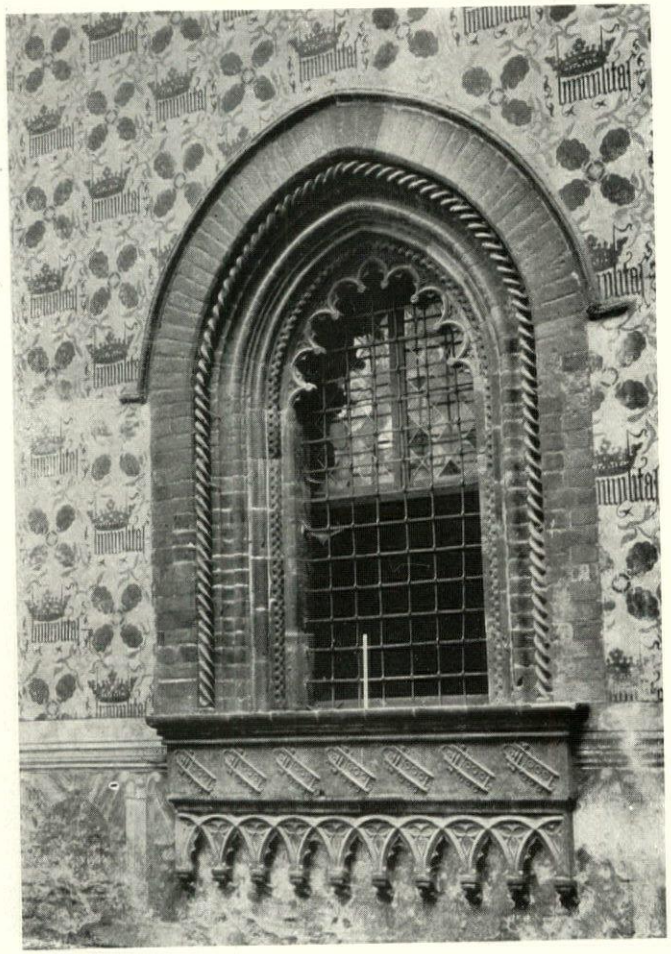


Fig. 9. Window Detail in Moulded Brick and Terra-cotta, Palazzo Borromeo, Milan

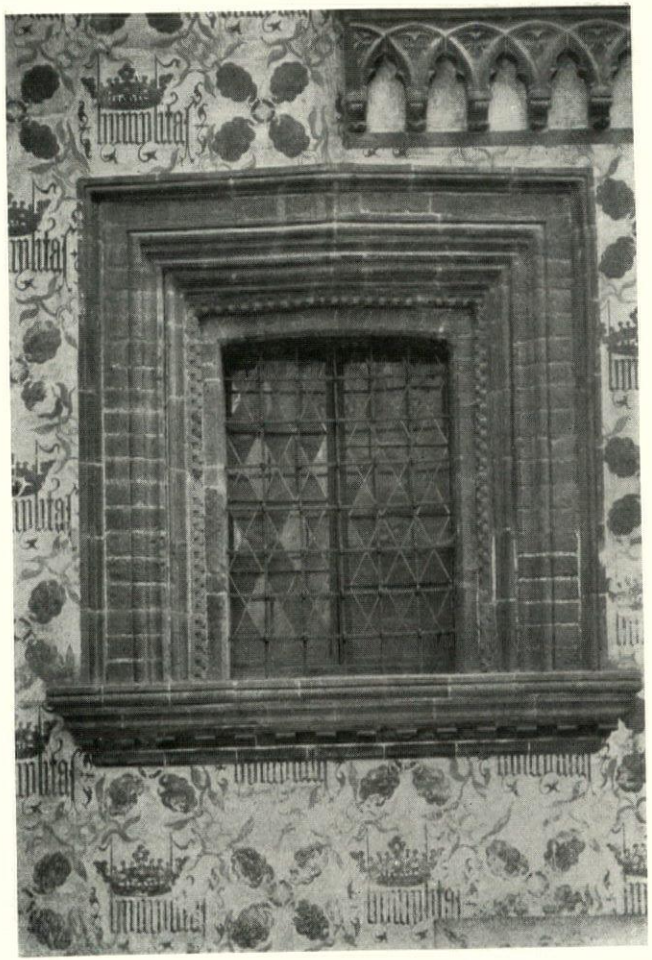


Fig. 10. Window Detail in Moulded Brick, Palazzo Borromeo, Milan

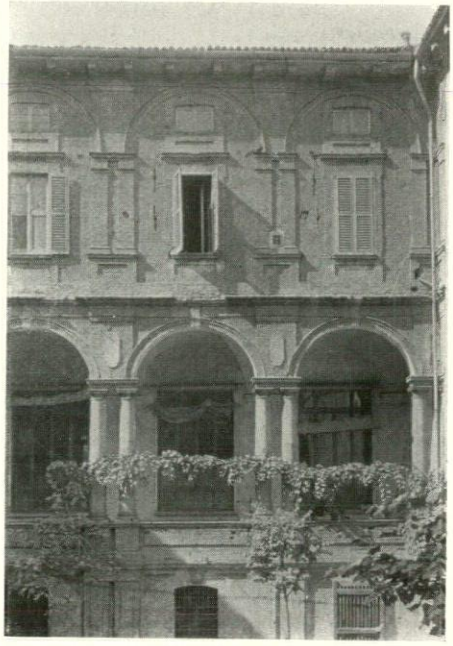


Fig. 12. *S. Alessandro*, Milan—Detail of Cloisters

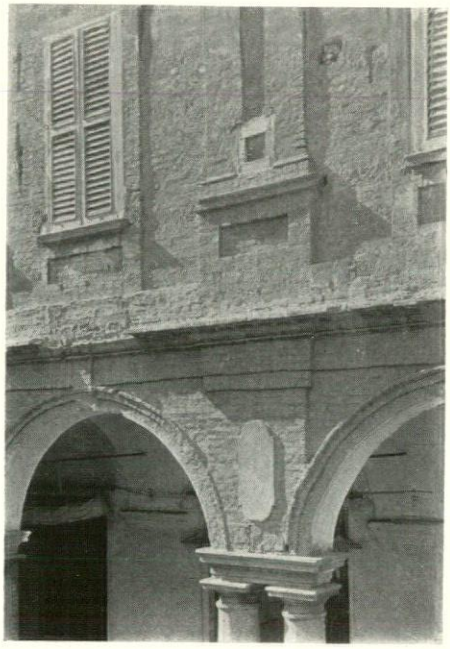


Fig. 13. *S. Alessandro*, Milan—Detail of Cloisters

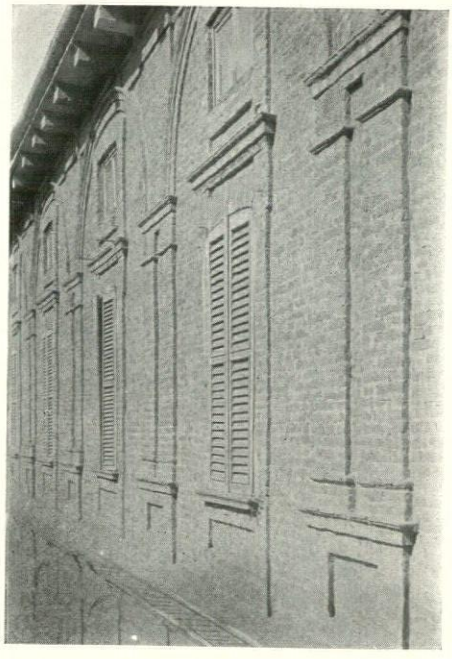


Fig. 14. *S. Alessandro*, Milan—Detail of Court in Rear

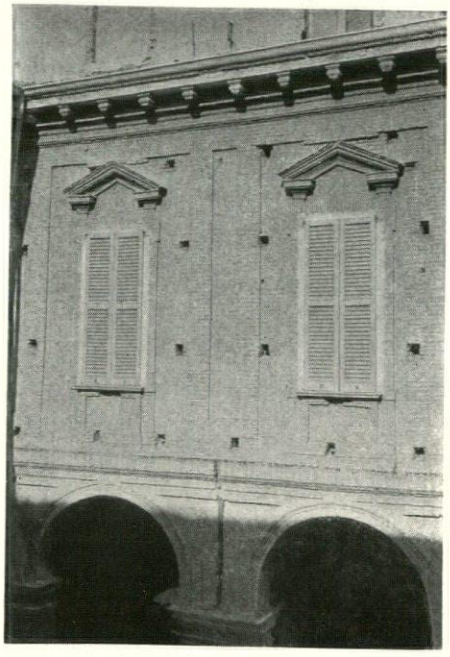


Fig. 15. Seventeenth Century Palace, Milan—Detail in Courtyard.

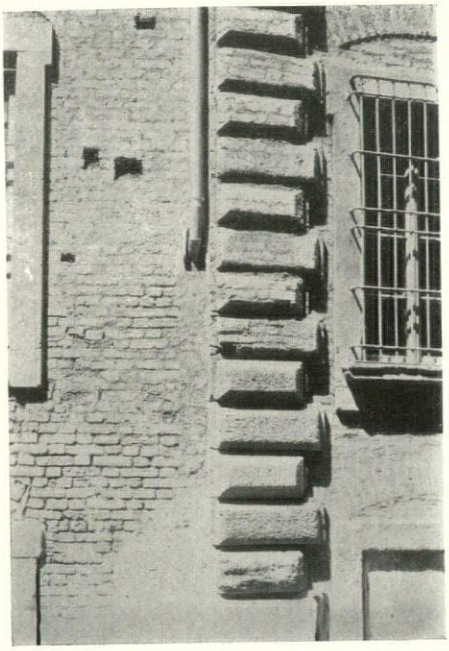


Fig. 16. Detail of House in Via Cardinal Federico, Milan

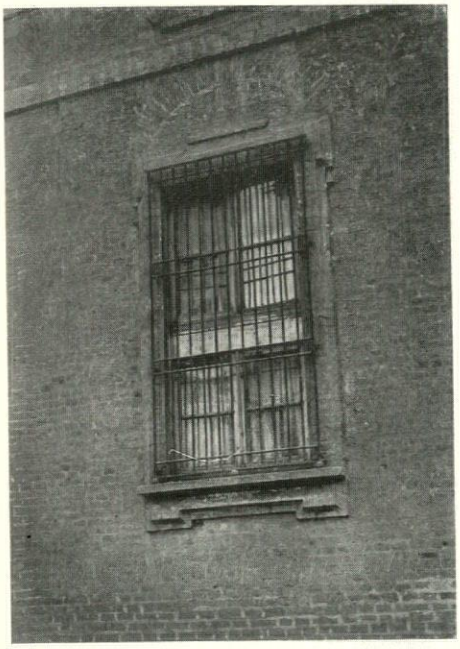


Fig. 17. Window Detail in Palace Serbelloni, Milan, 1794. Simone Cantoni, Architect

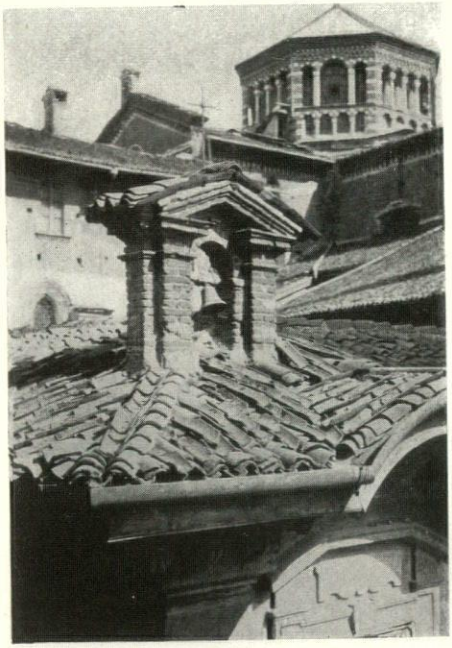


Fig. 19. Brick Belfry, Cathedral, Monza.

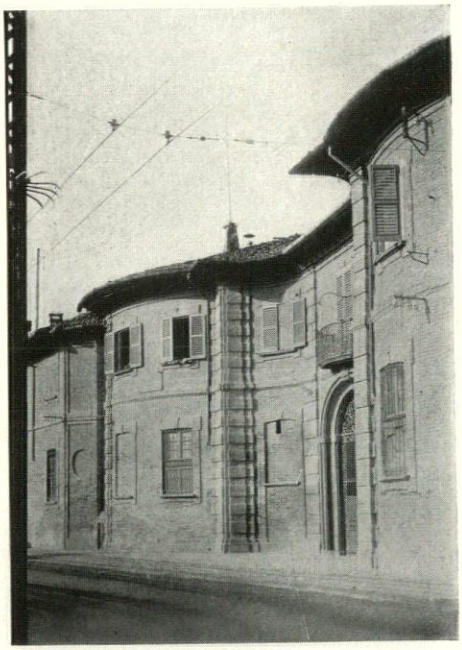


Fig. 18. A Late Renaissance House in Monza

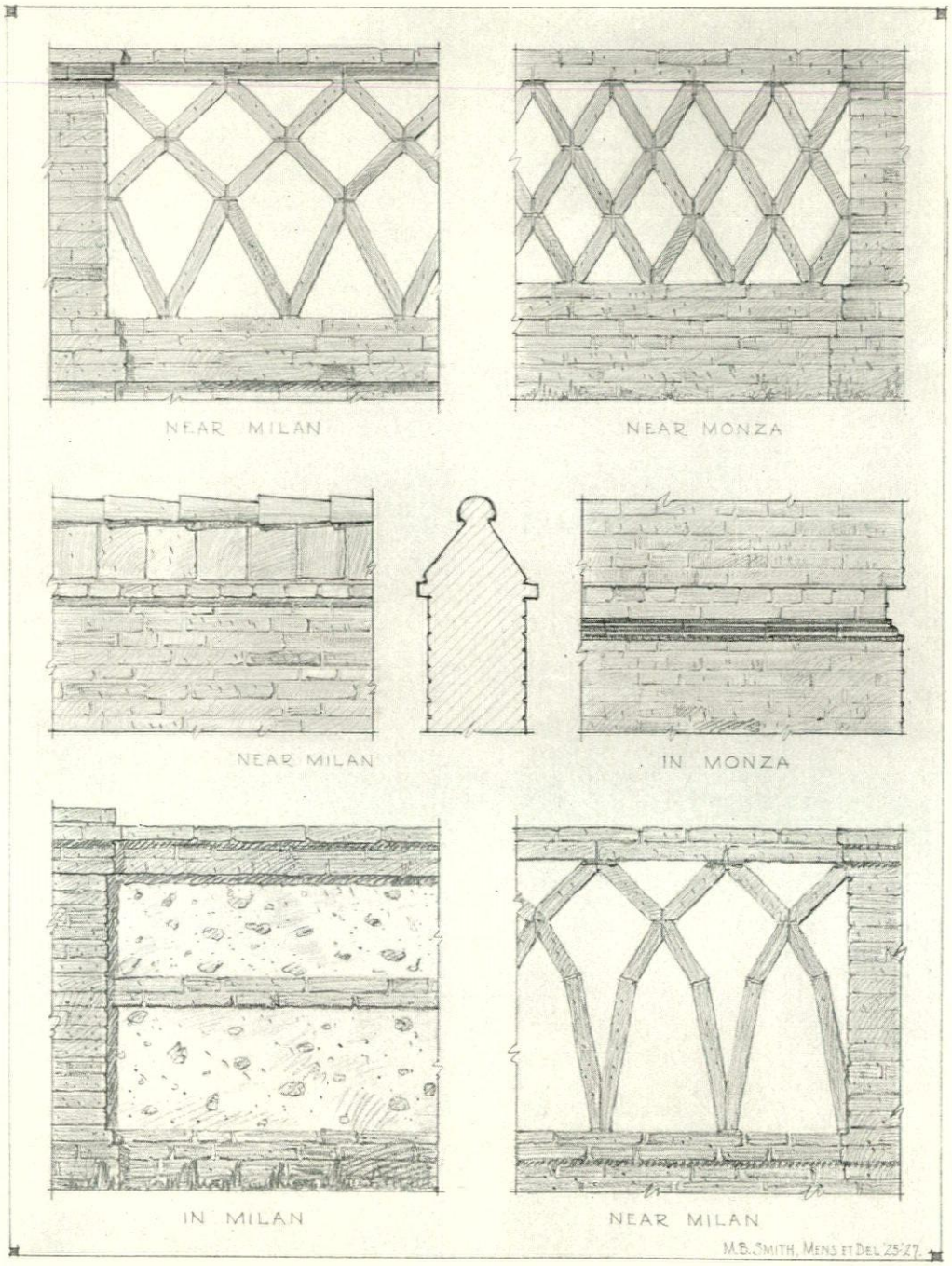


Plate II. Walls, Fences, Balustrades and a String Course from Milan and Monza
NORTH ITALIAN BRICKWORK, PART IV

has an entirely new façade of recent date though the church dates from 1030.

THE LOMBARD-GOTHIC PERIOD

The Gothic style reached Milan by way of Piedmont and the French border. By the time it penetrated Italy it was as foreign in spirit as any imported style might be. It was used without understanding as a means of ornament rather than as a system of building. The pointed arch found favor and was employed indiscriminately along with the semi-circular arch well into the Renaissance period. Terra cotta came into general use during the Gothic period, permitting fine scale ornament to be repeated indefinitely. Carved brick continued in popularity. The example from S. Eustorgio (Fig. 11), shows careful cutting and accurate jointing.

The apse of S. Gottardo (Fig. 7), shows a Gothic interlaced corbel course executed in moulded brick on a gesso ground. The Certosa at Chiaravalle (Fig. 8), has another typically Gothic *motif*, the cone shaped termination of the tower. This is always executed in hard burnt bricks with semi-circular moulded ends to the weather. The Palazzo Borromeo (Figs. 9 & 10 and Plate I), show brick windows of the early fifteenth century in a contemporary setting of fresco decoration. Elaborately moulded reveals of this type are not infrequent. The square window with its slightly cambered head is unique, so far as I know.

THE LATE RENAISSANCE

During the Lombard period it is evident that all walls were plastered over and probably were decorated in colors. For a time during the Early Renaissance it would appear that bricks were left exposed, particularly the work of Bramante in Milan. But later the importance of painted decoration and sgraffito, as well as the form problems of the baroque, necessitated plastering over walls. During this period the ground work of brick received special study. Mouldings were roughed out in brick to be finished later with a thin coat of gesso. Sometimes the windows and cornices in moulded brick were left exposed while the walls were treated with fresco. Figs. 12 to 19 illustrate various examples of this work in Milan. The gesso, in all instances, has been removed except for traces.

Plate II shows free use of flat tile and bricks in and about Milan. The most extraordinary employment of this material, however, is in the chimney tops, the ingenuity of which passes belief.

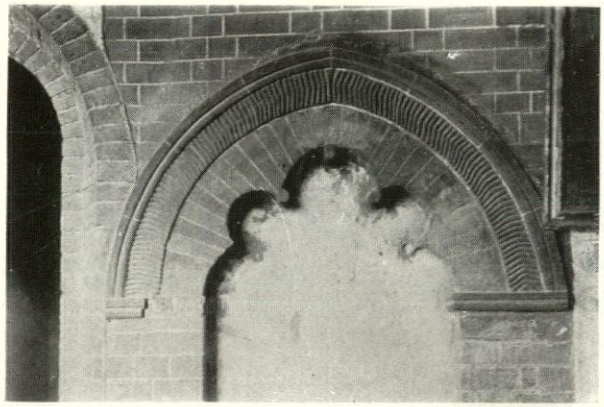


Fig. 11. Gothic Window in Carved Brick, *S. Eustorgio*, Milan

GUY LOWELL
(1870-1927)

Guy Lowell

Born Aug. 6, 1870—Died February 4, 1927.

The profession of Architecture has lost a distinguished member in the sudden death at Madeira, on February 4, 1927, of Mr. Guy Lowell. A member of the well-known Boston family, Mr. Lowell was a cousin of President A. Lawrence Lowell, and the late Prof. Percival Lowell, of Harvard University, and a second cousin of James Russell Lowell.

He was born in 1870, graduated from Harvard in 1892, studied at Technology for two years and was Diplomé of the Ecole des Beaux Arts, Paris, in 1899.

In his practice he designed and built many successful public and private buildings, including clubhouses, college structures and residences. Also he planned a number of gardens and estates, for Landscape Architecture had been included in his studies in Paris and he lectured on this subject at Technology from 1900 to 1913.

Besides such well-known buildings as the Boston Musuem of Fine Arts, and the Cumberland County Court House at Portland, Maine, he had but recently completed the New York County Court House in New York, and a new building for the Art School for the Boston Museum was under way at the time of his death. At Andover, Mass., he built a score or more of the buildings for Phillips Academy; at Harvard he designed Emerson Hall, a new Lecture Hall and the residence of the President; at Brown University in Providence, R. I., several buildings, including the Carrie Memorial Tower, were designed by him; and Simmons College at Boston, and the State Normal School at Bridgewater, Mass., have several buildings of his design. He was architect of the Iowa State Memorial, at Vicksburg, Miss.; Eden Hall at Bar Harbor, Maine; the New Hampshire Historical Society Building at Concord, N. H.; the Johnson Memorial Gates, on Westland Avenue; the Edwin U. Curtis Memorial on the Charles River Basin, while at the time of his death he was preparing some designs for a Memorial Fountain for the State, intended for Copley Square, in Boston.

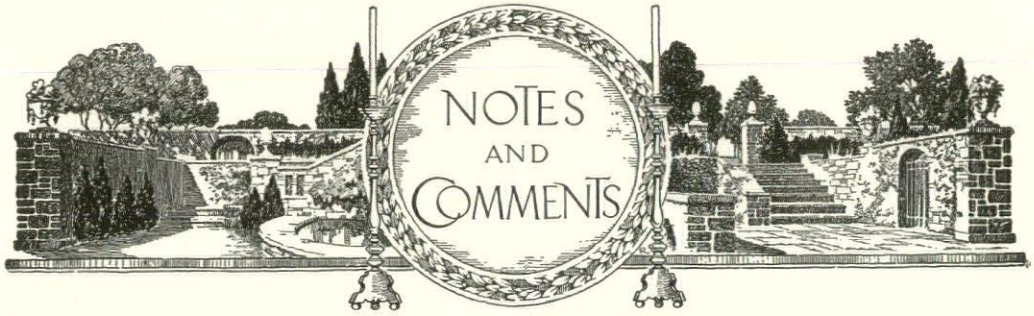
Among many private residences and estates on which he has been engaged might be mentioned those of Bayard Thayer at Lancaster, Mass.; George O. Knapp at Lake George; Bryce Allan and Thomas McKee at Beverly, Mass.; Robert Gould Shaw, 2nd, at Hamilton, Mass.; Francis Skinner at Dedham, Mass.; Clarence H. Mackay at Harbor Hill; Paul D. Cravath at Locust Valley, L. I.; Richard Sears at Isleboro, Maine; Payne Whitney at Manhasset, L. I.; B. F. Goodrich at York Harbor, Maine; F. L. Ames and Gordon Abbott at North Easton, Mass.; Charles S. Sargent, Jr., at Cedarhurst, L. I.; the estate of C. K. G. Billings on Long Island, as well as the new Piping Rock Country Club, also on Long Island. He designed city gardens for Andrew Carnegie and the late J. P. Morgan; and for Morton F. Plant at 86th St., all in New York, and an Italian garden for Mr. Plant at New London, Conn.

Mr. Lowell also served as advisory architect on Parks for the Metropolitan District and the Charles River Basin, in Massachusetts, and was engaged in a similar capacity for a new park system in Pittsburgh, Pa. Such are a few among many accomplishments in his chosen profession, but he was far more than a skilled architect. He had to his credit a long list of achievements in the creation of buildings known to us all—but his life was one of activity and success, as well, in other fields. To quote from the Bulletin of the Boston Society of Architects:

"At the Lowell Observatory in Arizona he continued with enthusiasm and understanding the research developed by Percival Lowell. * * * When 'Sonder' boat racing began to interest Americans, Guy Lowell entered the lists and quickly became one of the leaders, taking his boat, the 'Cima,' to Kiel for the international races and bringing home trophies of victory. * * * When war was devastating Italy and the outlook darkest, Guy Lowell, as a Major in the Red Cross organization, with courage and skill led the supply motors to points where they would do the most good, and where American friendship and help spurred on the Italian troops. For this he was honored and decorated by the Italian government. * * * In two beautiful volumes on 'Italian Villas and Farmhouses' he shared with us his many journeys of study. He was one of the first to publish a book on American gardens. As a Lecturer upon Landscape Architecture, he devoted his income from his lectures at Technology to a scholarship to the students to whom he had given inspiration. From Guy Lowell's office have come a large number of men who have established their own offices scattered over the country. Lowell never lost his interest in any of these men, and he was always their friend. He led a very full and unselfish life, ready to be of public service or to aid those who needed him. He was a lover of music and painting and sculpture and literature and the sciences—not in the spirit of a dilettante, but with deep understanding and appreciation.

"Guy Lowell loved his profession in all its phases, and by his life and his work he dignified and broadened it. His devotion to ideals shortened his years, because to whatever he undertook, he gave himself with his whole heart, and nothing else mattered but to do his best."

FRANK CHOUTEAU BROWN.



New York's Skyscrapers

New York was the city in which the first skyscraper was erected and which in the minds of foreigners is most identified with a broken sky-line and with towering buildings. The identification is, of course, essentially correct. Other American large cities and particularly Chicago have competed with New York for the distinction of being considered preëminently the sky-scraper city. In the beginning the competition was keen, and during the first decade it is possible that Chicago was the scene of the erection of more and better sky-scrapers than New York. But during the last ten or fifteen years, New York has in this respect completely out-distanced her former western rival. New Yorkers build many more sky-scrapers than the inhabitants of Chicago. They are taller both on the average and in the more exceptional instances. They are scattered over a wider area and are designed to meet more varied economic needs. They are built for the most part on Manhattan Island, which enables them to be seen from both rivers as a mass and in their large scenic and atmospheric relations one to another. Practically all the activities of New York, domestic and amusement as well as business, are carried on either within sky-scrapers or at least not outside the fall of their shadows.

It is a distinction of which New Yorkers are proud, but it involves them in serious problems and costly penalties. Every once in a while they become alarmed and ask themselves whether they can continue to be proud of the distinction and to enjoy the luxury of living and working so high above the ground. The newspapers have been discussing these questions recently. The cause of their misgivings is, of course, the difficulty of moving around in the dark and narrow alleys which are their existing substitutes for avenues and streets. A street layout which was planned with the expectation of accommodating at the highest four or five story buildings is now being outlined with from fifteen to fifty story buildings, and the problem of getting to and from these towers of miscellaneous domesticity and big business is becoming serious and threatens to become impossible. The multiplication of private automobile conveyances has enormously complicated the difficulty and has created a traffic problem in cities where there are comparatively few or no sky-scrapers, but the solution of the problem is only a matter of convenience for them, whereas in the case of New York it compromises the future prosperity of the city. The transit aspect of the problem is even more serious than the traffic, and ultimately its financial aspect will be most serious of all. It may be possible for skilled engineers to devise means of getting the population of the sky-scrapers to and from their work, their homes and their amusements, but what will the cost be? The owner of real estate on Manhattan Island may have profited in the past from the opportunity to sell his lots to the builders of sky-scrapers, but during the next twenty years his profits may be taken away from him by the increase in taxation which will be necessitated by a sufficiently adequate ultimate handling of the traffic and the transit problems.

In another respect, also, many New Yorkers are not as happy about their sky-scrapers as they were a few years ago. The newer and taller sky-scrapers are not proving to be as architecturally interesting as was expected. Some of the earlier examples of the bigger sky-scraper also proved to be better. The Woolworth Building has, perhaps, been overpraised, but its architect made an intelligent attempt to take advantage in its design and in its decorative scheme of its outlandish proportions. The architect of the Shelton achieved an even greater success with less pretentious means. But with one exception these successes have not continued. The Ritz

Tower is impressive from a distance, but the architect did little to add to its impressiveness. On the other hand, the architects of the Delmonico Building, the French Building at Forty-fifth Street and Fifth Avenue and the Paramount Buildings have all done what they could to enfeeble the effect which these sky-scrapers might, as a consequence of their dimensions, be expected to create. The one exception is the new Telephone building on lower West Street. There are many people who estimate this admirably situated and designed edifice as architecturally the most successful sky-scraper which has yet been erected.

Perhaps they are right. But if so, they are right partly because the architect was not compelled by the owner to spread his tower over as much of the site which the law allowed. Both from the public and the architectural point of view, the present law is too easy-going and encourages too much the erection of sky-scrapers. It should be amended by diminishing the proportion of the proposed site, upon which a tower will be permitted. New York will then have fewer sky-scrapers but better ones. That should be the slogan of the sky-scraper-conscious inhabitants of the metropolis.

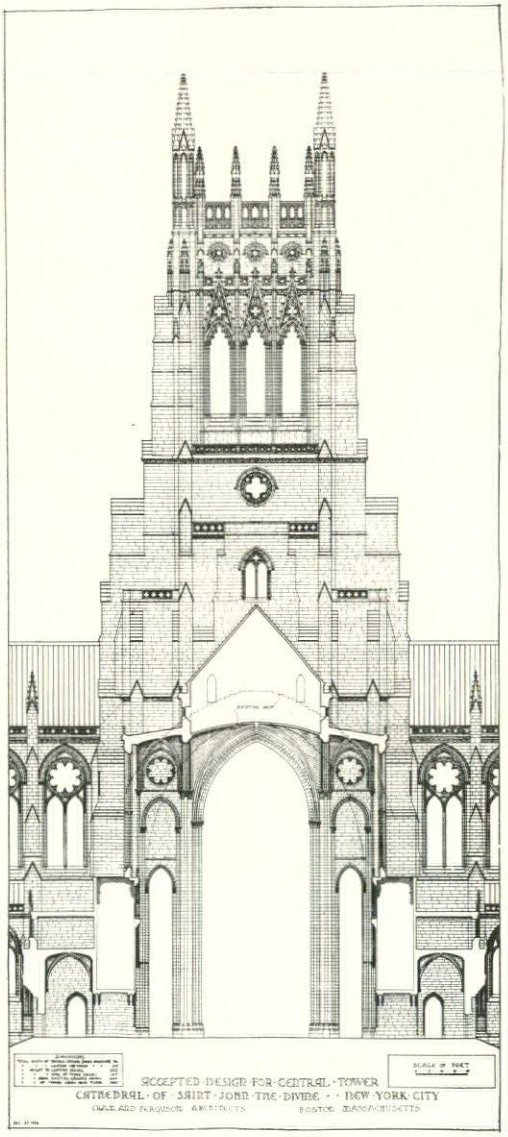
HERBERT CROLY.

Sweden's Solution of the "Art in Industry" Problem

The Swedish exhibition of industrial and decorative arts by the Society of Arts and Crafts, which until recently was on view at the Metropolitan Museum, is unanimously conceded the most significant of its kind yet seen in this country. It consisted mainly of objects within the purchasing power of those of average means, but treated with a degree of artistry which is usually associated with the unique and costly. Dr. Gregor Paulssen is responsible for the experiment involved, and its ultimate success. At a luncheon given him by the Museum, to which the Advisory Committee of the Annual exhibition was invited, he explained general policies and the manner of their practical application to Swedish industries. In common with the United States and European countries generally, Sweden has undergone a demand for increased artistry in the treatment of accessories of life, and has suffered from the prevalent shortage in designers. The demand was urgent, and the protracted method of training the young for many years, with very doubtful results, hardly seemed adequate to the emergency. A bold experiment was consequently tried, which consisted in capitalizing talent and experience in the artistic class for the benefit of industry. A careful investigation was made into the capabilities and sympathies of the most prominent younger artists, sculptors, and architects; their temperamental qualifications were carefully weighed, together with possible decorative inclinations. The next step was to stimulate interest and secure co-operation by the industrialist. A certain number of progressive manufacturers were each induced to engage an artist selected by the Society for a period of six months, with the understanding that the latter should have free access to all departments, be supplied with any necessary information, have authority to conduct experiments and suggest modifications affecting manipulation in decorative treatment. These artists operated in the joint capacities of student of technique, general observer, adviser and designer, with full liberty to direct their energies when and where they thought best.

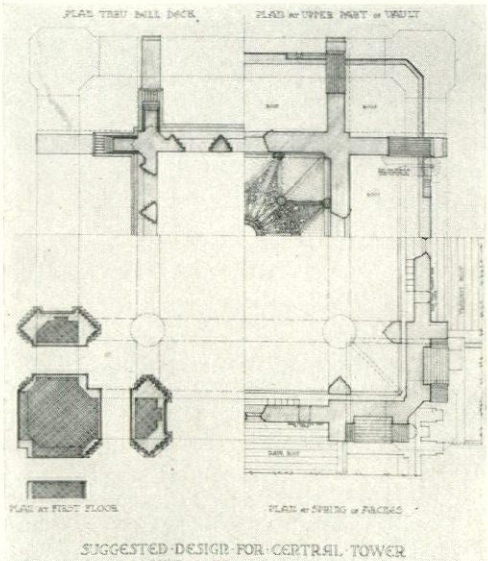
This plan was essayed in the pottery, textile, metal, furniture and other artistic industries with signal success; in many cases the artistic level of the industry has been astoundingly elevated, and forms of treatment have evolved which diverge from craft tradition. The idea of employing and training artists is simple and logical; only the manner in which they are selected and brought into contact with industries involves complication. Many instances can be referred to, in which an ambitious industrialist has engaged a distinguished artist to establish a higher level in treatment. With the natural tendency for depreciating importance in the familiar, the manufacturer has overlooked or ignored the vital part which manipulative procedure has always played in decorative expression. He tells the utterly confused artist not to bother with questions of feasibility, and to trust to the factory to carry out all his ideas. That same manufacturer, however, is far too practical to engage a horticulturalist to improve his mechanical equipment; evidently he does not realise that he is just as indirect when he asks an artist to improve the standard in production without acquainting him first with the intricacies of process, and with the resistance of different substances to manipulation. It is precisely this initial recognition of technical control in artistic expression that is responsible for success in the Swedish movement.

From the point of view of economy of time in training, the selection of individuals of matured temperament, trained observation, and skill in artistic expression, is all so much to the good: if the individual proves unadaptable to decorative activities, this condition is discov-



ered at a very early date, and another artist takes his place.

The Society recognized the futility of creating fine models for reproduction in mass, if uneducated and unsympathetic individuals are allowed to supervise the various stages of manufacture. To meet this condition, art schools were included in the movement, with a complete change in objective. The curriculum consists of general instruction in drawing and designing, planned so as to qualify the majority as factory supervisors. Students of superior ability have specialized instruction to train them as professional designers for various crafts. Those who have suffered in seeing the ruthless massacre of promising decorations when handled by factory talent, will appreciate the enormous difference which such a revision in factory procedure would mean to our industrial arts. If the administrator could be found, Sweden has supplied us with the first practical solution of a most intricate industrial problem. There is a tendency in the artist of today to look with less contempt on the decorative arts and industries: this may be the result of high prices paid for advertising drawing or posters for national publicity. Insofar as the material stimulus is concerned, there are many industries which might be as financially interesting as advertising, with greater promise of permanent contact; but the artist must grasp the fact that considerable effort is involved in mental equipment for adaptability and that there is nothing derogatory in creating beautiful objects for human enjoyment and environment. In America we are just waking up to what these things mean to behaviour and citizenship, and the attainment of difficult objectives imparts a spirit of sportsmanship to the invention of ways and means. If we judge racial temperament by the proverbs and maxims of a country, we think Sweden has an advantage over us in our respective attitudes to aesthetic development and sympathy with beautiful accessories of life. There is a Swedish maxim which runs somewhat after this fashion: A man should provide for his table on a scale below his means; he should dress in ac-



cordance therewith, but he should equip his home on a more ambitious level.

LEON V. SOLON.

Building on the Mall

The appropriation of many millions by the last Congress to build much needed accommodations for the executive and clerical forces of the Government in Washington makes the proper placing of the new structures a live question. Upon the intelligent location and artistic grouping of these buildings depends the future appearance of the Capital City. Shall it be orderly, artistic and imposing or shall it be haphazard, unsightly and insignificant?

The question has been raised as to the propriety of placing any of these buildings upon the Mall, the area shown on the plan of L'Enfant between the Capitol and the Washington monument. Potomac Park, often thought of as the Mall, is between the Washington monument and the Lincoln Memorial. This tract was covered with water in L'Enfant's day, and was a barren waste of new made ground when the Park Commission made their studies of a landscape scheme for a new Park harmonizing with and extending L'Enfant's plan to the newly acquired land. The Lincoln Memorial was made the dominant and only feature of magnitude in the west section.

The Washington newspapers, expressing a strong public sentiment, have persistently opposed the erection of future buildings on the Mall. The reason for this opposition deserves consideration. The Army and Navy buildings, so huge, so ugly, obtruding so offensively upon the dignity of the Washington Monument and the Lincoln Memorial cause the people to fear the destruction of the Parks, if future unsightly and ill-placed buildings are given a place.

Those who desire to see Pennsylvania Avenue the dominant element in the future city, create another class of opposition. This sentiment is held not only by those who believe it to be in the best interest of the city but by business men and real estate owners who fear that the execution of the L'Enfant plan in the Mall will be detrimental to the future commercial prestige of Pennsylvania Avenue. They fail to appreciate that no commercial enterprises will be harbored within its boundaries, and the more imposing its dignity and beauty, the greater the public attraction to that section of the city. This will be to the advantage of commercial interests on Pennsylvania Avenue.

In their zeal to protect the Mall from unsightly buildings, or to save the prestige of Pennsylvania Avenue, the newspapers and the public forget that Washington has for a hundred and thirty-five years had the practical and artistic plan of L'Enfant for group building on the Mall. This is a heritage left the people by George Washington. They forget that if properly located and designed such structures are necessary if Washington city is to attain its greatest beauty and most imposing dignity. They ignore the fact that in the Park Commission Report of 1902 we have the approval by the highest grade of experts of L'Enfant's plan for building on the Mall. While approving the plan of 1789, this commission extended the landscape scheme to the new made ground, and added to the plan the triangles formed by the Mall and Pennsylvania Avenue on the north and by the Mall and Maryland Avenue on the south. They left the new plan as a heritage from Roosevelt.

These bequests to the public by two great Presidents should be religiously administered by the officials. Unless buildings are erected on the north and south of the Mall, the Avenues of elms planted, and the vista between the Capitol and Washington Monument opened, those in authority will have sadly failed in their administration of this public trust and the artistic effects of the city will be marred. The importance and value of the L'Enfant scheme forgotten by the public, apparently dead, was, fortunately for the future of the city, revived by those far-seeing and capable men, The Washington Park Commission. I am pleased to see that the National Commission of Fine Arts through its chairman, Charles Moore, has reaffirmed its staunch adherence to the L'Enfant plan in its recent report.

The papers, senators and representatives speak with pride of the anticipated completion of L'Enfant's plan, while deprecating building on the Mall, the most imposing and artistic feature of his plan. L'Enfant showed no government buildings on the Avenue triangle, but the Park Commission, more than a hundred years later, added this feature to his plan.

While I believe heartily in the purchase of the triangles, between both Maryland and Pennsylvania Avenues, I believe it most important for the country that L'Enfant's plan be executed with its open vista and grouping of Government buildings. All who have followed the fortunes of the Park Commission plan for the past twenty-five years must feel elated to know that its moral force has caused two more important features to be adopted and a third almost assured—the removal of the Botanic Gardens from the Mall to south of Maryland Avenue; the purchase of Mount Hamilton for a National Arboretum; finally the assured purchase of the avenue triangle.

President Coolidge in a recent speech expressed his approbation saying: "Whenever an American is at the seat of his Government, however traveled and cultured he may be, he ought to find a city of stately proportion, symmetrically laid out and adorned with the best that there is in architecture, which would arouse his imagination and stir his patriotic pride. In the coming years Washington should be not only the art center of our own country, but the art center of the world. Around it should center all that is best in science, in learning, in letters and in art. These are the results that justify the creation of those national resources with which we have been favored."

The senate and house have responded with liberal appropriations for purchasing the triangle, moving the Botanic Gardens from the Mall and buying Mount Hamilton. Secretary Mellon shows his appreciative interest by calling in Bennet of city planning fame. This enthusiasm of acquisition may cause us to lose sight of Washington's plan.

The Congressional Building Commission headed by Senator Smoot, has recently been reported as opposing new buildings in the Mall. Let us hope that the National Commission of the Fine Arts, the Federation of Fine Arts as well as the cultured members of the community may induce the Commission to change its mind.

We hear many suggestions for memorializing Washington's two hundredth anniversary. The people should impress Congress with the fact that no memorial could be more imposing, none more suitable and none more pleasing to Washington than the completion of the base of his Monument, and the execution of the L'Enfant Plan with its open vista between the Monument and the Capitol and buildings on the Mall.

GLENN BROWN.

Summer Courses in Architecture at the Carnegie Institute of Technology

Courses in architecture, it is announced, are featured in the plans for the Summer Session this year at the Carnegie Institute of Technology in Pittsburgh. Under the plans for the coming summer, the Department of Architecture of the College of Fine Arts will give intensive six weeks' courses from June 13 to July 23 to meet the needs of students who desire to continue their work in architecture in the vacation, whether to make up credit, obtain advanced credit, or to prepare themselves for entrance.

Subjects offered include Architectural Design, Outdoor Sketching, Descriptive Geometry, Shades and Shadows, Perspective and Mathematics.

Six and eight weeks courses are announced also in Chemistry, Physics, Mathematics, Mechanics, English, Economics, Commercial Law, History, Drawing, Surveying, Psychology and Education, Charcoal and Pastel Drawing, Water Color and Oil Painting, Design, Sketching, Methods, History of Arts, and various shops. Courses of six weeks will be given to teachers and supervisors of Public School Music, Fine and Applied Arts, and Manual and Industrial Arts.

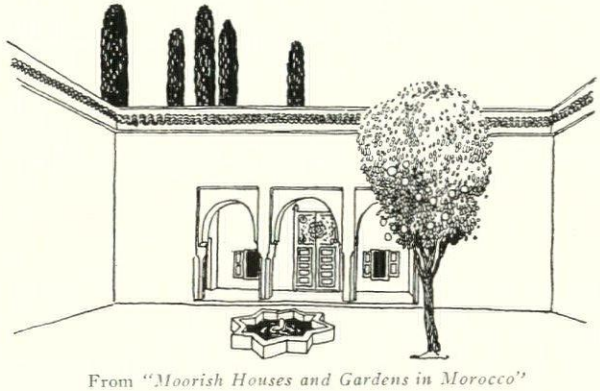
Competition for the Design of a Small House

In order to secure a group of plans of small houses of architectural merit and practical value, available for those desiring to build homes in the vicinity of Boston, and in connection with the observance of "Better Homes Week" in Boston, May 2 to 9, 1927, the Women's Municipal League, 25 Huntington Avenue, Boston, offers a first prize of $150 and a second prize of $50 for the best designs submitted which conform to certain conditions. These conditions are clearly stated in the League's program which may be obtained from the above address on request and the transmission of a self-addressed stamped envelope.

Moorish Houses and Gardens of Morocco*

There are two kinds of Moroccan houses, the house without a garden, called a *dar*, and the house with a garden called a *riad*. There might be added a sort of country house called a *menzeh*.

The *dar*, which is much the most numerous schematically consists of an outer wall without windows forming a square or rectangle, and an inner wall parallel to the outer and seldom more than ten feet from it. The roof is commonly flat. The rooms all open on the inner court. If there is an upper story there is sometimes a balcony on the court, sometimes not. The balcony from the street makes a right angle so that the court cannot be seen from without.



From *"Moorish Houses and Gardens in Morocco"*

The Moroccan walls are usually of baked brick and plastered. Windows are merely square openings, but doors often ogival. The house contains little movable furniture. Nearly all his interior decoration is architectural, mosaic, tile, and sculptured or moulded ornament. Possibly the most interesting parts of the book are the chapters, with their drawings and photographs, of the decorative interiors, the designs in mosaic or tile, the carved or painted wood.

The essentials of this inward facing house are almost as old as humanity and defensive of course in origin. Gallotti finds the prototype in nomad encampments, and thinks it a mistake to bring in the Roman atrium. Probably it is, except by way of referring both to more or less similar conditions, prehistoric and continuing. But to say that the atrium is merely the descendant of the individual peasant's but with a smoke hole in the roof is going rather far. Possibly the atrium had more than one ancestor. At any rate the Greek and Roman house turns much the same sullen back to the street and the type is all over the east. The ground plans of Moroccan palaces, which M. Gallotti gives, remind one of the ground plan of the palace of Knossos excavated by archaeologists in Crete.

The defensive element no doubt remains, but conditions produce instincts and tastes and the Moroccan house represents also a state of mind. In American small cities of the middle west, the open air life of the family is on the front porch and lawn, without even a hedge or fence between the lawn and the street. In England it would be behind the house or sheltered by a high wall or hedge. In Morocco it is in the inner court. The demand for a guarded privacy increases as one goes south to the Mediterranean. The social custom and the attitude of mind correspond and the line between the family and the world without becomes more definite and emphatic. The American and the Moroccan are the two extremes. The American house seems to express confidence in society and liking for the climate outside.

**Moorish Houses and Gardens of Morocco.* By Jean Gallotti. 2 vol. 157 illus. 136 plates. William Helburn, Inc.

Illustration from *"Moorish Houses and Gardens in Morocco"*

Mr. Gallotti, walking by the shore of the Atlantic at Salé, once came upon an old Musselman seated on the ground. It was a quiet summer day and the ocean seemed asleep. "It is beautiful!" Mr. Gallotti remarked in passing. Whereat the old man raised his hand in salutation, and said: "There is no trouble in the heart of him who looks at the sea." The question whether a Mohammedan could have a Wordsworthian feeling for nature seemed to be answered, and the answer suggested that he sought in nature the thing which he sought when he built his house, namely, a refuge from the world, coolness, cleanliness and peace, shut away from dust and heat and contention.

Now the narrow enclosure of the *dar* leaves something to be desired. The air is heavy in the closed court; there are no outlooks and no trees. The *riad* is the reply to this unsatisfied desire. It is a rectangular garden with high walls, a building at each end, and a vista between. It is, as Mr. Gallotti puts it, "a *dar* expanded with a sigh of relief." Sometimes the building is on all four sides and the only difference then between a *dar* and a *riad* is that the one surrounds a court and the other a garden; but in general a *riad* is a walled garden with the house at one end and a smaller house or pavilion at the other, and the main house does not open inward on a court but outward on the garden. The parterres are rectangular, the walks paved with marble or tile, and parterres and walks separated from each other by low balustrades. The fountain or pool is central and always present.

The *menzeh* is hardly a "country house." The Mussulman does not take his family there for the summer. It is a sort of pavilion, a *pied à terre,* somewhere convenient to the city, for outings and pleasure parties. In general character the *menzehs* are somewhat like the pavilions in the *riads.*

It is a pity that most of our large, numerous and abundantly illustrated volumes on architecture by Englishmen or Americans, have so little value in their text except informative value, almost no quality of culture or charm. It is perfectly possible to think and to write in English as suggestively and lucidly as Mr. Gallotti writes in French, if one takes the trouble to do so. To translate the passage which has suggested this reflection. "Let us not seek to find in Morocco the garden that represents intelligence. If Versailles symbolises the human will exercising its power over nature, if the pleasure most secret and most profound which our old gardens gave to our forefathers was the intimate feeling of triumph over an ancestral enemy, the pleasure of the Moroccan in contemplation of his *riad* is quite different. It is rectangular because he does not distinguish it from the house itself. It is only a large structure with the roof off. The trees grow unclipped because in a dry climate they do not represent the hostility of nature but its smile. These flowers and trees, even the sky above outlined, framed or enclosed in stone and faience, are but a bit of nature plucked and placed in the midst of the house, like a bouquet in a vase." It may be that an architect usually wants only good plates, photographs and drawings; but even he may attack the subject more intelligently if he has an intelligent text. Mr. Gallotti has studied not only Moroccan architecture but Moroccan ways of thinking and feeling. His descriptive analyses are as detailed and informative as his photographs and drawings are numerous and good. But beyond these, he wants us to know how the Moroccan feels and why he likes what he likes. He not only gives the Moroccan house but he interprets it in terms of Moroccan psychology.

ARTHUR W. COLTON.

"Original Views of London, by Thomas Shotter Boys, 1842"*

To go back almost a century and view familiar works of architecture in their original environment is always interesting in these days of intensive building when crowded conditions due to increased land values have shut out the view of many old masterpieces. Such glimpses of the past are portrayed in the recent re-issue of Thomas Shotter Boys' sketches about London made during the early Victorian years.

In assembling these sketches in book form Mr. E. Beresford Chancellor has skilfully recreated for the reader the atmosphere of those days by an interesting description of each plate, identifying the buildings shown and touching on their history. The extent of his research is revealed in these condensed descriptions by references to the circumstances under which many of the buildings were built, giving dates, costs and the names of the architects who designed or later altered them.

The pictures are beautifully reproduced showing the accuracy of detail in the artist's work. The composition of the scenes

*"*Original Views of London as It Is, by Thomas Shotter Boys, 1842.*" A Re-Issue of the Complete Set of these Scarce and Valuable Delineations of London, with Descriptive Notes to each Plate, and a Short Introduction by E. Beresford Chancellor, M.A., F. S. A. London, The Architectural Press. 1926. 30 Shillings.

will be appreciated more from a standpoint of artistic and historic interest than from a purely architectural one and only the artist's minute care in his indication of architectural detail prevents them from being classified solely as historic topography. Mr. Chancellor's descriptions of the various buildings shown refer quite naturally also to many made famous by their occupancy rather than by any special merit of their architectural design, but these glimpses of the neighborhood give an intimate background for the more important buildings.

We have few records to show what system the architects of that day used to keep construction costs within the appropriation but it is interesting to note that the Custom House designed by David Laing in 1814 at an estimated cost of £228,000 was let by contract to Miles and Peto for £165,000. Only too often today does the architect find the relation of the figures reversed.

The fashions have also changed since Boys sketched the ladies of his day strolling on Regent Street or in Hyde Park but apparently the tendencies of fashion are about the same. This is noted in a reference to the Lord Chancellor of England who, sitting at the window of his club, "counted all the long petticoats that went past, and all the short ones" and found that "the short petticoats beat the long hollow."

While many of the buildings famous in London history which are shown in these plates have been swept away by the march of civic or commercial progress, Wren's St. Paul's Cathedral, Westminster Abbey and other familiar monuments remain as milestones to link the past with the present.

AUBREY B. GRANTHAM.

Homes of Character. By Marcia Mead, A.I.A. in collaboration with Daniel P. Higgins. New York: Dodd, Mead & Co., 1926. 1st ed. xix. 235 pp. Ill. by original sketches by Otto R. Eggers and photographs. 5¾ x 8⅝ in. Cloth. $3.50.

The author divides this book into chapters each of which is devoted to one of the most popular types of modern American houses, those which are based on the Dutch Colonial, the New England Colonial, the Southern Colonial, the English Cottage and the French, Spanish and Italian prototypes of the villas, which dot our suburbs. The history of each type, its characteristics, the most beautiful examples, the correct furnishing and many other matters that are of great interest and value to those who build or buy new houses, are discussed.

Joseph Pennell's Pictures of Philadelphia. Introduction by Elizabeth Robins Pennell. Philadelphia, Pa.: J. B. Lippincott Co., 1926. 2nd ed. 137 pp. 64 Reproductions of lithographs. 7 x 10 in. Cloth. $2.50.

Steel Structures. Stresses in Simple Structures. By Leonard C. Urquhart and Charles E. O'Rourke. New York: McGraw-Hill Book Co., Inc. 1926. 1st ed. ix. 278 pp. Ill. Diagr. 5⅞ x 9¼ in. Cloth. $3.50.

The fundamentals of stress calculation in simple structure. Both graphical and analytical methods are shown in most cases. While the relation between graphical and analytical methods is emphasized, the methods have been separated so that each may be taken up separately. Both methods are illustrated by actual numerical problems.

Old Churches and Meeting Houses in and around Philadelphia. By John T. Faris. Philadelphia: J. B. Lippincott Co. 1926. 1st ed. xvi. 261 pp. Ill. 5⅞ x 8⅞ in. Cloth. $6.00.

Design of Concrete Structure. By L. C. Urquhart and C. E. O'Rourke. New York: McGraw-Hill Book Co., Inc. 1926. 2nd ed. ix. 501 pp. Ill. 5⅞ x 9¼ in. Cloth. $4.00.

A thorough revision of this widely-used text. The chapter on plain concrete has been amplified by more complete treatment of scientific proportioning. The chapter on columns has been entirely rewritten and enlarged. The chapter on continuous beams and building frames has also been entirely rewritten. All references to the report of the Joint Committee concern the 1924 report.

RECENT PUBLICATIONS

issued by manufacturers of construction materials and equipment.

[*These may be secured by architects on request direct from the firms that issue them, free of charge unless otherwise noted.*]

Stucco, California. Characteristics of material, color, texture, versatility, economy. Description of various finishes with method of application. Interior stucco. Recommendations for construction. California Stucco Products Co., 1503 South Alameda St., Los Angeles, Calif. 8x11 in. 32 pp.

Sound Absorption. Bulletin No. 1. Sound absorption of cinder concrete building units. Treaties on acoustics in general with particulars and tables of tests made. Information on the reflection, absorption and transmission of sound. Engineering Department, National Building Units Corporation, 1600 Arch St., Philadelphia, Pa. 8½ x 11 in. 8 pp. Ill.

Lighting Systems. Bulletin No. 900. "The Light that Never Fails." Description of the Roth Emergency Lighting System Model 7207-3. Full information regarding installation, meters, batteries, etc. Roth Brothers & Co., 1400 West Adams St., Chicago, Ill. 8½ x 11 in. 4 pp. Ill.

Laundry Chutes. Bulletin 678. The new glass lined laundry chute. Full description and advantages. Also the new aluminum laundry chute. Full particulars, specifications and detailed drawings. The Pfaudler Co., 89 East Ave., Rochester, N. Y. 8⅜ x 11 in. 8 pp. Ill.

Sarcophagi, Bronze. Booklet illustrating and describing some ancient customs, past masterpieces and present tendencies in the finest types of burial enclosures. Table of general measurements. The National Casket Co., 3 Park St., Boston, Mass. 9¼ x 12⅛ in. 28 pp. Illustrated.

Steel Construction. "Lessons of the Storm." A brief engineering study of the effects of the recent hurricane along the south coasts upon various types of building construction. Steel products applicable to construction, including beams, diamond bars for concrete reinforcement, steel pipe, wire nails and products, etc. Jones & Laughlin Steel Corp., Jones & Laughlin Bldg., Pittsburgh, Pa. 7⅛ in. x 10¼ in. 56 pp. Ill. (From photographs taken by construction engineers.)

Oil Burners. "Adventures in Comfort." How to find home comfort by using May Oil Burners. Advantages of the burner and particulars of use. May Oil Burner Corporation, Winchester & Carey Sts., Baltimore, Md. 6 x 9 in. 24 pp. Ill.

Boilers. "Economical Warmth." Construction, operation and economy of Thatcher Boilers. Advantages and use. "Helpful Hints on Choosing Your Heater." Helpful information on steam, hot water, warm air and oil heating. Particulars of the various types of Thatcher boilers, furnaces and ranges. The Thatcher Co., Thatcher Building, 39-41 St. Francis Street, Newark, N. J. 3½ x 6¼ in. 24 pp. 8 pp. Ill.

Granite. A.I.A. File No. 8b3. (Reprinted from Sweet's Catalogue—21st Edition.) "Architectural Granite." Classification of building granites. Color plates with description of each, standards of quality and full description of each type. Granite mouldings and application to architectural ornament. Details of economical design for granite work and practical methods of construction. Finishes. Complete form of granite specifications. National Building Granite Quarries Assn., Inc., 31 State St., Boston, Mass. 8½ x 11 in. 24 pp. Ill.

Cement. "Structolite for Industrial Buildings." Advantages and reports of proving tests. Tables on insulation. Construction details. Architectural specifications. United States Gypsum Co., 205 West Monroe St., Chicago, Ill. 8½ x 11 in. 16 pp. Ill.

Walls, Textured. Textone—a plastic paint. Various styles and period finishes with full color scheme to correspond. Method of application for each finish. United States Gypsum Co., Dept. 143, 205 West Monroe St., Chicago, Ill. 8½ x 11 in. 24 pp. Ill.

"Self-Sentering and Trust." Handbook on "Self-Sentering," a combined form and reinforcement for floors and roofs and "Trussit," the ideal reinforcement for solid partitions and curtain walls. Erection details, specifications and uses in the construction of better walls, ceilings, roofs and floors. The General Fireproofing Building Products, Youngstown, Ohio. 8½ x 11 in. 48 pp. Ill.

Redwood. California Redwood for better farm structures. Information on the endurance of redwood with relative decay-resistance of native woods. Economy of redwood on account of strength, fire protection, easiness of painting. Shrinkage tables. California Redwood Association, 24 California St., San Francisco, Calif. 7⅞ x 10¾ in. 24 pp. Ill.

Pumps. Catalog No. 27. Complete line of hand pumps, power pumps, spray pumps. Water systems for all conditions. General information, full measurements and capacities. Specifications, suggestions for installation and method of operation. Construction details. Useful information and engineering tables. The Deming Co., Salem, Ohio. 7¼ x 10 in. 222 pp. Ill.

Concrete Masonry. "A Book of Beautiful Homes." The advantages of concrete walls, floors, roofing tile. Pictures and plans of concrete masonry residences in various parts of the U. S. Portland Cement Assn., 33 West Grand Ave., Chicago, Ill. 6 x 9 in. 48 pp. Ill.

Heating, Vapor. Broomell Manual. Complete data and particulars of the Broomell System. Explanation of various parts. Complete information regarding boilers, smoke pipes, chimneys, pipe covering, radiators and condensing coil with specifications. Planning installations; drawings of roughing-in dimensions. Piping details. Miscellaneous tables of sizes and weights, etc. Vapor Heating Co., 201 North George St., York, Pa. 4 x 6¾ in. 112 pp. Ill.

Lighting Fixtures for public buildings. Catalog 40. A.I.A. File No. 31f23. Lighting fixture designs suitable for Federal, State and Municipal Buildings, Schools, Churches, Banks. Public Libraries, Hotels, Theatres, etc. Original designs of interior and exterior lighting equipment. Particulars of glass and wattage used and prices. Beardslee-Chandelier Mfg. Co., 216 So. Jefferson St., Chicago, Ill. 8⅜ x 10⅞ in. 48 pp. Ill.

Tile. "Casa Bonita, A house of tiles built at the Sesqui-Centennial as an educational exhibit." Description of the various rooms fitted with tile. Complete details of each of the rooms. Associated Tile Mfrs., 581 7th Ave., Beaver Falls, Pa. 7⅝ x 10⅞ in. 32 pp. Illustrated.

Cornices, Sheet Steel. A.I.A. File No. 1212. Standard specifications for the fabrication and setting of sheet steel cornices. Specifications for all different types of construction with explanation of use. Clauses for painting, masonry and structural steel contractors. Full particulars and details of sheet steel cornices. Sheet Steel Trade Extension Committee, 715 Oliver Bldg., Pittsburgh, Pa. 8½ x 11 in. 12 pp. Ill.

Linoleum. Pattern book of Armstrong's Linoleum for 1927 including marble designs, plain and battleship linoleum, Jaspé, tile, moulded inlaid, Arabesque linoleum, printed designs. Jaspe linoleum rugs, printed and inlaid rugs, felt-base rugs, rug borders and piece goods. Armstrong Cork Co., Linoleum Division, Lancaster, Pa. 3⅜ x 5⅞ in. 272 pp. Ill.

Linoleum. "The Attractive Home." How to plan its decoration. By: Hazel Dell Brown. A discussion of home decoration guiding toward brighter and more cheerful homes through the intelligent use of color. The correct treatment of the floor as to color, laying, care, etc. Armstrong Cork Co., Linoleum Division, Lancaster, Pa. 6⅝ x 9½ in. 24 pp. Ill.

Refrigeration. New household models of "Coldak" electric refrigeration. Detailed description of six units with specifications. Coldak Corporation, 8 West 40th St., New York City. 6¼ x 5¾ in. 16 pp. Ill.

Mortars. "The Fallacy of Unnecessary Strength." Bulletin 316. Statistics, etc. on the wasteful extravagance of using good materials in the wrong places. Recent test data. The National Lime Association, 927 15th St., N. W., Washington, D. C. 6 x 9 in. 16 pp. Ill.

Locks. A.I.A. File No. 27-B-2. Pamphlet on Corbin Vault Handle Locks and Catches. Full description, size and detailed drawings. P. & F. Corbin, New Britain, Conn. 7½ x 10½ in. 8 pp. Ill.

Steelcrete Products. Time-Tested products including diamond metal lath, "Rid-Gid" metal lath, rib lath, corner beads, channels, wall ties, Steelcrete reinforcing mesh, industrial mesh. Full particulars and specifications for use. Useful tables. Details and typical installations. The Consolidated Expanded Metal Companies, Steelcrete Building, Main & South Sts., Wheeling, W. Va. 8⅝ x 11¼ in. 16 pp. Ill.

Tile. Architectural Monographs on Tiles and Tilework. No. 4. Ceramic Art among the Greeks and Romans. By: Rexford Newcomb, Professor of History of Architecture, University of Illinois. Special reference to the part ceramic art played in architecture. Associated Tile Manufacturers, 1581 7th Ave., Beaver Falls, Pa. 7⅝ x 10⅞ in. 32 pp. Ill.

Boilers, Oil-Burning. The advantages of the Bryan Oil-Burning Boiler with detailed photograph of boiler showing the parts mentioned. Bryan Steam Corporation, (Boiler Division), Peru, Ind. 8½ x 11 in. 4 pp. folder. Ill.

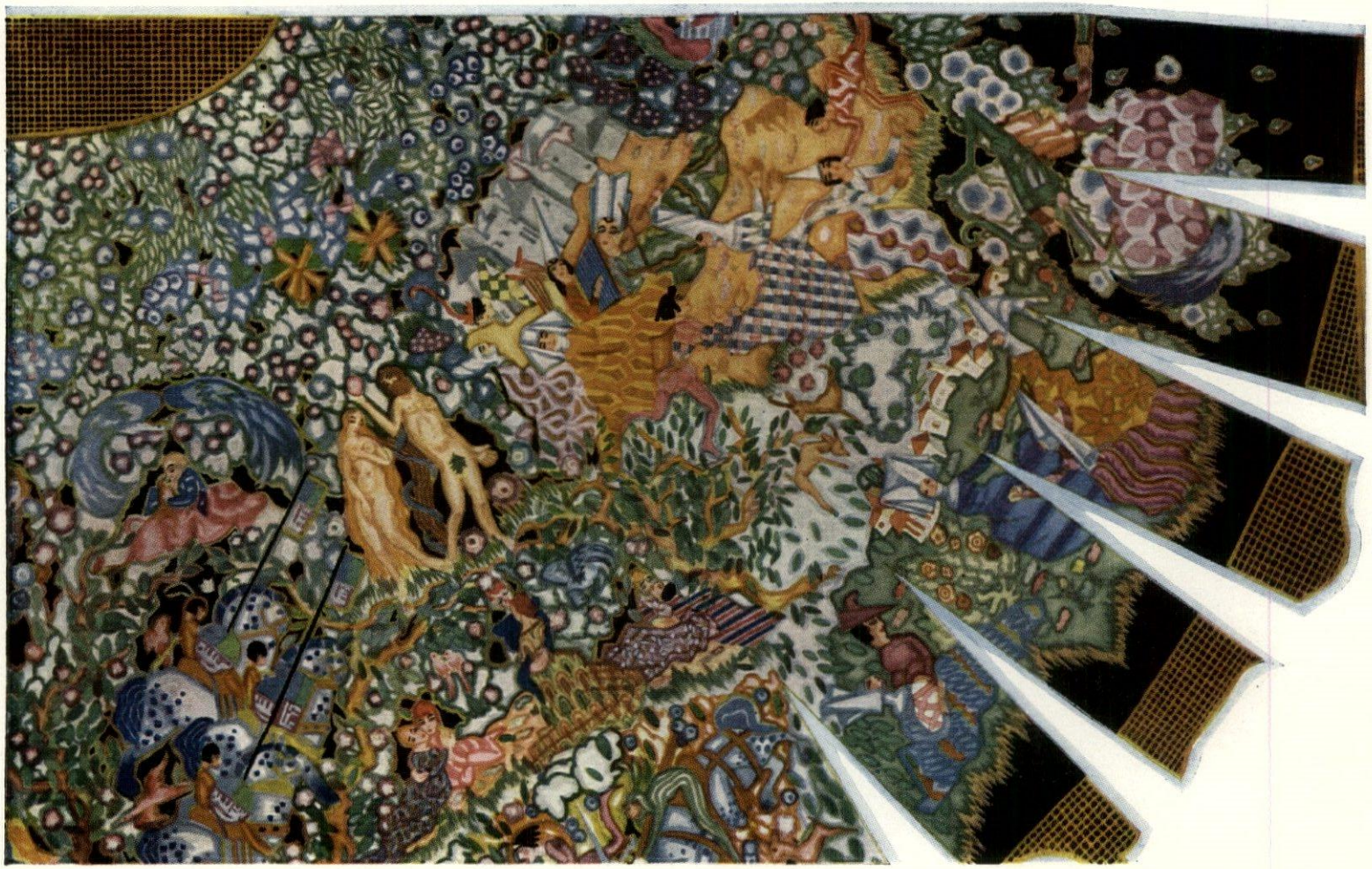
Electric Flow Meters. Catalog 20. Brown Electric Flow Meters for accuracy in measurement. Full description of flow meters and their method of operation and use in various capacities. Advantages of design and construction. The different kinds of indicators and charts with details. The Brown Instrument Co., Philadelphia, Pa. 7⅞ x 10½ in. 62 pp. Ill.

Protective Coatings. Triple A. products prevent corrosion. Characteristics of AAA solutions and method of use. Reports of laboratory tests. Quigley Furnace Specialties Co., Inc., 26 Cortland St., New York City. 3½ x 6⅜ in. 24 pp. Ill.

Roofs, Floors. "Sheetrock-Pyrofill construction." Method of installation. Advantages. Tables and Construction Blueprints. Specifications. Representative installations. United States Gypsum Co., 205 West Monroe St., Chicago, Ill. 8½ x 11 in. 18 pp. Ill.

Pyrobar Voids. Filler tile for use in the concrete joist system of reinforced floors and roofs. Description. Advantages. Full specifications and construction details. Tables of safe superimposed loads in pounds per square foot. United States Gypsum Co., 205 West Monroe St., Chicago, Ill. 8½ x 11 in. 12 pp. Ill.

An interesting example of a modernist design for a theatre ceiling by Joseph Urban. Our reproduction has been made from the original drawing which was made in template form to allow for the curve of the ceiling.



Template, Part of Ceiling of the Ziegfeld Theatre, New York City
Designed by Joseph Urban