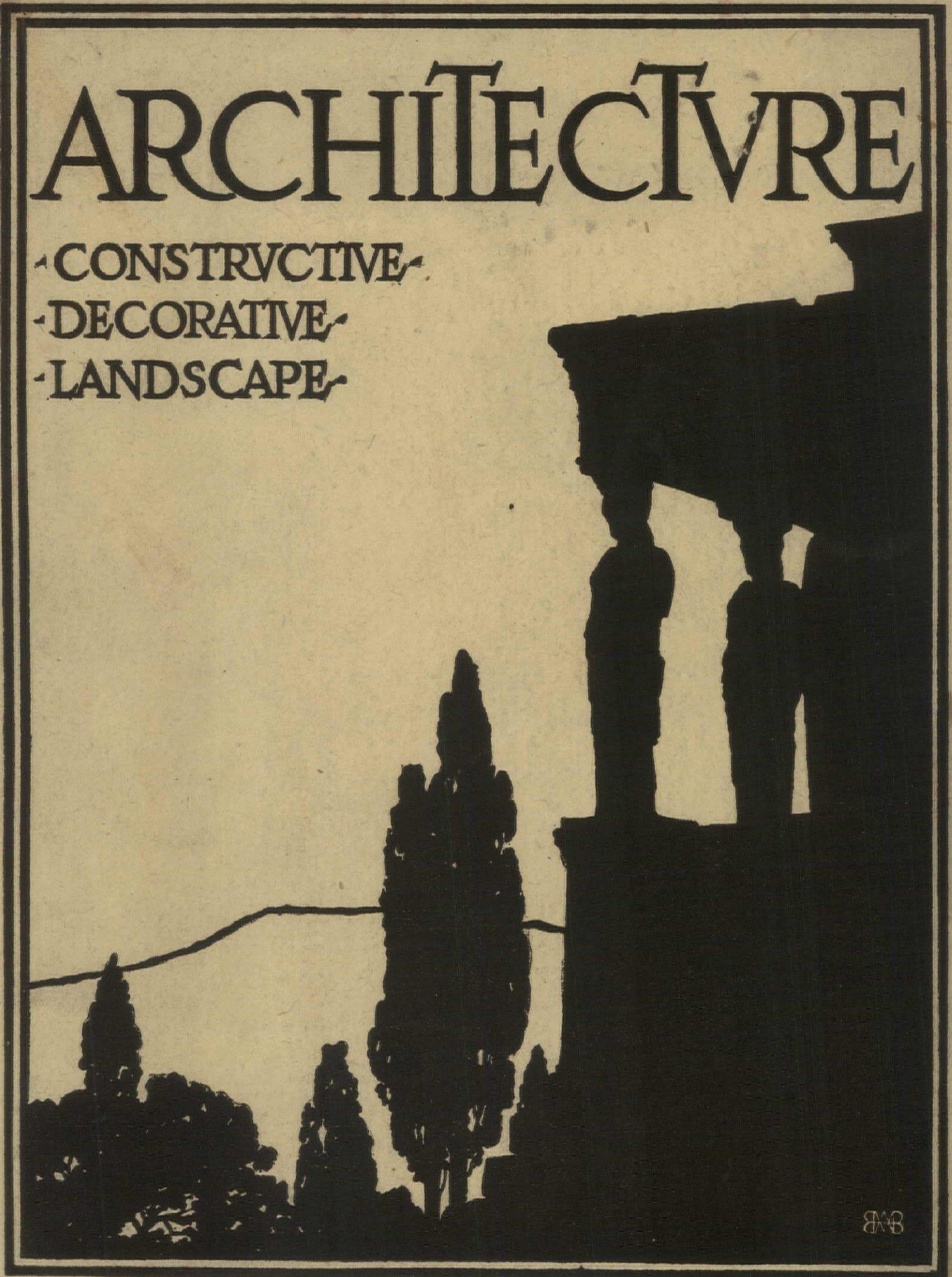


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# ARCHITECTURE

CONSTRUCTIVE  
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B&B

VOLUME XXVI

JULY 1912

NUMBER 1



**HIGGINS'**

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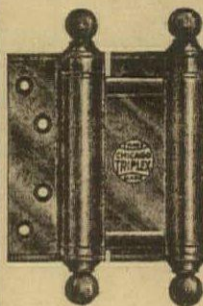
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The Chicago "Triplex" Spring Butt has features of construction and design which appeal to the architect and builder.

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Army and Navy Y. M. C. A.	Newport, R. I.	Louis E. Jallade	Norcross Bros. Co.
Whitehall Building	New York City	Clinton & Russell	G. A. Fuller Co.
St. Patrick's Church	Philadelphia	LaFarge & Morris	Melody & Keating
Hotel Taft	New Haven, Conn.	F. M. Andrews & Co.	King Lumber Co.
Union Station	Tampa, Fla.	J. T. Leitner	G. A. Fuller Co.
Bamberger Store	Newark, N. J.	Jarvis Hunt	Geo. Vassar's Sons Co.
Herald Square Building	New York City	Buchman & Fox	J. T. Brady & Co.
Wards "L" and "M"	Bellevue Hospital	McKim, Mead & White	G. A. Fuller Co.
Adams Express	Grand Central Terminal	{ Warren & Wetmore }	W. H. Parker
Bromo-Seltzer Tower	Baltimore, Md.	{ Reed & Stem }	J. J. Cain Construction Co.
Arcade	Columbia, S. C.	J. Evans Sperry	Cramp & Co.
Empire Theater	Baltimore, Md.	James Brite	G. A. Fuller Co.
Otis Building	Chicago, Ill.	O. G. Simonson	John Auer & Sons
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"ARCHITECTURE" are made by

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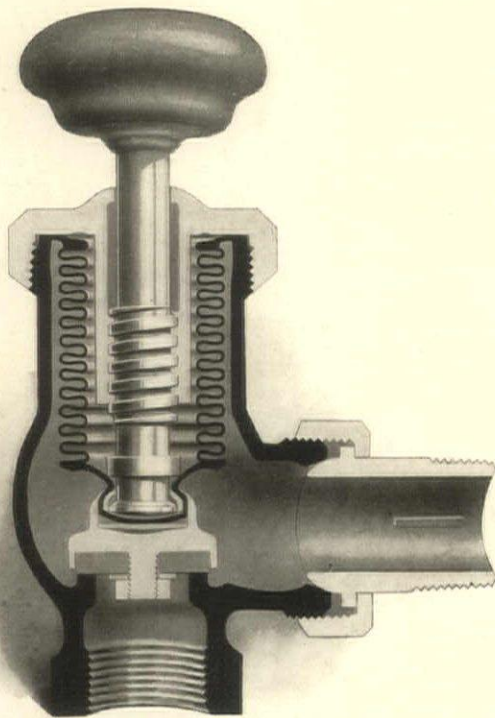
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NEW YORK

## The Sylphon leakless seal

The elastic, unbroken metal wall (see black line in cut) makes it permanently impossible for the Sylphon Packless Radiator Valve to ever leak steam, air or water around the stem. It is absolutely without packing,—nothing to bind, and it works so easily that a child can open and close it.

### Sylphon Packless Radiator Valves

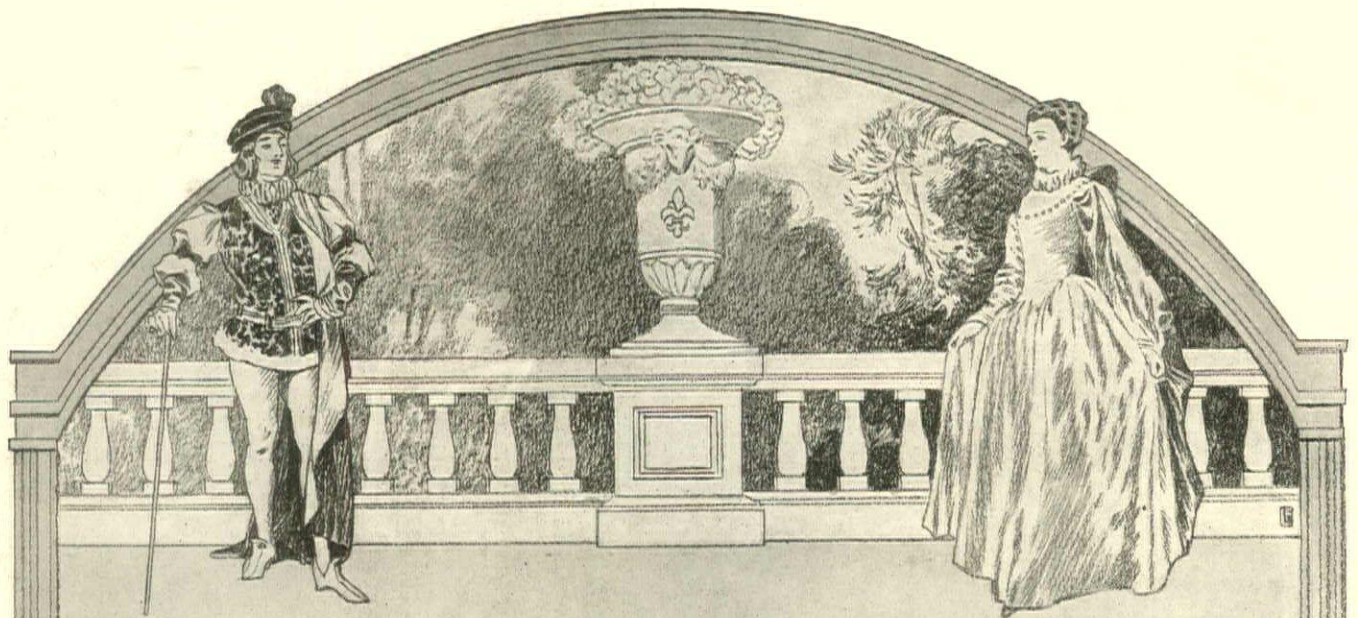


Cross sectional view showing inner construction of valve.  
The unbroken metal wall formed by the Sylphon  
brass bellows is emphasized in black.

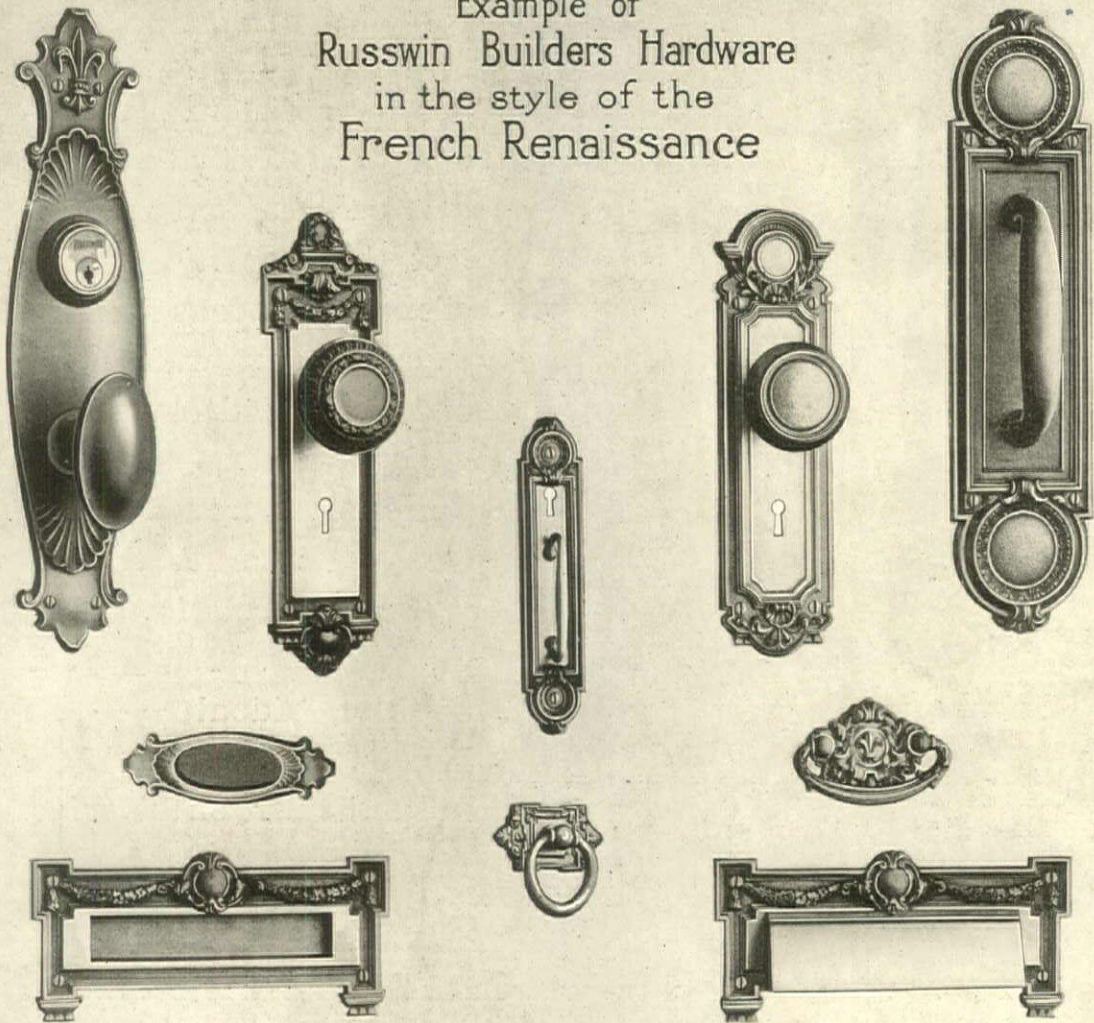
are designed especially for use on radiators. Architects who specify this valve insure the comfort and protect the property of their clients. It means no more expensive rugs, walls, floors and ceilings damaged by water leakage,—no more annoyance from hissing steam,—no trouble and expense of replacing from time to time. Ask for our booklet, "Ideal Sylphon Heating Specialties," for full particulars on this valve.

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Example of  
 Russwin Builders Hardware  
 in the style of the  
 French Renaissance



**RUSSELL & ERWIN MFG. CO.,**

The American Hardware Corp. Successor  
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INTERIOR OF BANKING ROOM

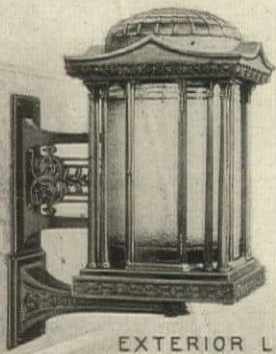
FIRST NATIONAL BANK DENVER, COL.

WEARY AND ALFORD DESIGNERS

THE GORHAM CO ARCHITECTURAL BRONZE

FIFTH AVENUE

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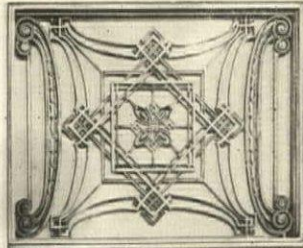
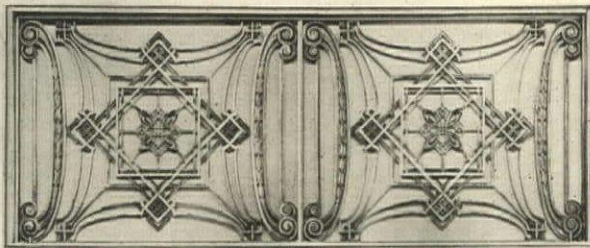
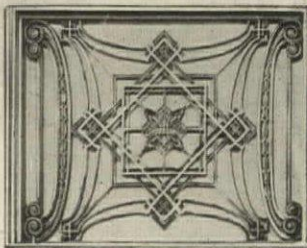
EXTERIOR LAMP



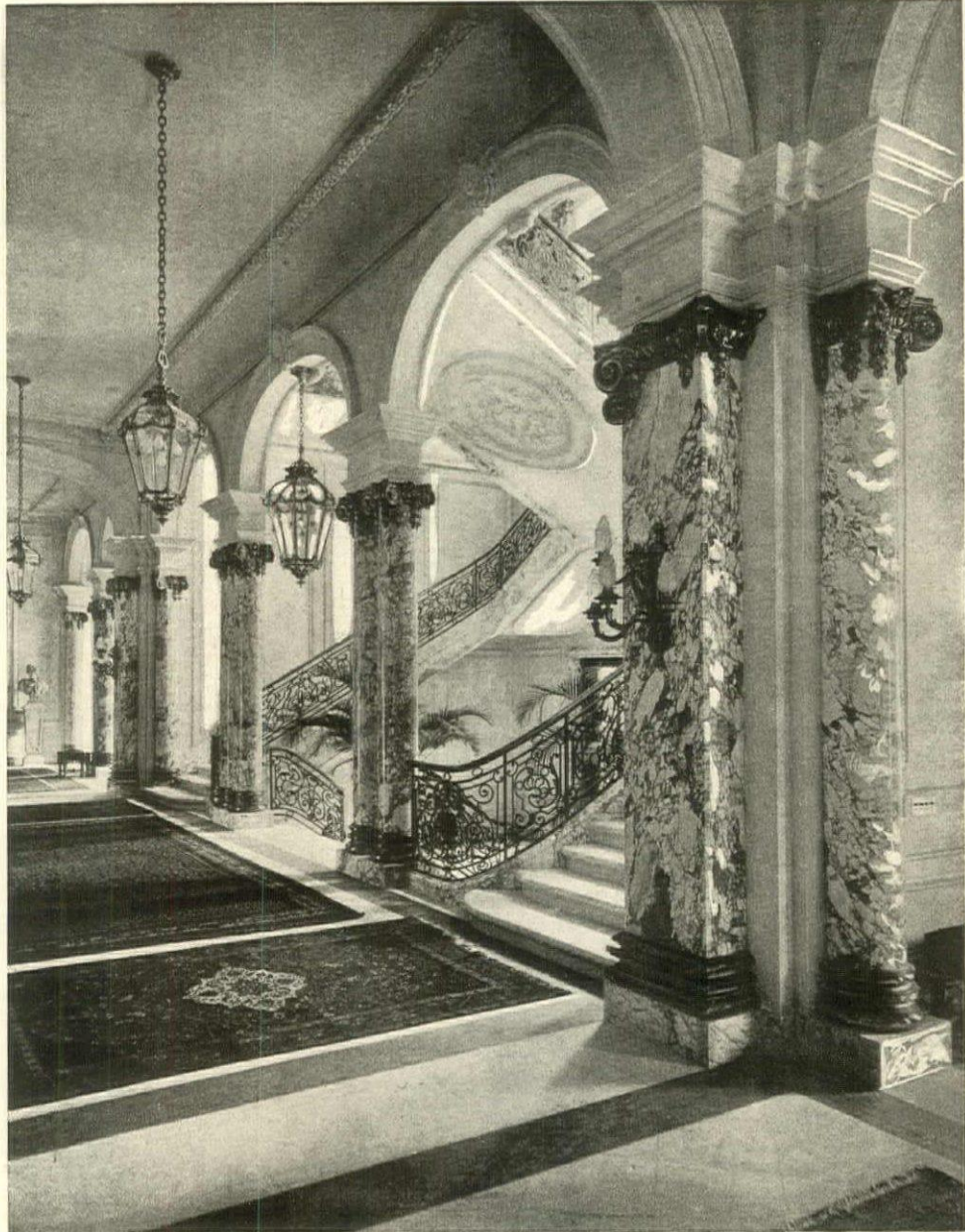
THE peculiarly delicate and intricate  
 Bronze Ornamentation in this room is of  
 Gorham Special Process Castings  
 Heavily Gold Plated



WICKET



GRILLE OVER MAIN ENTRANCE DOORS



HALL, RESIDENCE, E. J. BERWIND, NEWPORT.

Horace Trumbauer, Architect

## Batterson & Eisele

Importers and workers in

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Works: Edgewater, N. J.



DETAIL, BANKERS TRUST BLDG., NEW YORK.

Trowbridge & Livingston, Architects.

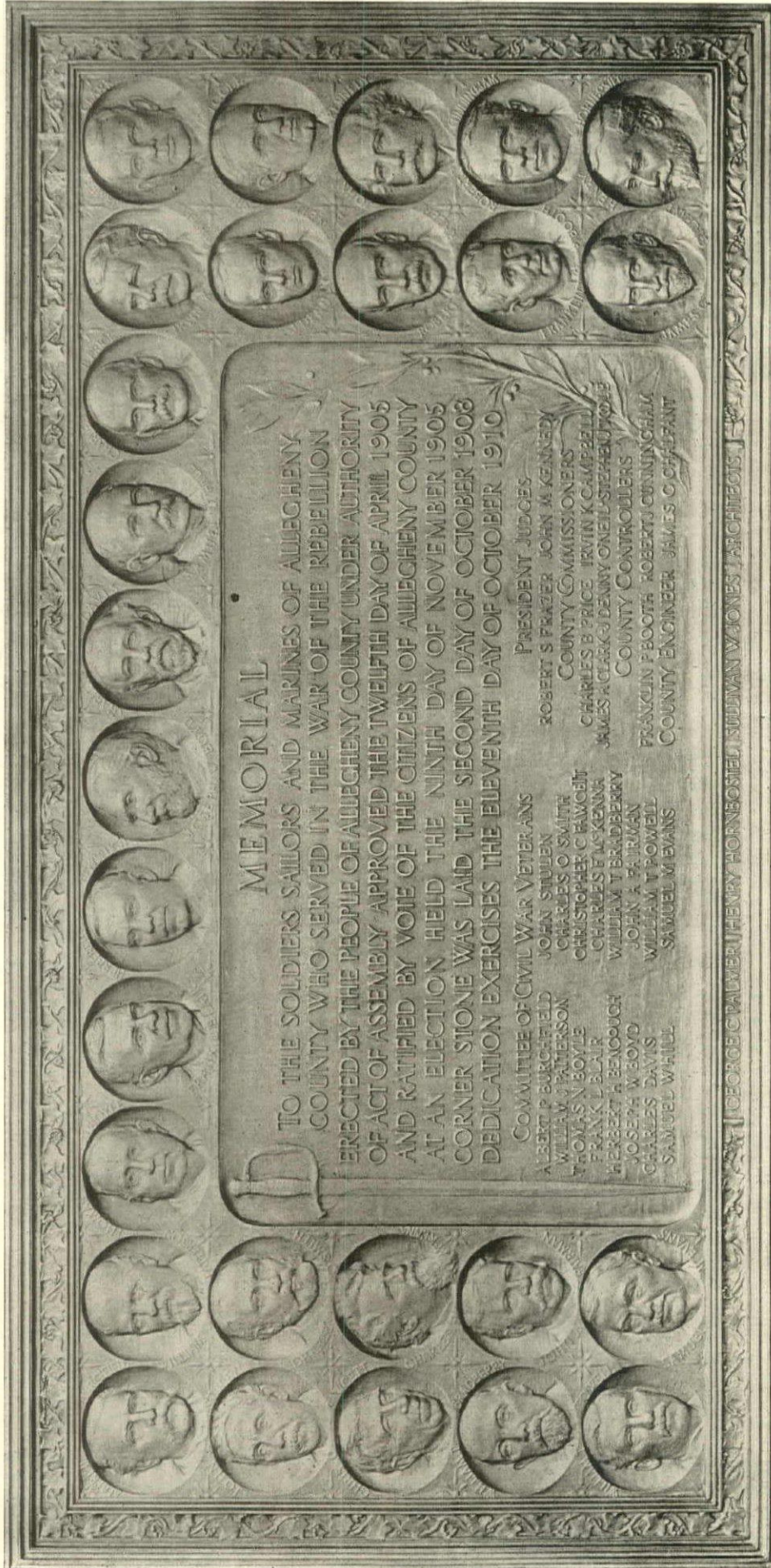
The above photo shows two of the twenty-five  
Large Bronze Windows for the Banking Rooms  
of the Bankers Trust Company, New York.

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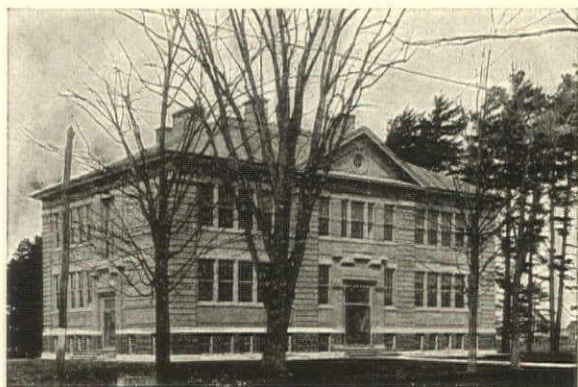
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Floors Sound-Proofed with Hydrex-Saniflor Deadening Felt.

**SANITARY SOUND-PROOFING  
OF FLOORS**

THERE has long been wanted, especially for floors in residences, a sound-deadening material which is absolutely sanitary and verminproof. The use, especially under bedroom floors, of cattle-hair felt or felt composed of grass is, when one stops to think of it, repugnant to one's sense of cleanliness. Vermin not only live in and feed on such animal matter as cattle-hair and vegetable matter as grass, but these materials, because of their very nature, become day by day more repellent, and in their decomposition give off carbonic gas, which certainly is not desirable in a living or sleeping room. The use of such materials under such conditions is not in accordance with the theory of modern hygienics. More illness is undoubtedly due to this cause, especially in infants and children whose first playground is the floor, than we have heretofore estimated. Such materials should not be used when there can be obtained a clean, sanitary and more modern product.

**HYDREX-SANIFLOR  
SOUND-DEADENING AND  
INSULATING FELT**

**Hydrex-Saniflor** is a sanitary, coated, non-absorbent sound-deadening and insulating felt, especially made for hospitals, residences, churches, schools, apartment houses, etc. It is waterproof and verminproof. Its shell-like, flexible coating or veneer on both sides makes it obnoxious to mice, moths and other vermin, which will not and cannot eat the coating. This coating seals in the dry felt and waterproofs its two surfaces, so that it cannot absorb moisture or odors.

**Hydrex-Saniflor** is ideal as a warmth-giving blanket under clapboards. Its excellent insulating qualities, in addition to its being waterproofed on both sides, makes it unequalled for insulation in cold storage work, refrigerator cars, etc.

A WATERPROOFED  
NON-CONDUCTOR  
OF SOUND, HEAT  
AND COLD FOR  
WALLS, FLOORS,  
ROOFS



Showing Hydrex-Saniflor under clapboards.

**HYDREX-NOVENTO  
WATERPROOF BUILDING PAPER**

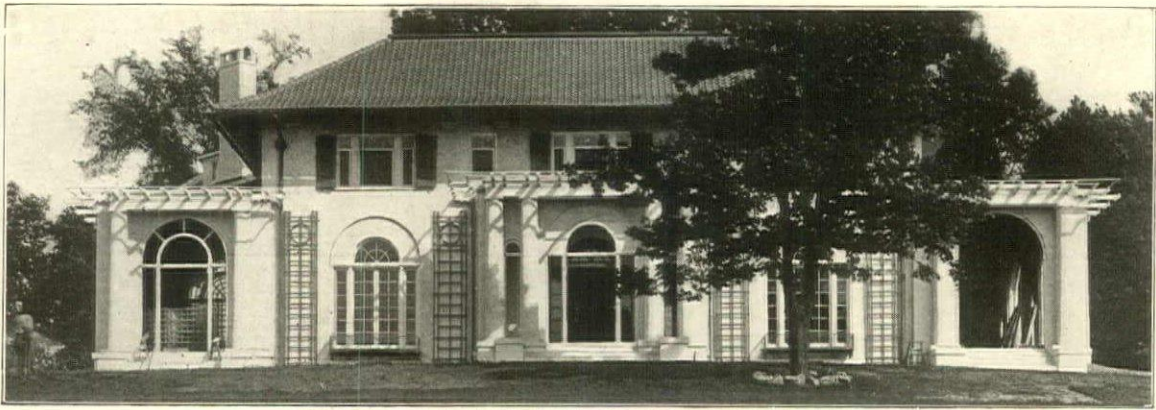
An extra heavy, saturated and coated building paper for lining under clapboards, slate, tile, tin, stucco, etc. Contains no coal tar to injure tin, or the nails in slate.

THE HYDREX FELT AND ENGINEERING CO.  
Makers of Waterproof Felts, Building Papers, Roofings, Asphalts, Paints, etc.  
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HOUSE OF A. B. GAINES, ENGLEWOOD, NEW JERSEY.  
Davis, McGrath & Kiessling, Architects.  
NEPONSET Waterproof Building Papers used.

## NEPONSET Waterproof Building Papers

do away with cold, damp, drafty houses. Absolutely waterproof. Should be in every house. NEPONSET "Black" costs only about \$10.00 more than rosin-sized for the average house, and will save at least a ton of coal each winter. Any owner will cheerfully pay the difference when told why.



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"No one so deaf as  
he who will not hear"

Build not for TO-DAY—but for THE AGES.  
Avoid freaks and fads—Unborn generations  
must look upon your work.

Investigate our *unusual* and *beautiful* shades of  
RED BRICK.

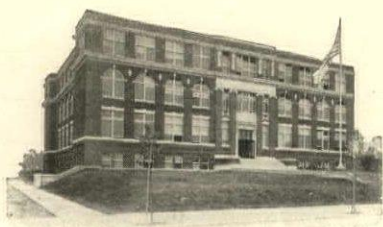
BRADFORD PRESSED BRICK CO.  
Bradford, Pa.

Bradford-Pressed-Brick-Co.  
Trade Mark Reg.

# For Safety and Fire Protection Corr-Tile Floors Have No Equal



Apartments, 87th St., near 5th Ave., New York.

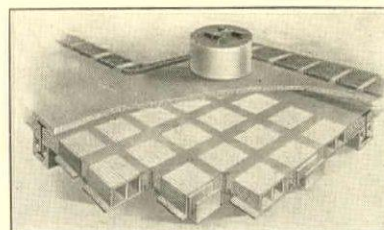


East Side High School, Newark, N. J.



Central Commercial and Manual Training High School  
Newark, N. J.

The **Corr-Tile Two-way Floor Construction** is the safest and most fireproof type of floor ever devised. That is a strong statement, but we have the facts to prove it.



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The panel was designed for a safe live load of 150 lbs. per square foot, but, mark you, was loaded to 650 lbs. per square foot without reaching the yield point of the steel or showing any signs of failure. What other system can duplicate that?

The **Corr-Tile Floor** gives double the fire protection of any other system. Here is the way it does it. In the first place, you have in the reinforced concrete ribs a fireproof material. But, as shown in the illustration above, these ribs are themselves protected from fire by a layer of tile formed by the flanges of the hollow tile.

These are just two strong points in favor of this system that we emphasize here. There are many others. Write for a copy of our new **Corr-Tile Catalogue** and get all of them.



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CORR-LINE-SPACERS  
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HOTEL BELVIDERE, BALTIMORE. Parker & Thomas, Architects.  
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The Hotel Belvidere was finished throughout by  
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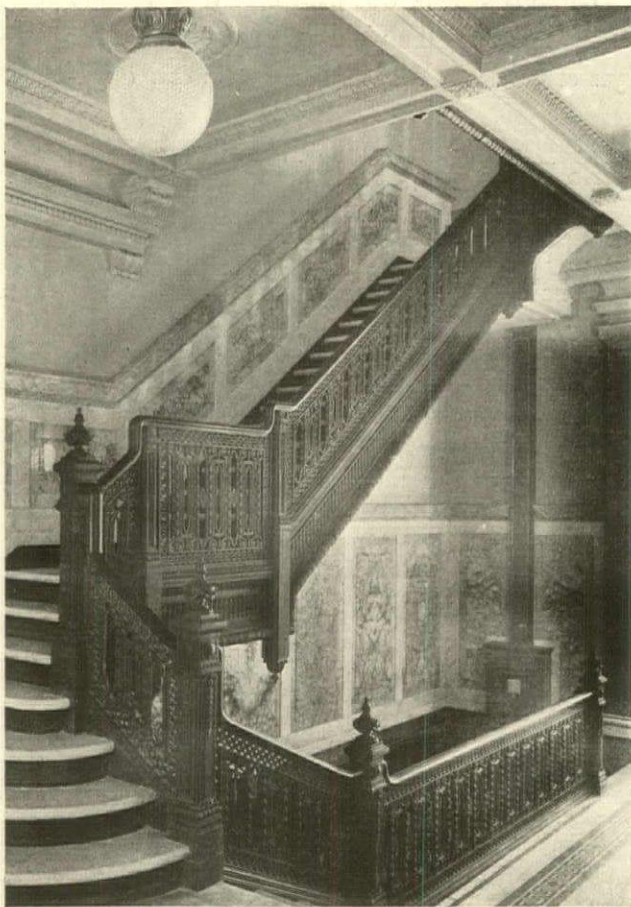
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HARRY P. KNOWLES, ARCHITECT.

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 CONVENIENCE TO ARCHITECTS AND THEIR  
 CLIENTS.

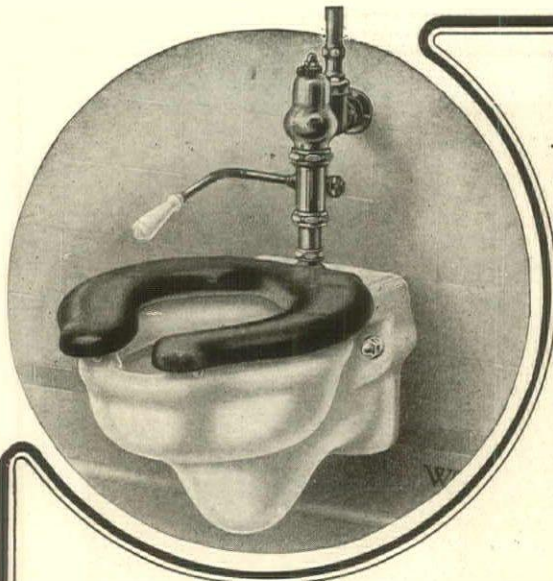
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The floors in the toilet room can be kept a great deal cleaner with considerable less exertion because there is nothing to interfere with either mop or brush. This type of closet is particularly designed for institutions, office buildings, public comfort stations and hospitals.

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Established 1855

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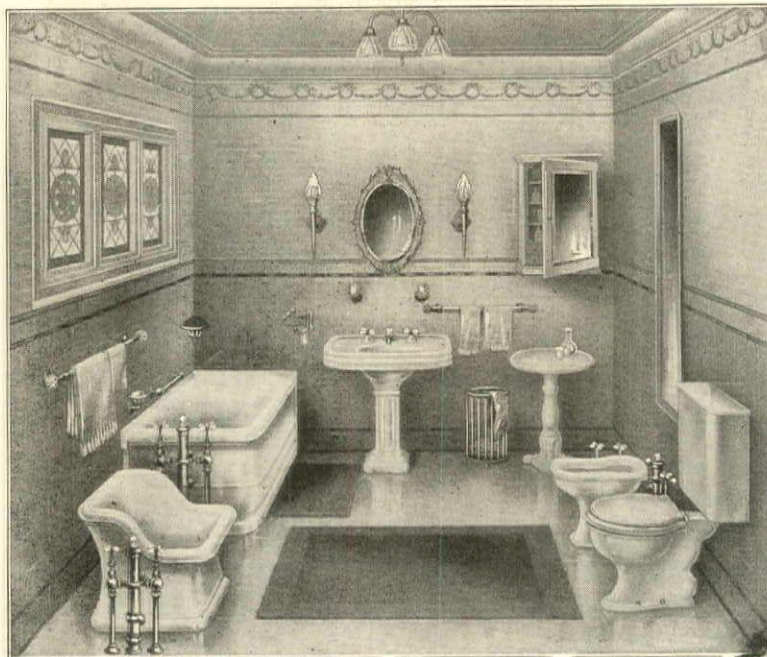
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Washington, D. C.

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Sanitary and Splendid

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We manufacture a complete line of Earthenware Plumbing Fixtures including Bath Tubs, Lavatories, Hospital Fixtures, Sinks, Laundry Trays, Urinals and Vitreous Lavatories.

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INTERIOR, FIRST BAPTIST CHURCH, PITTSBURGH.

Cram, Goodhue & Ferguson, Architects.

**A**N example showing the adaptation  
of a finished gray tile vaulting

**R. GUASTAVINO COMPANY**

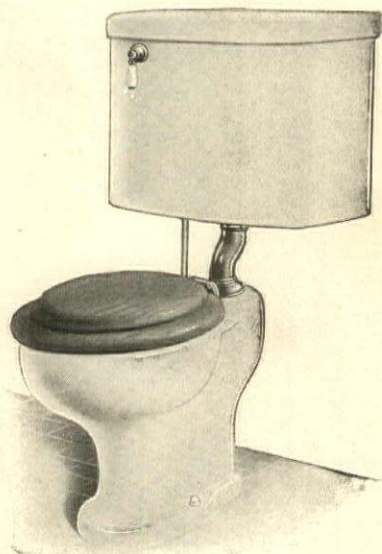
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# Noiseless

THANK GOODNESS!



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Nothing can possibly give the owner of a house the same satisfaction as a water closet which will flush so noiselessly, yet so thoroughly, that it cannot be heard outside of its immediate environment.

“The Siwelclo” is so constructed that, even with the lid raised, its operation is noiseless, quick and thorough, fulfilling all the requirements of modern sanitation. Our best type of Syphon Jet Closet.

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PORTLAND CEMENT

TO THE EXTENT OF OVER 5,000  
BARRELS IS BEING USED IN THE  
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PERFECTLY WHITE IN COLOR AND STAINLESS

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MEDUSA WATERPROOFED CEMENTS  
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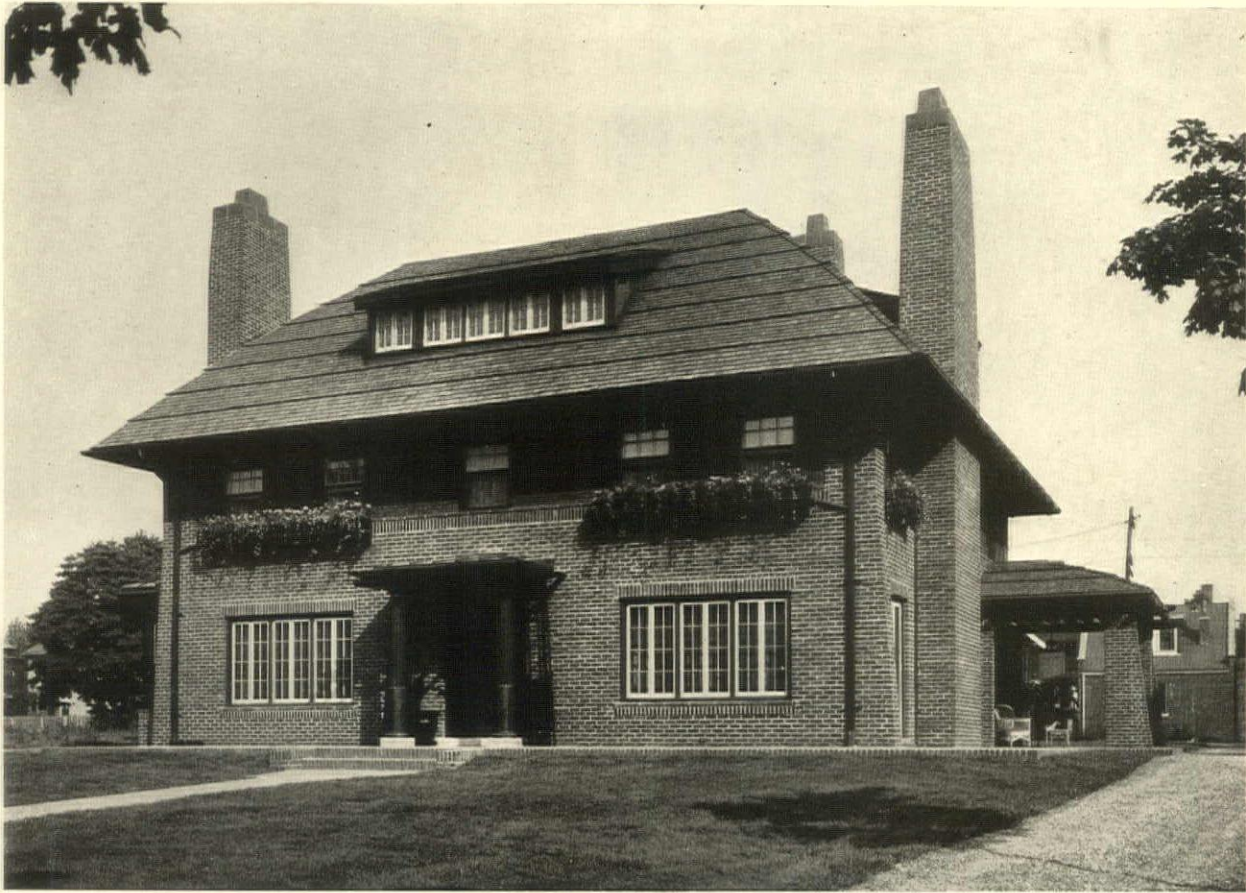
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THE SILVER HOUSE AT CLEVELAND, OHIO.  
J. Milton Dyer, Architect.  
BUILT OF "TAPESTRY" BRICK

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He goes to a tailor who will give him fit, finish and effect and cheerfully pays a fair price.

And yet a suit of clothes is only a temporary matter. It is soon worn out and discarded.

How much more important is the selection of the clothing for his new house,— for this is a permanent monument to his wisdom or his folly.

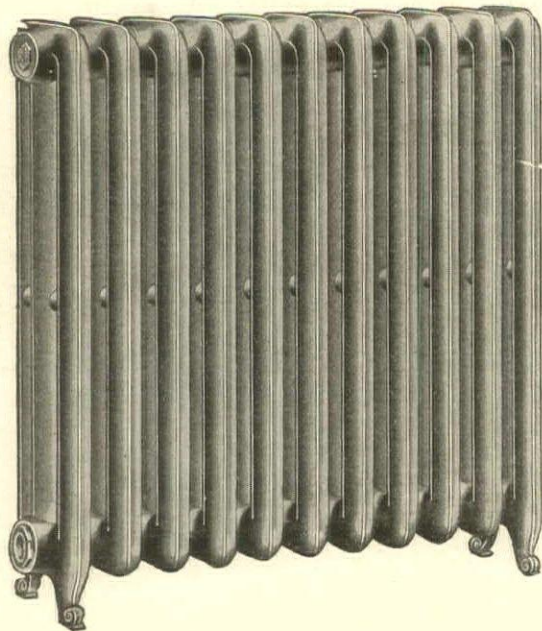
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**The H. B. Smith Co.**

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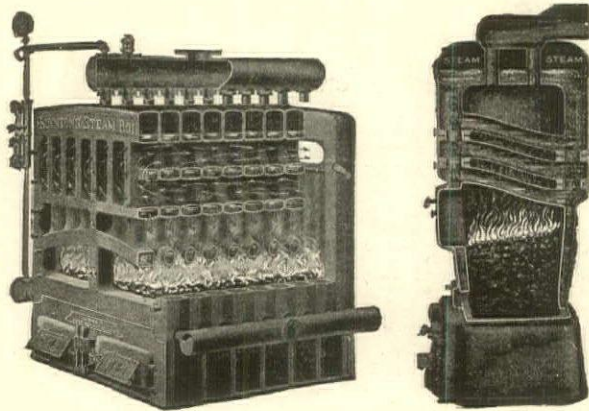
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SECTIONAL

ROUND

**For Steam and Hot Water**

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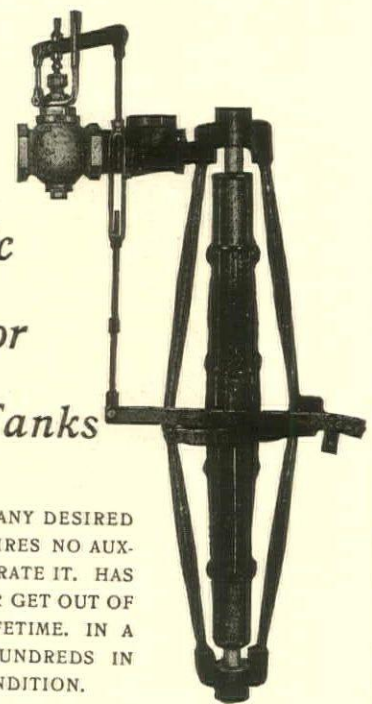
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**Boilers—Furnaces—Ranges**

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*Lawler's  
 Thermostatic  
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KEEPS THE WATER AT ANY DESIRED  
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J-M Transite Asbestos Fire-Proof Shingles offer the most perfect fire protection known, because they are made of Asbestos (rock) Fibre and Portland Cement—both minerals. Are absolutely proof against fire, water, acids, gases and chemical fumes, and are not in the least affected by the most severe weather conditions, except that the longer they are exposed, the harder and tougher they become.

## J-M Transite Asbestos Fire-Proof Shingles



Residence of Mr. Patrick McCauley, Brooklyn, N. Y.  
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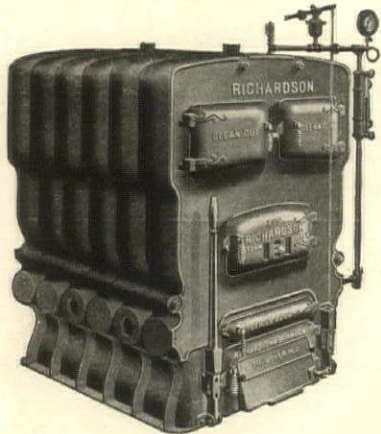
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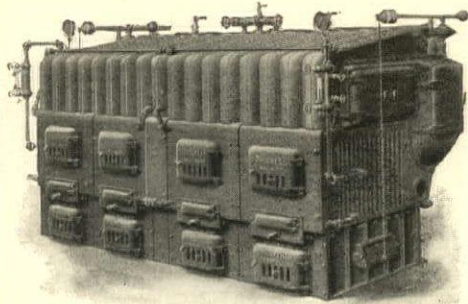
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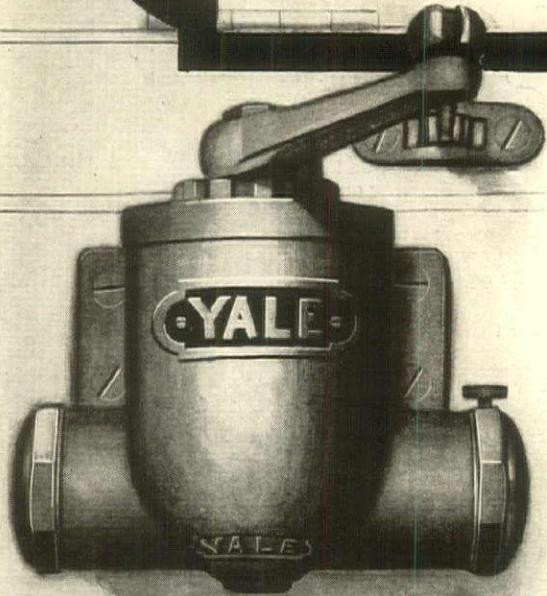
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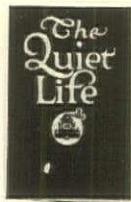


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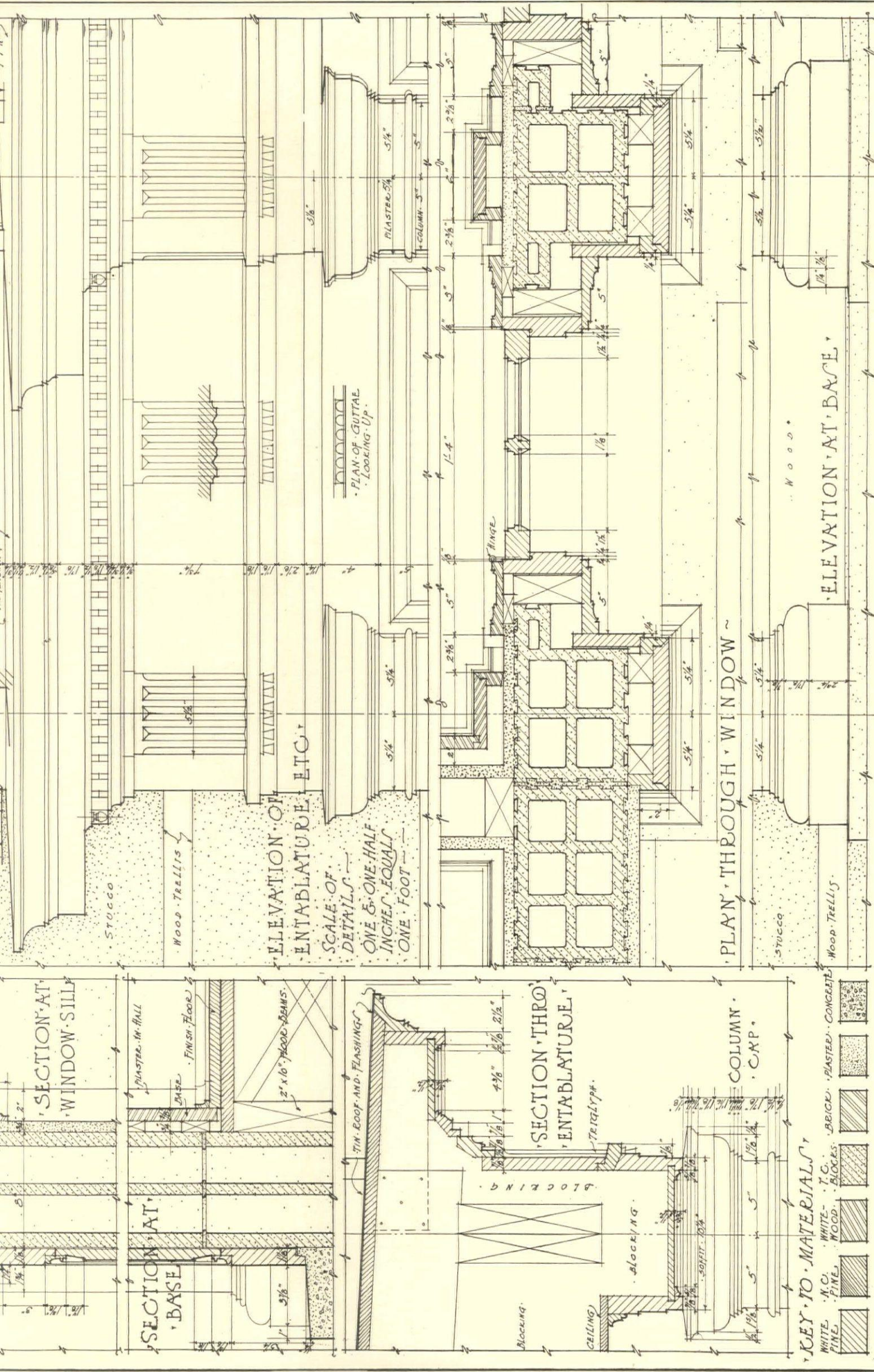
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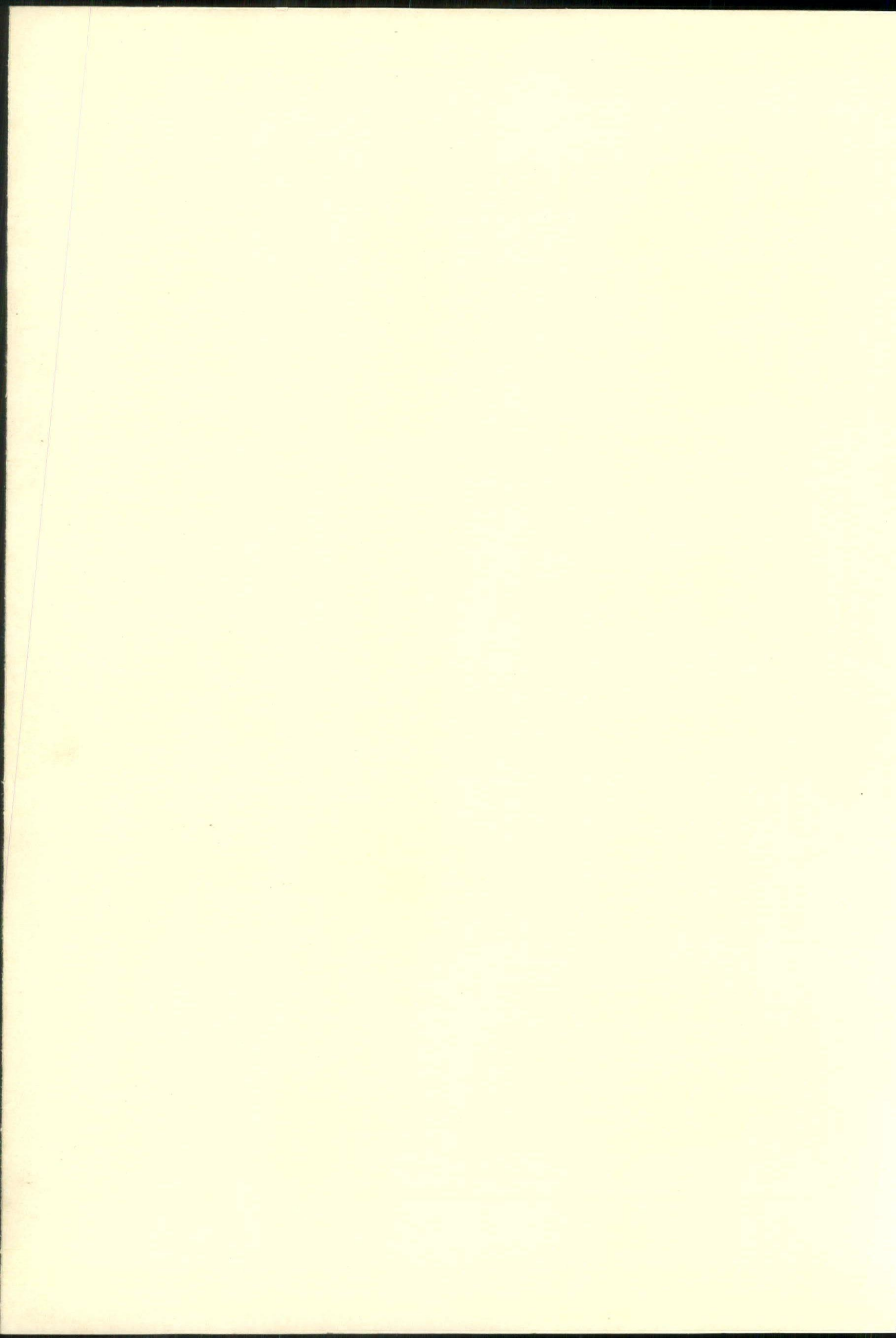
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# ARCHITECTURE

VOL. XXVI. JULY 15, 1912. No. 1

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STATION, FROM THE SQUARE.



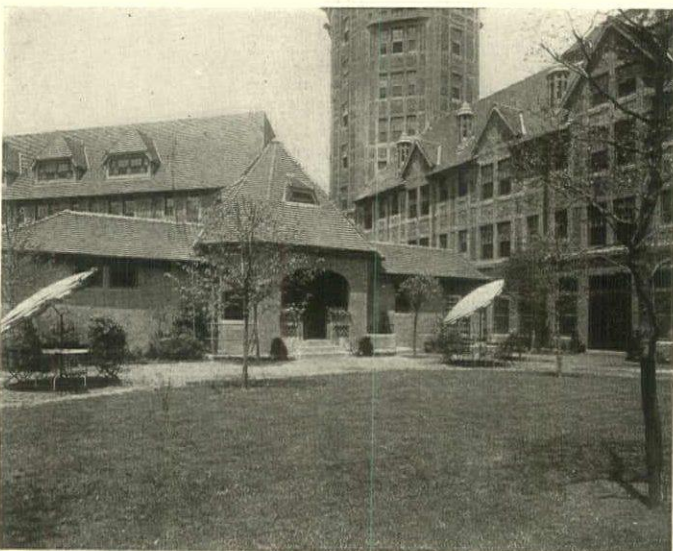
STATION, FROM HOFFMAN BOULEVARD.



FOREST HILLS INN.



APARTMENT HOUSE, STATION SQUARE



TEA GARDEN, REAR OF HOTEL.



WALL, TEA GARDEN.

## FOREST HILLS GARDENS.

THIS group of buildings, a number of which are illustrated in this article, is the concrete embodiment of one of the most interesting ideals in real estate development which has thus far been attempted in the United States. It is an experiment more or less along the lines of the "Garden Cities" of England, but with a slightly different class of occupants in mind, and has been worked out, not only by a corporation for the benefit of its employees, but by an independent concern, whose business is to afford an opportunity to a large class of our citizens to improve their condition of living. The idea which prompted the Forest Hills Gardens was to take care of that vast and very deserving class of American people whose upbringing and education have made them people of refinement, accustomed to, and appreciative of, artistic quality in their surroundings, but whose means do not enable them to purchase, under any of the ordinary conditions, country or suburban homes. The property was chosen primarily because it was one of the few available and attractive pieces of land close enough to New York to make both the expenditure of time and carfare in traveling to and fro, as little as possible and also because of its excellent transit facilities.

The directors of the Sage Foundation then chose an architect and a landscape architect: Grosvenor Atterbury and Olmsted Brothers—whose qualifications for work of this kind were so very evident that no more need be said. The company, in conjunction with their architects, devised a scheme for the development of the property by which they achieved a sufficient latitude of cost to take care of almost any one of the class of people which the property was designed to accommodate. Beginning at the station they built around the so-called "Station Square" a group of buildings which are practically suburban apartment houses and which contain a variety of apartments ranging from a single room and bath, up to five or six rooms, with a hotel and restaurant at the eastern end. The hotel affords an attractive and comfortable accommodation for any season of the year at moderate rates and is under management directly controlled by the company. Immediately beyond this station square are small two family houses and small block houses of various dimensions. As the property spreads out fan-wise from the station various other houses have been constructed,



GROUP XI. TWO DETACHED AND TWO SEMI DETACHED HOUSES.  
FOREST HILLS GARDENS, L. I.

becoming larger and larger as the distance to the station increases, and as these houses are larger so the lots on which they stand increase in size. The scheme seems so entirely rational that it is surprising it has never been before attempted except in a more or less hesitating and tentative manner in Bronxville. The value which the scheme has over that of the ordinary real estate development consists mainly in the superior quality of both design and construction of the houses over any real estate development where houses of as low cost have been constructed, and in the fact that the company is able to make its loans direct so that the houses can be purchased on the installment plan without the payment of heavy bonuses. Further the Sage Foundation Homes Company has provided a scheme by which, if the purchaser finds himself unable to further continue the payment of installments, and wishes to remove from the property it has a sort of "cash surrender value" similar to that of a life insurance policy. This latter clause is one of the most important things about the whole proposition, since it very frequently happens that people whose living expenses are dependent upon their incomes find it impossible because of sickness, or for other reasons, to continue the payment of installments and their equity is, as a rule, swept away.

Now as regards the buildings themselves: the buildings around the station square have been very beautifully designed to make each one as picturesque and interesting as it is possible to conceive. The center of the square is occupied by a small fountain of much interest and picturesquely designed. Each of the buildings, while the general type is homogeneous, is sufficiently varied from the others to completely avoid monotony, and the whole ground is dominated by a tower containing bachelor's quarters. The material of this station square is reinforced concrete, except the tower which is a steel building; the buildings are roofed with tile and the wall surfaces resemble half timber construction, of which the verticals and cross bars are cast concrete with a very interesting surface of cement and crushed brick, and the panels are of red brick. This aggregate is produced by a crusher which grinds up most of the refuse from the building operations on the grounds. The roofs are entirely of tile and the trellises of bent channel-iron sections. The station itself is a fascinating piece of design and the manner in which the railroad track running through the property on a high



GROUP XII. TWO DETACHED AND TWO SEMI-DETACHED HOUSES.  
FOREST HILLS GARDENS, L. I.

(Continued page 113)



Y. M. C. A. BUILDING, PHOENIX, ARIZONA.

Trost & Trost, Architects.

(Continued from page 111)

fill, has been masked and made to form one of the sides of the square (and not the least interesting side) by concrete work and planting, is a most charming feature. The work at the present time is practically completed as far as the station square goes, and the fifty or more of the out-lying buildings are in various stages of erection or are already completed. Most of them have been designed by Mr. Atterbury, and the remainder by various other architects known principally by their country house design. Wilson Eyre, Albro and Linderberg, F. J. Sterner, John A. Tompkins, J. T. Tubby, Jr., and Aymar Embury II; but by far the larger portion are from Mr. Atterbury's office and possess in a very high degree the qualities which have marked Mr. Atterbury's success.

The most interesting thing to the architect about the whole scheme must be seen to be appreciated, and that is its color. Mr. Atterbury put a great deal of study and care into the question of surface textures and color for the stucco work before any of the finish was applied, and while the whole group is somewhat sombre in tone it is a most interesting revelation of the possibilities of color schemes in brick, tile and cement, from which materials in various combinations, all the effects have been obtained. Almost all the houses are varieties of combinations of brick and stucco with the use of wood limited only to the piazzas and window frames, and the surprising variety of results obtainable in this very limited range of materials well repays the time spent in a visit to Forest Hills.

So far as can be learned there is only a single point in which the scheme has not been successful, and as to this there is a possibility of misunderstanding. It is said that the aim of the company was to prove that fireproof, or semi-fireproof houses could be constructed as economically as frame houses, but that results so far as cost goes have shown that frame construction is still considerably more economical. This may be a mistake, but from the facts at hand it is believed to be correct.

Taken as a whole, even in its present more or less incomplete condition, the experiment is artistically one of the greatest successes which we have had in this country, every detail of the work has been very carefully designed, the lamp-posts for example, being charming pieces of iron work; the central group tremendously imposing, and the smaller buildings possess each some mark of individual interest.

#### MEASURED DRAWINGS.

**I**N this number of ARCHITECTURE we start a series of measured drawings of various architectural details of general value to both architects and draughtsmen. The subjects have been carefully selected from examples by architects of good standing whose work is of a character which makes it useful for reference to the majority of the profession.

The drawings are made by Walter P. McQuade and represent what ARCHITECTURE considers a high technical standard, without going into useless elaboration impossible to follow in working drawings. The aim of this series is to show how the results illustrated in the photographs are attained and also the methods of details employed by the various men whose work is illustrated.

The next number will be of work by Charles A. Platt, and following this will be details by Albro & Linderberg and other men of similar high standing.

#### CORRESPONDENCE.

Owing to the number of inquiries which ARCHITECTURE receives from time to time, some of which appear to us to be of very general interest, we intend to publish such questions with their answers monthly. Where a definite and accurate answer is possible this will be made, but where the answer is largely a matter of opinion we can give only what seems to us a consensus of the best opinion. We invite criticisms.

Editor of ARCHITECTURE:

I read every once in a while of the Tarsney act as having some influence on the awarding of public works in Washington to various architects. Can you tell me what this act is?

Yours very truly,

L. A. T.

[PUBLIC—No. 77.]

*Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury be, and he is hereby, authorized in his discretion to obtain plans, drawings, and specifications for the erection of public buildings for the United States, authorized by Congress to be erected under the supervision and direction of the Secretary of the Treasury and the local supervision of the construction thereof by competition among architects under such conditions as he may prescribe and to make payment for the services of the architect whose plan may be selected out of the appropriations for the respective buildings: Provided, That not less than five architects shall be invited by the said Secretary to compete for the furnishing of such plans and specifications and the supervision of such construction: And provided further, That the general supervision of the work shall continue in the office of the Supervising Architect of the Treasury Department, the Supervising Architect to be the representative of the Government in all matters connected with the erection and completion of such buildings, the receipt of proposals, the award of contracts therefor, and the disbursement of moneys thereunder, and perform all the duties that now pertain to his office, except the preparation of drawings and specifications for such buildings and the local supervision of the construction thereof, the said drawings and specifications, however, to be subject at all times to modification and change relating to plan or arrangement of building and selection of material therefor as may be directed by the Secretary of the Treasury.*

Approved, February 20, 1893.

Editor of ARCHITECTURE:

What stand does the English Society of Architects take in reference to architecture as a profession?

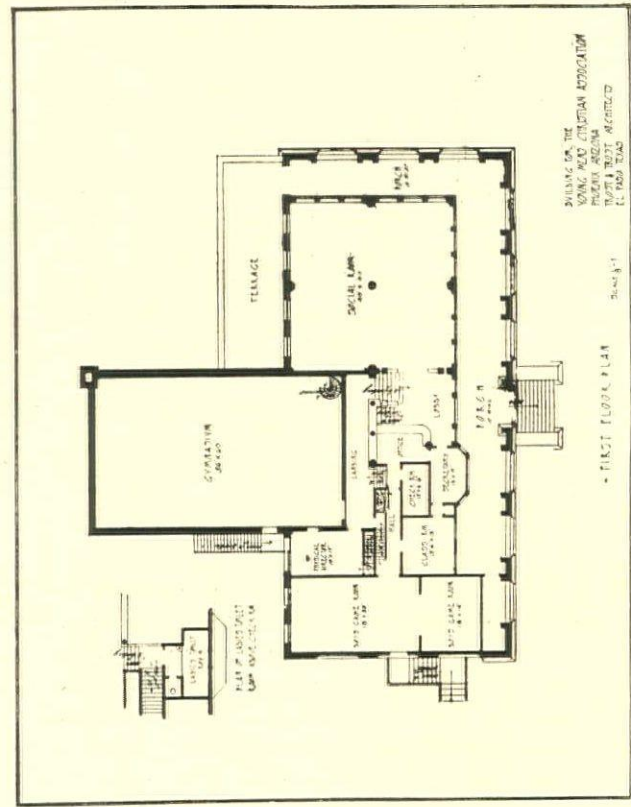
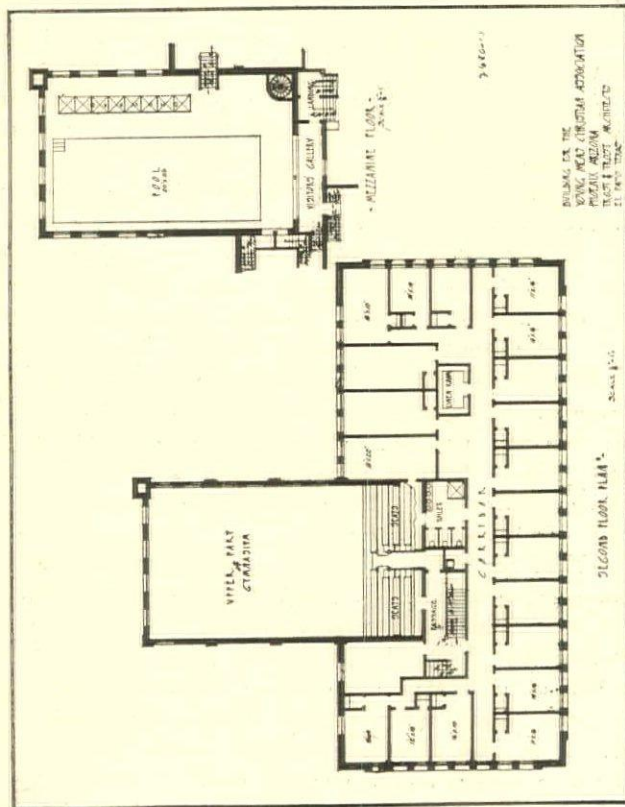
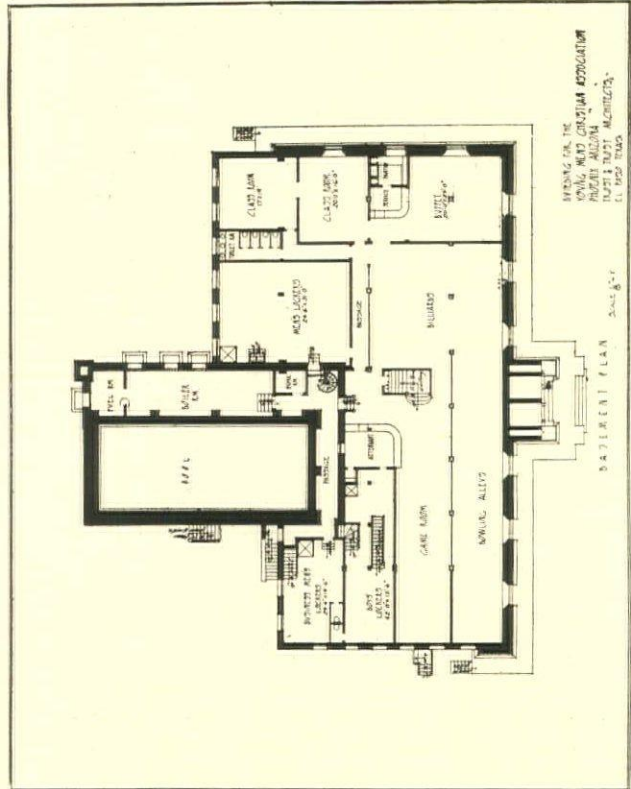
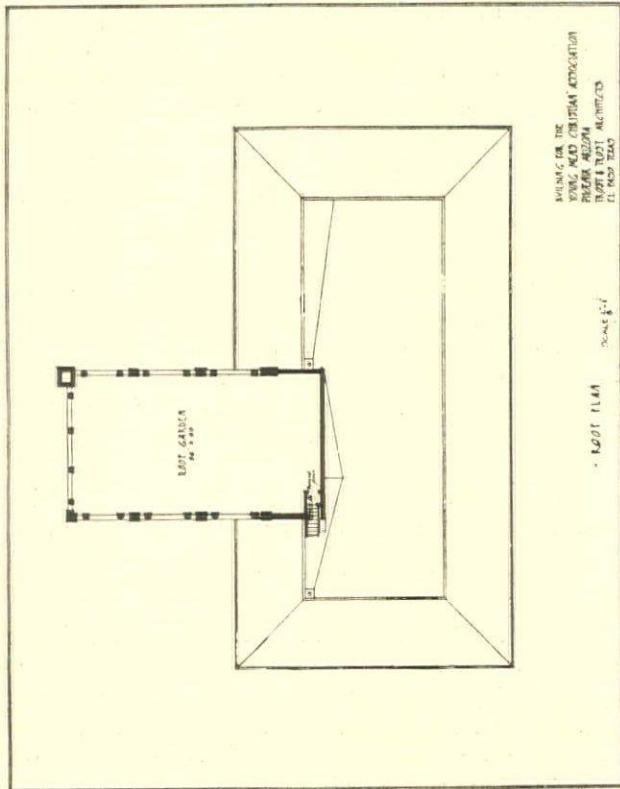
L. D. T.

Mr. C. McArthur Butler, Secretary of the English Society, advises us that their code is as follows:

It is unprofessional for an architect—

1. To engage directly or indirectly in any of the building trades, except as owner.
2. To guarantee an estimate or contract by bond or otherwise.
3. To accept any commission or substantial service from a contractor or from any interested party other than the client.
4. To advertise.
5. To take part in any competition the terms of which are not in harmony with the principles approved by the Board of Professional Control.
6. To attempt in any way, except as a duly authorized competitor, to secure work for which a competition is in progress.
7. To attempt to influence directly or indirectly the award of a competition in which he is a competitor, or in which he is interested in any other capacity.
8. To accept the commission to do the work, either personally or by partnership, for which a competition has been instituted if he has acted in an advisory capacity either in drawing up the programme or in making the award.
9. To injure falsely or maliciously, directly or indirectly, the professional reputation, prospects, or business of a fellow architect.
10. To undertake a commission while the claim for compensation or damage, or both, of an architect previously employed, and whose claim has been referred to arbitration, or issue has been joined at law, or unless the architect previously employed neglects to press his claim legally.
11. To attempt to supplant a fellow architect after definite steps have been taken toward his employment.
12. To compete knowingly with a fellow architect for employment on the basis of professional charges.

(Continued page 115)



Trost & Trost, Architects.

PLANS, Y. M. C. A. BUILDING, PHOENIX, ARIZONA.

(Continued from page 113)

13. To criticise in public print the professional work or conduct of another except over his own name.
14. To deviate from the scale of charges without permission of the Board of Professional Control.

#### IS THE TARSNEY ACT TO BE REPEALED?

ANOTHER example of the pernicious practice of incorporating general legislation in general appropriation bills is found in an amendment to the sundry civil appropriation, recently reported to the House, repealing what is known as the Tarsney act. This is a law, passed some years ago, empowering the Secretary of the Treasury at his discretion to obtain plans in competition from architects in private practice for public buildings erected by the Treasury Department. As a large majority of Federal Government buildings come under the jurisdiction of that department the importance of this permission was very great, and the effect of the legislation has been to bring about a great improvement in the architectural design of our public buildings.

When the supervising architect of the Treasury was the sole authority in such matters there was a painful monotony and lack of individual quality in the buildings erected by the United States—to put the matter in the kindest and mildest form—and this was the natural product of bureaucratic methods. Since the passage of the Tarsney act, however, the transformation in style and quality has been very remarkable, the New York Custom House and some of the more recent postoffices illustrating the advantage of drawing upon the architectural talent of the country at large and of utilizing the personal attention of experts familiar with local conditions and inspired by progressive ideas and methods.

The repeal of the Tarsney act does not appear to have been asked for by the Treasury Department, nor urged by any public body, and the prospect of a return to the system of designing public buildings "by the yard," with much more than a prospect of a return to a stereotyped and unworthy form of architectural design, should arouse an emphatic protest from the people of the United States. The American Institute of Architects is naturally arrayed against the change, for, entirely apart from the injustice of excluding its members as a professional class from the wider opportunities of Government service, the proposed repeal is a backward step making for the deterioration of architectural taste. The question at issue is entirely too important to be the subject of a mere "rider" to an appropriation bill, and should not be decided until after full discussion and a public hearing upon its merits.

#### SCHOOL OF ARCHITECTURE, COLUMBIA UNIVERSITY.

ON the first of July, Professor Hamlin, who has been the Executive Head of the School of Architecture of Columbia University since the retirement of Professor Ware in 1903, surrendered the administrative office into the hands of Professor Austin W. Lord, of the firm of Lord & Hewlett, who has been appointed by the Trustees Professor of Architecture and Director of the School. This action was taken pursuant to the requests of Professor Hamlin that a new professor be added to the staff of the school with special charge of the design and theory, and that so soon as

might seem practicable and desirable the new incumbent should relieve Professor Hamlin of administrative responsibilities in order that he might devote himself more freely and fully to the work of teaching and productive scholarship. Professor Hamlin, who has just completed his twenty-ninth year in the service of the university and his twenty-third as a professor in the School of Architecture, will expand the range and increase the number of his courses in the history of architecture and of ornament. He has recently received the degree of Doctor of Letters from St. John's College, Annapolis, Md.

Professor Lord has entered upon his new duties with energy and clear-headed decision, and the new announcement of the School of Architecture, about to go to press, will set forth a number of changes in the curriculum made on his initiative. These are in the direction of greater flexibility, and of increased time for the work in design.

#### IV. THE OBSERVANCE OF NATURAL PHENOMENA AND THEIR DIRECT RELATIONSHIP TO LANDSCAPE WORK.

CHARLES W. LEAVITT, JR.

A RETROSPECTIVE view reveals to us how few big events have happened to influence our lives and that frequently these unusual occurrences are the outcome of some very small and quite common event. It is the many little things that form the field from which something is developed; should any one little thing be overlooked or passed by with scorn or not be noted down, it may be the very germ upon which our future depends, and we have missed it. No matter how small the piece of work that may come to our hand, it should be done thoroughly and in the very best way we know.

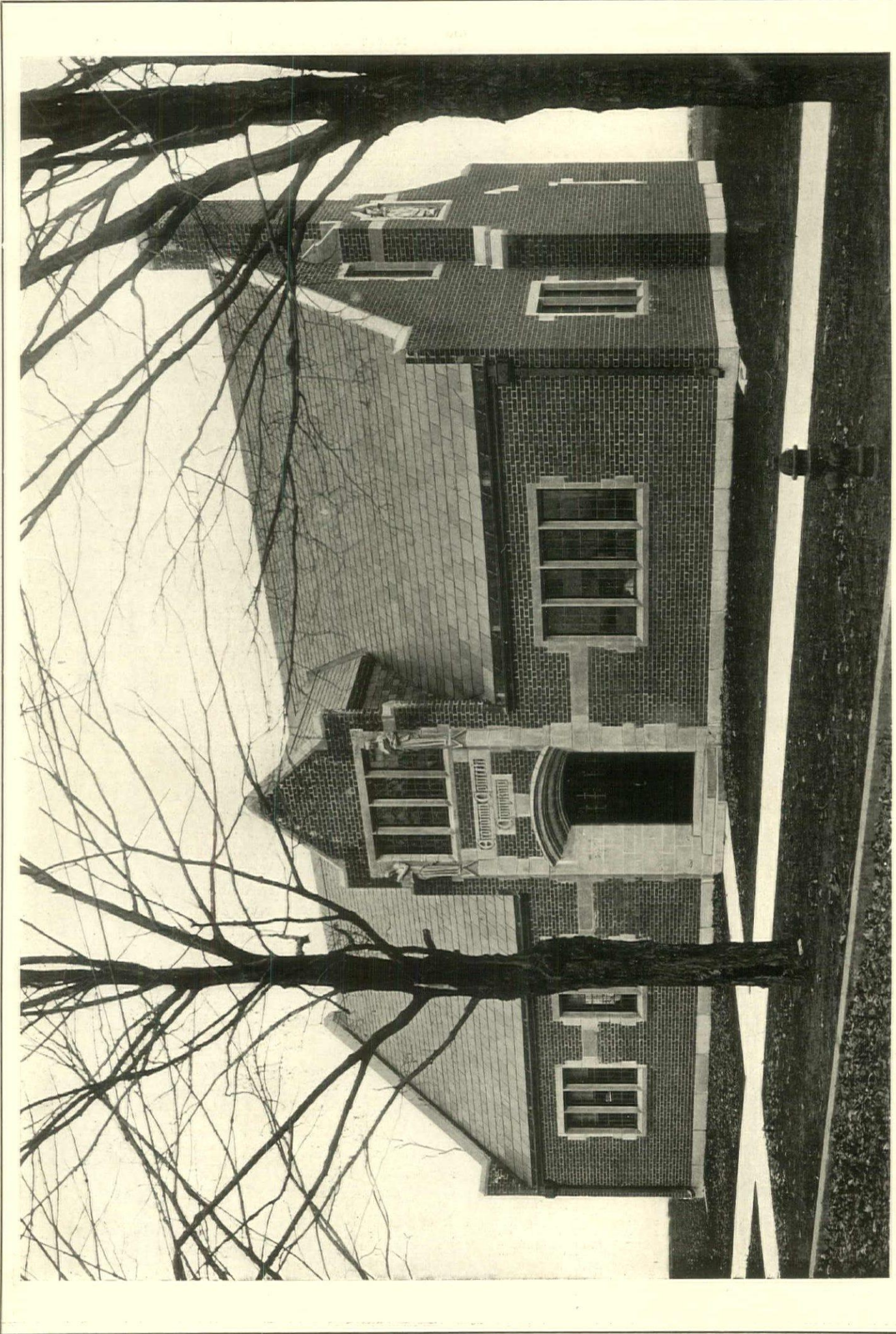
A professional man was once called upon by a stranger to lay out a grave yard. He was very busy at the time with some large work, but paused long enough to do this little work. A year or so later this same client returned and put into his hands the development of a city where some millions of dollars were spent upon improvements. He was glad that the grave yard job had not been too small for him and that he gave it proper attention.

We may give ourselves the best possible education by remembering what we observe along our ordinary walks of life. If one has never tried it he or she will be rather shocked at how very few of the things which were seen yesterday have been retained in one's memory, and if one tries to recall how a place looked five years ago, there will be difficulties in obtaining a mental picture. This is lack of training. If one makes a practice of thinking while observing and tries to place things that are seen in the pigeon holes of the brain well indexed so that they may be found when needed, it will soon be discovered that they may be recalled quite readily.

When retained to advise upon the development of a property or as a matter of personal interest (as an experiment) one should look over a place most carefully and note each tree and shrub, the curves and grades of the drives and walks, the location of the house and out buildings, etc.

Upon one's return to office or home, a sketch should be made of the plan and put away and six months or a year afterwards another sketch should be made of the same place, without looking at the grounds again and a comparison made of the two sketches. This will show the accuracy of obser-

(Continued page 117)



OFFICE BUILDING, ECONOMY CONCRETE CO., NEW HAVEN, CONN.

Cram, Goodhue & Ferguson, Architects. Lee Lawrie, Sculptor.



(Continued from page 115)

vation. By constant training one soon finds that the mind is recording the things observed and that one can call upon it to produce these pictures whenever they may be desired.

It is claimed that the Emperor Napoleon could walk through a street and tell the number of windows, doors, etc., that were in the houses. He was so used to mastering details that he made a complete record of what he saw. It may be said by some that it is unnecessary to burden one's mind with the details and that some large and important matter may thus be excluded. This does not seem to be true, for the mind is so constructed that the more we give it to hold the more we enlarge its capacity and develop its accurateness.

If one is called upon to take up the development of a property, the first thing to be done is to go and look at the land and observe all the conditions on the plot and the adjacent properties; the exposure, the climatic conditions, the altitude, the direction from the town or railroad depot, the condition of the road, and the views from the road, and the houses, the direction of prevailing wind, gardens, etc., the class of development along the approach to the railway station; the railroad and the train service, conditions of the cars and class of people in the cars. The trees, shrubs, plants and field crops that are growing naturally on the property and the surrounding country. The streams and how the fields are watered and the possibility for draining the swamp areas, from whence to secure a water supply and how the drainage can be taken care of. The soil, the rocks, is the soil sweet or sour, are the trees healthy and do they grow fast, are the environments of the neighborhood good, what are the possibilities for improvements.

Is there a good location for the house, for the stable, for the garden, greenhouse, garage, farm buildings; can first-class crops be produced and where is the market. Is it a good country in which to raise stock, to raise poultry, horses, etc. What are the amusements and sports; where is the church, schools, stores, etc. These things should all be recorded automatically and after the visit and the return to the office and the topographical survey has been received which mechanically is the record of the things the place possesses, one can fill in all the gaps with the information stored in one's head. This is invaluable and gives a basis for the formation of an opinion which is worth something to the client. If some of these things have been missed one will not find them on the survey nor will the client furnish them, unless he be very unusual and one's opinion may be recorded and he may find out afterwards that it is faulty and he is put in a most awkward position since his client may have acted upon such advice and later find out that the landscape man did not thoroughly know the subject. There is liable to be a loss and certainly hard feelings.

One cannot be too painstaking in working up an opinion, a layout or even a suggestion and one must always be prepared for some one to act upon such advice and should be sure that the results will be good.

As such opinion should be based upon investigations and knowledge acquired by practice and not upon hearsay evidence, one is dependent upon careful observance and memory and the record of what is seen is absolutely essential, as one often sees things which are not understood. It is well to stop and investigate a strange tree, shrub or plant, an unusual formation of rock, some strange soil or condition of soil, the exotic growth under a bank or in some

protected place should be not only observed, but analyzed and all these things noted and considered and used in making up the plan, sketch or report.

As regards the "character" to be given any landscape design, the influence of natural phenomena plays a most important part, to such an extent as even to prohibit or demand a certain distinct style. By "character" one does not mean any fixed historic style so much as the general *feeling* of the design; whether it be formal, naturalistic, romantic, picturesque, rural, pastoral, intimate or expansive. One is inclined to believe that the requirements of the design are determined only by social demands, by tradition and by the trinity of composition, scale and proportion; but in landscape work these apply in particular to the working out of the problem and for its foundation one should consider the natural phenomena. In such a way the scheme when completed will blend and harmonize with its surroundings and acquire that fitness of dignity and repose which is the real essence of any art.

For example, how absurd to force the elaborately terraced gardens of Italy with their inexhaustible water supplies on a distressingly flat and sandy plain, where water will always be a luxury. Or consider the incongruity of composing on English forest along the Jersey sea coast where not only fertile ground is at a premium, but salt spray and terrific winds kill off most of what may be started in imported soil. Here one's efforts must be largely architectural accessories with the ocean views as the very life of the design. Or again, one can hardly imagine a Salem Colonial Garden or a French parterre hung on the edge of the Grand Canyon; yet one sees in many places on the south shore of Long Island, for instance, huge star and crescent beds of pink and magenta coleus clashing against the exquisite autumn coloring of the native marshes and straggling woodland.

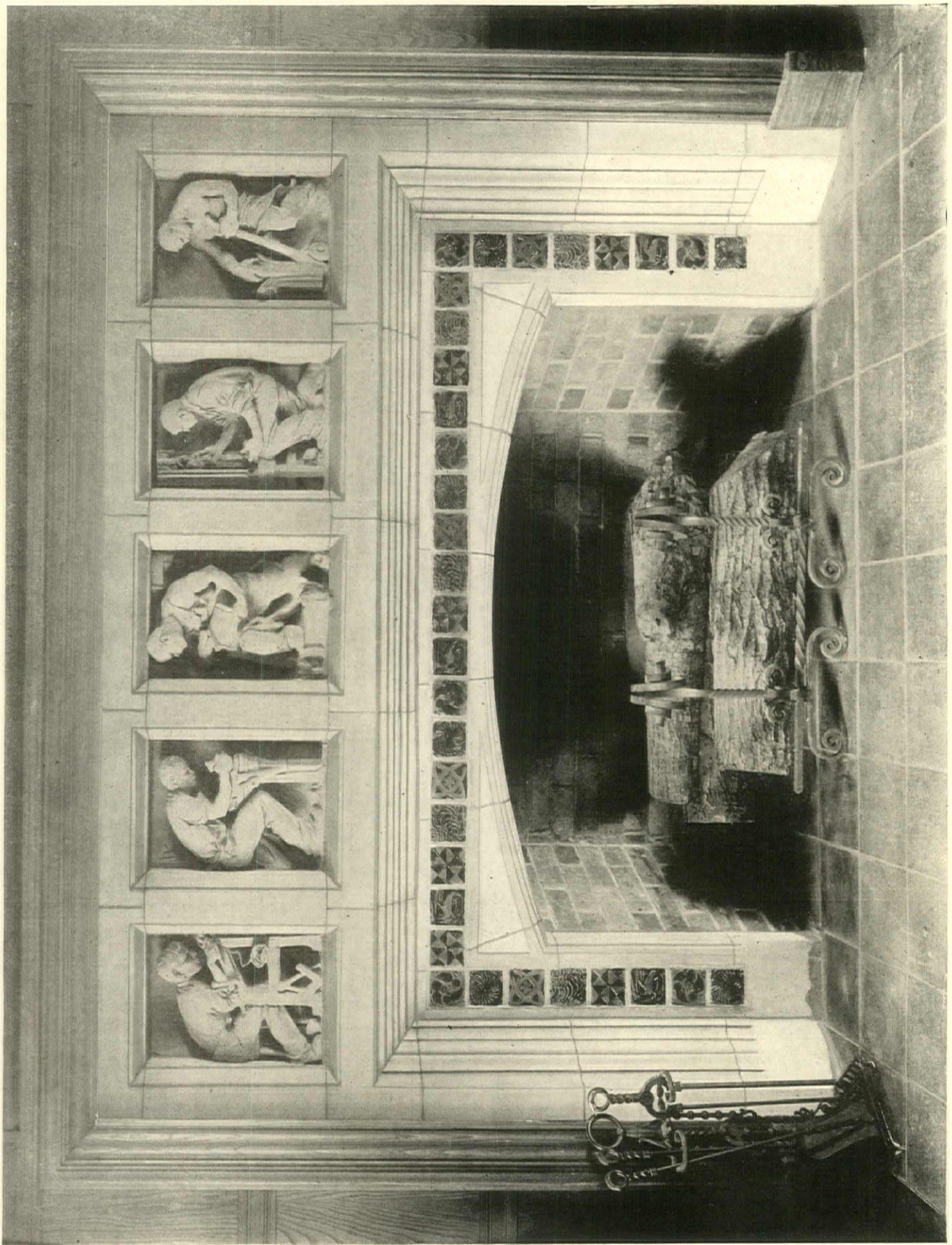
So to return to the original point; it may be said that the power to make truly scientific and accurate records of each observation of natural phenomena, with a fullness of detail which may make such records perfectly clear, and with a realization of color, grandeur or prettiness, ugliness or beauty, should give one the courage to start upon the road of landscape design with the knowledge that he has at least one of the attributes which go to make a successful practitioner.

#### BUILDERS' OFFICIALS IN THE MIDDLE AGES.

THE following list probably includes all officials commonly employed by Mediæval builders:—Clerks of works, masters of works, setters out of work, overseers, surveyors, deputy-surveyors, paymasters, purveyors, and builders' clerks. To some extent, as we shall see, the work of any one of the above-named officials was at times carried out by any other of them, says the London Engineering Journal. In more than one instance we shall see that one man executed the functions of no less than three officials.

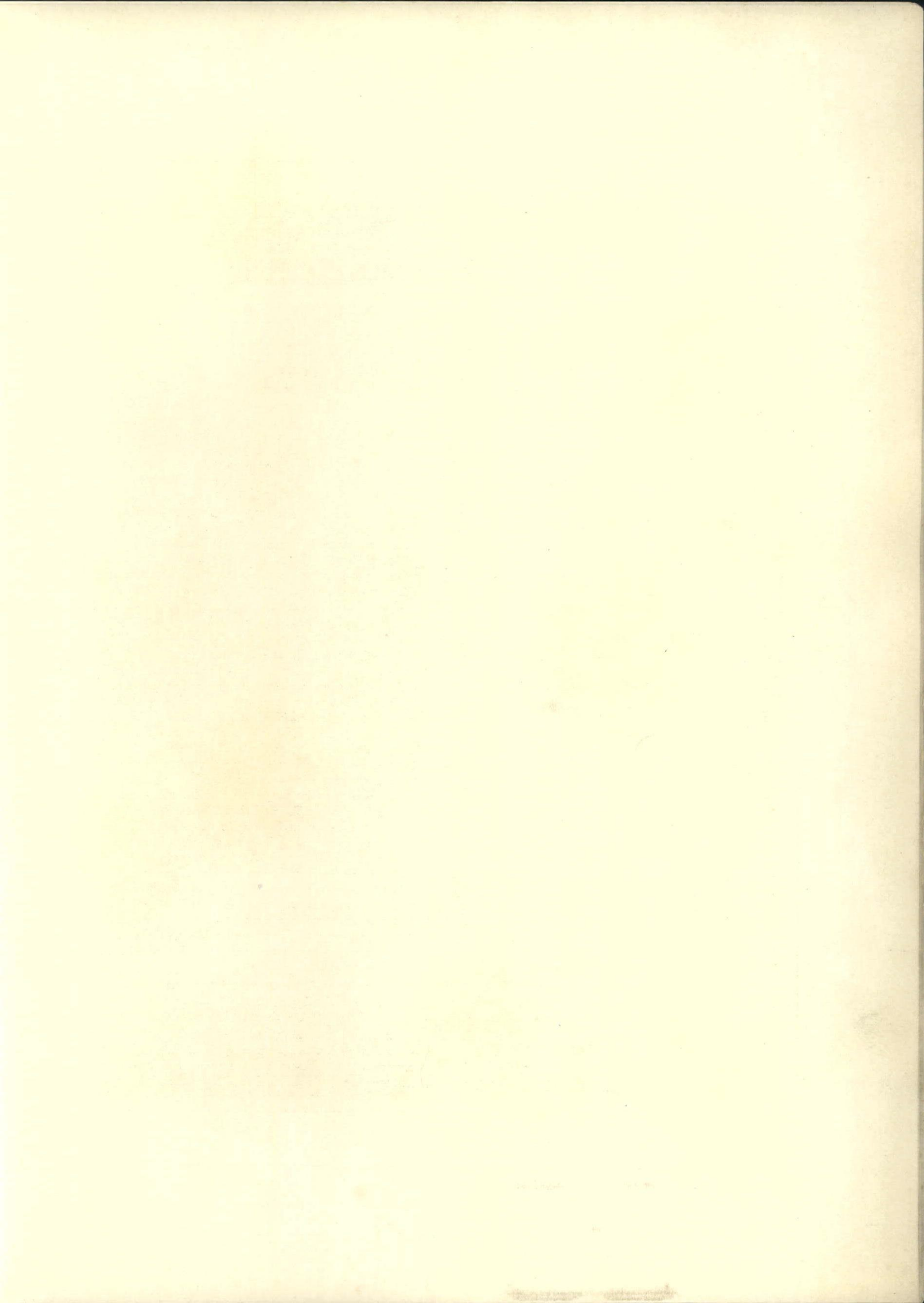
In modern times this official is known as the Clerk of Works, but in Mediæval days he was spoken of as the Clerk of the Works (in the Record Office MS. 464-20 "Clarcke of the Worckes"). It is probable that many Mediæval accounts recording the expenditure in wages and the cost of materials purchased were set down by the builders' clerk acting directly under the authority of the clerk of works. We may suppose the actual accounts as they remain to-day

(Continued page 125)



DETAIL, OFFICE BUILDING, ECONOMY CONCRETE CO., NEW HAVEN, CONN. CONCRETE MANTEL

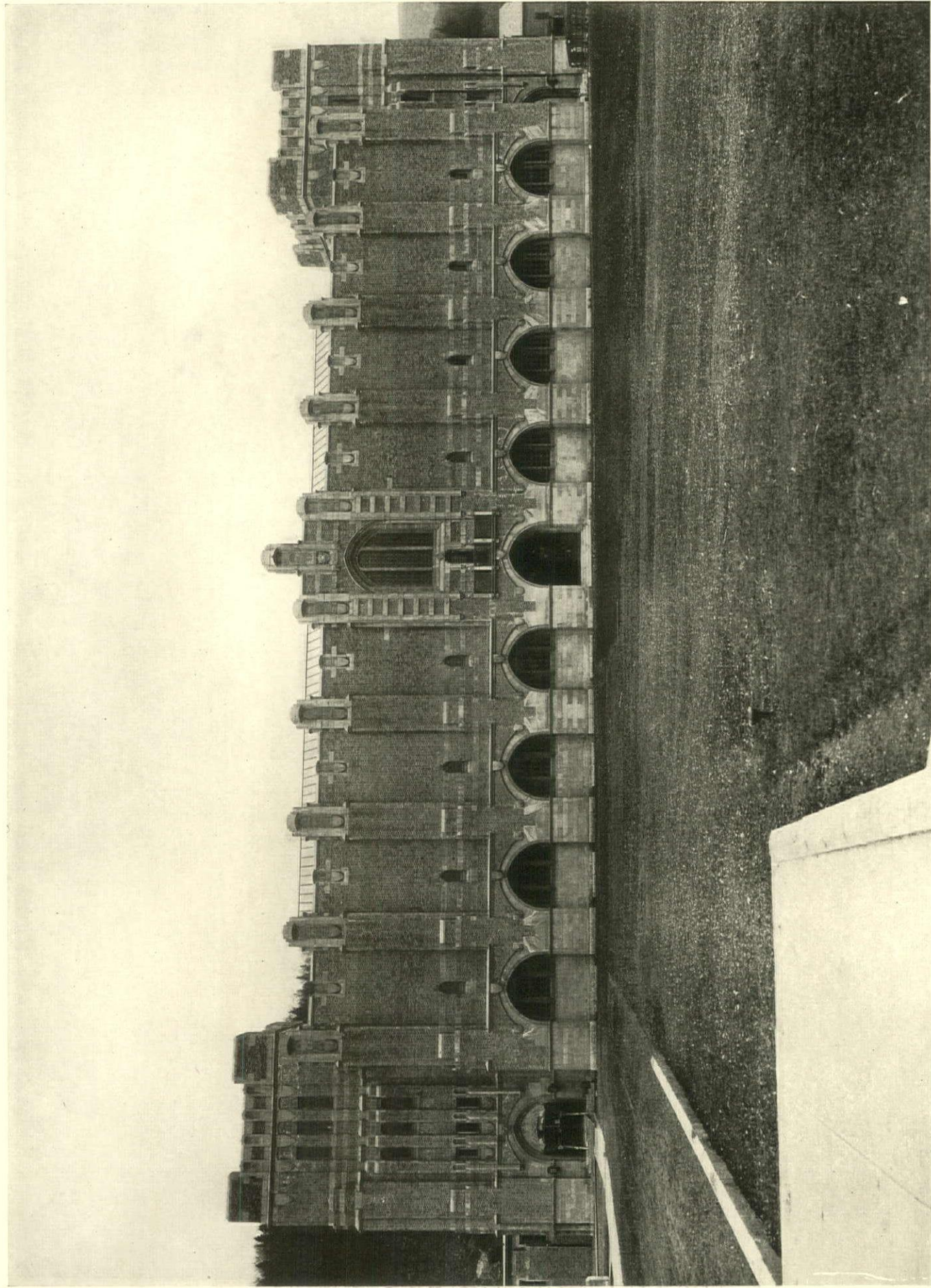
Cram, Goodhue & Ferguson, Architects.



JULY, 1912.

ARCHITECTURE

PLATE LXXVII.



GYMNASIUM, U. S. MILITARY ACADEMY, WEST POINT.

CRAM, GOODHUE & FERGUSON, ARCHITECTS. F. B. Johnston and M. E. Hewitt, Photo.



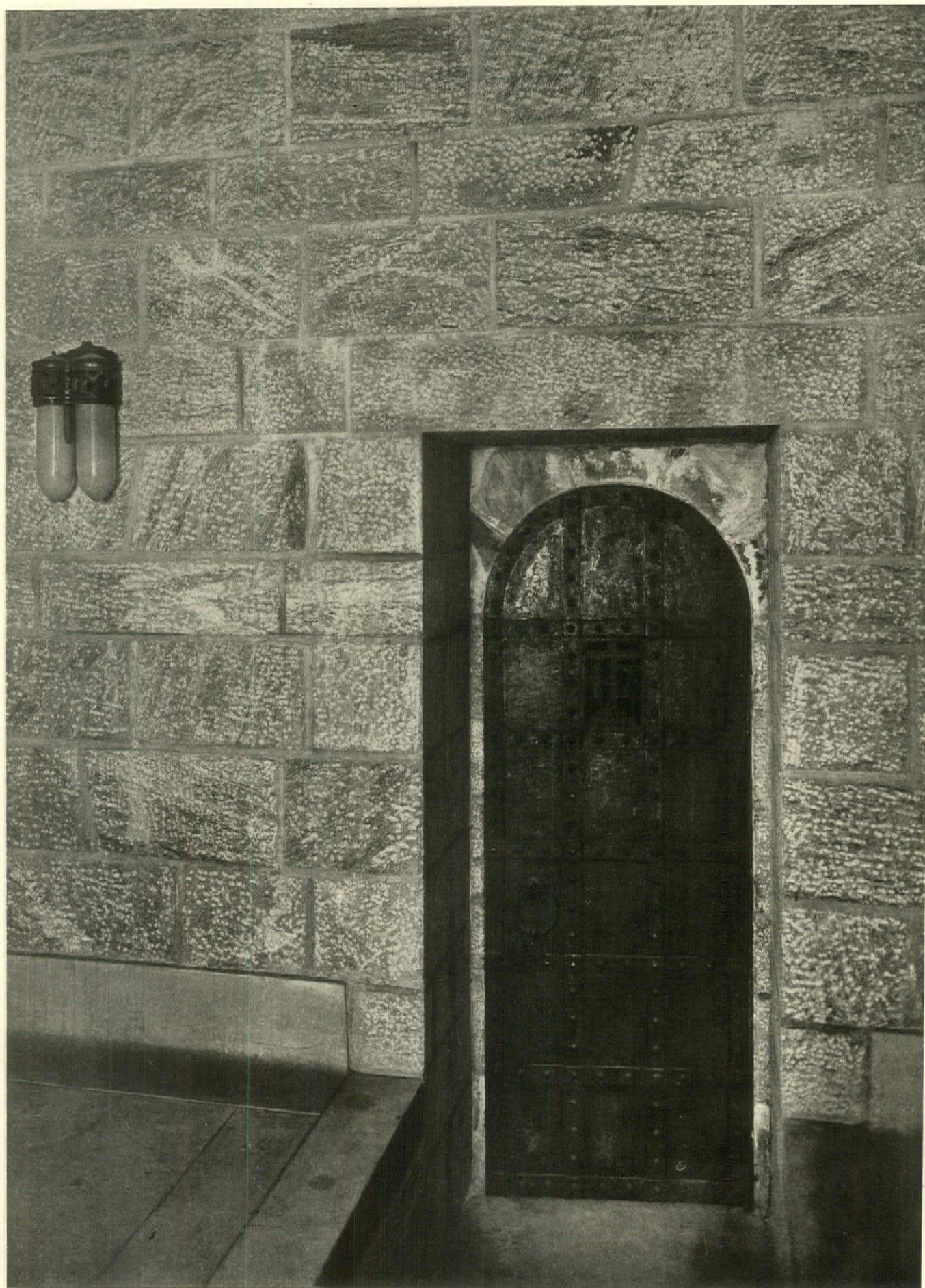


INTERIOR, CHAPEL, U. S. MILITARY ACADEMY, WEST POINT.

CRAM, GOODHUE & FERGUSON, ARCHITECTS.

F. B. Johnston and M. E. Hewitt, Photo.



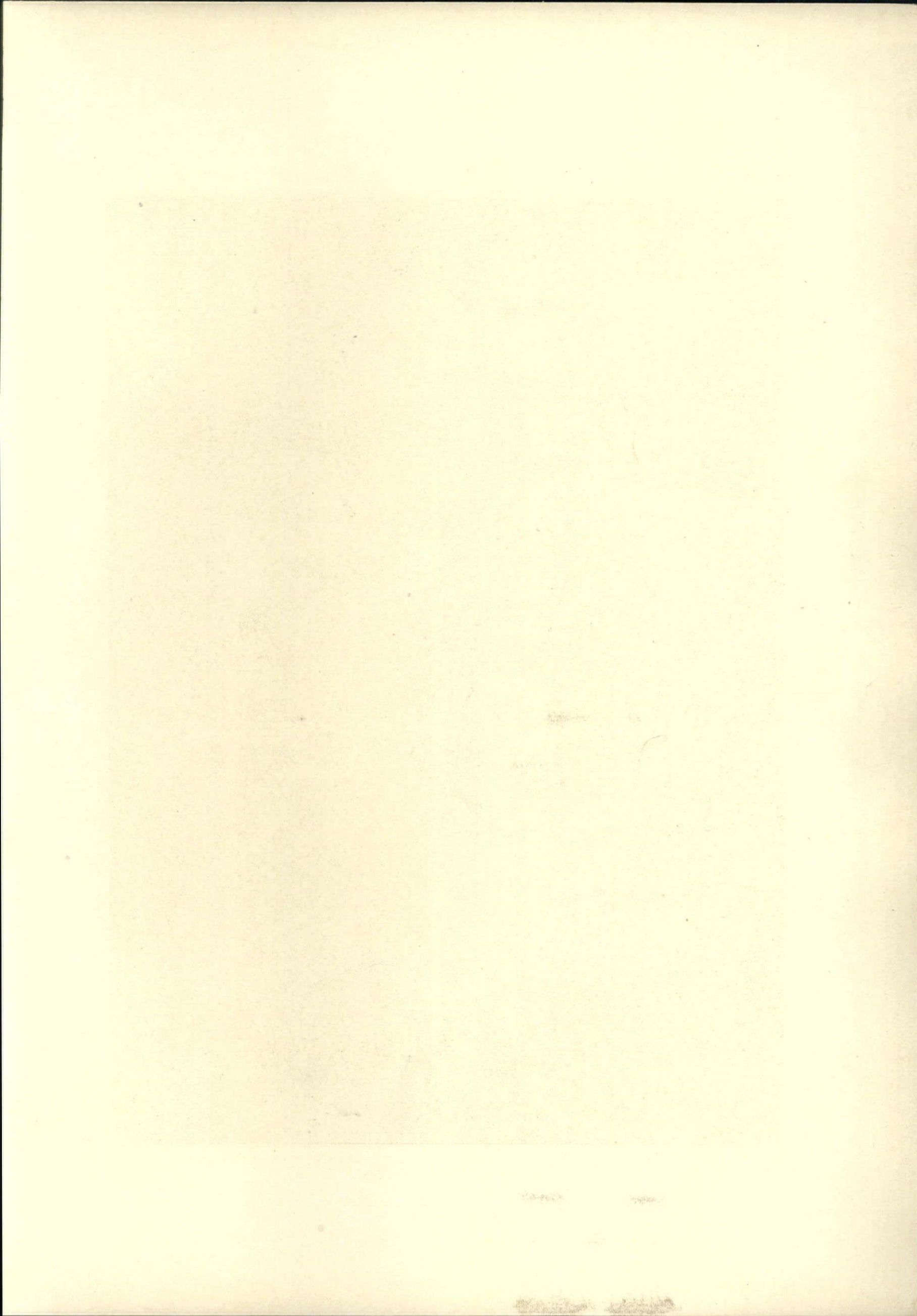


DOOR TO CRYPT, CHAPEL, U. S. MILITARY ACADEMY, WEST POINT

CRAM, GOODHUE & FERGUSON, ARCHITECTS.

F. B. Johnston and M. E. Hewitt, Photo.

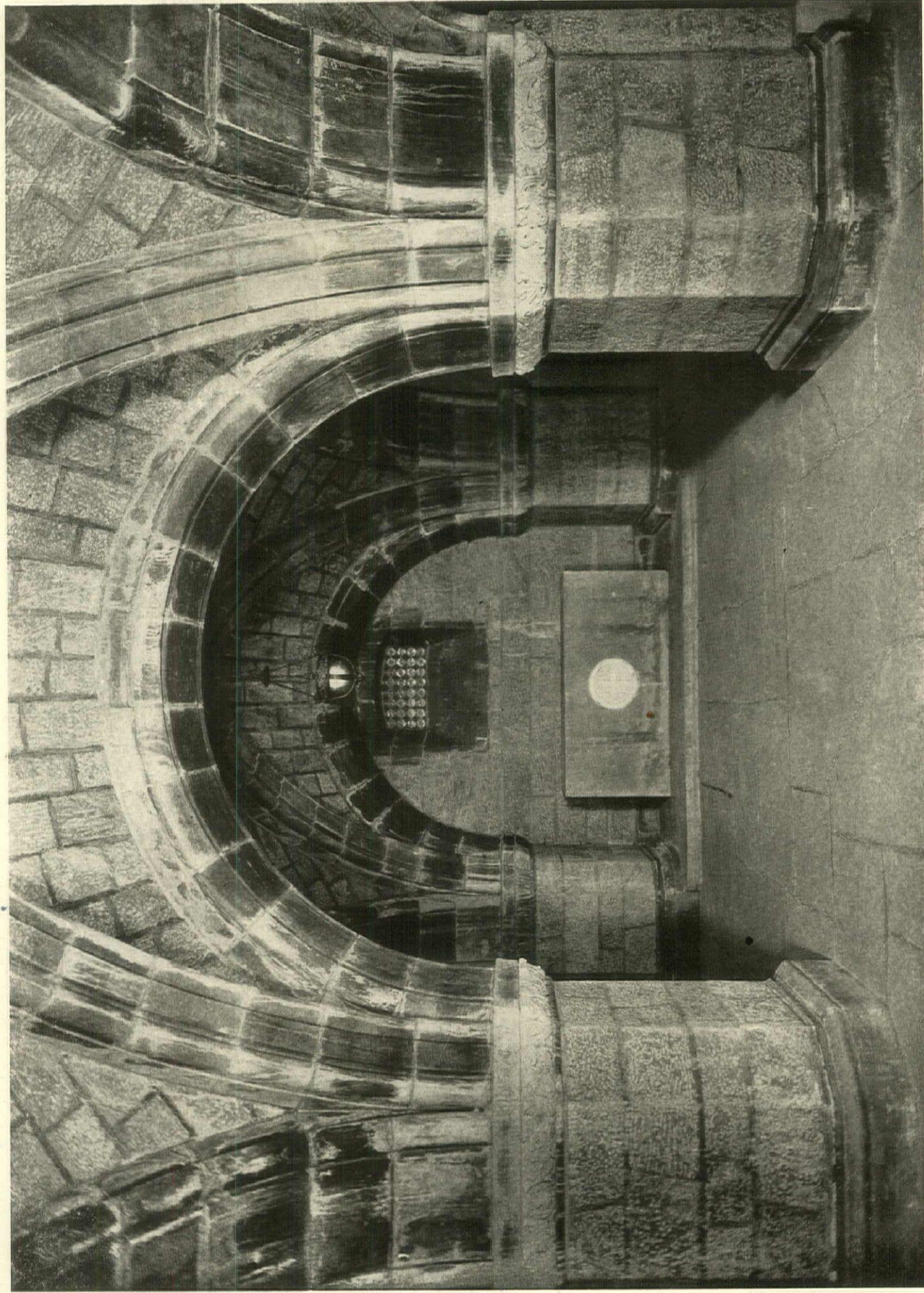




JULY, 1912.

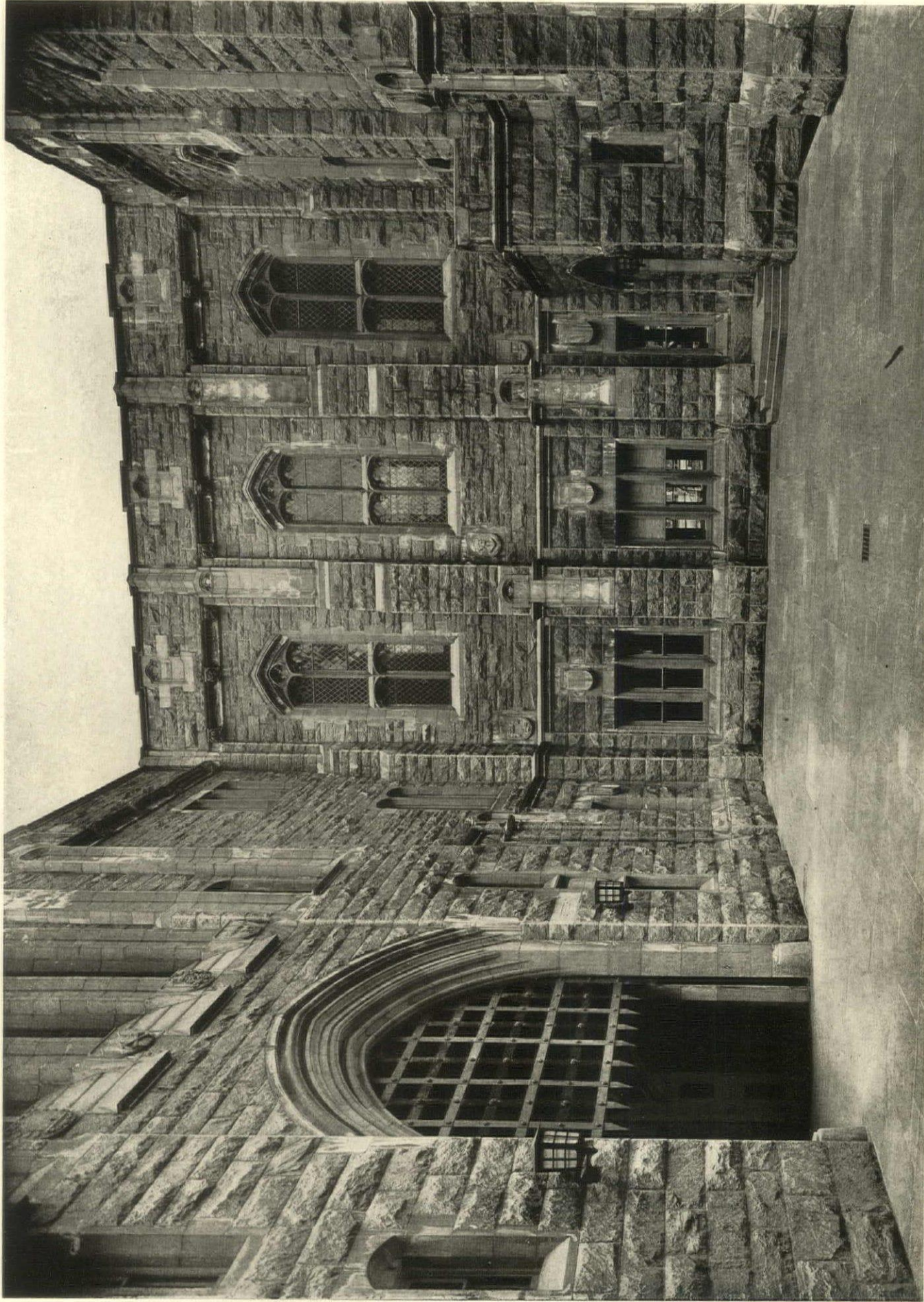
ARCHITECTURE

PLATE LXXX.



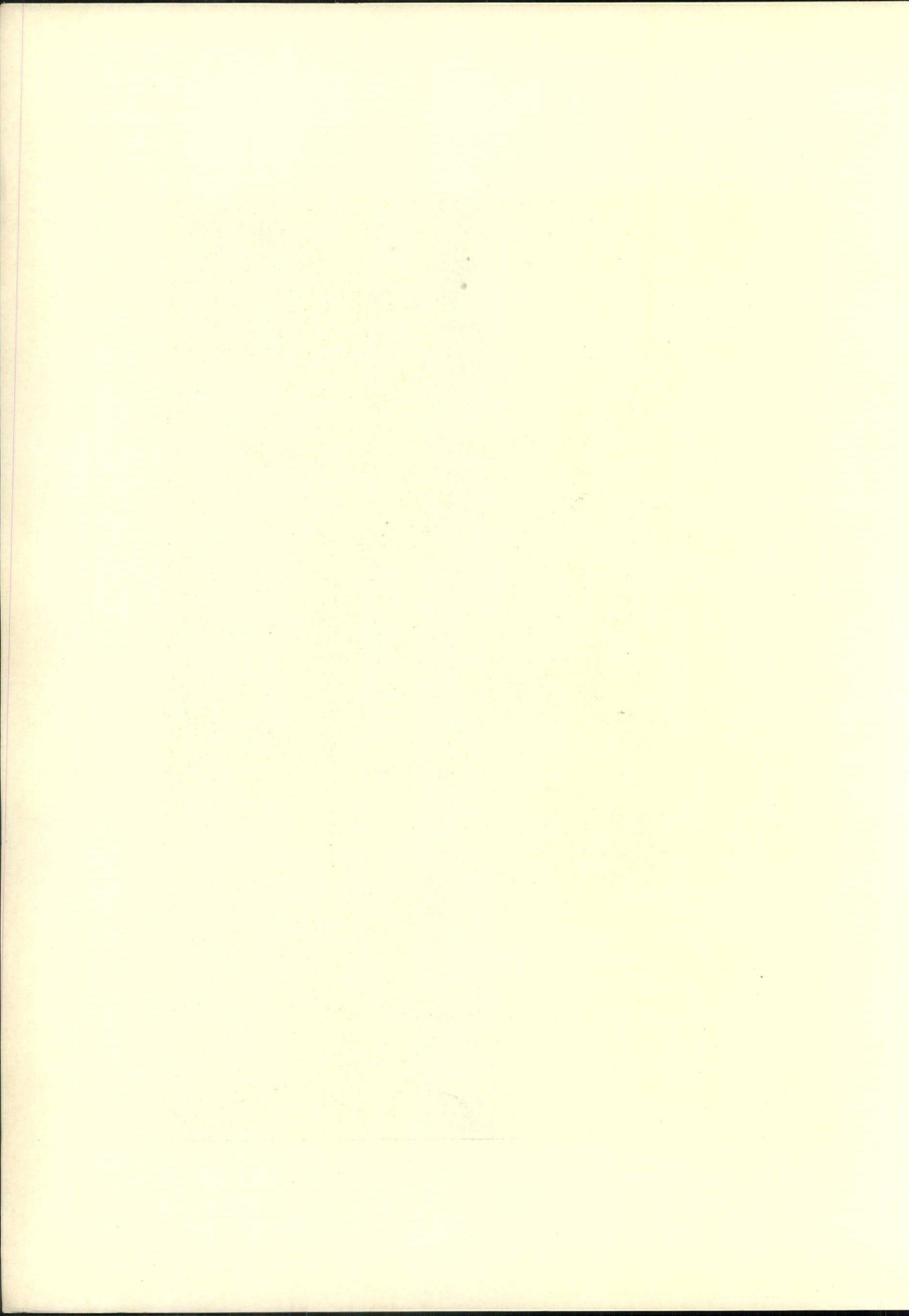
CRYPT, CHAPEL, U. S. MILITARY ACADEMY, WEST POINT

CRAM, GOODHUE & FERGUSON, ARCHITECTS. F. B. Johnston and M. E. Hewitt, Photo.



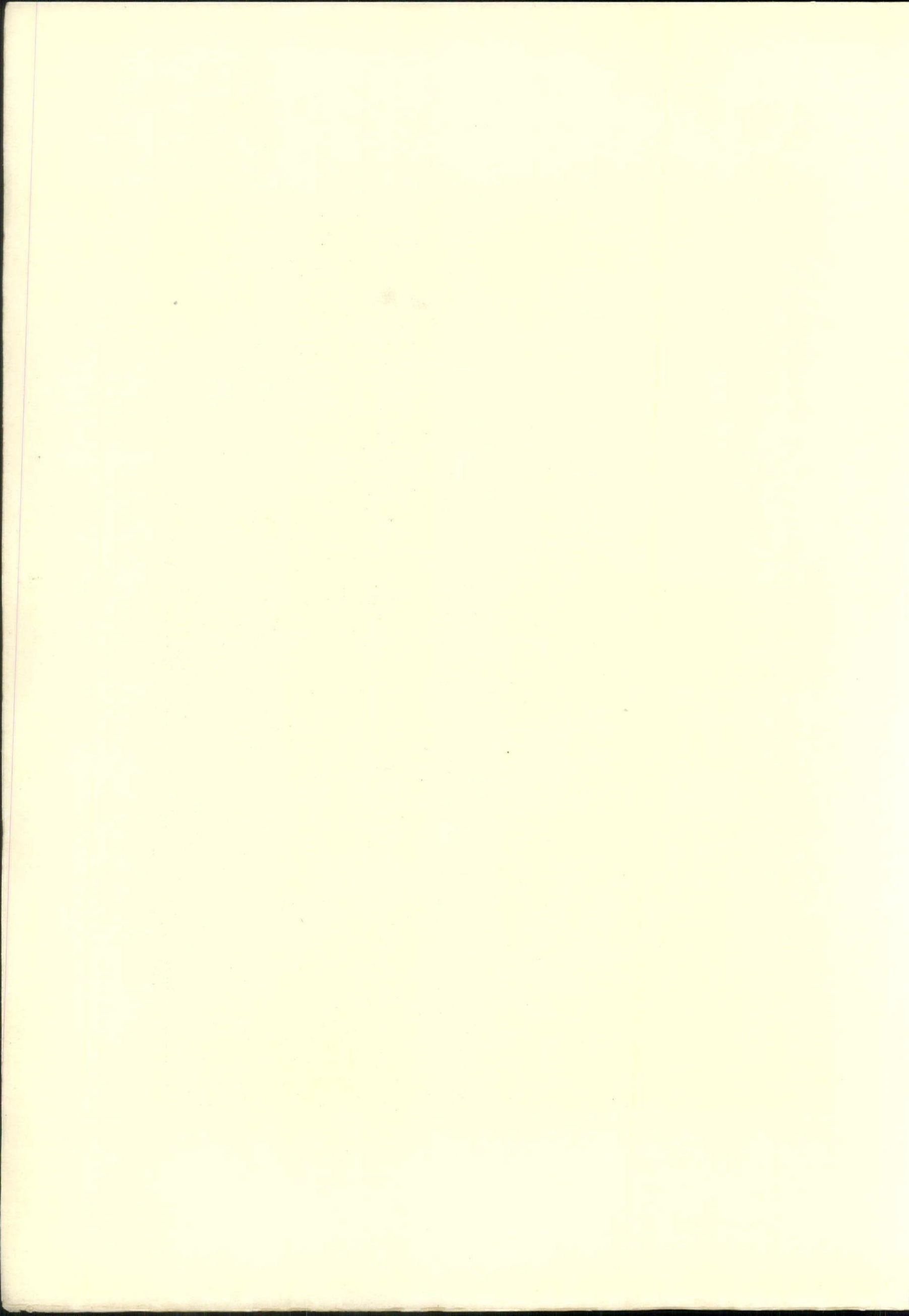
COURT, POST HEADQUARTERS, U. S. MILITARY ACADEMY, WEST POINT.

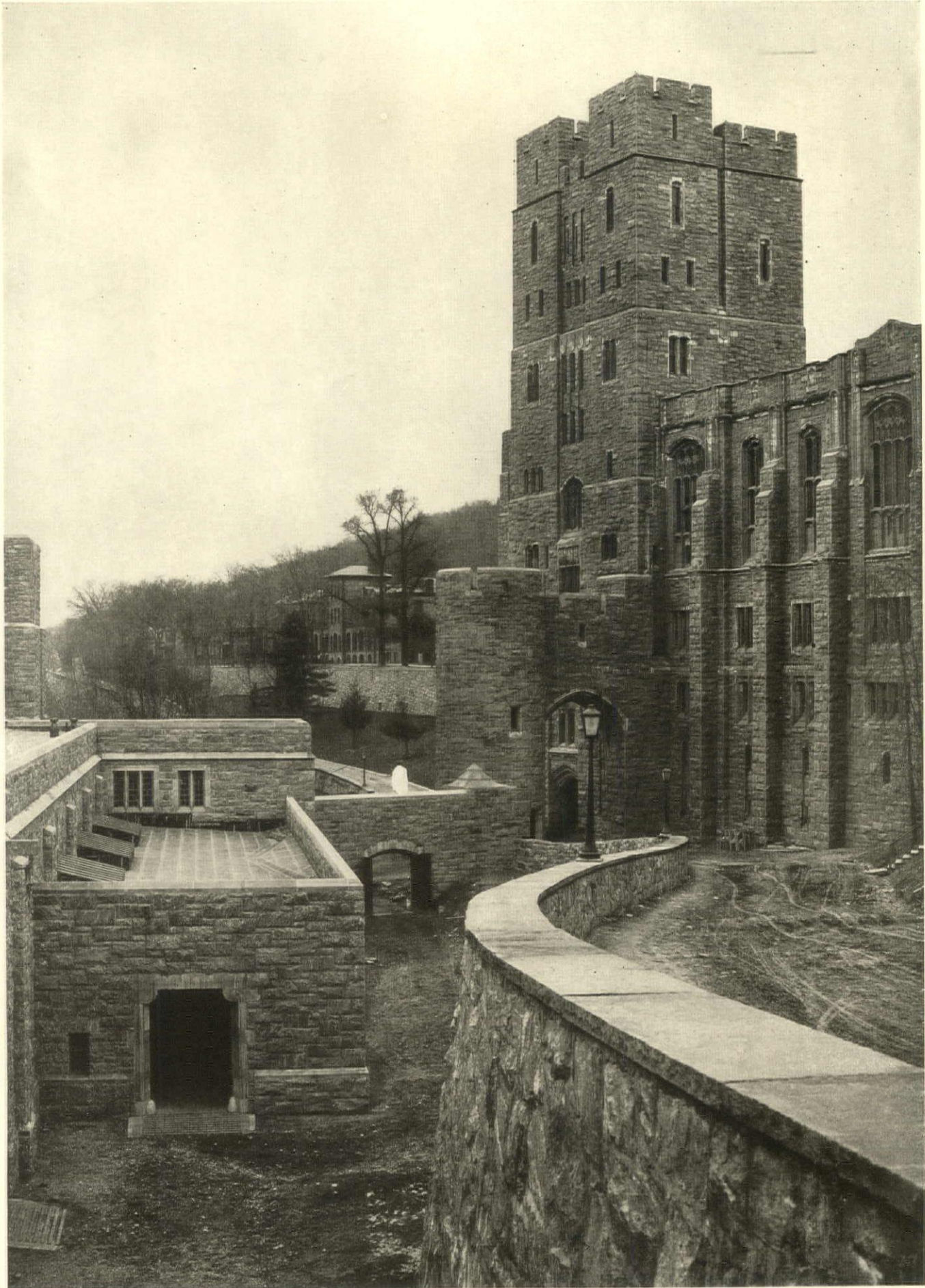
CRAM, GOODHUE & FERGUSON, ARCHITECTS. F. B. Johnston and M. E. Hewitt, Photo.





COURT ENTRANCE, POST HEADQUARTERS, U. S. MILITARY ACADEMY, WEST POINT.  
CRAM, GOODHUE & FERGUSON, ARCHITECTS. F. B. Johnston and M. E. Hewitt, Photo.

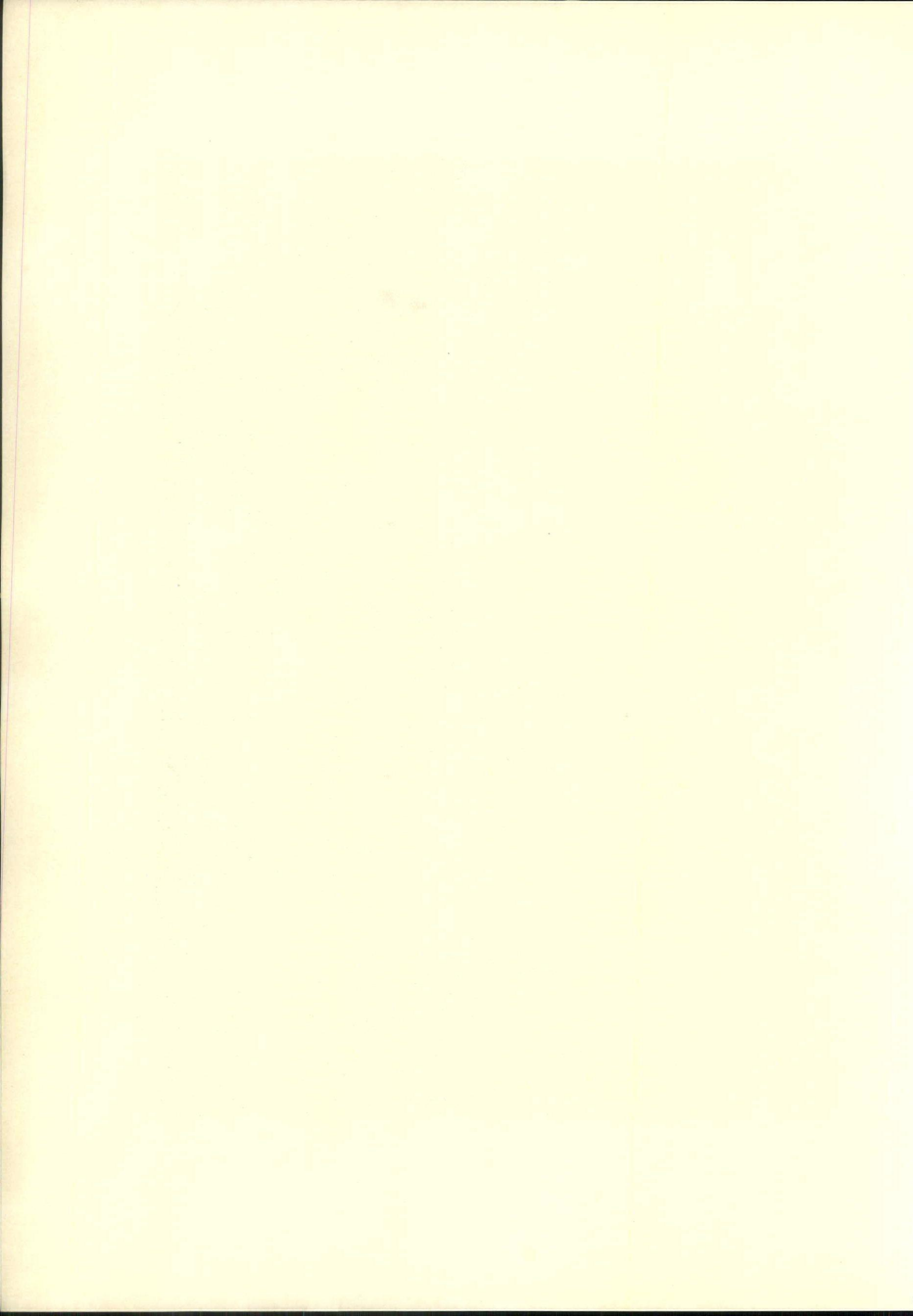




TOWER, POST HEADQUARTERS, U. S. MILITARY ACADEMY, WEST POINT.

CRAM, GOODHUE & FERGUSON, ARCHITECTS.

F. B. Johnston and M. E. Hewitt, Photo.

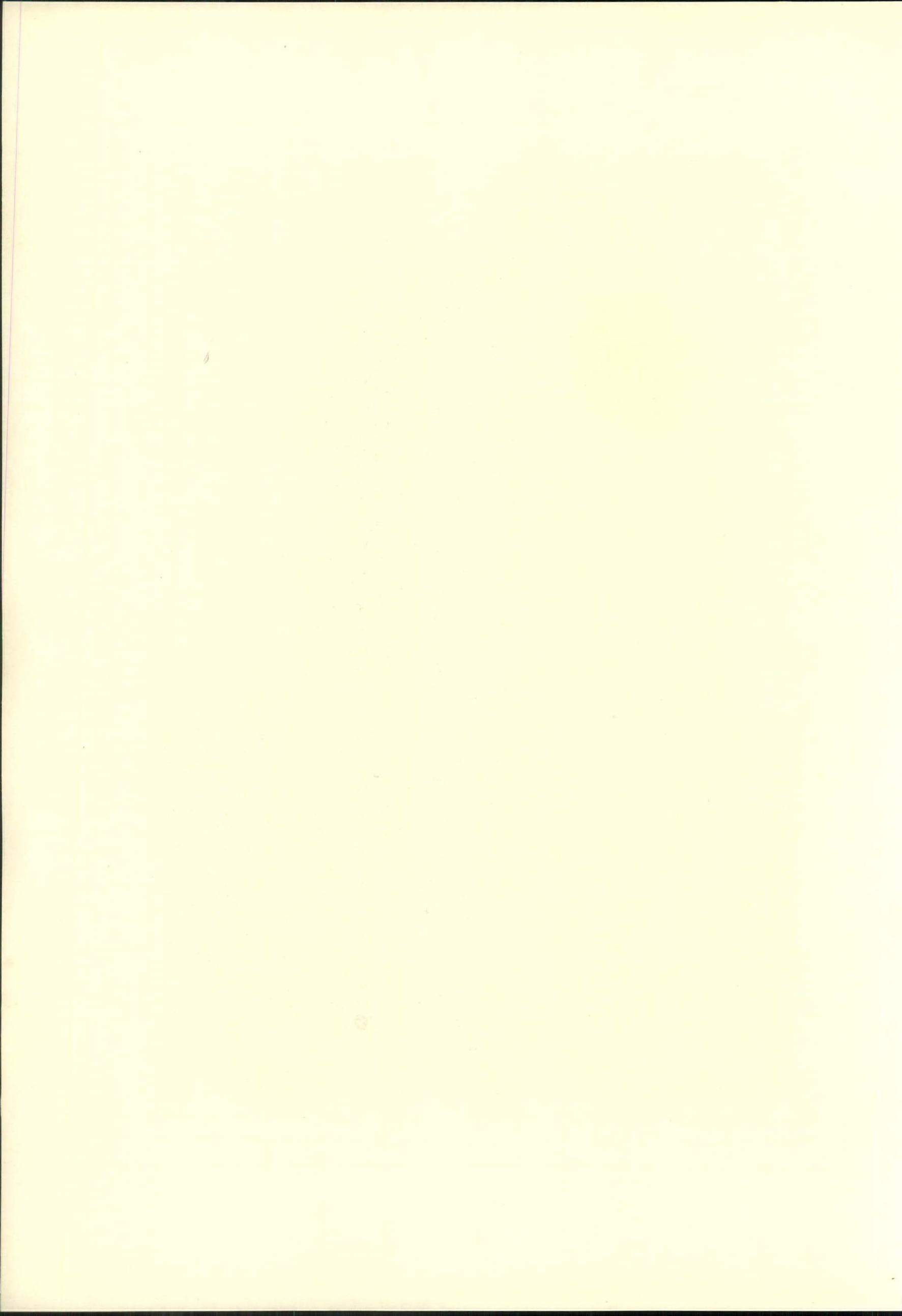






INTERIOR, RIDING SCHOOL, U. S. MILITARY ACADEMY, WEST POINT.

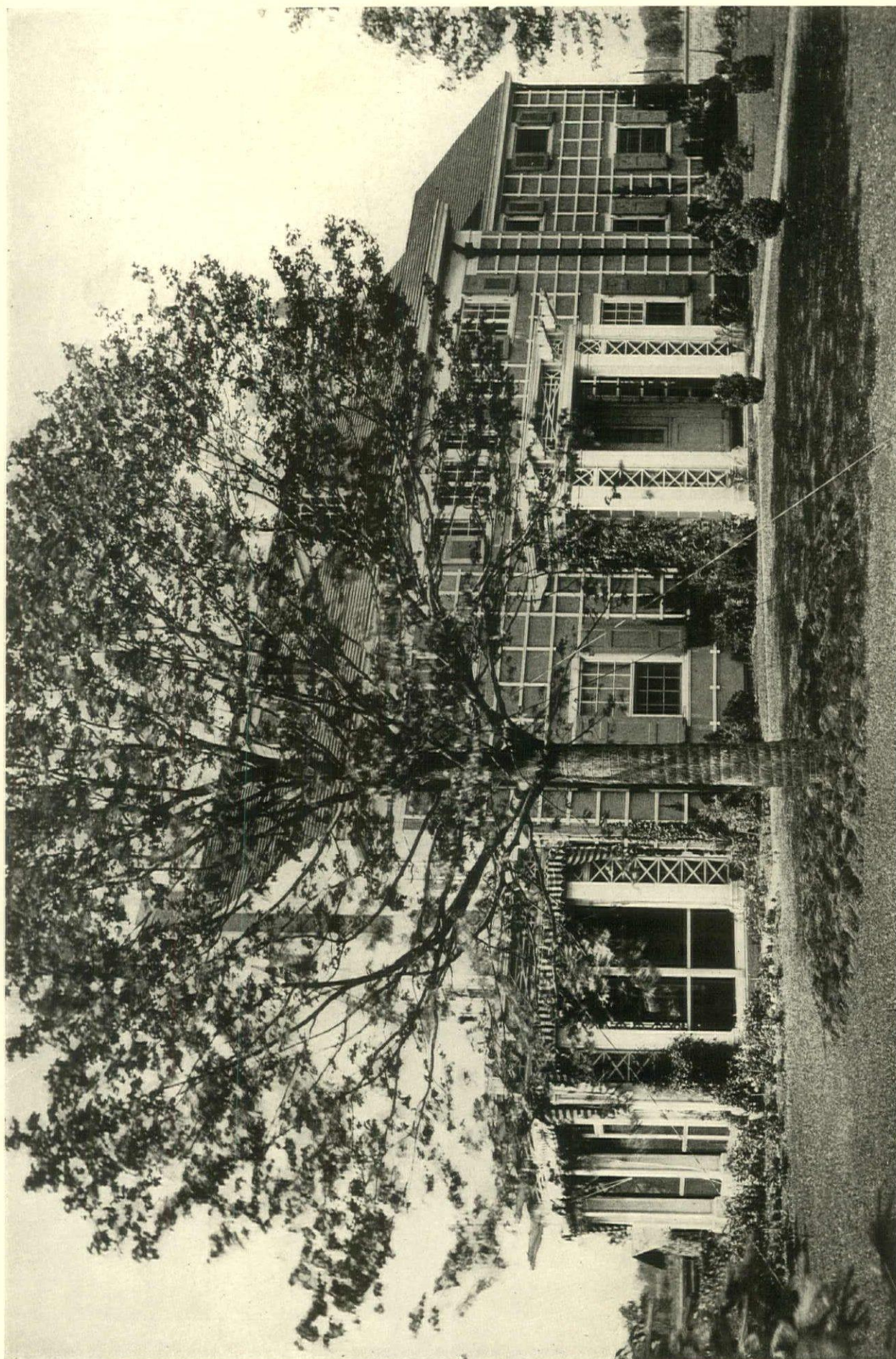
CRAM, GOODHUE & FERGUSON, ARCHITECTS, F. B. Johnston and M. E. Hewitt, Photo.





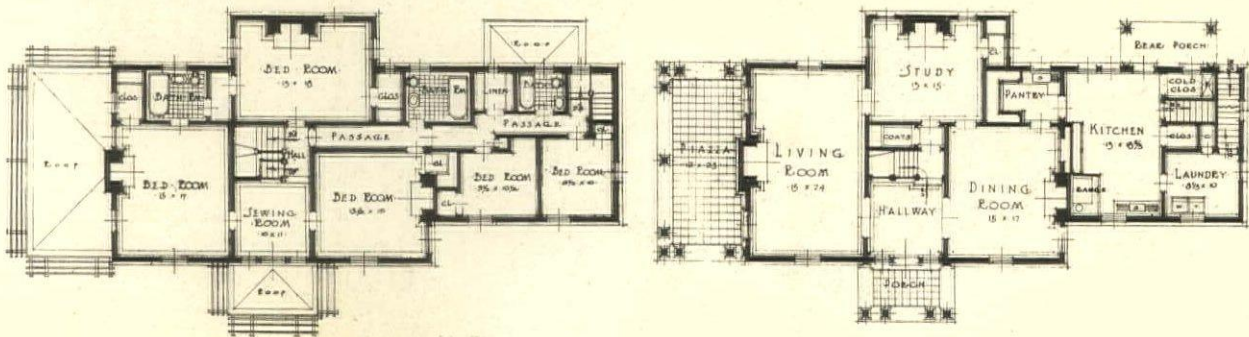
OFFICE AND LOFT BUILDING, 71 W. 23D ST., NEW YORK.

Harry P. Knowles, Architect. F. B. Johnston and M. E. Hewitt, Photo.



HOUSE, NICOLL FLOYD, JR., GARDEN CITY, L. I.

Aymar Embury II, Architect.



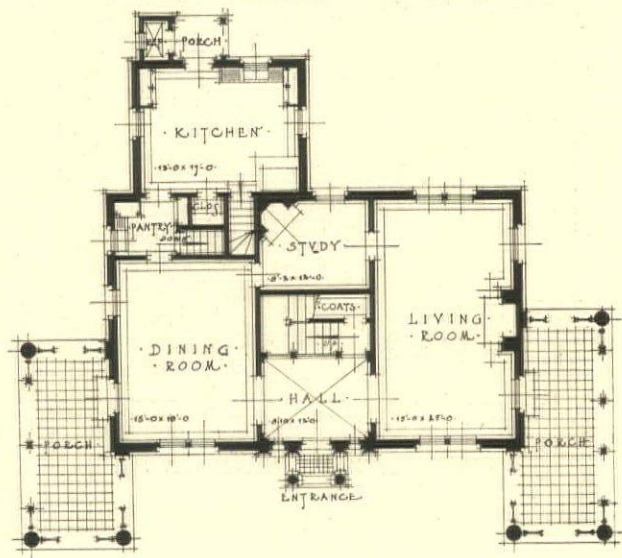
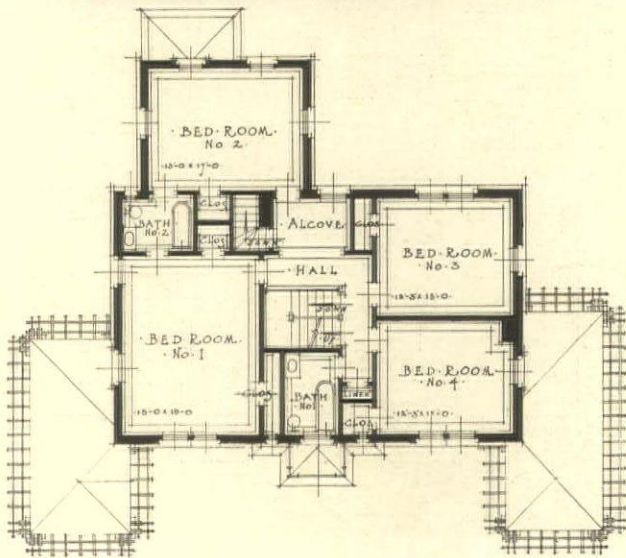
ENTRANCE AND PLANS, HOUSE, NICOLL FLOYD, JR., GARDEN CITY, L. I.

Aymar Embury II, Architect.



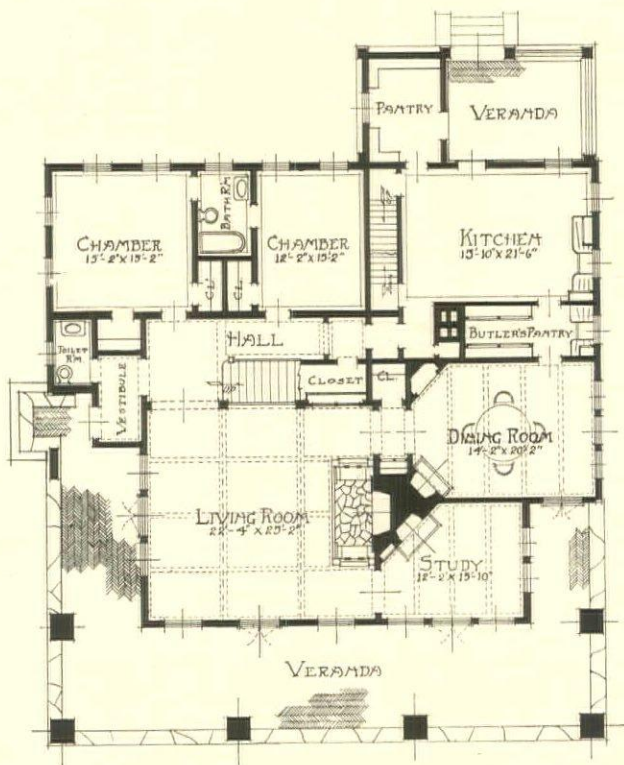
HOUSE, GREAT NECK, L. I.

Aymar Embury II, Architect.

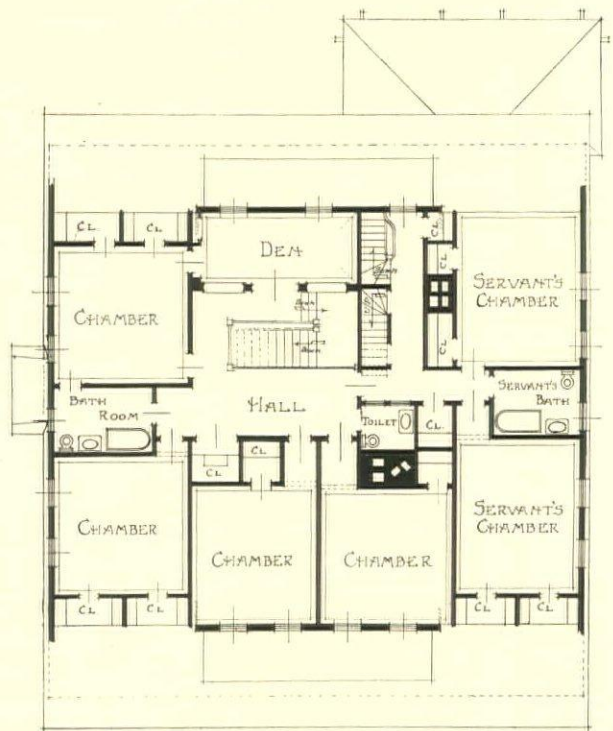


ENTRANCE AND PLANS, HOUSE, GREAT NECK, L. I. (See Measured Details No. 1.)

Aymar Embury II, Architect.



FIRST STORY PLAN



SECOND STORY PLAN



*Continued from page 117*

to have been made up from entries set down at the time. Indeed, we sometimes see in these accounts a statement that the expenditures recorded may be seen in greater detail in other books. Of Mediæval building accounts remaining, set down under the authority of the Clerk of Works, perhaps one of the most interesting is that in the Record Office labeled Exch. Acc. 504-2. In this MS. we see that the "clerk and surveyour of the sayde workes" was paid at the rate of 4s. a day to cover his "ordynary rydyng costes from place to place to know his grace's pleasure not only for surveying of the foresaide castells and mannours for buyldyngs and repayryng of the same, but also for rydyng dyvers tymes for making of payments for the foresaide buyldyngs and reperacions done." For his "ordynary boote (boat) hiren" he had 20d. a day, and "for his ordynary ffee belongynge to the foresaide offyce as Clerke and Surveyor of the sayde workes at iis. the day, over and besydes vid. the daye more to hym allowyd for a Clerke to make the bookes." In MS. 464-20 we see that Laurence Norton was Clarke of the Worckes in 1546. He was paid 8d. a day for "making of purvyacion of naylles, tylle, tyllpyns, lime," etc.; for procuring workmen, for overseeing the workmen, and for making up the books. Norton was paid his last wage on October 3, 1546, the new clerk commencing his duties as "clarcke of the worckes" on Monday, the 5th, and receiving his first wage on Saturday, the 10th. In MS. 459-22, a clerk of works is paid but 6d. a day, the page in which such payment is entered recording also the payment to labourers of 5d. a day. The following order to a Clerk of Works in the year 1517 is to be seen in the Record Office MS. 474-9. Such orders, so common at one time, are now rarely met with.

"We wol and commaunde you, that ye with diligence vpon the sight hereof, ye deliuer or cause to be deliuered vnto our trusty seruaut syr John Nevell, Knight, towards the buylding of a house at Mile ende, oon hundred thousande of breke and twenty quarters of lyme, being of oure owne store and provision and to be deliuered at the said Myle ende at oure owne propre costes and charges. And this our lettres shal be your sufficient warrant and discharge in that behalf. Yeuen vnder our signet at our manour of Grenewiche, the xiith daye of Julye, the ixth yer of our Reigne.

"To our trusty and wel beloued seruaut,  
"Henry Smyth, Clerk of our workes."

Masters of Works are rarely mentioned, but in the time of Henry VIII, a carpenter of the name of John Kerver eventually rose to be a "Master of the Kings Workes" in the district of North Wales. In one of the many records of building operations carried out under the authority of John Kerver, we find the entry of a payment to himself "for overseying and setting a work the seide workemen" (MS. 488-30). Here we find the same man both Master of the Works and Overseer. In an account of certain building operations mention is made of wages paid to "ouerseers" (MS. 488-15). In MS. 504-2 a Lauraunce Bradshawe received 16d. a day, he is called "The Setter forth of Workes and Ouersear of Workmen." In another place he is described as "The Setter oute of Workes." Subsequently Bradshawe's wages were reduced to 12d. a day, excepting on those days when he was out "ridinge," on which occasions he was paid 20d. per day. In MS. 464-20 Thomas Jauncy is paid 6d. a day for "overseing" that the workmen "do they're dute," and for making up the books. In this case we see the same man doing the work of an overseer, and also that of a builder's clerk. It is

also to be noted that the side heading to this entry is "clarcke of the Worckes." He executed the functions of three officials.

The purveyor was the official whose business it was to travel about to secure the various materials needed by the builder. In MS. 504-2 the duties of the Purveyor are set down very clearly:—"Purveyor. Provydinge as well carriage for tymber, borde, lathe, quarters, and other necessariis hade out of Suffolk as also for carryage here nere home of tymber and plankes bought." In MS. 479-11 we read of expenses entailed by "the purveyors rydyng about sondry provisyons for the said workes." The purveyor was not a highly-paid official; he was probably paid about 8d. a day in addition to his expenses for horse hire. Sometimes he is placed in the same group as the clerks; the following entry, however, draws a distinction between the purveyor and the clerk: "ii purveyors, ii clerkes, and sondry labourers dayly retaynid." In MS. 504-2 John Downe is "purveour" at 6d. a day.

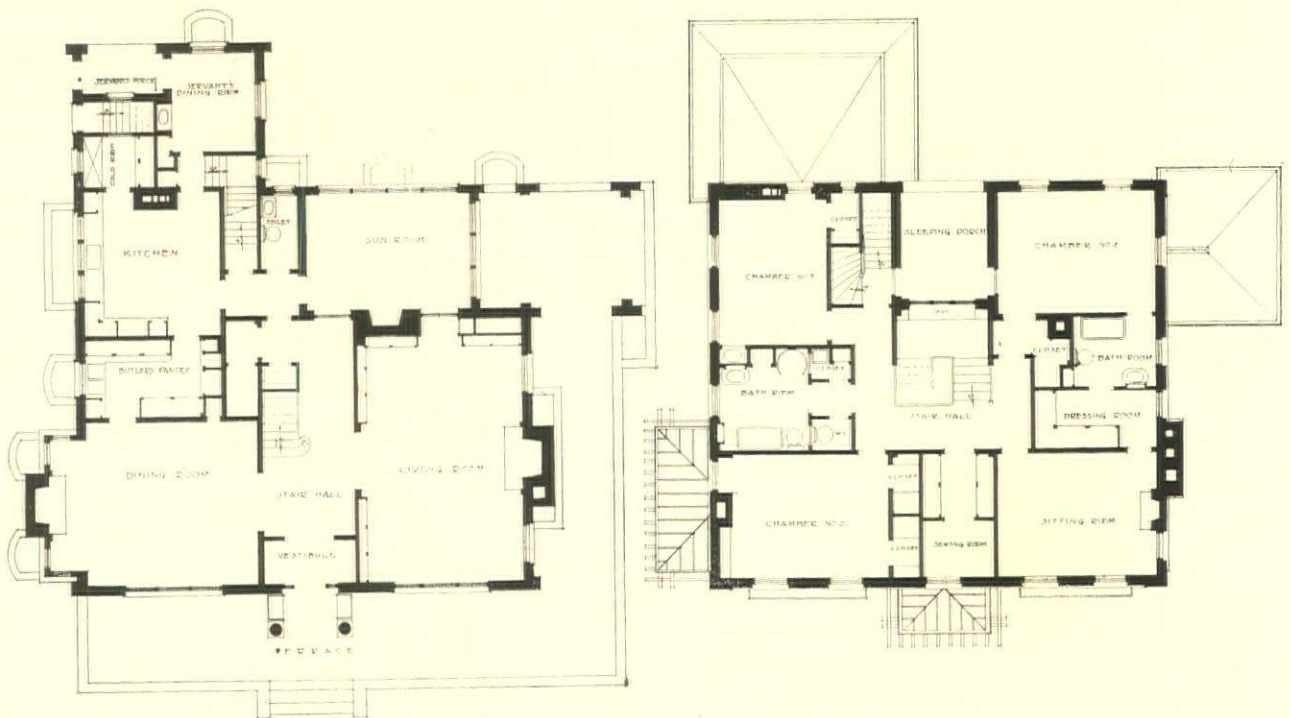
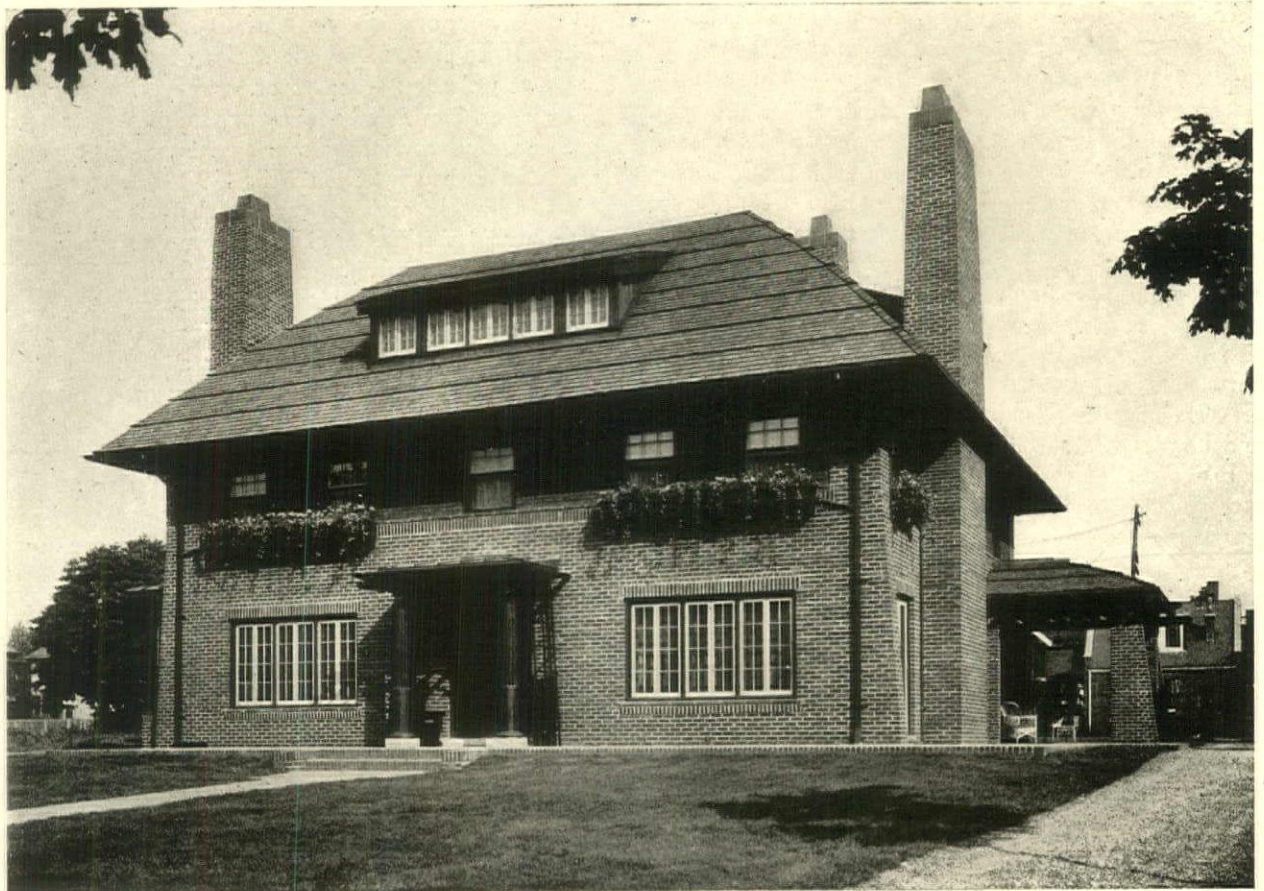
In MS. 488-27 we read of the "deputy surveyor," an official very rarely mentioned in builders' accounts. In MS. 489-17 we see that Robert Buryhill was surveyor, paymaster, and purveyor; he rode "from place to place for provisyons." Official paymasters are rarely mentioned, the payment of the workmen probably generally resting with the clerk of works. In MS. 545-29, Jefery Gates is "paymaster to the workemen." Accounts are set down under his authority in MS. 544-12. Laurance Bradshaw was a paymaster, an overseer, and one who "set" the men to work. The sum of 5s. 4d. is entered in MS. 504-2 as having been paid him "for Rydinge from Westm' (inster?) to Dunstable to paye worke men there by the space of iiiii dayes." Robert Pilling rode with him "for the savegarde of the same monye," receiving 4s. for so doing. In MS. 474-3 John Baylle is purveyor and overseer, too, at 5d. a day. In MS. 465-20 Hector Hassheley is paymaster and surveyor at 12d. a day. In MS. 489-16 the surveyor sees to the workmen and acts as purveyor, receiving a stipend of £10 a year, for which sum he was expected to provide the horse, which was practically part of the equipment of a purveyor. An instance of a surveyor called on to furnish a report and estimate for the repair of a building is to be seen in MS. 458-9.

The ordinary builder's clerk was paid 6d. to 8d. a day. (MS. 477-12.) In MS. 504-2 we read:—"The Clerke. The Clerke keeper of the checks boke and ouerseer of the workmen." Here a clerk acts as overseer. The check book was possibly a volume in which the materials were entered as they were delivered on the site.

#### FACING MATERIALS.

IT was long one of the recognized canons of architecture that the construction of a building should be indicated in its external design, says the *London Engineering Journal*. This, in the main, may be generally accepted, yet even the most casual observer cannot but note that in almost every period and in every country it has been customary to face buildings with a different material from that which has been used structurally. When one comes to think of it, this is a reasonable thing to do. As with the clothing of the body, two purposes are served—one being the protection of the structure against the elements and the other the decoration thereof. The pyramids, built of limestone, were cased in granite; the Assyrian monuments had their walls of sun-dried bricks lined with slabs of alabaster; and so we might go on, only excepting the buildings of the Greeks and certain early cyclopean works. Generally, it is

*(Continued page 127)*



HOUSE AND PLANS, M. T. SILVER, CLEVELAND, O.

J. Milton Dyer, Architect.

(Continued from page 125)

true that the underlying structure has been indicated externally, but more by mass and general form than by the substance of the outer casing or the method of decorating it.

In these modern days, when our structural skeleton is commonly composed of a material which it would be impractical to expose to the weather—or, if not impractical, at least unwise (as the engineers are beginning to discover in connection with many an iron or steel railway bridge)—the question of the outer clothing is one which is coming into considerable prominence. It is not so very long since the extreme purists were calling out for the exposure of steel-work in buildings, upon the plea that only thus could we devise an honest architecture with a steel-frame basis; but they must surely have forgotten what was done by the great workers of past times, particularly the Assyrians and Byzantines. To cover up the steel skeleton is no more false architecture than to encrust the walls and domes of St. Mark's at Venice with mosaic.

Once this proposition is granted—and it is impossible to do otherwise than to accept it—the possibilities open to the employment of modern facing materials are as innumerable as the materials themselves. In this respect, we of the present day are incomparably rich, and, as a matter of fact, we use facing materials upon the simplest as well as upon the most elaborate buildings. They range from what is comparable to homespun in dress to that which is representative of the richest silks and most beautiful jewelry.

If we consider the more simple materials first, as they are applied to plain domestic architecture, we find that their employment is dictated, even in the humblest buildings, by considerations of appearance as well as of weather resistance. It is only in the commonest of sheds and barns that the same bricks will be employed externally as internally. Even where common stocks are used they are picked for facings, while as frequently as not they are chosen for their color, and a superior description of brick is employed. In the very lowest class of domestic building—that of the speculative builder, who, in order to make a profit must save every penny he can upon his construction—it is imperative to employ different bricks, for the rain would penetrate if he were to use as an outside casing the soft rubbish which he is contented with for his internal partitions. Sometimes he solves this difficulty by giving his exterior an "artistic" appearance by means of a coating of roughcast. Low down in the scale as this work often is, there is immediately, whether bricks or roughcast are employed, an indication that appearance dictates the choice as much as utility; and there is certainly no thought of architectural purity.

Color, long neglected by us, is coming to be recognized as one of the most important considerations in architecture: necessarily it applies to the facings only, and not to the hidden material of the structure. Yet in many an office it is still too much the habit to specify materials without much thought of color effect. Architecture is not mere building only, for an architect must of necessity be a colorist if he is to produce what is in harmony with its surroundings and beautiful in itself. All the facing materials that are available constitute his palette, and he can combine them as it pleases him. His harmonies are necessarily controlled, however, by the adjective "available," as used in the previous sentence.

Texture, though much less considered, is more subtle than, and quite as important as, color: it is more difficult

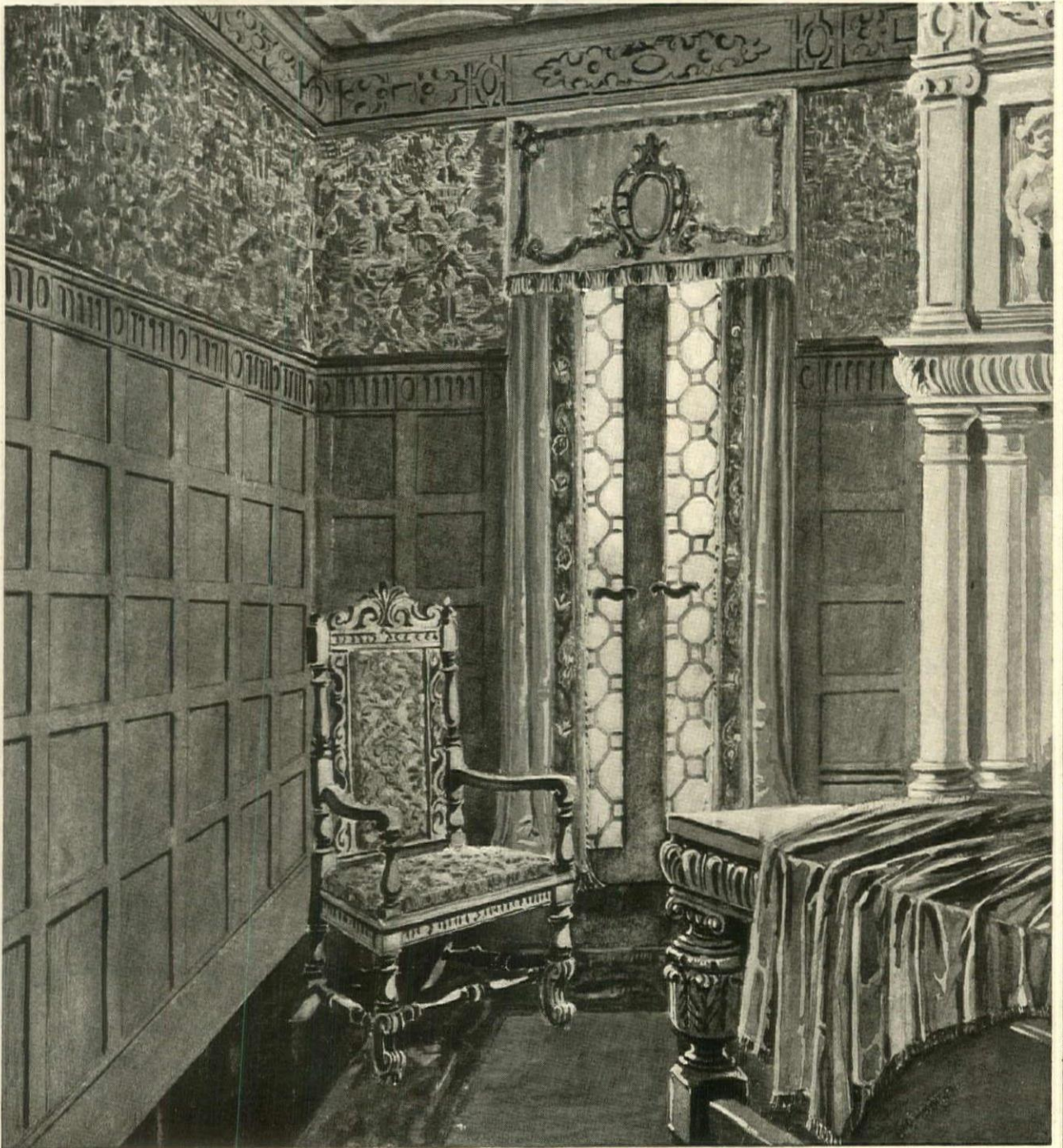
to represent upon a drawing, by no means so easy to visualise in advance. Many a good colorist will fail in this respect, but it is only by harmony of texture and color that a perfect result can be achieved. Too rough a material also may be wrongly used, like roughcast in the upper portion of an ashlar building; but, as a general rule, an over-smooth material is more difficult to employ satisfactorily than a somewhat rough one. This is the danger of much of the glazed faience work of the present day. It has its uses, for it is easily cleansed, it is highly suitable for encasing steel-work or facing reinforced concrete, it resists the weather admirably, and apparently it has extraordinary lasting qualities. On the other hand, its smooth surface is hardly smooth enough to give marblelike effects. Having been produced in a kiln, the face is never perfectly flat, and the light is reflected from it as from a badly-made mirror. It is questionable whether such a material should not be employed for wide wall spaces and jointed like stonework. Treated as a large-scale mosaic, and with skillful use of color, there might be something to be said for it. Mosaic is obviously out of the question on account of its cost, and a comparatively thick external facing of stone would occupy space on plan which is just that which the employment of reinforced concrete would be aimed at saving for internal use.

#### CHINESE STUDENTS OF THE TELEPHONE ART IN THE UNITED STATES.

IT has been a common thing during the last fifteen or twenty years to hear of the Japanese Government sending students to pursue a course of studies in the colleges and principal manufacturing establishments in the United States. That this policy has been fruitful of results, beneficial to the Japanese as a nation, has been evidenced by their achievements in recent years—familiar to all students of contemporaneous history. Probably owing to the fact that large bodies move slowly, China had not, until a very short while ago, seen fit to take advantage of these opportunities for those of her young men who wished to embark upon professional careers. A new era, however, is dawning in the Celestial Kingdom.

For some time past, the eyes of the entire civilized world have been centered upon the political upheavals in China. In the mass of news concerning those disturbances, an incident, which will undoubtedly have a hearing upon the future of the country, is worthy of notice. During the early part of 1911, the authorities of the Government Technical College at Shanghai, or Nang Yang University, as it is now known, feeling the growth of a national telephone system to be assured, took up with the Western Electric Company's representative in China the question of sending a number of the members of the graduating class in Electrical Engineering to the United States for training in that company's shops.

The necessary arrangements were quickly made and after graduation in July, 1911, three men, the first ever sent out by the university for such training, left for America. They came to Chicago to the Hawthorne plant of the Western Electric Company, where they will engage in the practical study of telephony, in the company's course. Following this, they will spend some time with one of the large operating telephone companies. Upon completion of their studies, the men will, of course, return to their native land, where it is expected that they will be of material assistance in promoting and developing the telephone system of China.



*Upholstery  
Fabrics*

## CHENEY SILKS

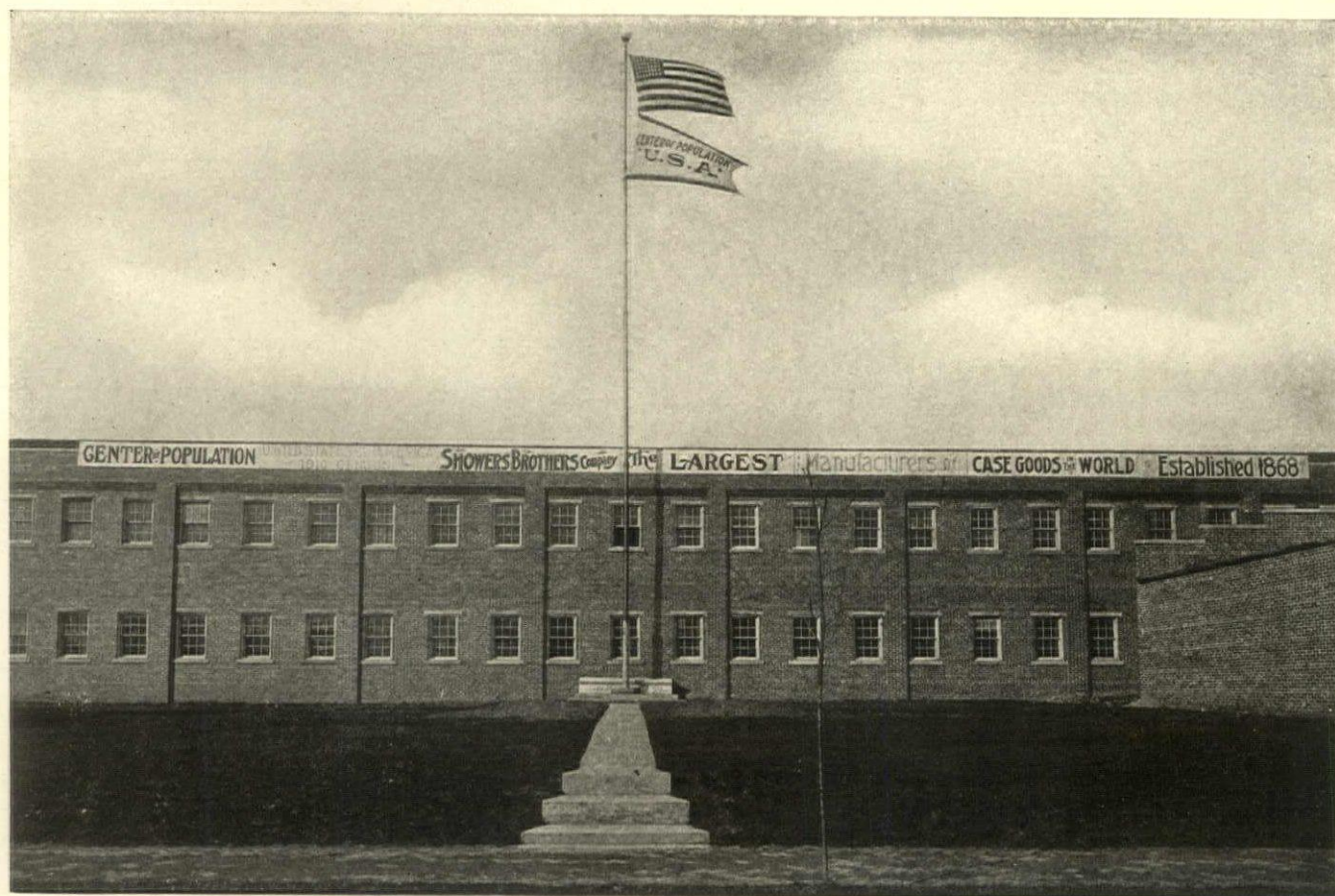
*Drapery  
Fabrics*

The Jacobean interior here illustrated is merely suggestive of the high character and many possibilities of Cheney Silks for upholstery and drapery uses. The line contains the largest assortment of new weaves and colors that Cheney Brothers have ever offered at one time. Many of these are reproductions of antique fabrics in pure styles, the colors being particularly adapted to the fabric and meeting the present demand for old soft colorings.

These goods may be obtained from your jobber or direct from the manufacturers in the piece or in cut lengths as desired. Customers desiring to represent any of these fabrics in their collection can do so by purchasing from the manufacturers a 1½-yard sample, to which will be attached small samples showing the full line of colors produced. Cheney Silks include practically everything made from silk.

CHENEY BROTHERS, *Silk Manufacturers*, 4th Avenue and 18th Street, New York

# Target-and-Arrow Roofing Tin



**At the Center of Population**

The center of population of the United States of America, as located by the census of 1910, has been officially fixed at a point two feet from the wall of the factory building of Showers Brothers Company, of Bloomington, Ind.

This extensive furniture plant is covered with 130,000 sq. ft. of "Target-and-Arrow" tin, used to replace tar-and-gravel roofing, which had given poor results in the past.

The point ascertained by the Government surveyors as the exact center of population, just misses a "Target-and-Arrow" roof by two feet. Census returns of former decades have usually resulted in locating the "center" in some isolated, out-of-the-way place, but these various official centers have always been marked, and have aroused widespread national interest. During the next ten years, while Showers Brothers of Bloomington, are the proud custodians of the center, it will be visited by thousands of patriotic Americans. It has already proven a Mecca for automobile touring parties.



Closer View of the Center of Population. The flagpole marks the exact spot. It is easily seen from the Monon and Illinois Central Railway Tracks.

Showers Brothers enjoy the distinction of being the oldest manufacturers of furniture in the United States. Their business was established in 1868, and has remained under one management and ownership ever since. Therefore, when they rebuilt their entire plant in 1910, it was peculiarly appropriate that they should select the oldest make of roofing tin for the new buildings. The materials selected for use in these buildings were required to be of the highest quality throughout. "Target-and-Arrow" roofing tin was chosen as the most satisfactory type of roof that could be obtained at any cost.

"Target-and-Arrow" roofing tin is equally well adapted to any type of building, the only requirement being that a high-grade, reliable roof is wanted.

This plate is the old-time specialty of ours, differing widely from other makes of roofing tin.

It is the highest-priced roofing tin on the market, furnished either in our pure open-hearth, or charcoal iron base.

Full description, literature, samples, etc., sent on request.

**N. & G. TAYLOR CO., of Philadelphia**

Leaders in High-Grade Roofing Tin since 1810

## A NEW HOTEL FOR NEWARK, N. J.

**A** CENTURY ago in the State of New Jersey no one was allowed to keep an inn or hotel without keeping a stock of various kinds of liquors for the accommodation of his guests, and for them a scale of prices was provided by law. The sale of liquor is an important adjunct of a hotel, one of a high grade particularly, and the right to conduct it has tied up a practical movement to give the city of Newark, N. J., a really first-class hotel.

An association of business men some time ago decided to erect a fine hotel and purchased a site for it for about \$250,000. Upon this they proposed to erect, at a cost of a million dollars, a modern structure with a capacity of 400 rooms, 250 rooms being devoted to guest chambers in the beginning. The trouble is that the site is too near a church, a matter that was overlooked when the ground was purchased; indeed, this occurred to no one interested in the enterprise until all the necessary funds had been pledged and the plans drawn.

The owner of the proposed hotel site is Edward M. Waldron, head of the contracting firm of E. M. Waldron & Co. The site is just across the street from the municipal building, at the northeast corner of Broad and Green Streets. On the opposite side of Broad Street is the Third Presbyterian Church. There is less than 200 feet between the nearest points of the two properties.

To exempt the site from the ban of the law and permit the great improvement to be carried into effect a bill is now pending in the New Jersey legislature. By its provisions hotels of 250 rooms or more are excluded from the prohibitory section of the existing law.



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# Barrett Specification Roofs

## How to Inspect Barrett Specification Roofs

FOR the protection of Architects, Engineers, Roofers and owners of buildings we direct attention to the fact that a roof is NOT a Barrett Specification Roof unless the materials are applied as directed in The Barrett Specification, and unless each roll of Tarred Felt and each barrel of Pitch bears the labels, facsimiles of which are shown herewith.

To comply with the Barrett Specification, the materials necessary for each one hundred (100) square feet of completed roof are approximately as follows :—



Facsimiles of Labels

### Over Boards

108 square feet.....	Sheathing Paper
89 to 85 lbs.....	Specification Tarred Felt
120 to 160 lbs.....	Specification Pitch
400 lbs.....	Gravel
or	
300 lbs.....	Slag

### Over Concrete

80 to 85 lbs.....	Specification Tarred Felt
180 to 225 lbs.....	Specification Pitch
400 lbs.....	Gravel
or	
300 lbs.....	Slag

In estimating Felt the average weight is practically fifteen (15) pounds per hundred (100) square feet, single thickness, and about ten (10) per cent. additional is required for laps.

In estimating Pitch the weather conditions and expertness of the workmen will affect the amount necessary for the moppings and to properly embed Gravel or Slag.

The only practical way of determining that Felt and Pitch have been applied as specified is to cut the roof, and as a protection to the responsible roofing contractor, the National Association Master Gravel & Slag Roofers of America recommend cutting a slit into the roof not less than three (3) feet long at right angles to the way the Felt is laid, before the Gravel or Slag is applied. The cut can be repaired by sticking five (5) thicknesses of Felt over it, and the spot will then be as strong as any part of the roof.

The contract price for a Barrett Specification Roof should not be less than the cost of the materials specified, plus the cost of laying, and a reasonable amount for profit. Thorough inspection of materials and workmanship is recommended.

## BARRETT MANUFACTURING COMPANY

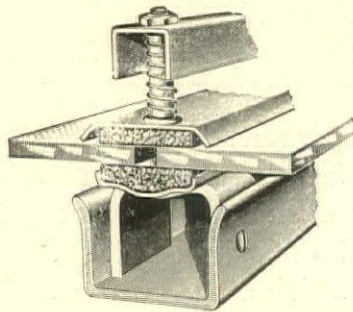
New York Chicago Philadelphia Boston St. Louis Kansas City Cleveland  
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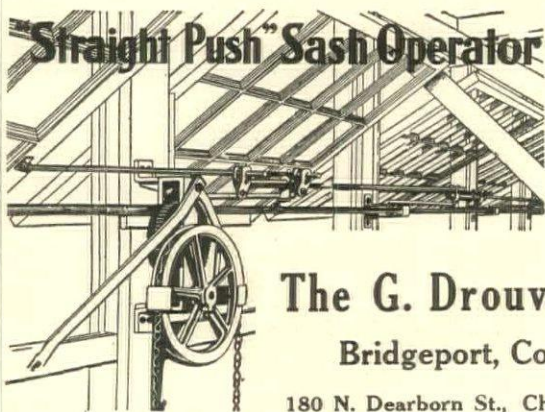
are built of special rolled steel channels on Drouvé patented continuous clip, which secure to the curbs. The framework thus provided carries the glass, which, bedded on cowhair felt, is watertight without putty or cement. The bridge feature permits ready access to all parts of the skylight. The design is along economical lines and with the idea of reducing maintenance to a minimum, making renewals unnecessary.



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will open and close any reasonable number of sash in lines of 100, 150 or more lineal feet. It can be depended upon to meet service conditions. A rack and pinion provides the motive force that pushes or pulls a shaft to which is connected a series of levers which are attached to each sash. Positive action insured all along the line, and permanent results.

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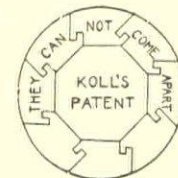
It is easily applied. It requires no skilled labor, no expensive plant, no lengthy preparations; ONLY A BRUSH. “SHINGLES” are dipped, and when laid, given a heavy brush coat. “SLEEPERS AND TIES” are given a bath. It soaks readily into the wood. Unlike paint, it leaves the pores open; prevents rot or decay, and combines serviceability and beauty if applied thoroughly. It weathers prettily. Is largely specified for dwellings, churches, hospitals, railroad depots, sheds, stables, boathouses, and other wooden structures exposed to climatic changes. Nothing like it for impregnating SLEEPERS to be imbedded in cement. Comes in one color (brown) only, and one gallon covers about 300 square feet of dressed lumber. Its cheapness appeals to all builders. It saves expense. Three coats are required. Send for particulars and full directions.

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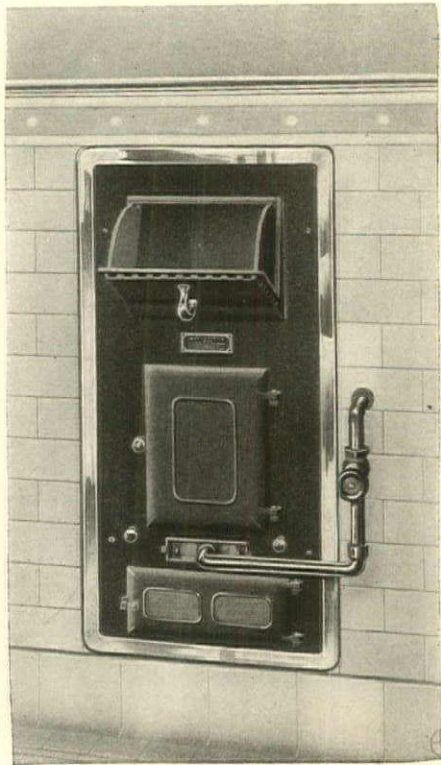
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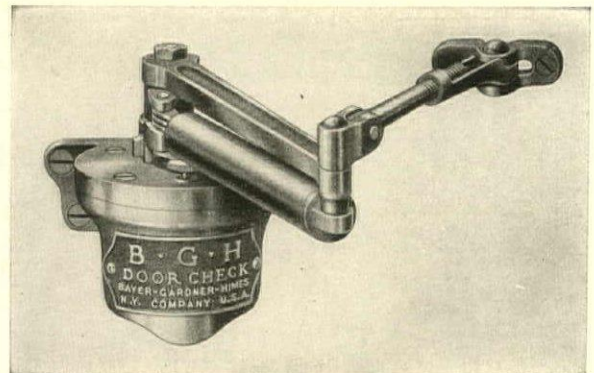
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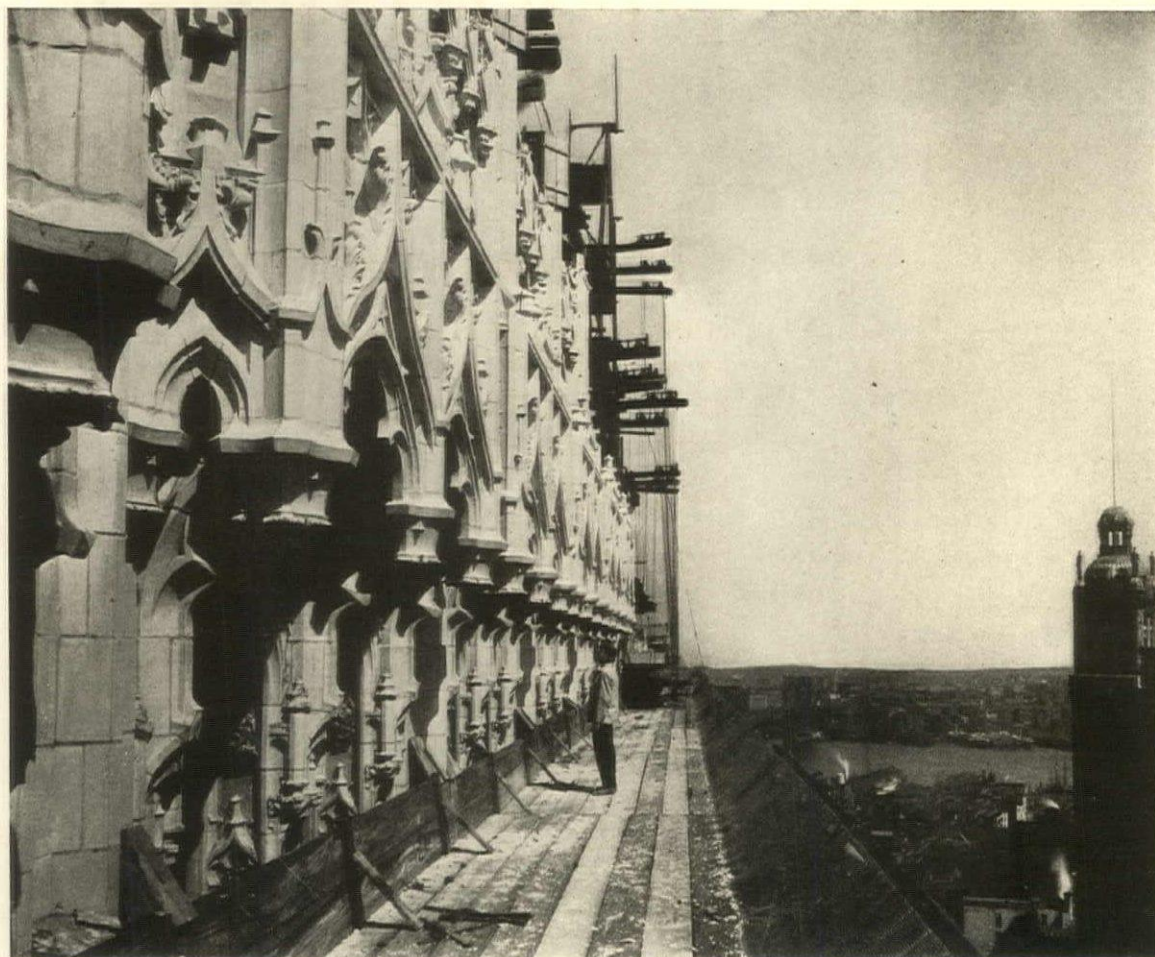
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Woolworth Building, New York

*Cass Gilbert, Architect*

*Thompson-Starrett Co., Builders*

### At the 27th Story Canopy

*Detail of the Woolworth Building's 52-story facade of Atlantic Architectural Terra Cotta*

The shaft is a light cream matt glaze. The window reveals and other decorative members are modeled in Gothic ornament against backgrounds of soft blue, green or golden yellow.

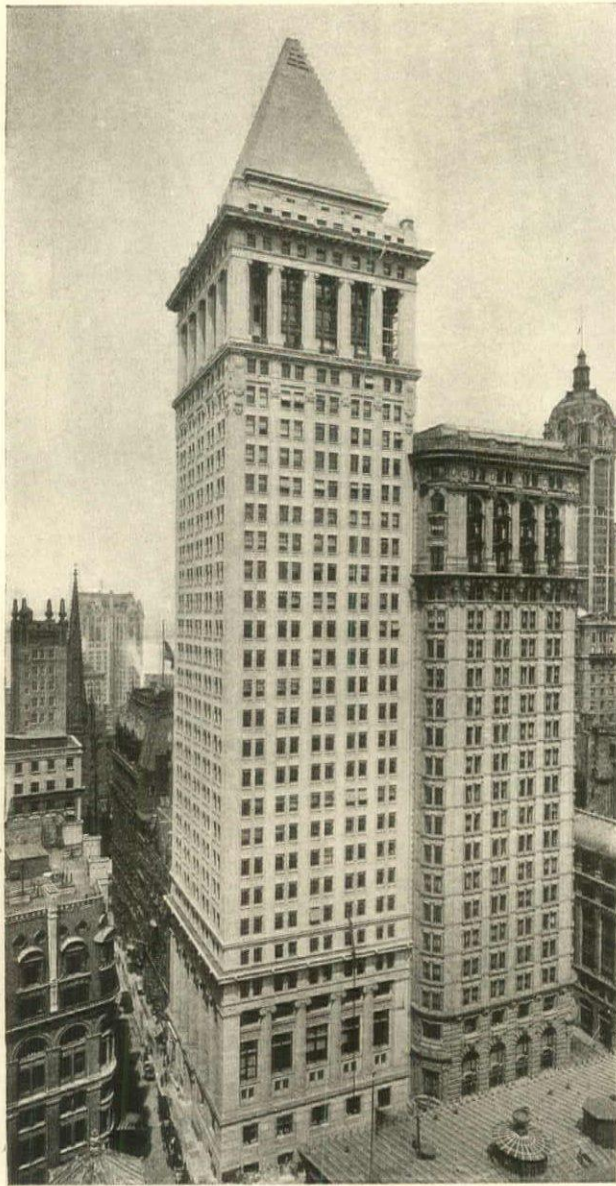
The Architect who designs for stone and shifts to Terra Cotta for the sake of economy *only*, generally fails to take advantage of the peculiar adaptability of Terra Cotta.

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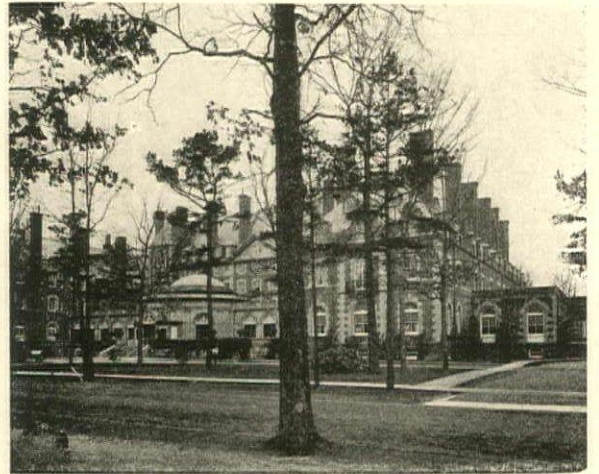
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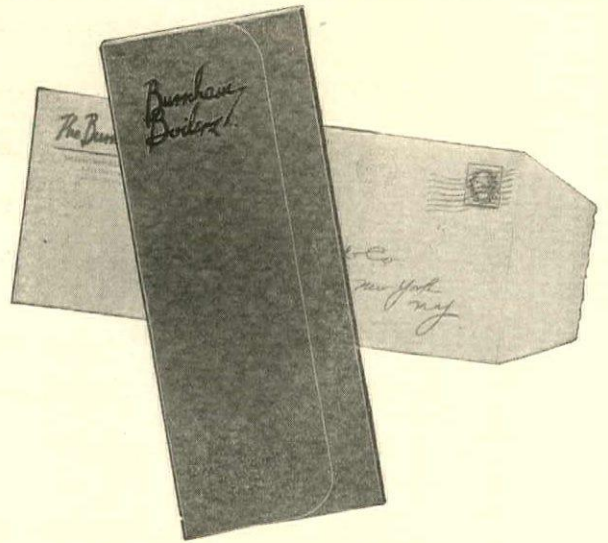
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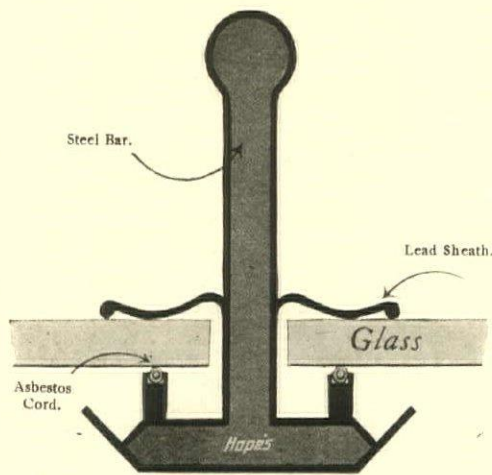
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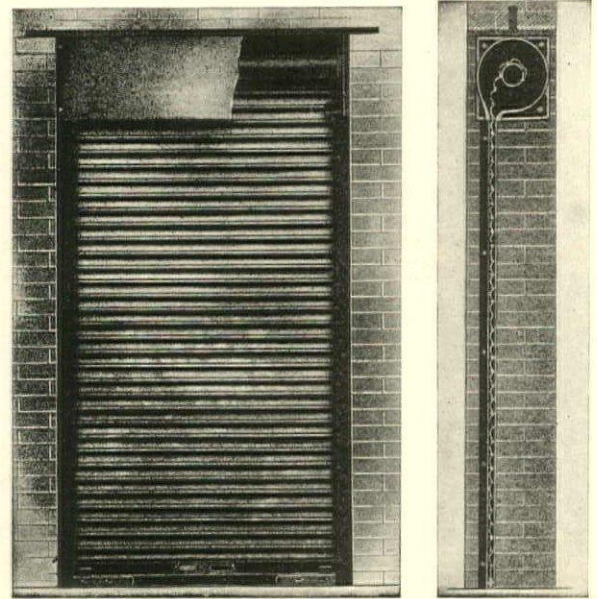
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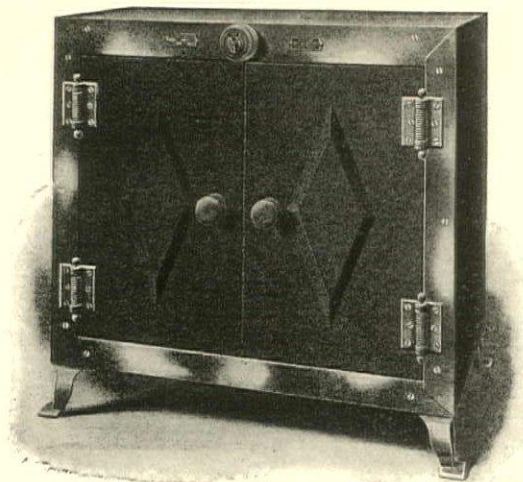
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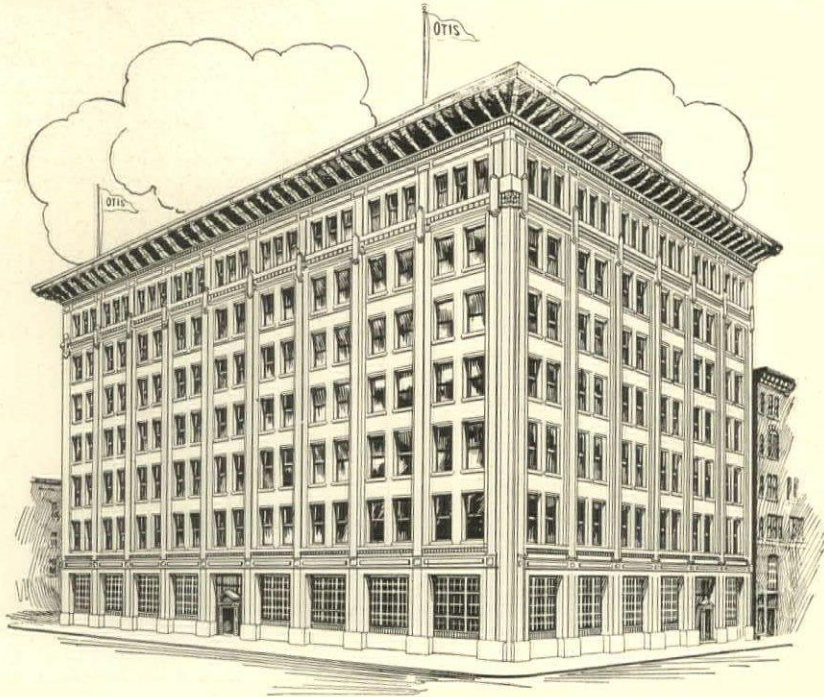
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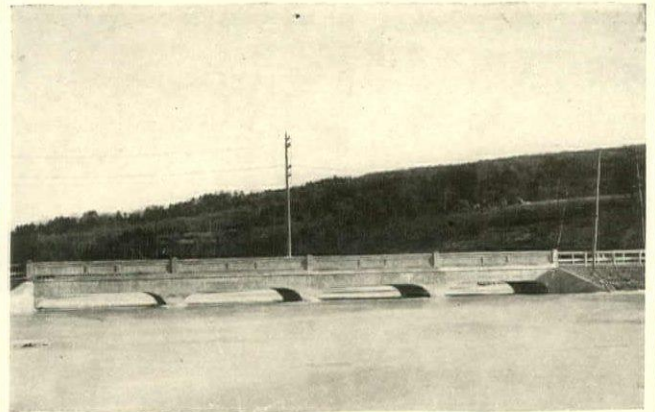
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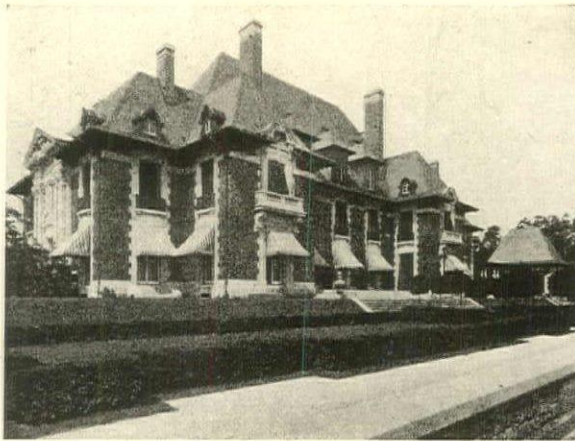


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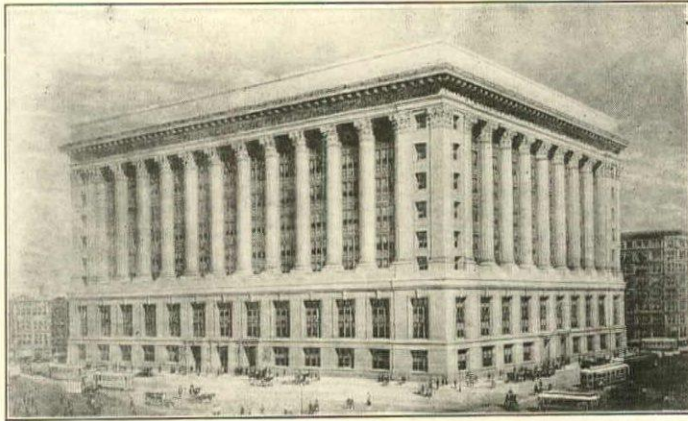


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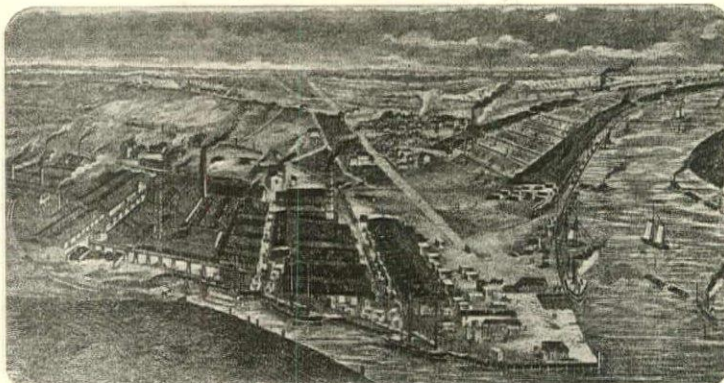
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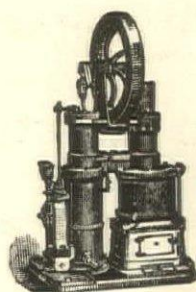
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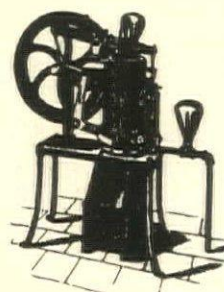
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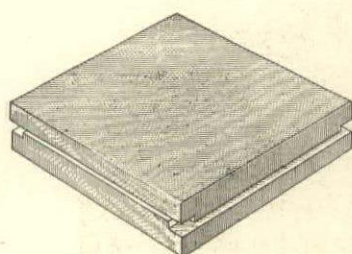
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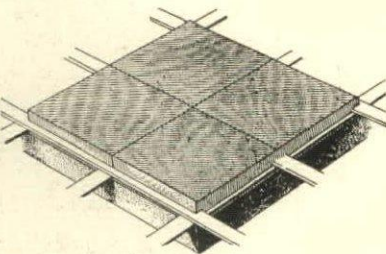
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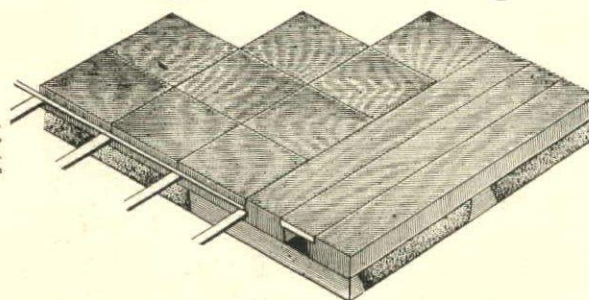
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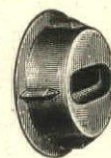
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