

THE AMERICAN ARCHITECT

WILMINGTON
INSTITUTE
JAN 24 1920
FREE LIBRARY



PORTA VENEZIA. PADOVA.

PUBLISHED WEDNESDAYS IN NEW YORK
FOUNDED EIGHTEEN HUNDRED SEVENTY SIX
VOLUME CXVI DECEMBER 17, 1919 NUMBER 2295



Residence of Glenn P. Driscoll, Architect
Des Moines, Iowa
Bishopric Board used on entire house

As a Key Turns the Lock and Holds the Door Secure

So Does Dovetailed Key
BISHOPRIC BOARD HOLD
STUCCO—Preserving
the Original Beauty
of Walls Indefinitely.



Have you used Bishopric Sheathing—the product which nearly one hundred concerns have specified for workmen's homes? It makes a solid, compact wall and saves 30 per cent over 3/4-inch wood sheathing.

OUR BOOKLET

contains the perfect Stucco mixture and numerous tests and endorsements of Bishopric Board by Engineers, Architects, Contractors and Home Owners. It will be sent on request.

TURN THE KEY and the lock on the heavy oak door prevents the movement of that door. It is held rigid and secure indefinitely. That's what a lock is for.

In the same way, Bishopric Board prevents the movement of Stucco walls. Its dovetailed key, formed by beveled wood strips, fastens the Stucco firmly—locks it irrevocably.

Bishopric Board differs from a door lock in but one respect—it can never be unlocked! The Stucco and Stucco Board remain sealed together forever, snug-tight to the building, the Stucco Board being fastened by a 6 D nail wherever it crosses a stud, and by four nails to each heavy wood strip where applied over Sheathing.

There isn't the remotest possibility of cracking, crumbling walls when Stucco is applied over Bishopric Board, especially if the Stucco mixture we recommend be used—a mixture universally conceded as the most perfect yet compounded.

Time does not lessen Bishopric Board's effectiveness. The wood strips are creosoted, like railroad ties and old-time wooden bridges. The Asphalt Mastic in which the wood strips are imbedded is itself a preservative and keeps out moisture. The waterproofed fibreboard is a non-conductor and prevents the circulation of moisture.

Specify Bishopric Board if you want attractive, unbroken surfaces in your Stucco construction. Specify it for its desirable insulating and sound deadening qualities. Specify it to provide other advantages for clients through the saving it effects.

When Bishopric Board is used on interior walls, ceiling and partitions, plaster, time and labor are saved. Splendid insulation and retarding of sound are secured.

THE BISHOPRIC MANUFACTURING COMPANY

981 Este Avenue

Cincinnati, Ohio

SEE

HOW

IT

LOCKS

THE

STUCCO



VASE IN VATICAN MUSEUM, ROME

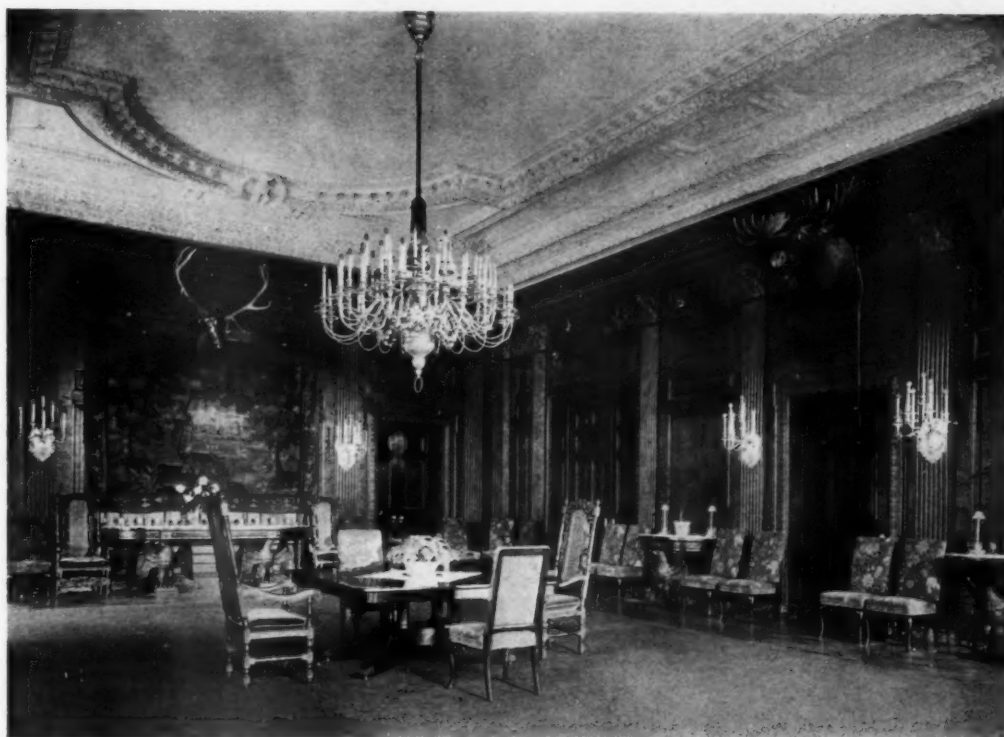
THE AMERICAN ARCHITECT

THE AMERICAN ARCHITECT

VOL. CXVI

WEDNESDAY, DECEMBER 17, 1919

NUMBER 2295



A STately HALL OF THE EARLY ENGLISH RENAISSANCE, THE STATE DINING ROOM IN THE WHITE HOUSE

RESTORED BY McKIM, MEAD & WHITE, ARCHITECTS

Roosevelt and the Fine Arts

By GLENN BROWN, F.A.I.A.

HONORARY CORRESPONDING MEMBER ROYAL INSTITUTE OF BRITISH ARCHITECTS, CORRESPONDING MEMBER SOCIÉTÉ CENTRALE DES ARCHITECTES FRANÇAISE, CORRESPONDING MEMBER SOCIETY OF ARCHITECTS ANTWERP, BELGIUM, SOCIETÀ DEGLI INGEGNERI E DEGLI ARCHITETTI ITALIANI.

PART II

RESTORATION OF THE WHITE HOUSE

IN our future architectural histories we must credit Roosevelt with saving the integrity and beauty of the White House and preserving the dignity of the Capitol.

During the latter part of McKinley's administration there was a strongly organized effort to en-

large the White House when we were celebrating the hundredth anniversary of the city. Drawings and models were made under the direction of Col. Theodore A. Bingham, Commissioner of Public Buildings and Grounds, for an elaborate extension of this historic building. Great wings with low corner towers were designed overshadowing and thrusting out of place the refined old building. In

Copyright, 1919, The Architectural & Building Press (Inc.)

THE AMERICAN ARCHITECT



THE GREEN ROOM IN
THE WHITE HOUSE,
WASHINGTON, D. C.



AT LEFT—THE ROOM BEFORE
ITS RESTORATION



A DIGNIFIED AND RESTFUL ROOM—THE GREEN ROOM
ARCHITECTS OF THE RESTORATION, McKIM, MEAD & WHITE.

THE AMERICAN ARCHITECT

themselves these wings were bad in proportion and crude in detail. Fortunately through the instrumentality of the American Institute of Architects this barbarous addition was prevented.

There was no question as to the need of a change in the interior of the building. Used for office and residential purposes it had been growing worse in its artistic effect with each administration and the combination of office and home was becoming more and more intolerable. The Institute only asked the Government to refrain from remodelling this historic building until they had obtained the best architectural advice the country could provide.

From 1840 to 1902 the interior of the White House had undergone marvelous changes, falling from its refinement and dignity to a state bordering on architectural insanity. The offices, to which there was an ever-increasing stream of people daily, occupied one-third of the second or bedroom floor. The servants' quarters had been curtailed by the removal of the east terrace and the gradual absorption of the west terrace for propagating flowers. Some of the best rooms in the basement had been utilized for steam boilers and coal. The noble vaulted corridors had been filled with steam, hot air and plumbing pipes. The entrance hall had been changed from a dignified Georgian entrance, by an elaborate stained glass screen, arabesque treatment of walls and many-colored tile floor, into a typical fashionable bar of the period, lacking only the counter. The State Dining Room had been decorated and furnished like one of our better-class boarding houses so well-known in Washington. The great east room had been changed from its simple dignity of early days so its decorations and furniture reminded you strongly of the saloon on a Long Island Sound Palace Steamer. The red room by its door and window trim and mantel had been given the semblance of a Pullman Palace car.

The congestion in the office rooms, the curtailment of the servants' quarters by the heating plant and propagating garden, the small area left for a large family and the general want of taste in the interior decorations made it so unbearable to Roosevelt that Congress authorized a restoration, giving Roosevelt the power to judge of the necessary

changes and to select his architect. Roosevelt acted on his own volition, but in accord with the previous request of the Institute to get the best architectural advice, when he commissioned McKim, Mead & White to undertake a restoration of our most notable residence, refined and educative in its original architecture and hallowed by the memory of the men who had occupied its rooms and the events which had transpired within its walls.

Charles F. McKim with a clear vision and deep reverence undertook the restoration. McKim devoted himself to this work which had to be done quickly and well. The order was given the latter part of June and public needs required that it

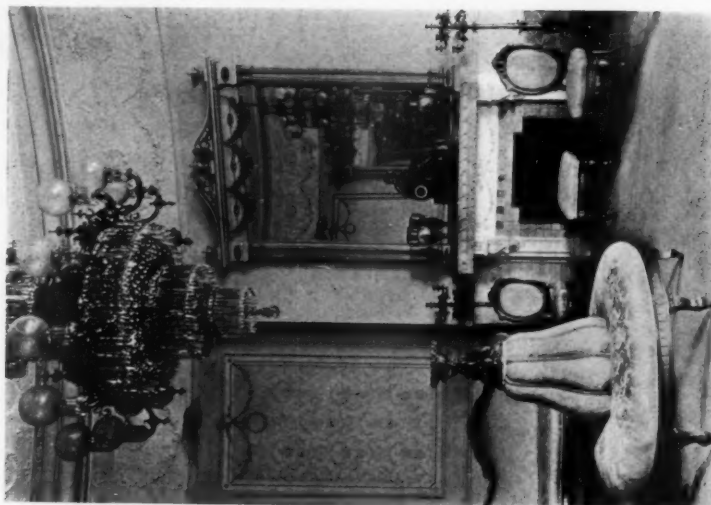


THE WEST TERRACE OF THE WHITE HOUSE WITH DISFIGURING CONSERVATORIES

should be finished by November 1. It was a serious undertaking when we remember the whole interior was cleared to the bare walls, the east terrace rebuilt, a sub-cellar with heating and plumbing plants and all the panelling, fixtures, chandeliers, mantels, the best of their kind, were made to order for the building.

In the restoration the designers zealously strove to reproduce the dignity and refinement of the Georgian Architecture of the period when the White House was built. The entrance hall was brought back to a hall of magnitude, harmonious in color, refined in detail and dignified in composition. The state dining room became a stately hall of the early English Renaissance, panelled in beautifully grained oak from floor to ceiling.

THE AMERICAN ARCHITECT



ABOVE: THE BLUE ROOM AS IT WAS—COMMONPLACE
IN DECORATION AND FURNITURE

AT RIGHT: THE BLUE ROOM RESTORED.



THE BLUE ROOM IN THE WHITE HOUSE, WASHINGTON, D. C.
ARCHITECTS OF THE RESTORATION, MCKIM, MEAD & WHITE.

THE AMERICAN ARCHITECT

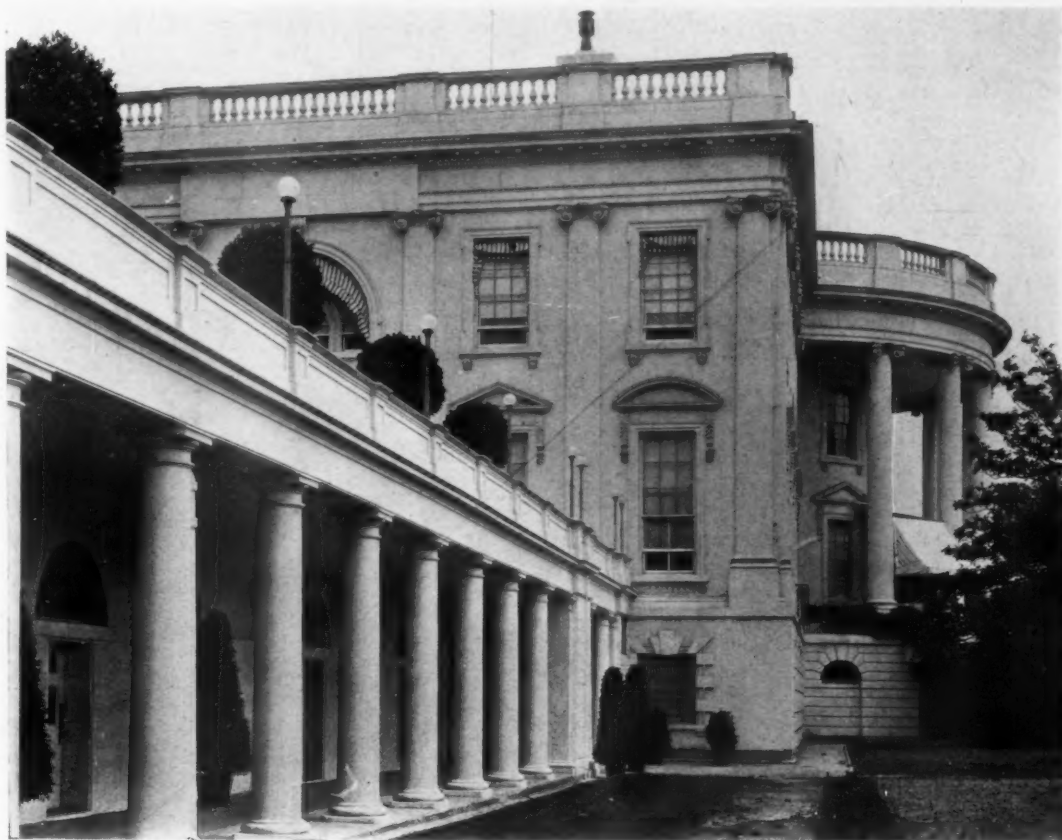
enriched by pilasters and cornice of the same material. Old exquisite marble mantels found in the waste pile of the attic were replaced in the red and green rooms which with their silk velvet hangings made them charming reception rooms. The blue room suggests the stately reception room of the Empire. In the east room the most artistic types of stately halls of the period of the White House were used as models. This room, with walls panelled in wood, its decorated ceiling, its graceful crystal chandeliers, its well-modelled orna-

That Roosevelt thoroughly enjoyed the restored home and appreciated the merits of McKim, Mead & White's work is clearly shown in the following letter written to Mr. Cass Gilbert, at that time President of the American Institute of Architects:

The White House,
Washington, D. C.,
December 19, 1908

My dear Mr. Gilbert:

Now that I am about to leave office there is something I should like to say through you to the



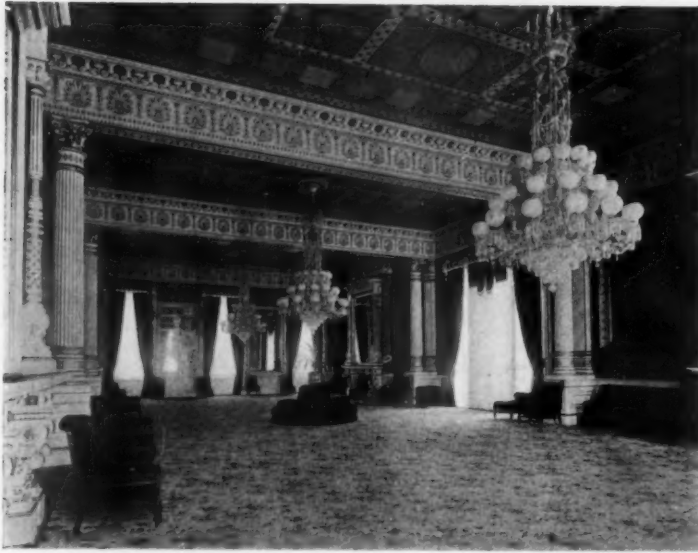
THE WEST TERRACE OF THE WHITE HOUSE, RESTORED
ARCHITECTS OF THE RESTORATION, MCKIM, MEAD & WHITE.

ments and figures in low relief, makes a stately hall to which the gayly gowned ladies add the necessary life and color.

The cultivated people as well as the architects of this country and Europe appreciated the artistic success of this restoration and it was one of the factors which led the Royal Institute of British Architects to confer their gold medal upon Charles F. McKim.

American Institute of Architects. During my incumbency of the Presidency, the White House under Mr. McKim's direction was restored to the beauty, dignity and simplicity of its original plan. It is now without and within literally the ideal house for the head of a great democratic republic. It should be a matter of pride and honorable obligation to the whole nation to prevent its being in any way marred. If I had it in my power as I

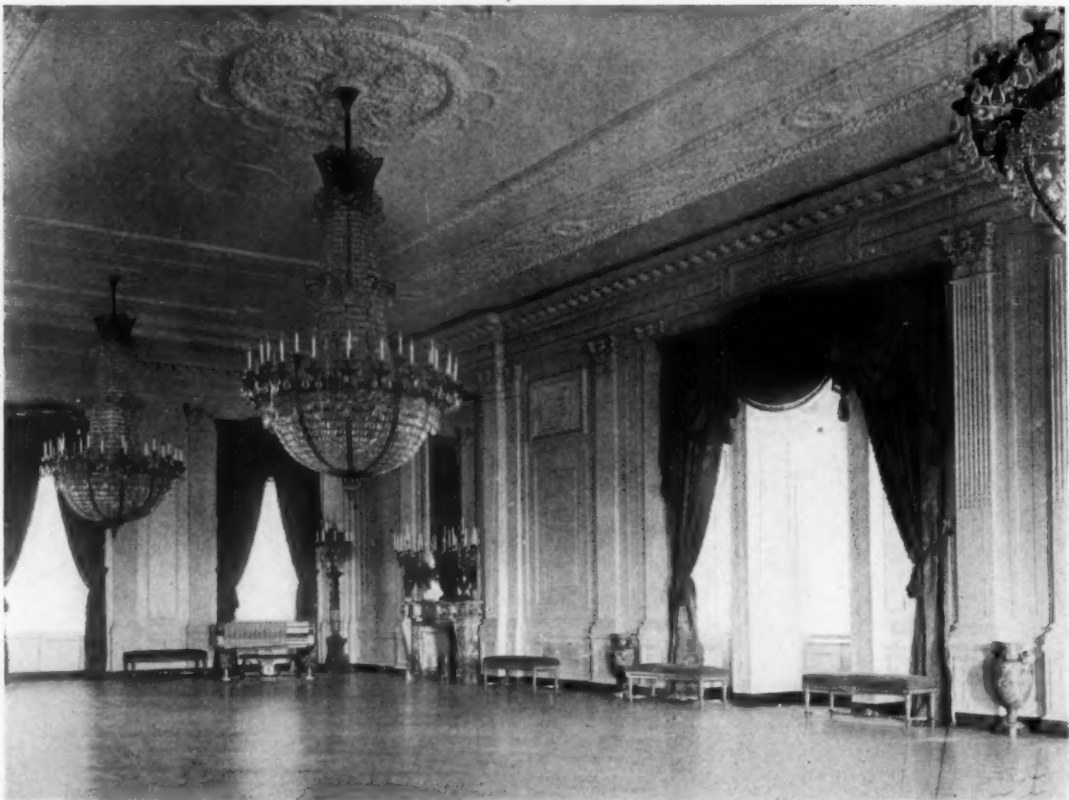
THE AMERICAN ARCHITECT



THE EAST ROOM IN
THE WHITE HOUSE
WASHINGTON, D. C.

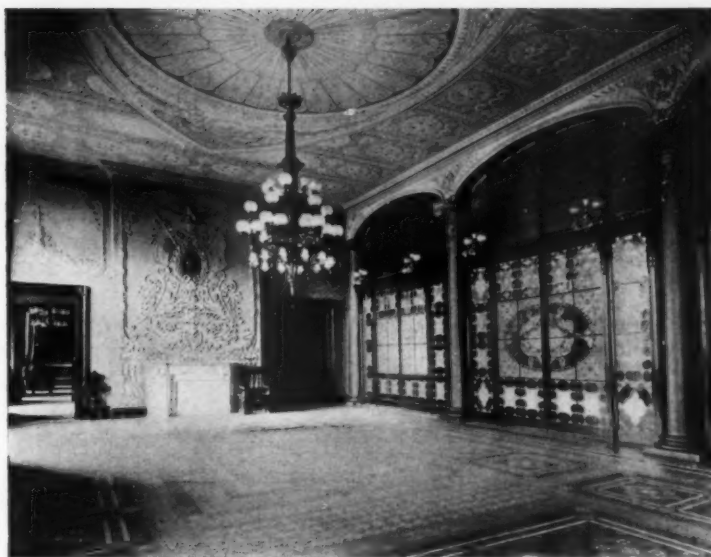


AT LEFT—THE EAST ROOM
AS IT WAS, SUGGESTING, IN
ITS DECORATIONS AND FUR-
NITURE THE SALOON OF A
"SOUND PALACE" STEAMER.



THE EAST ROOM RESTORED
ARCHITECTS OF THE RESTORATION, McKIM, MEAD & WHITE.

THE AMERICAN ARCHITECT



ENTRANCE HALL TO THE WHITE HOUSE AS IT WAS
STAINED GLASS SCREEN, ARABESQUE WALLS, MANY COLORED TILE FLOOR
A TYPICAL BAR ROOM OF THE PERIOD

leave office, I should like to leave as a legacy to you, and to the American Institute of Architects, the duty of preserving a perpetual eye of guardianship over the White House to see that it is kept unchanged and unmarred from this time on.

Sincerely yours,

THEODORE ROOSEVELT.

Cass Gilbert, Esq.,

President, American Institute of Architects,
The Octagon,

Washington, D. C.

Mr. Cass Gilbert, in answering this letter expressed his appreciation of the artistic work done in the restoration, commended Roosevelt whose breadth and culture had made this notable restoration possible and pledged the Institute to a perpetual guardianship of its integrity.

Being constantly upon the work as local superintendent for McKim, Mead & White, certain incidents connected with Roosevelt impressed themselves upon my mind. The floors and ceiling of the principal floor were first ripped out while the President, his family having left, continued to occupy the bedroom floor. We finally cornered him in one bedroom. He was neither worried by the noise ringing through the building nor by the confusion of the debris which hampered him on all sides; in fact, he seemed to enjoy the activities. While he had no thought of danger from unknown workmen, the secret service force was kept active and anxious. He was at last forced from his room

and the building. For two months the house was given over to the workmen. The President returned before the building was finished. The elaborate interior work on the principal floor was the last part of the house to be completed. The President daily passed through the state dining room to and from the office. Here there were hundreds of mechanics working. While the secret service men usually preceded him opening a wide passage way, a number of times looking up I saw the President in the midst of the workmen enjoying both the hubbub and the fact of eluding the secret service men, who always finally appeared anxious and crestfallen.

While the President was in sympathy with McKim's ideas and had implicit confidence in his judgment and taste, he insisted

on the architects carrying out two of his own schemes in working out the design. Roosevelt wanted stuffed heads of American animals to encircle the state dining room. This McKim succeeded in doing by introducing them in the frieze over the oak panelling where instead of marring they enhanced the effect.

On the great stone mantel in the state dining room lion heads had been carved as emphasizing ornaments. Roosevelt contended that some typical American animal like the buffalo would be equally effective as an ornament and much more appropriate than a lion in America. So the lion heads were changed to buffalo heads by Phimister Proctor, the animal sculptor. They serve their purposes as ornaments and call attention to the American animal.

The President and his family were very anxious to use the small family dining room, but after the ornamental plaster work was up, McKim did not like its effect and although prodded as he was by our energetic President, McKim with his quiet and charming but insistent obstinacy had it all taken down and done over, Roosevelt giving way gracefully to McKim's anxiety to have only what would satisfy his own taste.

In addition to securing a notable architectural achievement in the restoration of the White House, Roosevelt lent his influence against a proposed scheme of Congress to build the office buildings of the House and Senate and to extend the east front

THE AMERICAN ARCHITECT

THE RED ROOM IN
THE WHITE HOUSE
WASHINGTON, D. C.



THE MANTEL AND DOOR
TRIM SUGGEST A TYPICAL
PULLMAN CAR INTERIOR.



A DIGNIFIED AND WELL BALANCED ROOM—THE RED ROOM
ARCHITECTS OF THE RESTORATION, McKIM, MEAD & WHITE.

THE AMERICAN ARCHITECT

of the Capitol without architectural advice. Upon a protest of the American Institute of Architects, through Roosevelt's influence this was prevented and finally the Congressional Committees selected Carrère and Hastings to do this work, which has been finished with satisfactory results.

A NATIONAL GALLERY OF ART

Works of Art received by the United States as gifts, in exchange, and by purchase sometime early in 1850 became numerous enough to call for official disposition as there was no art department in our Government organization.

As the Smithsonian Institution planned for the advancement of science and education, had a large collection of prints and engravings and other objects of art acquired more as illustrating processes of craftsmanship than as phases of the fine arts, Congress naturally enacted a law, making this Institution the custodian of all works of art coming into the possession of the Government.

The lack of interest in the subject shown by the great Scientists whose minds and energies were absorbed in their own work caused the Art Department to become a dead letter until brought into

life again by Roosevelt when he became officially chairman of the Board of Managers.

Harriet Lane Johnson, niece of President Buchanan, bequeathed a small collection with some notable paintings to the United States. The fact that the Smithsonian was custodian of art had been so completely forgotten that first one and then another official determined they had no authority to receive and no place to house such a collection. At last some one discovered that the Smithsonian Institution was legally the custodian for such collections.

When the matter was referred to the Managers there was no disposition to receive the collection due to their lack of interest in art, the want of space which they needed for scientific collections and the need of money for additional clerks and attendants. It was upon the point of being officially rejected when the matter came to Roosevelt's attention.

He immediately forcefully presented to them the value of acquiring and exhibiting works of art and insisted upon the Smithsonian receiving and housing them.

His presentation won, and the National Gallery of Art was begun. A definite beginning soon

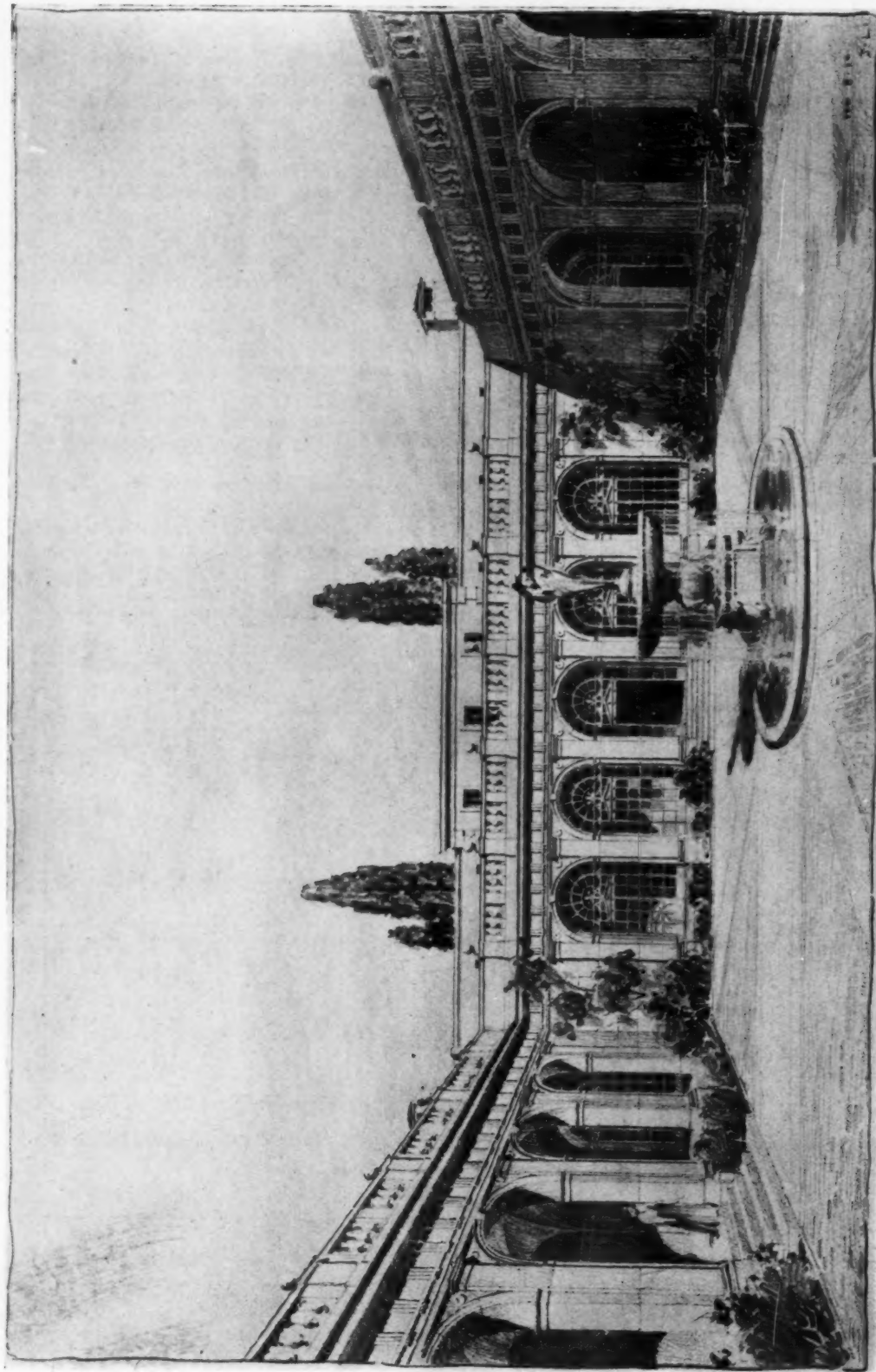


HARMONIOUS IN COLOR, REFINED IN DETAIL AND DIGNIFIED IN COMPOSITION.

ENTRANCE HALL TO THE WHITE HOUSE

ARCHITECTS OF THE RESTORATION, McKIM, MEAD & WHITE.

THE AMERICAN ARCHITECT



INTERIOR COURT OF THE FREER ART GALLERY, WASHINGTON, D. C.
CHARLES A. PLATT, ARCHITECT

THE AMERICAN ARCHITECT

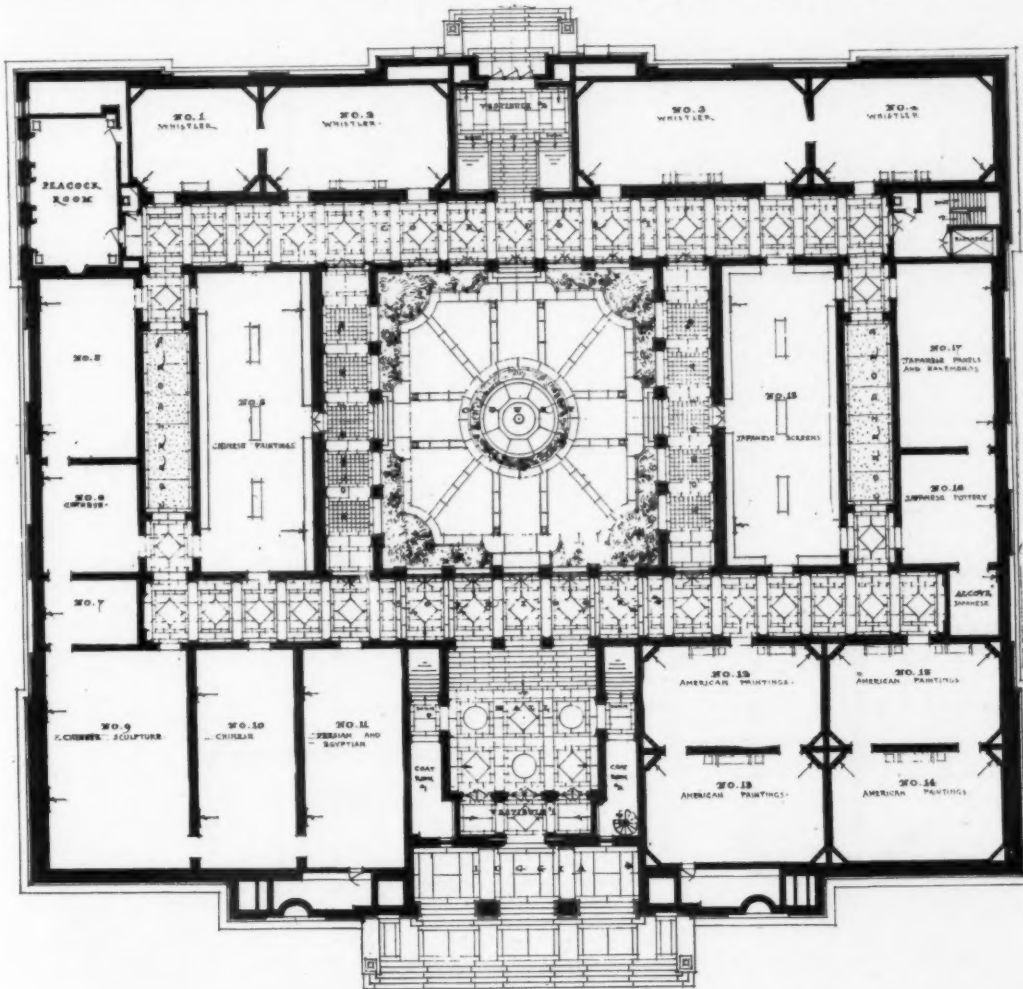
brought a gift of the great collection of American paintings owned by Mr. William T. Evans, which with several smaller gifts when housed in the New National Museum made a reputable showing for the new department.

Almost contemporaneous with the gifts just mentioned, Mr. Charles L. Freer of Detroit, Michigan, offered his wonderful collection of paintings, sculpture, Chinese and Japanese paintings, drawings, potteries and other curios to the United States. This collection was one of the most noted in the world and required very different treatment from the other gifts, as it needed a large building to display its beauties and a staff and attendants to maintain it. The managers of the

Smithsonian were apparently appalled at the magnitude of the offer and by insisting on minor details and conditions the people came near losing this rare collection, when the insistence and tact of Roosevelt again induced them to drop minor points and accept the gift in the name of the United States.

Conditions were arranged with Mr. Freer and a building is now being erected on the Mall, Charles A. Platt, architect, the site being granted by act of Congress, worthy of the Government group of buildings, in which his rare collection will be exhibited to the public.

This notable beginning of a National Gallery of Art should be credited to Roosevelt, and let us hope it may grow in magnitude and character and



PRINCIPAL FLOOR PLAN
FREER ART GALLERY, WASHINGTON, D. C.
CHARLES A. PLATT, ARCHITECT

THE AMERICAN ARCHITECT

soon become one of the great Galleries of Art comparable if not superior to others in the world.

THE AMERICAN FEDERATION OF ARTS

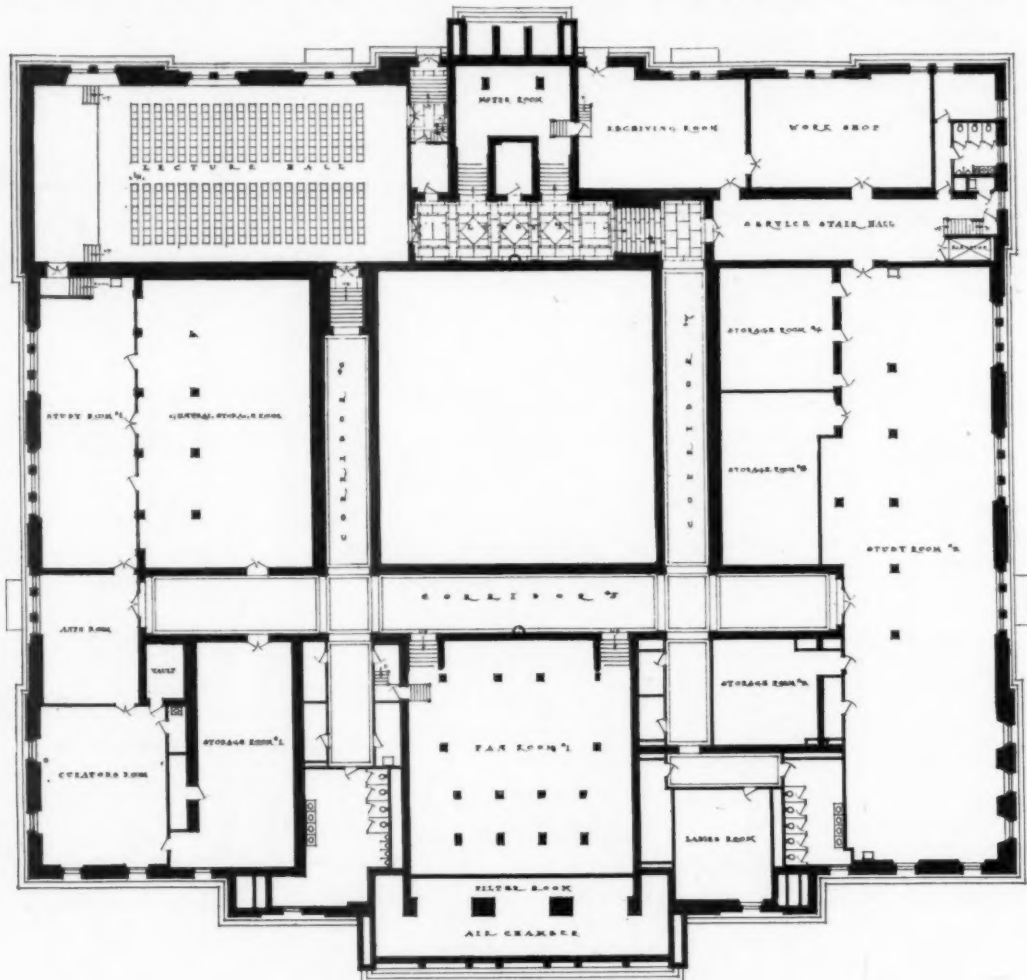
Early in 1908, Charles M. Foulke, F. D. Millet, Elihu Root, A. J. Parsons, myself and others determined that it would be beneficial to organize the numerous Art Societies scattered throughout the country into a Federation, so their united voice might become effective in the advancement of the fine arts. This Federation was outlined on broad lines, taking as chapters all associations having artistic aspirations, including architecture, painting, sculpture, landscape, civic improvement and art museums. Mr. Root informed the President of

our purpose and he expressed his approbation in the following letter which at the same time clearly outlined suggestions for the lines on which the new organization might be of public service:

April 30, 1908,
The White House,
Washington, D. C.

My dear Mr. Root:

I am gratified to know that you are taking an active interest in the movement to organize a National Federation of Arts, and shall watch the movement with sympathy. I shall do all I can to promote it because such an organization can be made very effective for good. It will encourage our native artist; it will aid in the establishment of



BASEMENT FLOOR PLAN
FREER ART GALLERY, WASHINGTON, D. C.
CHARLES A. PLATT, ARCHITECT

THE AMERICAN ARCHITECT

galleries and schools of art; it will promote municipal leagues and village improvement associations; it will encourage higher standards of architecture for our public edifices, our business blocks, and our homes; also do much to educate the public taste.

I am glad to learn it is proposed to hold a convention in Washington and you may count on me to do my share in making it a success.

Very sincerely yours,

THEODORE ROOSEVELT.

Hon. Elihu Root,

Secretary of State.

Roosevelt in this letter cast his influence with the Federation of Arts, an organization which has grown from a small beginning to more than 200 chapters throughout the United States. This association in the past nine years has made a notable record in the public service by initiating legislation that would benefit the fine arts and opposing the enactment of detrimental laws. By traveling lectures and exhibitions as well as through the pages of its magazine it has encouraged and fostered every branch of art.

NATIONAL COMMISSION OF THE FINE ARTS

Some twenty years ago the Public Art League of the United States of which Richard Watson Gilder was President and I secretary, was organized with the object of securing the enactment of laws to compel expert judgment upon all works of art acquired by the Government. While we pressed the matter energetically for years, little impression was made upon Congressional Committees. In 1901 a partial success was obtained by the Senate authorizing the Park Commission to study the development of the Capital City. Feeling confident that the success of the Commissions' labors would clearly demonstrate the advantage of expert control in other branches of the Fine Arts, the Public Art League temporarily rested from its labors.

It was near the end of Roosevelt's administration, the work of the league being taken over by the American Institute of Architects, before we determined to press again for legislation creating a Fine Arts Council, as we thought the work of the Park Commission had proved the good results of expert service.

The advantages of artistic buildings, sculpture, painting and landscape, and the necessity of expert control to obtain good results as well as the great success of the work of the Park Commission were again presented to Congress. We found our legislators as cold and as indifferent as they were eight years before.

A Committee of the American Institute of Archi-

tecs in their extremity determined, if possible, to secure Roosevelt's support.

Cass Gilbert, Frank D. Millet and myself of the committee called upon Roosevelt in his office and presented the question to him. He listened with appreciation and said, "This is so important I would like to study it more thoroughly. Can you meet me at the White House to-night at ten o'clock, when we will be uninterrupted?" The committee accepted this offer with enthusiasm. At ten o'clock he met us in the Red Room and for two hours questions relating to a Fine Arts Council were canvassed. We told him of our fruitless efforts with Congress.

Roosevelt said in effect: "Congress will not authorize such a commission; they will consider it an encroachment upon their prerogatives and a curtailment of their authority. As experts are needed badly, I will appoint a Fine Arts Council to advise me on all questions of this character. Congress will then become indignant and say I am exceeding my authority, but I consider it my right and duty to secure expert advisers when I need them. The more violent the Congressional objection the more publicity the papers will give the subject. This will interest the public, who will appreciate its good effects and the legislators will hear from them. Congress will listen to the public demands and direct the President to appoint a National Fine Arts Commission."

The President advised the committee to write him a letter showing the advantages of expert advice, stating the good results that would accrue to the people and outlining how such a body should be constituted. The committee forwarded the next day a letter of the character suggested, and Roosevelt immediately answered as follows:

The White House,
Washington, January 11, 1909.

Gentlemen:

I cordially agree with your letter of January 11, 1909, and approve the recommendations you make. I request you to designate the names of thirty men representing all parts of the country to compose such a Council as you suggest. I understand, of course, that men representing the West are often found in New York and other large cities, simply because their work is done in such cities.

I shall direct all my cabinet officers to refer to the Council for their expert advice all matters in their charge embracing architecture, selection of sites, and landscape work, sculpture and painting. Moreover, I shall request the Council to watch legislation and on its own initiative to make public recommendations to the Executive and to Congress with regard to proposed changes in existing monuments

THE AMERICAN ARCHITECT

or with regard to any new project. I earnestly advise your body to take immediate steps to secure the enactment of a law giving permanent effect to what I am directing to be done.

The course you advocate and which I approve should not be permissive with the Executive, it should be made mandatory upon him by an act of Congress.

I shall request the Council to report and give their opinion on the character and location of the Lincoln Memorial, as suggested in the resolution passed by the Board of Directors of the American Institute of Architects.

I heartily thank your body for this wise and patriotic action, which will secure to the American public what is literally priceless advice from the best men in the several artistic professions throughout the country.

Sincerely yours,
THEODORE ROOSEVELT.

On January 18 the President appointed the Fine Arts Council from among the names suggested by the committee and on January 19 he issued the following Executive Order:

"I direct that the heads of Executive Departments, Bureaus and Commissions govern themselves accordingly. Hereafter before any plans are formulated for any buildings or grounds, or the erection of any statue, the matter must be submitted to the Council I have named and their advice followed unless for good and sufficient reasons the President directs that it be not followed. The supervising architect of the Treasury will act as the Executive Officer for carrying out recommendations of the Council.

THEODORE ROOSEVELT.
January 19, 1909.

The White House,

The effect of this executive order produced an explosion in the Capital. Many violent speeches were delivered upon this encroachment of the executive branch upon the legislative branch of the Government. The talk was so bitter that the papers

from one end of the country to the other gave the matter publicity and many strong editorials were written. Congress obtained small satisfaction from the public discussion, as the papers approved the President's action and urged Congress to enact a law making it mandatory and permanent.

The people took an interest in the subject and the effect was just as Roosevelt said it would be, as early in Taft's administration Congress enacted a law directing the President to appoint a National Commission of the Fine Arts.

One incident in this connection is interesting, showing how quickly Roosevelt acted upon a good suggestion.

One of the burning issues at this time was the Lincoln Memorial. Strong influences were brought to bear, as mentioned before, to make it an addendum to the Railway Station. When preparing for the interview with Roosevelt our committee determined that we would not complicate the question of the Fine Arts Council with the location of the Lincoln Memorial. During the discussion with the President, I thought it an opportune time to offer the proposed site for the Lincoln Memorial as an illustration of the necessity of a Fine Arts Commission, and I said, "Mr. President, the proposition to belittle the dignity of Lincoln by making his Memorial an ornament and part of the Railway Station shows the need of expert advice." He said, "What's that, isn't the Station a good place for it? They tell me it is all right." When the many objections to this site were given, he said, "The first request I will make of the Fine Arts Council will be to report on the character and site of the Lincoln Memorial."

The Council reported against the Station location and in favor of the site where the Lincoln Memorial is now fast approaching completion in all its dignity and beauty.

The present Fine Arts Commission, which has been in existence about seven years, although curtailed of many of the powers given by Roosevelt in his executive order, has proved its value in securing for the people a higher standard in the fine arts.





In order to supply our readers with material of current interest, the news and comment appearing in issues of THE AMERICAN ARCHITECT delayed by the printers' strike will be as of actual rather than stated date of publication.

Educating the Public in Architecture

THE Committee on Education of the Institute, in a recent report, discussed the publication of an educational book on the appreciation of the arts for use in the colleges and by the public. It was the opinion of the sub-committee having the preparation of this proposed book in charge that the colleges of the country formed the avenue through which the public might best be reached.

This contention may be debatable. Many will allege that it is not possible to prepare a work that will convey a lucid meaning as to just what constitutes good art, that will appeal both to the college man and to the public. The former is undoubtedly already educated to a receptive attitude of appreciation, while the latter as a rule does not understand, or, if it does, only in an elementary way, just what good art is and means. The college student would therefore find in such a work much that to him would be of so elementary a character as to lessen his respect and use for the volume, while the layman would probably be carried further into the subject than his limited interest would impel. It is not believed that the same appeal for a better appreciation of art, and with that an appreciation of good architecture, could be successful in a volume intended for classes mentally so widely divergent.

Certainly it will be well to make sure that the basic knowledge of the college man has been correctly formed, and certainly will it be necessary to impart a basic knowledge to the public.

AS educators of the public in architecture, the annual exhibitions held in our various cities under the auspices of architectural clubs and societies cannot be exceeded in value. But it has seemed that these annual "shows," while admirably conceived and well carried forward, do not secure educational results which might be readily and inexpensively attained.

It is a custom in our museums to have lecturers

or demonstrators who accompany groups of visitors from one exhibit to another and who point out with simple words the artistic merits of the object discussed. The average layman is of that unfortunate class who "knows nothing about art, but knows what he likes." Frequently he will like just the thing of which, if he did know something about art, he could not approve. While during many of the exhibitions there are given courses of lectures, these as a rule appeal only to a class or group already interested in the topics by reason of present study and investigation. If we might have a "walking lecturer" at our architectural exhibitions, one who could take groups of the public, not of the profession, about the galleries, show them why certain things are good, what makes them good, and what would mar their goodness, we would create an education of the public that would reach a greater number of people than would be secured by the sale of books to already interested purchasers, or by a gratuitous distribution among a class of but listless readers.

A Resolution by the Central New York Chapter, A. I. A.

THE resolution of appreciation of the work of the New York State Department of Architecture, as conducted by Lewis F. Pilcher, State Architect, recently passed by the Central New York Chapter, American Institute of Architects, appearing in another column of this issue, is a well-merited tribute to an efficient and competent public officer. It is one that will meet the approval of every one who has knowledge of the facts.

It is but a short while ago that the editor of THE AMERICAN ARCHITECT was permitted very carefully to inspect the workings of the New York State Department of Architecture. So insistently was the impression conveyed of the smooth conduct of every branch of this department, of the excellence of the work done and its economical execution, that there was solicited and secured a

THE AMERICAN ARCHITECT

quantity of material of excellent technical value. This will be presented at an early issue.

IT has been often, and it is believed, correctly stated, that owing to many deterrent factors of large areas and diversified climates, we may not in the United States hope to arrive at what would be a national type of architecture. It has also been stated, and equally correctly so, that what we would ultimately achieve would be regional types.

It would therefore appear to be logical to assume that in the working out of regional types of architecture the result would be best, quickest and most satisfactorily reached through State Departments of architecture, competently administered.

It is through such departments and with their co-operation that the national government might with the very best results, pursue its building operations all over the country. We would then be relieved of the well meant, but often poorly formed opinions, as expressed by Congressional Committees, as to the necessity for standardization of design for Federal buildings.

Governmental architecture in all of its departments would assume a certainty of purpose, of fitness, and would not, as now, annoy by its failure to meet the conditions for which it was designed.

The work of the New York State Department of Architecture might well serve as an example to those states where similar departments do not now exist. Its efficient functioning, it is believed, warrants the Central New York Chapter in urging that Mr. Pilcher be reappointed to a position for which he has shown such great qualifications.

State Laws and the Institute

ORGANIZED architecture everywhere is coming to the realization that laws regulating the practice of architecture are in every state a necessity. Unfortunately every state where laws have been enacted or where laws are now in the process of framing has acted independently one to the other.

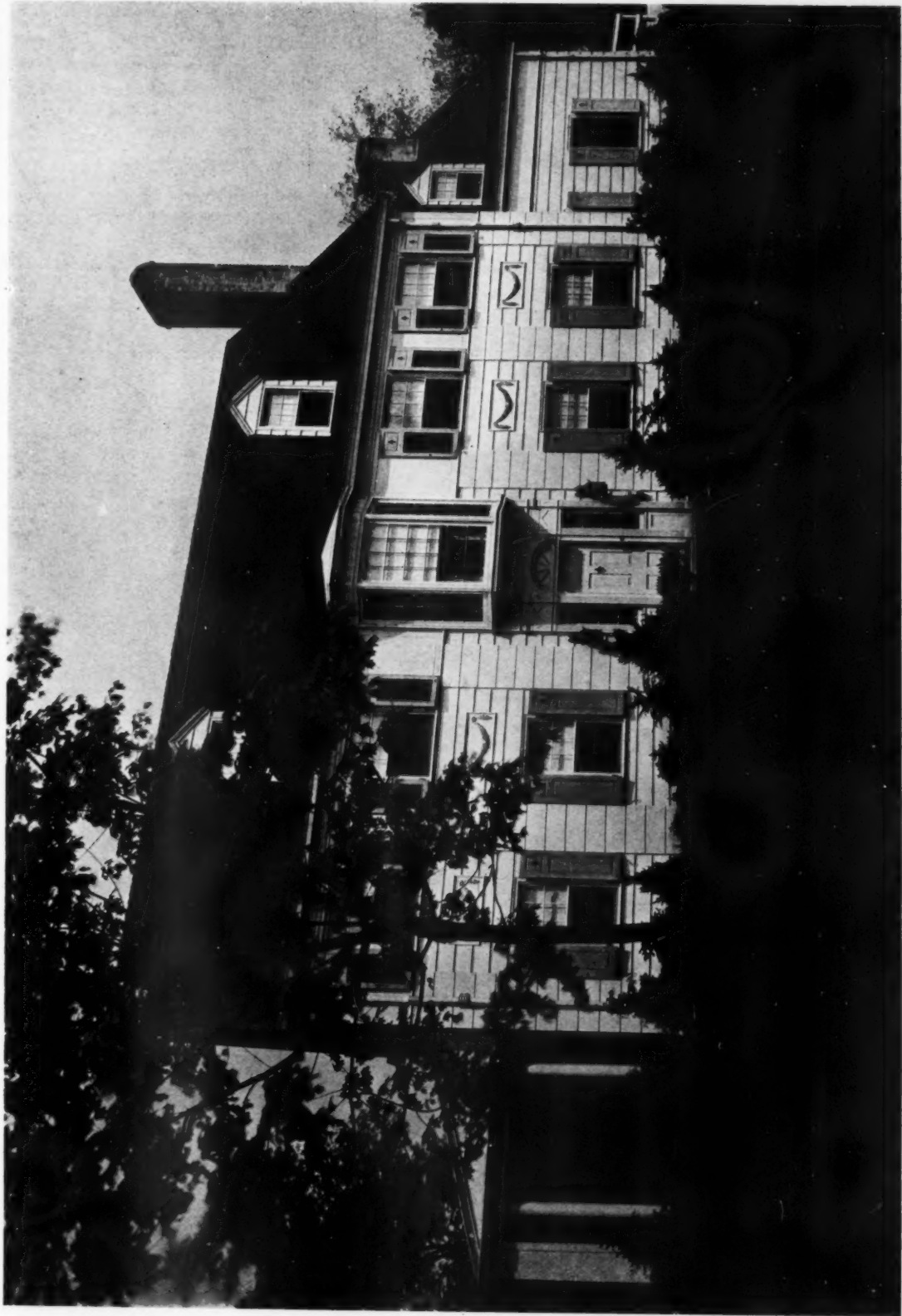
The result has been a lack of uniformity and much dissatisfaction has been expressed as to the working out of present laws and distrust of those laws now under consideration.

It has been proposed that in the matter of State Societies the Institute frame and support a constitution under which every State Society would become organized. The Institute might extend its suggestion to licensing laws.

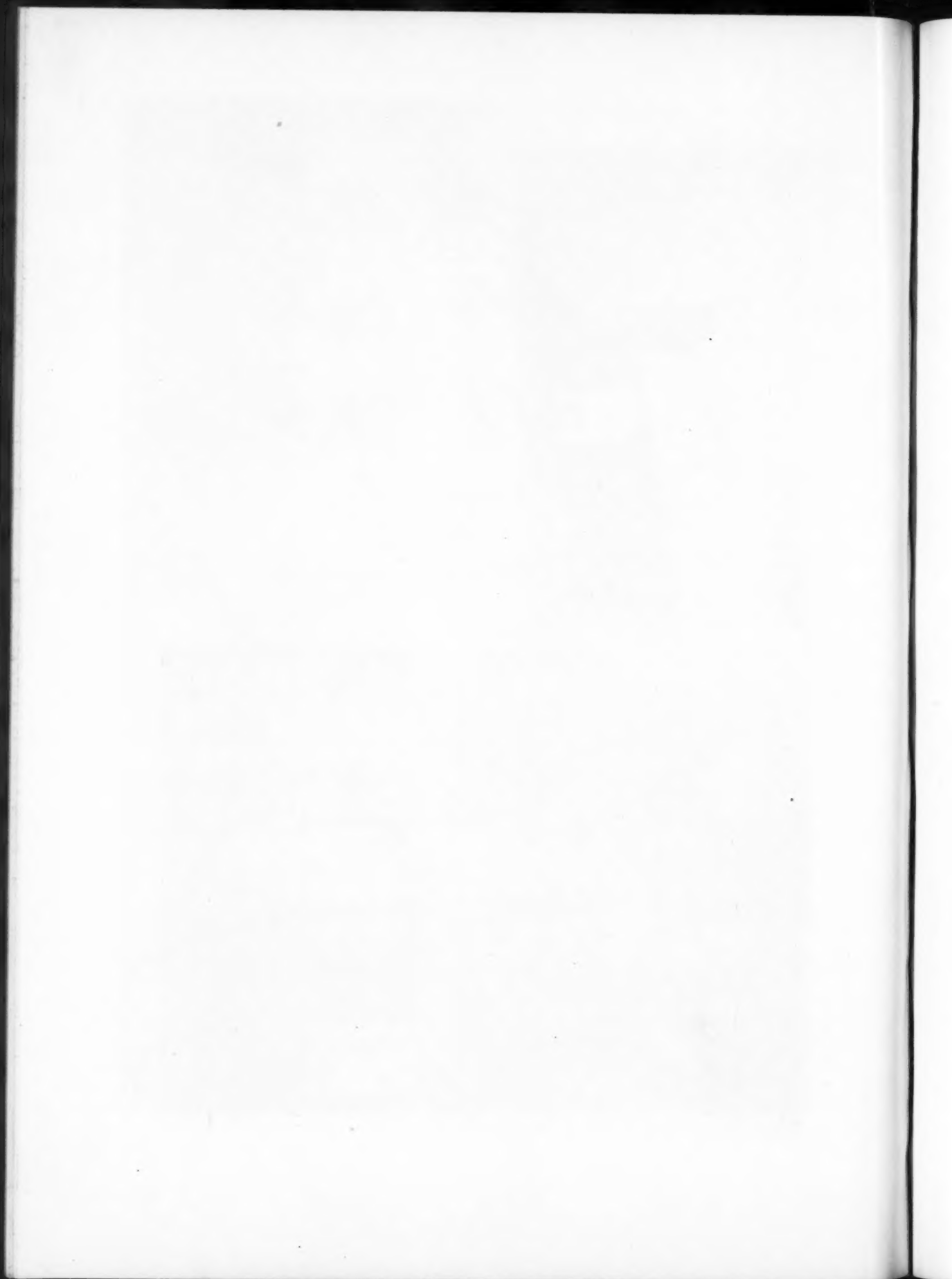
In an interesting communication from Perry R. MacNeille, of the firm of Mann & MacNeille, printed on another page. Mr. MacNeille makes the valuable suggestion that the Institute should set up certain standards of efficiency so it would be "extremely easy for every good designer to become a member and very difficult for a poor designer to gain admittance." This action on the part of the Institute regulating the qualifications of membership, would, as Mr. MacNeille states, raise the standard so prominently in the public estimation that it would demand the services of an Institute member and there would result a real impetus to the art side of the profession in this country.

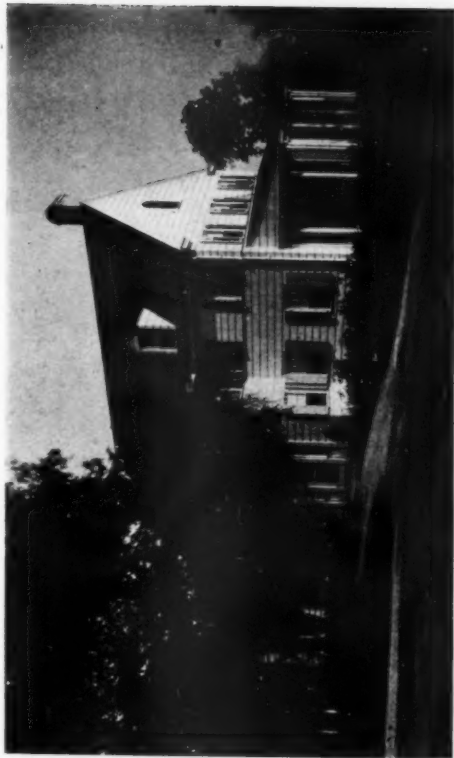
UNDER the loosely framed laws in different states the qualifications under which a man could secure a license to practice, would not, and rightfully so, be considered as entitling him to become a member of the Institute.

It therefore would seem to be necessary for the Institute very actively to concern itself in the matter of qualification as written into new laws and the adjustment of qualification in existing laws. When these essentials have been arranged in the right way, it would then be possible for the Institute to acknowledge the right of an application for membership as based on a license to practice, controlled in the final action of course by such other requirements as to ability, integrity and those qualifications that the Institute would rightfully insist as necessary to membership in a representative body of architects.



HOUSE OF MRS. I. F. WARDWELL, STAMFORD, CONN.
AYMAR EMBURY II., ARCHITECT.

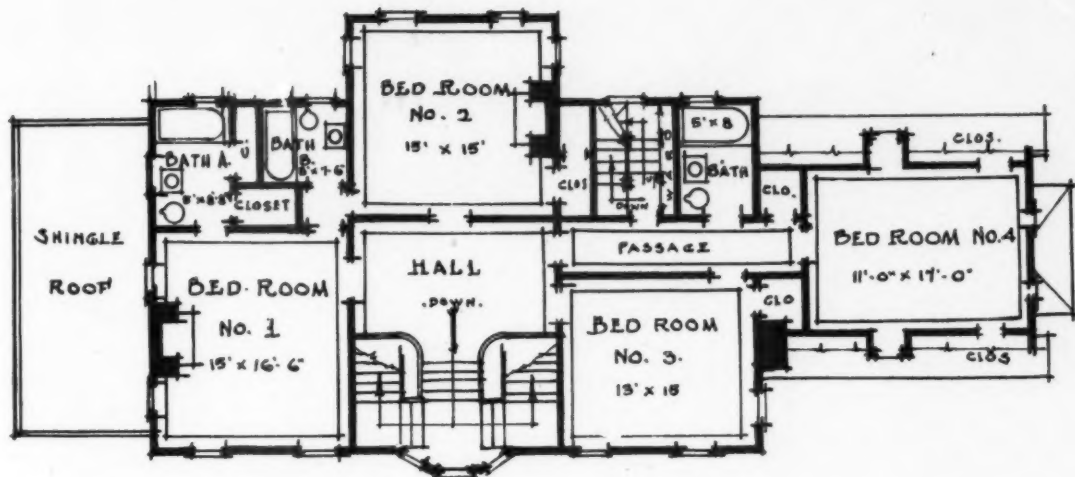




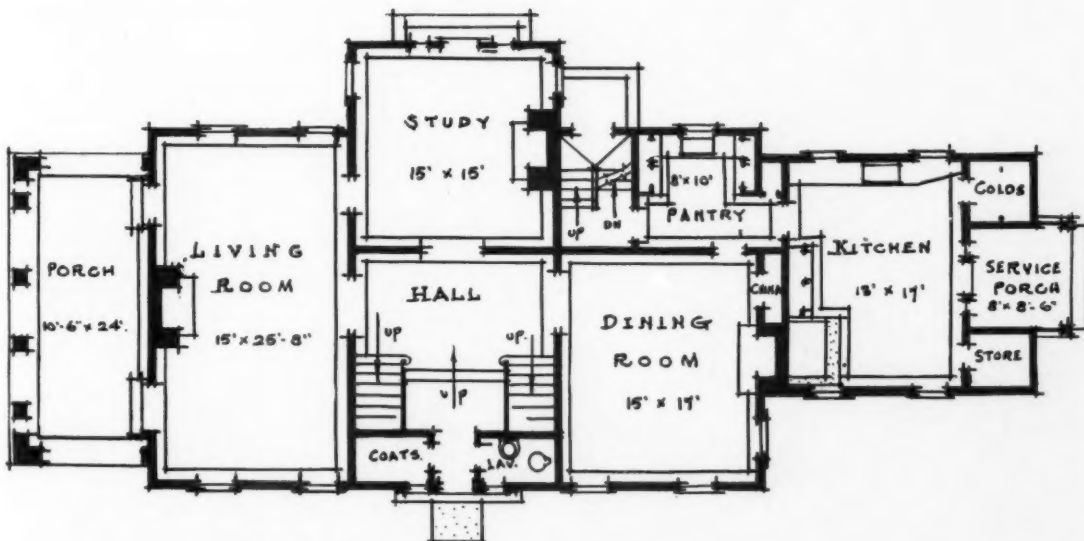
HOUSE OF MRS. I. F. WARDWELL
STAMFORD, CONN.

AYMAR EMBURY II,
ARCHITECT.





• SECOND FLOOR PLAN •



• FIRST FLOOR PLAN •



PLATE 208

MAIN ENTRANCE DETAIL.
HOUSE OF MRS. I. F. WARDWELL, STAMFORD, CONN.
AYMAR EMBURY II., ARCHITECT.



PLATE 209

HOUSE OF MRS. I. F. WARDWELL, STAMFORD, CONN.
AYMAR EMBURY II., ARCHITECT.

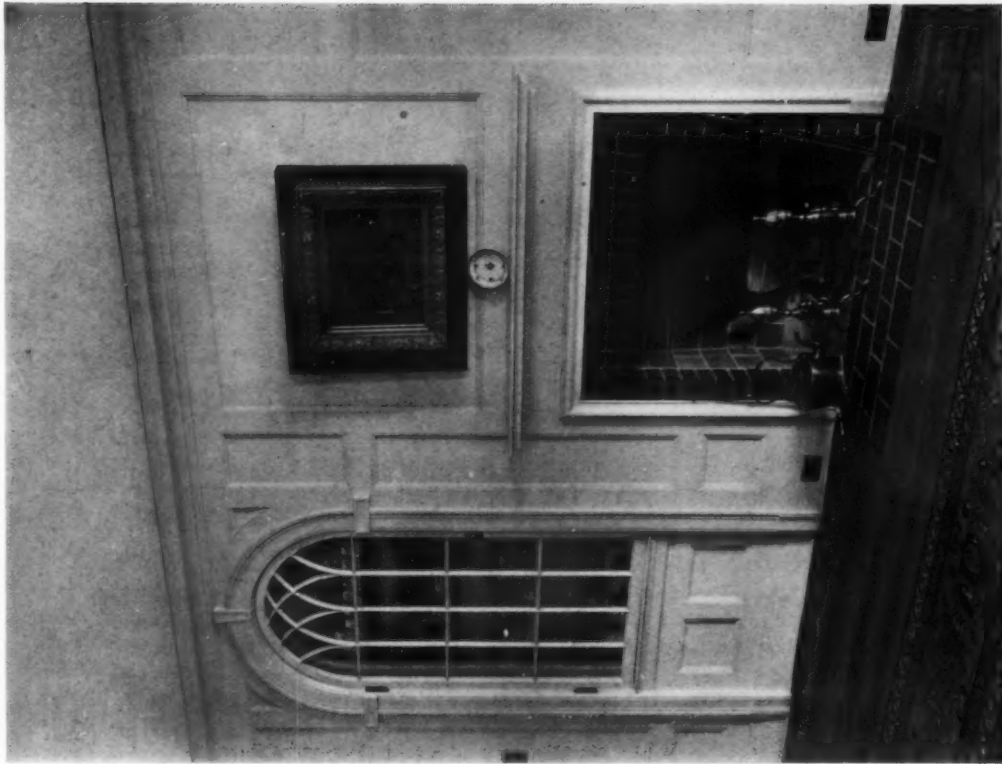


PLATE 210



HOUSE OF MRS. I. F. WARDWELL, STAMFORD, CONN.
AYMAR EMBURY II, ARCHITECT.

The New Freer Art Gallery

Washington, D. C.

CHARLES A. PLATT, *Architect*

ONE of the most generous gifts ever made to the Government is that of the late Charles L. Freer of Detroit, who presented to the United States, to be administered by the Smithsonian Institution, his unique and valuable art collection of over five thousand items, together with \$1,000,000 in cash for the erection of a suitable building to house the collection. The original gift was made in 1906, but the building was not begun until 1916. It is now practically completed, and is expected to be ready in a few months for the installation of the collections.

Mr. Freer's collection was assembled with a definite purpose, and contains, besides American paintings and sculpture, Oriental paintings, pottery, bronzes, jades and textiles. In making this great gift to the nation, Mr. Freer prefaced his offer as follows:

"These several collections include specimens of very widely separated periods of artistic development, beginning before the birth of Christ, and ending to-day. No attempt has been made to secure specimens from unsympathetic sources, my collecting having been confined to American and Asiatic schools. My great desire has been to unite modern work with masterpieces of certain periods of high civilization, harmonious in spiritual and physical suggestion, having the power to broaden æsthetic culture and the grace to elevate the human mind."

The building is located on the Mall in Washington, near the Smithsonian building. The style of architecture is eminently suitable for an art gallery, and makes a splendid addition to Washington's aggregation of public buildings, which, it is hoped, will some day make the vista from the Capitol to the monument, known as the Mall, the most beautiful one of its kind in the world.

Constructed of pink granite, the building presents an exterior both dignified and pleasing. It measures 228 feet in frontage by 185 feet depth, and consists of a single main story above a high basement. The former, having an open central court, about 65 feet square, is divided into rooms of different sizes, all of which will be used for the exhibition of the Freer collections, while the basement contains ample studios, storage rooms, an auditorium, and administrative offices. The studios will be a prominent feature of the gallery, where every facility will be offered to art students to study and benefit by the collections of great masters.

All honor is due to Mr. Freer for this splendid

gift to the nation. When the building is completed and the exhibition halls opened, art lovers and students throughout the country, who visit Washington, will realize what a marvellous collection Mr. Freer has brought together during many years of careful searching, and what an influence on art in this country such a wisely selected permanent collection will have.

Writing of Mr. Freer as a collector, Royal Cortissoz says: "We never have had another collector quite like him. No city has ever received a collection quite like the one which he gave to the United States some years ago, and for which he provided the museum now nearing completion in Washington. He was wont to admit with a laugh that, like every man with a hobby, he had made his early mistakes. But to those who knew his treasures it always seemed as if he had started with the flair that is the best insurance against error. He cared at the outset for truly fine things, and knew them when he saw them."

In collecting American art, Mr. Freer specialized in a group of painters having peculiarly distinguishing traits. These men were Abbott H. Thayer, Thomas W. Dewing, Dwight W. Tryon, and James McNeill Whistler. Among Whistler's works is the famous "Peacock Room," which, it is said, will be reconstructed in the Washington museum exactly as it stood in the Leyland home in London.

"In paintings, pastels, watercolors, drawings, etchings and lithographs, the museum will show Whistler's art literally at full length," continues Mr. Cortissoz. "Imagine what this will mean to inquiries into the subject, and imagine what it will mean as a monument to Whistler! He will have his shrine at Washington, as Velasquez has his at Madrid, as Hals has his at Haarlem. To have made that shrine alone would have been an achievement to place us in Freer's debt. But he did something more for his countrymen—nay! for the whole world of art!

"Having done royal justice to his chosen Americans, Freer gave himself up to the passion which had always stirred him and which in his later years evoked all his energies. This was a passion for Eastern art. He was one of the first to comprehend the charm of the Japanese print and the brilliance of Japanese craftsmanship in general, to explore the mysteries of Chinese painting, sculpture and pottery, and to draw near to the sources of what is greatest in Oriental art.

Criticism and Comment

The Quantity Survey

The Editors, THE AMERICAN ARCHITECT:

I wish to take advantage of the request made in the Sept. 24th issue that your readers give full expression of their opinion on the subject of estimating methods. My article published in that issue was one of a series and does not present the use of Quantity Surveys adequately.

Before any estimating can be done a quantity survey must be made by each estimator for himself or by a quantity surveyor for the use of all estimators. It is obviously economical to adopt the latter method, other things being equal.

A properly qualified quantity survey organization can supply perfectly satisfactory surveys that meet every need of bidders for clearness and for facility in estimating. A survey gives in units of volume or area or weight or number the items of work that are left built in place in a building. The amounts set down can be verified from the drawings and specifications. For example, maple flooring is listed as so many sq. ft. net area to cover. The contractor allows for waste and matching. Similarly for other items, it being the estimator's office to decide such allowances. A survey is the basis of a material buying list. If a survey is not supplied, estimators prepare similar data; but a survey organization works under more favorable conditions, being practically under the direction of the architect with the result that its work is accurate. Preparing a survey gives an analysis of the plans from the point of view of the building trades. The architect's interpretation of indefinite items is incorporated in the survey. The survey completes the description of a building.

When an architect has had a survey made he asks for bids for the amount of work listed therein. He gives out the survey with the drawings and specifications; the survey gives the amounts of work to be done, the plans show the conditions under which it is to be done. For the purpose of bidding the bidders are not asked to assume responsibility for the accuracy of the survey. There is no reason why they should. The architect is satisfied that the survey is accurate and wants bids based on the uniform data supplied by him. Consequently the bidders do no quantity work for bidding purposes. It is an efficient method for deciding upon the contractor with whom to make a contract.

However, when it comes to entering into a contract for the erection and completion of a building, there must be no division of responsibility for un-

derstanding the requirements and assuming all the obligations set forth in the drawings and specifications. Therefore the bidder taken under consideration for contract must either accept the survey as accurate or verify it. It must be agreed when he tenders a bid that he will be given an opportunity to verify the survey before signing a contract, if he wishes to do so, and that if he proves any errors in it he may adjust his bid correspondingly.

This procedure does not completely eliminate quantity work by contractors but it confines it to jobs for which they receive contracts. It further confines it to a checking process against a most carefully prepared survey thereby minimizing expense and and risk of error. It is difficult to conceive any plan of guarantees that can eliminate that much quantity work by contractors.

A responsible survey organization if requested will bond its quantities to the building owner or to the successful contractor. However, the contractor awarded the contract, will check the survey whether the owner guarantees it or whether the surveyor does. As a matter of business expediency he is bound to do so. Recognizing this, it is offered as a better plan to have all the checking done in advance of signing a contract. It is a more favorable and satisfactory time to do it and gives the best guaranty in the interest of either the contractor or owner. Furthermore it saves the bond premium expense.

Considered economically the methods proposed must be accepted as the answer to the demands made in some quarters that contractors be paid for estimating. By eliminating the quantity expense of contractors for bidding purposes there only remains the question of payment for pricing up a survey in order to make a bid. Such payment would be of no advantage to anyone.

WM. GRAVES SMITH.

New York.

Architectural Standards

The Editors, THE AMERICAN ARCHITECT:

There has been a very genuine movement by those interested in raising the standard of the architectural profession in this country to have architects licensed. Already, in a number of states licenses are required, and their number is on the increase.

It is a curious fact, however, that the licensing of architects is far more extensive than the licen-

THE AMERICAN ARCHITECT

sing of engineers, and when we consider the matter it would seem that just the reverse should be the case.

The so-called profession of architecture is now so complex that no one brain can be proficient in all of its branches. A large architect's office needs a salesman, a designer, a practical draftsman, a construction superintendent, a civil engineer, a structural engineer, an accountant, and finally a general manager, who will co-ordinate all these branches of the work. Under the present licensing laws, wherever I have been familiar with them, a good practical draftsman, well versed in his subject, could become a licensed architect without being proficient in any of the other branches. This is witnessed by the fact that it is the common practice in the states where building cannot be undertaken without plans prepared by a licensed architect for contractors to employ practical draftsmen who have obtained licenses, and thereby evade the necessity of employing real architects.

In my opinion, we are on the wrong track in trying in this way to raise the standard of architecture in this country. I feel that if some organization like the American Institute of Architects would make it extremely easy for any good designer to become a member and very difficult for a poor designer to gain admittance, and then would raise its standard so prominently in the public eye that the public would demand the services of one of its members in the design of their buildings, that we would have a real impetus to the art side of the profession in this country.

In order, however, that the public should be protected in matters of health and life, I would favor making it compulsory that buildings of sufficient importance should have their engineering features designed by licensed engineers.

No arbitrary control by state or nation will create fine artists in the architectural profession.

P. R. MACNEILLE.

New York.

Cass Gilbert Says Road to Success is Same as Before War

CASS GILBERT, writing in a recent issue of the *American Legion Weekly* on the topic, "The Same Old Road," states that the two guides along the road to success, which is the same old road as before the war, are "Bull Luck" and "Common Sense." He urges the traveller to rely on the latter to pull him through and states that he is inclined to think that success is not an object but an incident of life. His article, in part, is as follows:

"The road to success to-day is the same old road it was before the war, except that it is broader, smoother, straighter, and hence a little shorter than it was before. It leads across the same hills of vision, through the same forests of dreams, across the same valleys of discouragement and over the same broad plains of confidence, and finally, let us hope, to the same security for old age and for posterity. The only difference, then, is that to-day, as after all great wars, there is more opportunity for those who have come through than ever before. Whether that opportunity shall be seized or whether it be neglected, depends upon the man.

"No man is completely successful until he is dead. Some achieve success in heroic deaths after lives of seeming failure. The success of some is achieved long after death; it is often so with men of genius.

"Failure may be the end of any man if he stands not always on guard. Success is elusive and fickle.

"There are two guides who are ready to offer their services to conduct any one along the road to success. They are radically different in character and method. One is rather brilliantly attired, has a glittering smile, an attractive look and offers his services cheap. The other is plain and ordinary in appearance, has but little grace, makes no tempting offers and at best is quiet and unassuming, though the longer you study him the more sure you are that you can trust him. If you choose the latter sometimes the other will also accompany you, but if you choose the former, the latter is pretty sure to leave you to his guidance alone.

"These two guides are our old acquaintances, Bull Luck and Common Sense.

"If you must choose between them, take Common Sense. He is much the safer, and if you take Common Sense sometimes Bull Luck will go along, too. But if you choose him as your guide, Common Sense is pretty sure to get disgusted and leave you to disaster.

"Let us consider what we mean by success. As ordinarily used, the word means the accomplishment of an object, the goal of ambition, honors, power, security, comfort and ultimately an easy old age.

THE AMERICAN ARCHITECT

All of these things are rarely possible for any one man to achieve; nor are any of them essential to happiness. Ambition is proverbially never satisfied; honors only bring new responsibilities; a sense of security usually precedes decadence or disaster; and the last stage of old age undisturbed by anxiety is usually a period of senility so short and so useless as to be unattractive to any one.

"Success lies in usefulness. In contentment and happiness arising from consciousness of work well done. Our modern conceptions of success are perhaps mistaken.

"I am inclined to think that success is not an objective but an incident of life. The world is looking for able men, for good men, for competent, hard-working men. 'You can't keep a good man down.' The level-headed man sees that he is qualified to do something and he turns to that as his job; if he makes good, one door after another opens to him and so he goes forward, according to his ability and his industry. Integrity, of course, is presumed, for without that fundamental quality his whole life is a fool's paradise.

"Few men think. It is hard to really *think*, but it is a useful habit once it is acquired. Cultivate good judgment. Be reasonable in dealing with other men under all circumstances, and make your word good always. Promise little, *do* more.

"Hard work is the master key to all the doors to which opportunity leads.

"The capacity to make and keep worthy friends is important, too.

"The world has little use for the lazy man or the grouch.

"System and method are necessary for most men and sensible men learn to save their time and economize their powers by system and order in their ways of doing things. Such machinery, however, should be the *means* to an *end*, not the end in itself.

"A man succeeds by his innate and his developed powers, by his character, his brains, his training for his job and his own intense will to do his best. In short, through 'the old New England ideas of *stability* and *progress*, through orderliness.' 'Stability' of purpose which will inspire those around him with confidence. 'Progress,' having ever the vigor and courage to go forward, and 'orderliness' in following those rules of conduct, those principles of right and those methods which the experience of the race in the countless past generations have proven sound and reasonable. If this be a formula, then it may be summed up by the words 'Common Sense.'

"The laborer is worthy of his hire. Every man should be secure in the possession of the results of his honest toil, whether that toil be with brains or hands, or both. It is the common duty of all, then, to aid in the upbuilding and maintenance of sound principles of government, and of that stability of our institutions under the wise constitution provided by the founders of our nation, so that the results of men's labors shall not be wasted by foolish experiments and rash ventures, be they in business, in labor or in politics."

The Function of the Quantity Survey Discussed by the New Jersey Chapter A. I. A.

THE disciples of diverse teachers on matters concerning contract forms, payment for estimating and quantity surveys, have become more and more active in bringing to the attention of architects, engineers and contractors their views with the intent to change established practice where the same seems to be functioning in an unsatisfactory manner.

In an endeavor to learn more about "Quantity Surveys," the New Jersey Chapter of the A. I. A. invited Mr. Wm. Graves Smith to address them at their December meeting, held in Newark, N. J., December 11, 1919.

The address, which was in the nature of an in-

formal talk, was preceded by a dinner and followed by an interesting discussion. In presenting the subject of quantity surveys to the architects, Mr. Smith, a civil engineer himself, endeavored to portray the several functions performed thereby.

He pointed out that the organization retained to make a quantity survey became, for the time being, simply an extension of the architects' office, yet with this distinction: The office of the architect, having brought into being the plans and specifications intended to describe the structure, naturally understood the intent thereof because of their very intimate connection with the work, even though each individual item might not have

THE AMERICAN ARCHITECT

been fully set forth or described, whereas the quantity surveyors' organization was in the same position as the contractor, being entirely unfamiliar with the project, and therefore wholly dependent upon the information actually given on the plans (not what someone *intended* to show) and the work described in the specifications. As this organization proceeded with the work of taking off all the quantities entering into the complete structure, any uncertainties, discrepancies, or apparent omissions would be taken up with the architect, and the doubtful clauses made certain, the omissions filled in, and the plans changed to correspond with the true intent. Therefore, in the first instance the quantity surveyor functions as a check upon the architect, and decreases to a minimum the possibilities of any but absolutely correct and complete plans leaving the architect's office for bids.

This in itself, it was contended, is a valuable service, and probably right here the owner will in many instances save the entire cost of the survey—not that architects are notoriously careless, but because what often may seem obvious and entirely clear to the architect will not so appear to an outside person in whose imagination the model of the structure has *not* been developing for months.

Mr. Smith pointed out the greater fairness to both general and sub-contractors in the use of this method, resulting in lower and more logical bids. The only work necessary of performance by the contractors is the pricing of the materials.

According to the speaker it is here that the element of true competition enters. What often appears to be a "low" bid is really a bid based on an erroneous calculation of the materials entering into the construction of the building. This is usually the real reason why it so often is difficult to compel the lowest bidder, when awarded the contract, to perform the work in "a truly workman-like manner." He often finds after the work has been undertaken that he will not receive the profit he estimated, and thus he must reduce the cost somewhere to possibly just break even, or else find loopholes in the plans and specifications, so as to tack on "extras." Uniform quantity surveys furnished to all bidders entirely eliminates this state of affairs now too familiar to the profession.

Two items must be carefully considered when the use of the quantity survey is contemplated. One is the method by which its payment will be met and the other whether such quantities shall be made an integral part of the contract.

Mr. Smith outlined several ways in which payment had been made. In some instances this charge had been apportioned among all the general and sub-contractors bidding on the work, thus reducing the individual charge to a minimum. In

many cases the architect had presented the matter to the owner, stating the advantages to be gained by the adoption of the system and the owner had paid direct; while in other instances the architect had made it a practice to furnish quantity surveys to the bidders on all work, and consequently had in the first instance added sufficient to his fee to cover this expense, explaining the practice to his client.

In any event, whether direct or indirect, this charge is ultimately borne by the owner and it would seem wise for the architect to advise with him on the matter in the first place.

The practice of making the quantities a part of the contract was discussed at some length by the members present, among these being Mr. J. O. Betelle, president of the Chapter; Mr. Stockton N. Colt, Mr. G. C. High, Mr. Fairweather, architect for Westinghouse, Church, Kerr & Company, who has also practiced architecture in England, where the Quantity Surveyor is well established.

The consensus of opinion seemed to be that these quantities should be made a part of the contract, unit prices being submitted by the successful contractor to cover additional work or changes which might become necessary during the progress of the work, the quantities in such extra work to be estimated by the surveyor if sufficiently extensive. It was stated that in England about one-half the work was let on this basis. Mr. Smith explained a method which had been used in connection with his work, and had proven satisfactory, whereby the quantities were used for estimating purposes, and from these estimates the contractor was selected. He was then advised of his selection and given a week to check up the quantities before signing the contract. If discrepancies were found, adjustments on the unit prices quoted were made prior to signing the contract. If no errors were found, the contractor waived all right to claim extras on the quantities listed. Mr. Smith pointed out that in either case the successful contractor would check up the quantities. When made a part of the contract, this checking would take place leisurely as the work progressed, and claims would be put in or credits allowed as differences were noted, whereas in the second case the checking would be completed before signing of the contract took place, and all differences adjusted prior to commencing the work. In either case the owner would only pay for what he actually received.

The members present expressed themselves as favorably impressed with the system and gave evidence of their interest by endeavoring to obtain all the information possible relative to its practical operation when used to supplement the architect's plans and specifications.

Current News

Happenings and Comment in the Fields of Architecture and the Allied Arts

In order to supply our readers with material of current interest, the news and comment appearing in issues of THE AMERICAN ARCHITECT delayed by the printers' strike will be as of actual rather than stated date of publication.

Government Needs Draftsmen

The Government requires the services of additional draftsmen, architectural and structural steel. The Civil Service Commission has undertaken an advertising campaign in order to obtain applicants. There is a vacancy now in the Lighthouse Service at Key West, Fla., which pays \$1,560 a year. Vacancies in positions requiring similar qualifications will be filled from open competitive examinations to be held next month.

The Necessity of Co-operative Construction Organization

It required a real crisis to bring out the fact that construction industries are interdependent. The coal controversy and the closing of factories revealed that one branch could not exist without the other. And it made clear the necessity for a co-operative organization sufficiently powerful in its adhesiveness to win for the industry the rights that are due. As a means to this end the suggestion has been made and widely discussed with approval that a council of secretaries be established to serve mainly as a clearing house.

The architect can easily testify to the competition that exists in the building industry. It is evident that the division of labor is in consequence of many concurring circumstances. The idea of combining action for the benefit of the allied industries is not new. It has existed in a more or less nebulous stage. When industrial calamity loomed on the horizon, there was a call for the establishment of a concrete plan. The manufacturers of building materials suddenly discovered that they were actually impotent when power was required.

Representatives of the organized industries are now engaged in the preliminary work necessary to the formation of such a body. The question of co-operation will be submitted to the governing boards of the national associations. The enthusiasm which greeted the initial effort has greatly encouraged the promoters. The tentative proposal, which on first glance has been widely indorsed, provides for a council of secretaries to devote their time to the study of economic problems and their relation to the construction industry. The membership will embrace executive secretaries of national organizations, traffic managers and legal representatives. The secretaries and counsel will co-operate in legislative matters; the traffic experts of the various associations will be charged with a duty for which they are peculiarly fitted, the study of freight rates, car distribution and all transportation matters.

Nobody doubts that there is room for co-ordination without restriction or elimination of the highly competitive factors which have put the entire building industry to the fore in recent years. Neither can there be a denial that a united industry could be heard and appreciated when the railroads are again under private ownership and rate advances ordered. It is for this single reason that national associations backing the proposals are urging more speed in organization of the council.

One feature of the program proposed for the council is of vital import to architects. It concerns a movement among the allied building organizations to secure legislation for a uniform system of payment for supplies by States and municipalities. It is a well-known fact that the payments on estimates is so low that building is delayed for months. It is proposed to spread the peak over the year instead of a few months. In light of car shortages, the co-operation of the American Railway Association will be sought. Through united effort it is hoped that a method can be devised which will permit the leveling of the peak. The advantage of the railroads is easily apparent. That benefits would accrue to the construction industry, from architect to the builder, is incontestable.

Central N. Y. Chapter A. I. A. Urges Re-appointment of L. F. Pilcher

At a meeting of the Central New York Chapter of the American Institute of Architects held at Ithaca, N. Y., on Jan. 10, attended by a representative gathering of architects from Rochester, Syracuse, Ithaca, Binghamton and Elmira, a resolution was unanimously passed urging the re-appointment of Hon. Lewis F. Pilcher, State Architect, by Governor Smith and his confirmation by the State Senate. The resolution follows:

"Resolved, that the Central New York Chapter of the American Institute of Architects, in its annual meeting assembled, desires to express to the Hon. Lewis F. Pilcher, State Architect of the State of New York, its sincere and deep appreciation of the great service he has rendered the State of New York in the practice of his profession as a State official. We feel that the manner in which he has rendered this service has given the State of New York buildings of a quality superior to any similar work previously executed and based upon a cost resulting in great economies for the taxpayers. We believe that he has largely contributed by this service in establishing in a position of respect and reliability the profession of architecture.

"We urge his reappointment by the Governor and his confirmation by the Senate."

THE AMERICAN ARCHITECT

Blame Officials Who Sanctioned Housing Contracts

Congress will probably put the finishing touches to the U. S. Housing Corporation when the holiday recess has ended. The House has already passed a bill abolishing the organization. The report of the Senate Committee on Public Buildings and Grounds is sufficiently sensational to swing a majority of votes when the bill is presented for the consideration of the Senate next month.

This report, filed by Senator Fernald of Maine, as chairman, carries a recommendation that the architect employed by the Housing Corporation be required to state accurately the overhead expenses on the work for the Government. Furthermore, the committee demands that the balance between the actual amount of overhead charges and the allowance made by the corporation be restored to the Government. The committee urges that a civil suit be instituted in event that the restitution is not made in accordance with the proposed bill. It is the belief of the Senate committee that more than \$50,000 will thus be restored to the Treasury.

In a detailed statement of so-called extravagances, this group of Senators claim that \$200,000 was paid out to architects. It was their charge that the Housing Corporation deliberately ignored directions to use the services of the supervising architect of the Treasury. Under the recommendations of the committee, if approved by the Senate, all architects so employed, would be obliged to file statements as to actual expenses and profits.

The committee calls attention to the fact that they have made no charges against the architects employed by the Housing Corporation. They place the blame entirely with the officials who sanctioned such contracts with architects.

It is the intention of the committee to have the organization abolished immediately. They believe that the disposing of government real estate acquired under the corporation is no longer needed and that the work of supervision of that body can be disposed of through regular government channels.

Bids have been asked for the navy yard project of the Housing Corporation, on which Representative Clark of Florida claims that the Government will lose \$800,000. This project includes fourteen new dormitories and a cafeteria. The dormitories were constructed of stucco over lath and were never occupied.

War Memorials for New York

The temporary arch of plaster and wood erected in Madison Square for the home-coming of the troops, having been removed, New York is now in the throes of deciding upon some fitting and permanent memorial to the lives sacrificed in the war, states the *Boston Transcript*. The mayor's committee on the subject evidently does not inspire the various art societies with confidence as to its aesthetic ideals, and one of them, the Municipal Art Society, feels so strongly in the matter that it has issued a booklet in which it gives warning of the monstrosities that are likely to result unless prompt action is taken. The suggestion of the Federation of Fine Arts, that a jury be appointed to consider designs from all sources, seems to be the best way out of the difficulty, provided, of course, the jury is representative of the best artistic taste.

Many plans have already been suggested. There seems to be a strong sentiment against arch form of memorial.

The arch, in the opinion of many persons, is a symbol of barbarism, but that idea is perhaps connected with the triumphal arch of the Romans and the suggestion of Alfred C. Bossom for a Gothic arch in the style of the Rheims Cathedral, which would have a religious significance, seems a good one. Many of the ideas suggested are for monuments which would serve a useful as well as an ornamental purpose. One of these, proposed by a group of citizens, is the Victory Hall, to be built upon the vacant site of the old Grand Union Hotel at Park Avenue and Forty-second Street, opposite the Grand Central station. There is space here for a huge rectangular building, which would be of a design suitable for a memorial. The most original idea is that of Messrs. F. B. & A. Ware, architects, for an enormous water-gate at the entrance to the Battery, in the form of a dignified archway and stone piers, thus providing the harbor of New York with a suitable front door, as it were. Vessels of large draft could approach the stone quays and the barges and launches of visiting royalty and admirals could be moored inside the breakwater. Still another idea is the erection of a tall Gothic clock or bell-tower in the middle of a park or square. This would be set on piers so the public could pass underneath it, and in the middle of the open space it is proposed to have a large ponderous book, with leaves of bronze, so hinged that they could be turned by hand and inscribed with the names and records of the war heroes. Other suggestions are a bridge across the Hudson and a bell-tower, to be as high as the Eiffel tower, in the vicinity of Grant's Tomb.

An Interesting Incident

The following item, clipped from the December *Bulletin* of the Illinois State Society, illustrates the very valuable co-operation that well-conducted State societies may offer in important matters. The item states:

"On Nov. 8 the Brazilian Embassy requested the Secretary of State to obtain for the Brazil Government the regulations made by some of the important cities of the United States concerning the erection of buildings and private homes."

"Secretary of State Robert Lansing sent a copy to Governor Lowden at Springfield. Governor Lowden in turn transmitted the request to Commissioner Charles Bostrom of the City of Chicago. Commissioner Bostrom on Nov. 21 addressed the following letter to the Illinois Society of Architects:

"Illinois Society of Architects,
"19 South La Salle Street,
"Chicago, Ill.

"Gentlemen:

"I am enclosing herewith copy of letter written by this Department to the secretary to the Governor of this State, along with letter received from him, and copies of letters from Robert Lansing, Secretary of State, Washington, D. C., in which he transmits letter from the Chargé d'Affaires ad interim of Brazil.

"As will be seen from a perusal of our letter to the secretary to the Governor of this State, this Department has no available copies of the building ordinances, so we are referring this to you with the respectful request that you send several copies of your handbook.

"Thanking you for your kindness in this matter, I am

"Very respectfully,

"CHARLES BOSTROM,
"Commissioner of Buildings."

THE AMERICAN ARCHITECT

Registration at University of Illinois

The number of undergraduate students registered in the College of Engineering of the University of Illinois on November 1, 1919, is as follows:

Architecture	127
Architectural engineering	147
Ceramic engineering	47
Civil engineering	326
Electrical engineering	445
General engineering physics.....	2
Mechanical engineering	515
Mining engineering	58
Municipal and sanitary engineering.....	11
Railway engineering	36

Total 1714

The enrollment of students in the whole university, including the College of Medicine, the College of Dentistry and the School of Pharmacy, which are located in Chicago, is 8078.

Housing Report Not Acted Upon

This journal has frequently called attention to the numerous reports presented from time to time to committees on housing matters, which after their presentation and acceptance have lain dormant in their files. All the thought and effort and investigation that precedes the making of these reports go for naught, and valuable information is not availed of. The *Delmarvia Star* gives an example of just this indifference with reference to the City of Wilmington, Del.

Over two years ago, on Nov. 22, 1917, to be exact, a report on the housing situation in Wilmington, looking to the improvement of conditions existing at that time, which were even more acute than at present, for the war was on, was submitted by a committee appointed by Mayor Lawson. The report of this committee was published in the newspapers at the time and is still on file in the mayor's office, but nothing has ever been done to carry out its recommendations.

That report said, in part:

"An investigation by your committee of conditions which exist here discovers that Wilmington collects less money and spends less money for the support of the city than does any other city in its class we could find in the U. S. census report.

"We recommend that you address a message to City Council calling attention to the necessity of a planning scheme or system for the city, which scheme or system, along with consideration for other needed betterments, will be such as will contemplate progressive street opening and improvements in the way of pavements and the like, whenever and wherever such improvements suggest or promise that the same would result in the opening up of available and convenient land for the building of houses or making a more livable city. * * *

"We have been urged to say something about a more liberal attitude of the banking interests toward loans for building operations, but it is the opinion of your committee that this would prove an easy detail in any scheme which had a real plan and which has the means behind the plan which promises an expansive and enlightened and a continuous city betterment.

"We believe the Wilmington banker and capitalist will keep step with the enterprising Wilmington builder once there is a promising scheme of community betterment

which banker and builder can understand and give their approval and which banker and builder may rely upon to accommodate itself to all reasonable community needs.

"We have made this report as brief as we could because we have concluded that Wilmington, with more than a one hundred thousand population, is trying to get along on a sixty thousand population income. * * *

"We believe an investigation of our taxing system and a comparison of it with taxing systems of other progressive cities in our class will discover for us a system which will yield a revenue sufficient for all our needs without overburdening real estate and all our problems will solve themselves when we have the money to spend. * * *

The Nurse and the Hospital Building

In commenting on a paper by Edward F. Stevens, an architect who specializes on hospitals, presented in *The Trained Nurse and Hospital Review*, taking up the topic of the nurse and the mechanical equipment of a hospital, the *Boston Transcript* states:

Mr. Stevens begins with the simple proposition that while the nurse should not be expected to know the whole profession of the architect, still she ought to have a rational idea of the fundamental elements of hospital construction and equipment. Questions of light, exposure, ventilation and environment are all essential. While Mr. Stevens does not say so, it is true that in many cases of older structures, and even of new ones, factors other than the best benefit of the patient are dominant.

The staff must in such cases make the best of what is furnished. In the use of wards, the space rules of constructors should be known by the nurse, for there are tendencies to overcrowding. The diseased human vitiates the air much more rapidly than the well person and this fact must not be forgotten. The window space and the manipulation of the windows is very important, in view of the health-giving qualities of fresh air. The day room is likewise important, as are the sun piazzas or balconies. With a knowledge of the principles the nurse may make full utilization of facilities that exist, and will be prepared to secure other advantages. The color of the walls, floor and furnishings are of greatest consequence, and has much influence on the patient for good or evil.

German Movies Unionized

In reporting a general meeting in Berlin of the Central Union of Employees of the Film and Movie Industry of Germany, the *Vorwärts* points out that the organization is a real industrial one, embracing every worker connected with the production of moving pictures, from the writers of the scenarios and the actors to the folks who sell the tickets and turn the cranks in the theaters. Each group of employees, however, composes a unit of the main organization and sends three representatives to the central council which forms the controlling body of the industry.

The Movie Workers' Union is affiliated with the General Commission of the Free Trade Unions of Germany and has four representatives in the council. One of the first results of the organization of the film folks was the signing of a wage and salary agreement with the Employers' Association of the German Film Industry, an organization born subsequent to the unionizing of the employees.

THE AMERICAN ARCHITECT

Government Consumption of Lumber During the War

A total consumption of nearly six and a half billion feet of lumber by the Government during the war is shown in recent figures compiled by R. C. Bryant, Industrial Examiner of the U. S. Forest Service. Of this amount of lumber purchased directly by the various Government departments the army consumption was nearly five and a half billion feet, the navy more than 120 million feet, and during 1918 the consumption of lumber for boat construction by the Emergency Fleet Corporation was nearly eight hundred million feet.

Of the army consumption, airplane construction took about 181,000,000 feet, more than half of which was spruce. In this connection the total amount purchased was probably twice these figures, as the yield of cants in airplane lumber is about 50 per cent, and the figures given represent the amount actually shipped to airplane factories up to January 3, 1919. Gunstocks and hand guards took nearly a hundred million feet, almost exclusively of black walnut. Boxes and crates required about two billion feet, 75 per cent of which was southern pine, and structures for cantonments, hospitals, warehouses, etc., used about three billion feet, of which 76 per cent was southern yellow pine and 10 per cent Douglas fir.

About 355,000,000 feet of the lumber used by the Emergency Fleet Corporation was southern yellow pine and about 425,000,000 Douglas fir, with small quantities of oak, locust for trenails, and other hardwoods.

In addition to this material secured in the United States, the Government purchased large quantities of standing timber in France and also secured some sawed material from other European countries.

The figures given are only approximate as to the total amount of lumber used, as they represent only raw material and direct purchases. For instance, large quantities of lumber were purchased indirectly in the form of boxes and crates and much bought in the form of manufactured articles.

Boat Hotels Are Planned

A new hotel with accommodations for over 3000 guests will be established in Detroit on the river front at the foot of Wayne Street if the congestion at the downtown hotels continues through the fall and winter.

All comers so far have been cared for somehow, but there has been considerable discomfort.

With this unsatisfactory housing situation in mind, local officials have suggested to Mr. Schantz, general manager of the Detroit & Cleveland Navigation Co., that his company might open up the big passenger steamers of the line to furnish living quarters for all comers at the close of the season of navigation.

"We would be glad to turn out big steamers into apartment houses for the fall and winter and we could give them elegant quarters at reasonable rates if they would come down to the river front to live," said Mr. Schantz.

"The steamers City of Detroit and the City of Cleveland III could care for 1000 people each very nicely and the City of Detroit II and the City of St. Ignace could handle 350 each and the City of Mackinaw and the Alpena a similar number.

"If the people want to live on the boats we will furnish the quarters."

Personal

Robert D. Farquhar has again opened offices in Los Angeles at 426-7 Security Building.

Zettel & Rapp, architects, have moved their offices to 1204-6 Mercantile Library Building.

Ellert and Lahr, architects, have recently opened offices at 610 World-Herald Building, Omaha, Neb.

Henry Shermund has moved from the Mills Building to his residence, 1001 Lincoln Way, San Francisco.

William S. Hunt, architect, of Minneapolis, Minn., a practitioner there for thirty years, died in that city recently.

Ross G. Montgomery and A. S. Nibecker have formed a partnership with offices in the Story Building, Los Angeles.

A. H. Markwart, C.E., has moved from the First National Bank Building, San Francisco, to 424 Holbrook Building.

John J. Zink, architect, has incorporated firm Zink, Sparklin Gandolfo, Inc., Garden Theatre Building, Baltimore, Md.

John and Allen McDonald, architects, have recently opened offices at 908-10 Omaha National Bank Building, Omaha, Neb.

Dittoe, Fahnestock and Ferber, architects, of Cincinnati, have removed to offices in the eighth floor of the Conrad Building.

The Cleveland firm of Hubbell, Benes Company has an addition to its membership in Benjamin S. Hubbell, Jr., a recent graduate from Cornell.

Chester E. Wolfley and Arthur G. Eliel have entered into partnership, with offices at 610 Stewart Building, Rockford, Ill. Catalogues are desired.

C. J. Schuemacher and Robert Finkelhor, formerly of Huggill & Finkelhor, have opened an office in the Paulton Block, Sioux Falls, S. D. Catalogues are desired.

John P. Krempel and Walter E. Erkes, architect and engineer, have moved their offices from the Henne Building to suite 538-539 Bradbury Building, Los Angeles.

Albert R. Walker, P. A. Eisen, Charles M. Hutchinson, associated architects, of Los Angeles, Calif., have formed a partnership for practice under the firm name of Walker and Eisen.

J. Edgar Outcalt and Edward A. Ramsey, architects at Columbus, Ohio, have joined in partnership under the firm name of Outcalt and Ramsey, with offices in the Columbus Loan and Trust Building.

W. J. Van der Meer has opened offices for the practice of architecture at 209 Rockford Trust Building, Rockford, Ill. Mr. Van der Meer was in the construction department of the army during the war.

F. D. Hudson and W. A. Munsell announce the dissolution of the firm of Hudson & Munsell, architects. Mr. Hudson's address will be 416 Stimson Building, and Mr. Munsell's address 414 Stimson Building, Los Angeles.

Ellis W. Taylor, C.E., has returned to Los Angeles after service in the U. S. Navy for the past two and one-half years. He is now associated with his brother, Edward C. Taylor, architect, with offices at 607 Merritt Building.

Clyde W. Smith has opened an office for the practice of architecture at 528 Andrus Building, Minneapolis. He has been associated for a number of years with firms in the Twin cities, including Tyrie & Chapman, Kenyon & Maine, Minneapolis, and C. H. Johnston of St. Paul.

News from Various Sources

Swedish press reports from Helsingfors say that food scarcity in Petrograd now has become so acute that food is distributed only on prescriptions from physicians. Wood supplies are wholly inadequate, resulting in discontinuance of industrial operations.

* * *

A report on the development of Twelfth Street, St. Louis was prepared by Harland Bartholomew, engineer, in conjunction with the City Plan Commission of St. Louis, and submitted to the Board of Public Service. Apply to Harland Bartholomew, city engineer.

* * *

Pocket Directory of the American Press is a complete guide of publications in the United States, Canada, Cuba, Porto Rico, Hawaiian Islands and Philippine Islands, including also lists of populations of all cities, states and territories. Apply to Lord & Thomas, New York.

* * *

Report of the Ontario Housing Committee is a comprehensive report discussing Ontario's housing needs, and including standards for inexpensive houses approved for Ontario and a large number of drawings of typical plans. Apply to J. S. Willison, chairman of the committee, Toronto, Ont.

* * *

A pocket-size directory containing detailed information regarding the papers and periodicals of this country, Canada, etc., and a quick reference table giving circulations, rates and form-closing dates of a large number of weekly and monthly publications was published by H. W. Kastor & Sons Advertising Co., Chicago, Ill.

* * *

Announced from London that British salaried professional men are forming federation designed to insure them increased income and other benefits which other workers have gained through trade unions. Industrial workers have received wage increases amounting to 130 or 140 per cent during war, while cost of living has been increased 128 per cent, according to organizers of the Professional Workers' Federation.

* * *

Under the head "Some Market Problems" is reprinted an address by Dr. Eugene H. Porter before the New York State Agricultural Society at Albany on Jan. 14, 1919, setting forth what the Division of Foods and Markets has done and is planning to do for New York State, and including a critical discussion of farmers' markets. Write to Dr. Eugene H. Porter, Commissioner of Foods and Markets, Albany, N. Y.

* * *

A report of the Committee on Food Production and Distribution of the New York State Reconstruction Commission indorses the rural motor express, summarizes its advantages and recommends that a committee be formed to extend it throughout the State of New York. Write to F. W. Fenn, secretary Motor Truck Committee, National Automobile Chamber of Commerce, Inc., 7 East Forty-second Street, New York.

Municipal Gas Plants in America and Europe is a 122-page book discussing public ownership and its influence upon the general welfare, and makes a special study of gas works in American and European cities under both public and private ownership, comparing the two types of control with regard to efficiency, costs and rates of charge. 1918. Issued by the Public Ownership League of America, Unity Building, Chicago, Ill.

* * *

A forceful argument for a national program of health education and an outline of the most essential details of such a program, as presented in a 1918 address before the National Council of Education by Thomas D. Wood, M.D., chairman of the Committee on Health Problems, is now available in a pamphlet entitled "War's Emphasis on Health Education." Apply to Thomas D. Wood, M.D., Teachers College, Columbia University, New York.

* * *

A museum of service has been gradually growing during the last ten years in Newark, N. J. Besides the usual collections of paintings and other objects of art, the Newark Museum contains science collections, educational material for teachers, collections of industrial products and industrial exhibits. The story of the growth of this museum is now available in pamphlet form for circulation. Address the Newark Museum Association, Newark, N. J.

* * *

Report of Bronx Parkway Commission tells the story of the reclamation of the polluted Bronx River and of the acquisition and improvement of the Bronx Parkway Reservation. The booklet is attractively illustrated by a number of photographs of alluring bits of scenery and of "before and after" views of the park and vicinity. Report for the year ending December 31, 1918. Apply to Jay Downer, engineer and secretary, Bronx Parkway, 280 Madison Avenue, New York.

* * *

"Proposed Amendments of England's Housing and Town Planning Act of 1909" is a 16-page pamphlet containing the papers read at the April, 1919, meeting of the Town Planning Institute of London, with the discussion thereon at that meeting. The two main policies advocated and discussed were a group of proposals demanding the simplification of town planning procedure, with modification of some of the legal requirements, and the proposal that the preparation of planning schemes be made obligatory on local authorities. Published by the Town Planning Institute, 4 Arundel Street, London, W. C.

* * *

The annual report of the Department of Community Centers and Night Schools, Cincinnati, O., for the school year 1918-19 is devoted almost entirely to the new feature—the community center work. Besides giving an account of last year's activities, which included the offering of club facilities, neighborhood entertainments, social evenings, dances, community singing, reading rooms and game rooms, the report considers the problems of training community organizers, equipping school buildings for use as community centers, and general needs and plans for the coming year. Apply to Frank P. Goodwin, director.

THE AMERICAN ARCHITECT

Obituary

Thos. F. Huber, formerly of the architectural firm of Bacon & Huber, Toledo, died in that city at the age of 62. He was a charter member of the Toledo Chapter, A. I. A., of which he was president last year.

J. Alden Weir Dead

Julian Alden Weir, a former president of the National Academy, died at his home in New York on Dec. 8. He came of a family of artists. His father was Robert Walter Weir, one of the foremost American painters of the middle part of the last century and for more than forty years professor of drawing at West Point. One of his elder brothers, John Ferguson Weir, painter and sculptor, long has been professor of painting and design and director of the art school at Yale University.

He was born at West Point and was first instructed in art by his father. Then he went to Paris and was a pupil

of Gérôme at the Beaux-Arts, where Bastien-Lepage was one of his closest friends. Returning to the United States, he soon commanded enviable attention. He received honorable mention at the Paris Salon in 1881 and the \$2000 prize of the American Art Association in 1889. He was one of the founders and for some time president of the Society of American Artists, but in 1898 withdrew from that organization to join the seceding group known as the "Ten American Painters."

He became an associate of the National Academy in 1885 and an academician in 1886, and in 1915 became president of that institution.

Described by critics and associates in the world of art as the painter who was "always surprising and always improving, the man who never embraced fads but assimilated what he wanted of them, who displayed a refinement, delicacy and masterful technic in everything he did," J. Alden Weir ranked among the foremost artists of the land.

He was not swept away by any of the radical movements that have invaded the art world of recent years.

Financial and Commercial Digest

As Affecting the Practice of Architecture

Trade Expansion and Production

IT is a noteworthy fact that in spite of the heavy losses to labor and industry through numerous strikes, lockouts and industrial troubles in the United States in 1919, estimated by authorities at a total of nearly two billion dollars, that the year just closed should have proven the greatest trade year in point of increased business ever recorded. The trade balance of this country was recently placed at about \$4,000,000,000 by the Secretary of Commerce. Exports were \$7,000,000,000 and imports some \$3,000,000,000.

Perhaps the most astonishing feature to be found in studying these figures is that the United States is its own best market and that the country's prosperity cannot be attributed solely to a demand for our products by foreign nations. Furthermore, it clearly shows that high wages make for prosperity, and that an increased purchasing power for the masses enables manufacturers and employers to broaden the scope of their activities to a greater extent than would be possible if a low standard of wages were maintained.

Increased buying power, while establishing the truth of the argument long advanced by economists that profits do not rise as wages fall, has in the present instance unfortunately been accompanied by a reduction in production. There has been a very decided disposition by labor in some trades not to give adequate service for the wage received. This factor has developed a serious situation in regard to the expansion of our foreign trade.

Statistical reports from Germany show that activities in general commercial enterprises have now reached a level approaching a pre-war basis, with workers back to their trades in larger numbers than was thought possible in such a short space of time—all working day and night to produce, and to recover from losses of the war.

It is time for the United States to be on the alert and through greater cooperation between capital and labor hold the advantage already gained in foreign markets.

Says Big Commodity Demand Will Continue

Sustained industrial activity is the prediction of the committee on statistics of the Chamber of Commerce of the United States, which has issued its regular end-of-the-year review of business and crop conditions. The committee emphasizes the hopefulness of the manufacturing industry generally, which although encountering constant labor troubles and shortage of fuel and materials, has orders in excess of its capacity for production within any reasonable time.

"Among the vast numbers of retail dealers," says the report, "there seems to be a confidence in the continuation, at least until another harvest, of the present great demand for commodities of all kinds, because of the unexampled strength of the industrial situation."

"On the whole, the farming communities are prosperous, because of the high prices of their products, and their liberal spending is the back-bone and sustaining power of the present volume of business in much the greater part of the country. The farmer is buying liberally and intelligently. He is buying more automobiles, more tractors, more poultry, more blooded cattle, more farm implements and machinery, more gasoline engines and electric lighting plants for his house and buildings. He is paying cash, mostly, and also paying off what comparatively few mortgages remain."

Great activity in building is reported in sections except where crop failures were extensive; soft coal mining is in

THE AMERICAN ARCHITECT

poor shape in contrast to the mining of hard coal; copper mining is in a poor state; silver mining is doing well; oil production is good.

The committee report is signed by A. W. Douglas of St. Louis, chairman.

Belgium to Get \$25,000,000 Loan

The first foreign financing since the offering of French city bonds by Kuhn, Loeb & Co. last year is about to be launched, the Belgian Government having practically completed negotiations, it was learned, for the sale to a local syndicate of bankers of \$25,000,000 of short term notes. At the offices of the Guaranty Trust Company and J. P. Morgan & Co., fiscal agents to the Belgian Government, it was admitted that several details had been cleared up and that some announcement could be expected shortly.

Elsewhere it was learned that the new notes would run from three to five years, bear 6 per cent. coupons and contain an exchange feature, which, it is hoped, will be more attractive to the general public than was the con-

version feature of the last United Kingdom loan. It is expected that the new notes will be offered at prices which mean a 6½ per cent. basis, and it was said that the cost to the Belgian Government would be about 7¼ per cent.

Proceeds of the new financing are to be used to buy foodstuffs in the United States to a large extent and, with the completion of those negotiations it is understood, Belgium's needs will be satisfied until late spring or early summer.

Conservation Develops New Material

England's efforts to conserve steel and iron have resulted in the development of an asbestos and cement material that is being used instead of corrugated iron for roofing purposes. It is made by mixing one part of finely ground asbestos to six parts of Portland cement. When made into paste by the addition of water, it is rolled into sheets which, after being trimmed, are corrugated and then seasoned. The asbestos serves as reinforcement.

Proposed Legislation Will Help Mortgage Conditions

The rapid resumption of real estate buying is proving a boomerang to the pessimistic views taken by mortgage investors as recently as two or three years ago, states E. C. Benedict, a widely known New York realty man. Notwithstanding the fact that income from mortgage investments is not tax exempt and first-class bonds, even Government bonds, are selling practically at a 5 per cent or higher basis, there have been more inquiries in the last few months for mortgage applications by lenders than at any time since the resumption of activity after the panic of 1907.

The source of supply for mortgage money has been reduced to a point where practically the only lenders are those investing institutions whose income is exempt from Federal income tax. Trust companies acting as trustees, estates and individual lenders are, with few exceptions, making no loans. Life insurance companies and savings banks, which for the last few years have been investing in Government securities, are generally in the market, and there seems to be no limit to their funds.

They are, however, selecting their security with great caution, and in order to pass muster the security offered must qualify very highly. In most instances the lenders require amortization payments, varying in amount according to the character of security, but generally based on approximately 2 per cent per annum.

In view of the splendid renting situation this is not so much of a hardship as it was feared it might be several years ago, when the proposition to amortize mortgages began to be insisted upon. It is to be hoped that the contemplated legislation exempting income on mortgages up to a certain amount will be successful. It seems unreasonable that a farmer in Orange County can borrow money at a lower rate and on better terms than a property owner in New York City. Nevertheless, this is the case, the reason being that the Government, through its Land Bank system, aids the farmer in getting a conservative loan on his property, then practically guaranteeing payment of principal and interest and permitting an investor to purchase the mort-

gage, or a portion of it, without penalty for income or other tax, while the city owner under present conditions is barred entirely from this source of supply and is driven to institutions, such as savings banks or life insurance companies, which cannot afford to make the loan at a low rate of interest while the market is so full of first-class bonds returning materially higher rates.

While the financial market is to a considerable extent upset by after-war conditions, I am of the opinion that the general situation for mortgage lenders is going to improve continually, and if the proposed legislation is successfully carried through there is no reason why mortgages should not be viewed with favor by individual as well as other lenders, as they have been in the past, for they have certainly stood the test of time much better than any other class of investment.

In a statement which I made several years ago I pointed out the exact amount of money that was invested by a certain number of savings banks in New York City in bonds, also in mortgages, and the cost of the property which they had taken under foreclosure, and made a comparison with the bond investments of the same institutions, showing that even if the total amount which they held in foreclosed property was entirely lost their mortgage investment still stood ahead of their bond investment.

Soon after this the situation changed and the institutions largely increased their holdings in foreclosed properties. I am glad to say that, generally, these properties have been sold, in many cases at a very considerable advance over cost, and I believe to-day that the institution that can show an actual loss from this source is the exception to the rule.

I know of one case where a bank foreclosed a property at a cost to it of about \$100,000, afterward sold for over \$150,000. This instance is not typical, however, although it is by no means the only case, as I know of many others where the property has been disposed of at a substantial advance over cost.

Department of Architectural Engineering

Successful Building in Stucco

III. Metal Lath on Frame Wall Construction

IN presenting this topic and as relating to this article, it is interesting to consider the current discussion in England as to the desirability of erecting wood frame houses. Due to the necessity of producing homes more cheaply attention is being focused on the frame type of construction which is often referred to as "American."

Following the log cabin, erected by the early settler in this country, the wood framed structure became popular, and many of these which have successfully weathered for considerably over a century give evidence that such construction is durable.

But, while England debates the question "To be or not to be?" with respect to the frame dwelling, the larger cities of this country are constantly extending the areas designated as "fire limits" and within which the erection of frame buildings is prohibited. The prejudice here against the all-wood building is based mainly upon its combustibility, therefore methods by which this hazard can be reduced should be encouraged.

Just how long ago buildings with walls of stucco over a timber framework were first erected in this country is not certain. Some stucco buildings a quarter of a century old are referred to as pioneers in this class. This type of stucco building has been erected in considerable numbers only during comparatively recent years. It may safely be stated that we are still in the experimental stage, and improvements in design and construction will undoubtedly be introduced from time to time. Sufficient study has thus far been made to indicate the right and the wrong way to build such structures. One need not travel far to find stucco walls badly crazed or covered with cracks, while others are in almost perfect condition. Why this difference? A careful analysis would reveal that wrong methods had in the first case been employed.

Any movement tending towards the entire elimination of timber in building construction in order to render structures more fireproof would be unwise. What should be advocated to the fullest extent is

the protection of all woodwork by incombustible material. Thus the hazardous frame dwelling (from the fire standpoint) with slight modification, may become the safe, sanitary and fire-resisting stucco building. Care should of course always be given to provide a fire-resisting roof covering. This is now a mandatory requirement of many codes.

As was natural, in evolving stucco covered frame dwellings from those with clapboard or shingle siding the only change originally made was to omit the siding, applying lath to the under sheathing and plastering the stucco thereon. The sheathing in most cases was placed diagonally in order the better to brace the wood frame. It has clearly been proven that such construction is not good and will generally result in cracked stucco. When sheathing is used no reliance should be placed on it as a bracing for the frame. In every case this timber frame, whether sheathing is used or not, should be independently braced. This can be accomplished by installing diagonal bracing at the corners and bridging between the studs. The diagonal bracing should consist of at least 1 in. by 6 in. boards, about 6 ft. long, let into the studs so that the face of the bracing is flush with the inside face of the studs crossed. The exact location and length of these corner braces will of course depend largely on the position of window and door openings. The bridging should be provided at least once in each story height and horizontally placed. Where back plastering is to be used, the outside edge of the bridging should set back 1 in. from the face of the studs, to permit the back plaster to continue past the bridging. In such construction 2 in. by 3 in. bridging should be used. Studs should be at least 2 in. by 4 in. spaced not over 16 in. on centers, extending from foundation to rafters without any intervening horizontal members. They should be tied together just underneath the floor beams by 1 in. x 6 in. ribbon boards, let into the inner side of the studs, so as to finish flush and be securely nailed thereto. The floor joists, besides resting on

THE AMERICAN ARCHITECT



GROUP OF STUCCO ON METAL LATH HOUSES
OAK COURT TERRACE, BRONXVILLE, N. Y.
BATES & HOW, ARCHITECTS

the ribbon board should also be securely spiked to the studs.

The 1919 report of the Committee on the Treatment of Concrete Surfaces of the American Concrete Institute states relative to the matter of sheathing:

When sheathing is used, it should be laid horizontally and not diagonally across the studs. The stucco test panels erected at the Bureau of Standards in 1915 and 1916 have demonstrated conclusively that diagonal sheathing tends to crack the overlying stucco by setting up strains in the supporting frame. This result is undoubtedly due to the shrinkage of the sheathing, and whatever benefit might be anticipated from the more effective bracing provided by diagonal sheathing appears to be more than offset by the shrinkage effect. Diagonal sheathing is also less economical than horizontal sheathing, both in material and labor.

After a careful analysis of the results observed to date at the Bureau of Standards test panels (many of which have been exposed for four years), together with an investigation of buildings completed a sufficient length of time to afford a basis of judging results, it is safe to conclude that for stucco work wood sheathing is unnecessary for frame walls when they are properly braced and covered with metal lath, provided one coat of back plaster is applied on the inside of the lath between the studs. This type of construction, properly executed, is more desirable than that in which wood sheathing is used. It will be referred to in this article as the "Back Plastered" type. Figs. 1 and 2, page 769, show a horizontal cross section of a wall so constructed.

The proper steps in its erection are as follows: After the wood framework of the building, commonly referred to as "balloon framing," is erected it is sometimes deemed advisable to coat the outside faces of the studs with a waterproofing or preservative paint. While this is not objectionable, there is insufficient definite information on record as to its efficacy, which seems doubtful, and its elimination is recommended in the report previously referred to.

Since the cost of construction is high, the wis-

dom of spending a client's money for something whose merits are doubted by so good an authority is questionable, and it would seem advisable not to specify such waterproof coating, unless the architect feels convinced from personal experience of its necessity.

Where a ribbed type of metal lath is specified and furring is integral with the lath so that when applied the perforated fabric is held away from the face of the studs, no other furring becomes necessary, but when a uniform, non-ribbed lath is used it should be furred out $\frac{3}{8}$ in. from the face of the studs. This keeps the lath from the studs and permits the plaster to become keyed behind the lath where it crosses the studs. Galvanized or painted $\frac{3}{8}$ in. crimped furring not lighter than No. 22 gage or some other shape providing an equally good result should be fastened directly to the studs by $1\frac{1}{4}$ in. x 14 gage staples spaced 12 in. apart.

Metal lath should be specified by weight rather than by gage. It should be galvanized or painted expanded lath, weighing not less than 3.4 lbs. per square yard. When back plastering is used, painted lath is entirely satisfactory. Wire lath should be galvanized or painted woven wire lath, not lighter than 19 gage with $2\frac{1}{2}$ meshes to the inch, provided with stiffeners 8 in. on centers.

The lath should be placed horizontally and fastened to the studs by $1\frac{1}{4}$ in. x 14 gage staples



VIEW IN COURTYARD
OAK COURT TERRACE, BRONXVILLE, N. Y. BETWEEN
THE TWO FAMILY HOUSES AT EACH CORNER ARE
PLACED SIX SEMI-DETACHED HOUSES.
BATES & HOW, ARCHITECTS.

not more than 8 in. apart, driven over the furring or stiffeners.

In placing the metal lath the method of joining the different sections of the lath is important. Unless properly joined these junctions constitute a weak point and are likely to be the cause of cracks that may develop later. The horizontal joints can best be made by butting the lath and tightly lacing with 18 gage galvanized wire, thus drawing the lath taut. This method is preferable to lapping. Where ribbed lath is used, carefully locked horizontal joints should be specified. Vertical joints should always be made at studs, where the lath can be lapped and well stapled at intervals of not over 4 in. Joints should not occur at corners, but the sheets of metal lath should be folded around the corners for a distance of at least 3 in. and stapled down. It is not advisable to use corner beads. The stucco can be rounded at the corners to avoid sharp edges. To secure the best results the corner posts

of the timber frame should be chamfered, otherwise the thickness of the stucco at the corners will be reduced and this will constitute a weak point.

After the application of the lath in the manner specified the work of plastering the stucco over coating should begin. The back plaster may be applied at any time after the first or scratch coat

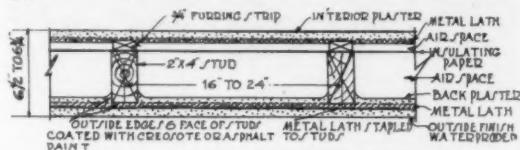


FIG. 1. BACK PLASTERED, TYPE A.

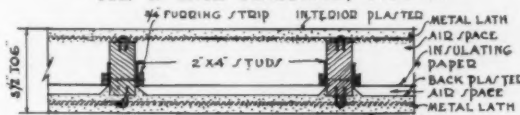


FIG. 2. BACK PLASTERED, TYPE B.

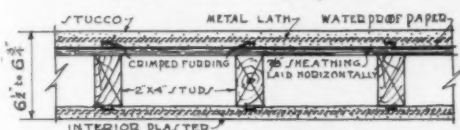


FIG. 3. STUCCO OVER WOOD SHEATHING

HORIZONTAL WALL SECTIONS

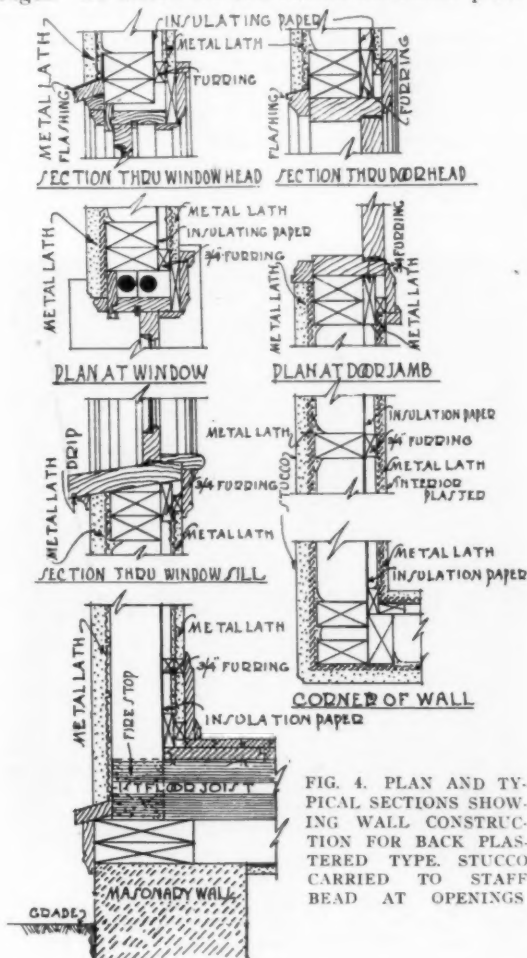
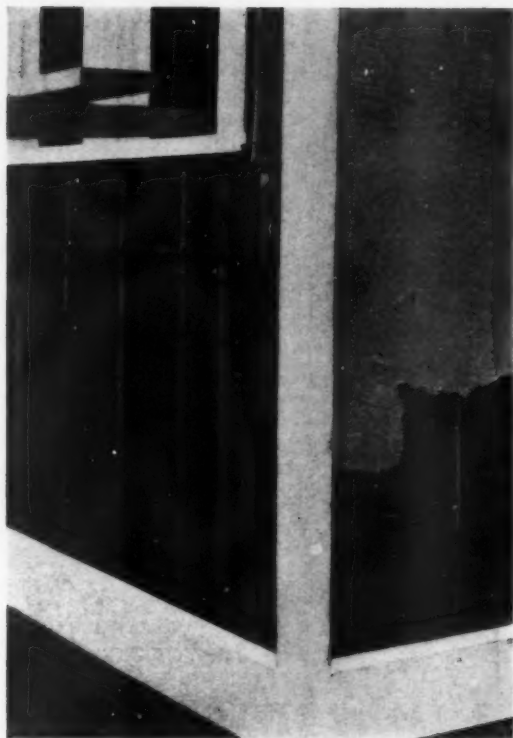


FIG. 4. PLAN AND TYPICAL SECTIONS SHOWING WALL CONSTRUCTION FOR BACK PLASTERED TYPE. STUCCO CARRIED TO STAFF BEAD AT OPENINGS

of stucco has been placed. Sometimes the back plastering is done first, and the material which is forced through the lath really acts as a scratch coat for the exterior coats of stucco. By applying one coat of back plaster and from two to three coats of stucco the metal lath is placed in the interior of the stucco, where it rightly belongs; thus the stucco really becomes a reinforced artificial stone slab 1½ in. thick, and as such presents an effective, durable and fire-resisting exterior wall surface.

One requirement for a dwelling is that the walls provide insulation against the elements. The house should retain the heat in winter and prevent heat penetration during the summer. This can be accomplished in the back-plastered type of stucco building by providing a membrane of insulating weather-proof paper, of which there are many good makes on the market, applied in the manner shown in either Fig. 1 or Fig. 2. The method shown in Fig. 1 is probably the easier of application. After the back plaster has set the insulating paper is fastened to the inside of the studs and held in place by furring strips. This provides a 3½ in. air space between the stucco and the paper, and a ½ to ¾ in. air space between the paper and the interior plaster. Recent tests on the heat insulating value of stucco walls have shown that ordinary building paper laid double gives even better results than a single layer of more expensive paper. It is strongly recommended that the interior plastering be done on metal

THE AMERICAN ARCHITECT



ILLUSTRATING METHOD OF APPLYING THE EXTERIOR COATS OF STUCCO

lath, since it materially increases the fire resistance of the building and provides a better construction. If, however, it is not possible to do this wood lath may be substituted in the construction details shown. In any case, the space between the studs for the depth of the floor beams should always be filled with incombustible material such as brick, concrete, gypsum blocks, etc., to provide an adequate fire stop. A frame building stuccoed as described, plastered on wire lath in the interior and fire stopped between beams is a safe structure from a fire hazard standpoint.

The method of construction shown in Fig. 2 also provides a double air space, the insulating paper being held in place by cleats nailed to the sides of the studs. This permits the walls to be finished slightly thinner than for the method illustrated in Fig. 1. The construction is clearly shown in the upper drawing of Fig. 7.

Several of the accompanying photographs show the method of application of both the stucco and back plastering.

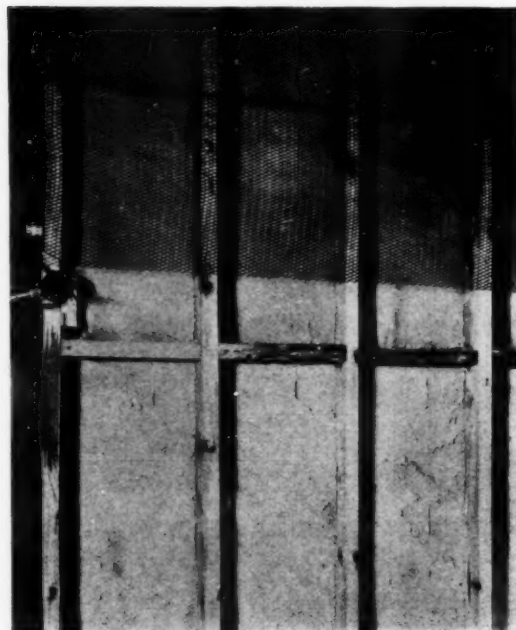
A report by the United States Bureau of Standards on the test panels under observation states:

The four metal lath panels comprising Group III, con-

structed with metal lath attached to studs without sheathing and lath back plastered, were all rated "Fair" or better. In other words, the back plastered metal lath without sheathing has the full 100 per cent rating the same as monolithic concrete and brick. Of this type of metal lath construction is Panel No. 15, the panel which has received a rating of "Excellent" in all inspections.

Where it is desired to use wood sheathing in preference to a back plastered type, the method of construction is illustrated in Fig. 3, and the lower drawing of Fig. 7. As already stated, the sheathing should be placed *horizontally* and not diagonally, and the wood frame well braced. The sheathing boards should not be narrower than 6 in. nor wider than 8 in., dressed on one or both sides to a finished thickness of $\frac{7}{8}$ in. In nailing the sheathing to the studs at least two 8d. nails should be used at each stud. Bridging is desirable, but may be dispensed with without serious detriment to the construction. Directly over the sheathing boards a substantial waterproof paper impregnated with tar or asphalt should be applied in horizontal layers, beginning at the bottom and working upward. The bottom strip should lap over the base board where one is used at the bottom of the wall, while each succeeding strip should lap the one below by at least 2 in. The paper should lap the flashings at all openings.

Over the waterproof paper and directly along the



BACK PLASTER APPLIED
METAL LATH FOR INTERIOR PLASTER BEING PLACED. A COMMON BUT IMPORTANT OMISSION HAS BEEN MADE. THE INSULATING PAPER HAS BEEN LEFT OUT.

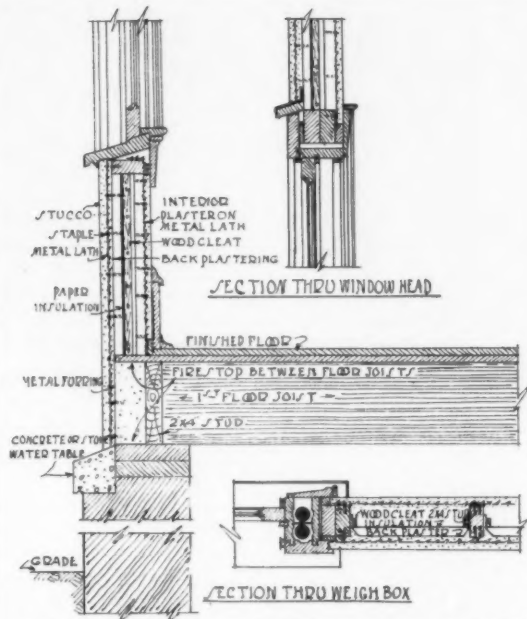


FIG. 5. DETAILS OF CONSTRUCTION FOR WINDOW OPENINGS, BACK PLASTERED TYPE WITH FLAT OUTSIDE TRIM

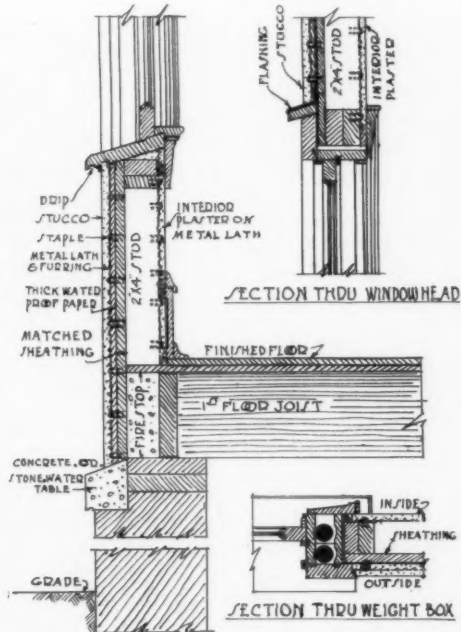
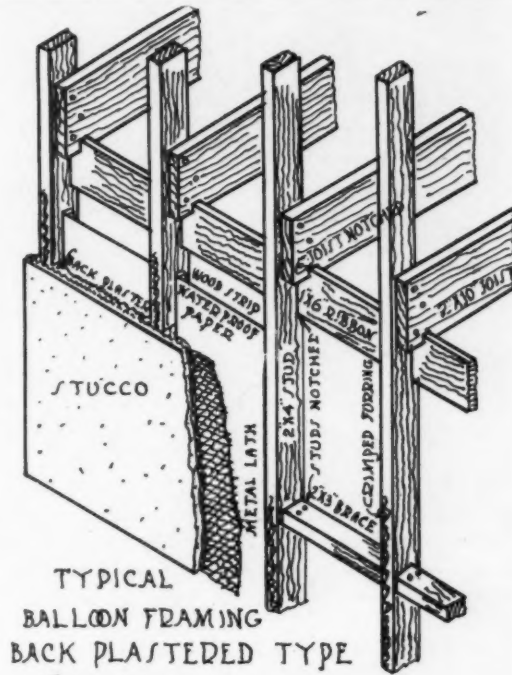
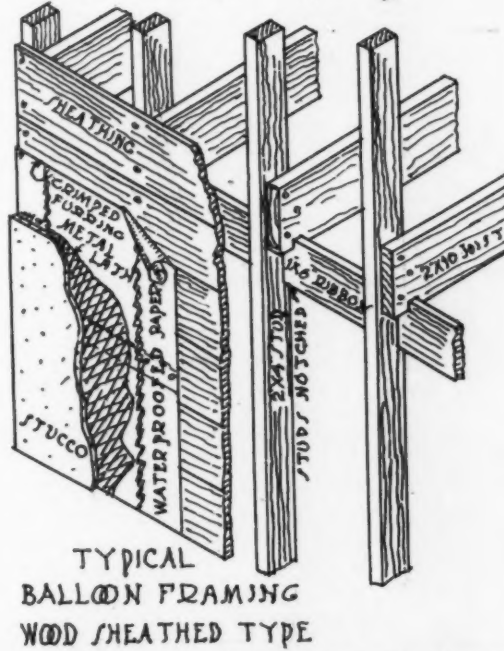


FIG. 6. DETAILS OF CONSTRUCTION AT WINDOW OPENING FOR WOOD SHEATHED TYPE

DETAILS STUCCO ON METAL LATH CONSTRUCTION



TYPICAL BALLOON FRAMING BACK PLASTERED TYPE



TYPICAL BALLOON FRAMING WOOD SHEATHED TYPE

FIG. 7. PERSPECTIVE VIEWS SHOWING CORRECT METHODS OF WALL CONSTRUCTION FOR BOTH BACK PLASTERED AND WOOD SHEATHED TYPES

THE AMERICAN ARCHITECT



STUCCO GARAGE OF BACK PLASTERED TYPE
IN THIS INSTANCE THE BACK PLASTER WAS APPLIED
BEFORE THE EXTERIOR COATS

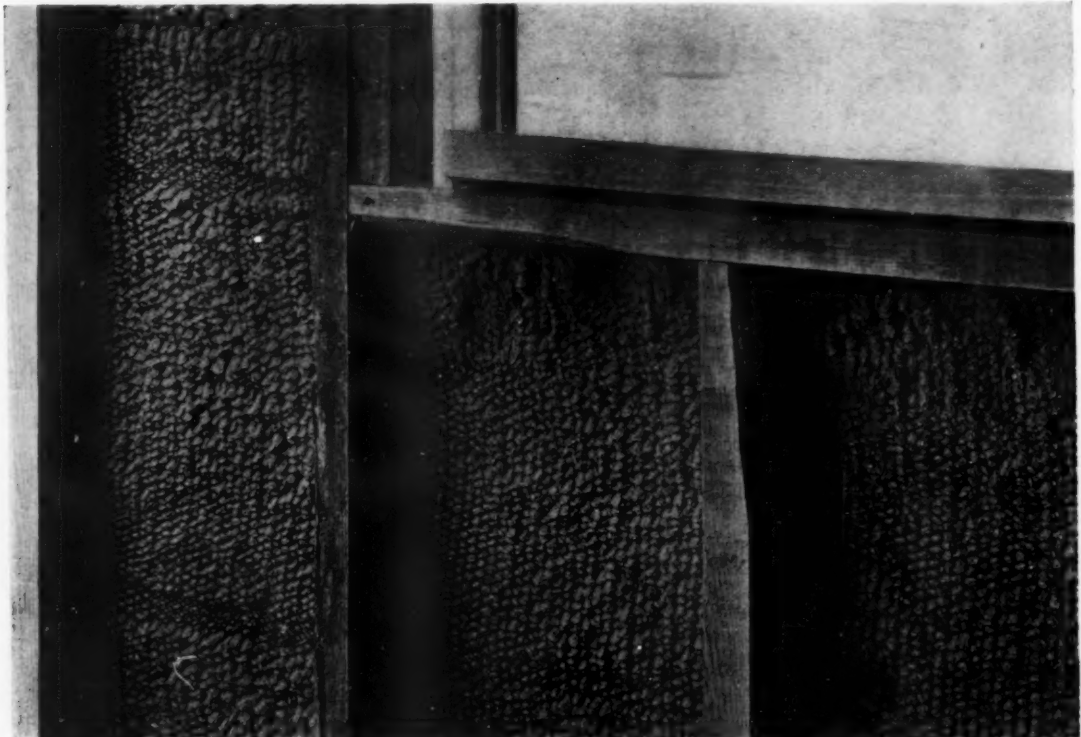


ENLARGED VIEW SHOWING KEYING OF
PLASTER ON THE METAL LATH

line of the studs, $\frac{3}{8}$ in. metal furring strips, composed of either galvanized or painted 22 gage or heavier metal, should be fastened by $1\frac{1}{4} \times 14$ gage staples, spaced not over 12 in. apart. This depth of furring should be maintained around curved surfaces and at openings, the furring being placed from $1\frac{1}{2}$ in. to 4 in. on either side of as well as

above and below the opening. The metal lath should be placed as already described for the back plastered type.

The method of construction around openings is shown for both types in the accompanying detail drawings, Figs. 4, 5 and 6. In some instances, it will be desirable to provide exterior flat trim



EXTERIOR COATS OF STUCCO APPLIED. INTERIOR READY FOR BACK PLASTER

THE AMERICAN ARCHITECT

around the openings, while in others the appearance of the building will be improved by omitting this and bringing the stucco to the staff bead and drip cap. Both methods are shown.

The same general considerations, such as proper

foundations, protection where possible by overhanging cornices, etc., as already emphasized in the preceding articles, must be adhered to. It is important that the stucco be kept above the ground. This is the only criticism which might be made to



A TWO FAMILY STUCCO ON METAL LATH HOUSE

OAK COURT TERRACE, BRONXVILLE, N. Y.

BATES & HOW, ARCHITECTS.

THE AMERICAN ARCHITECT

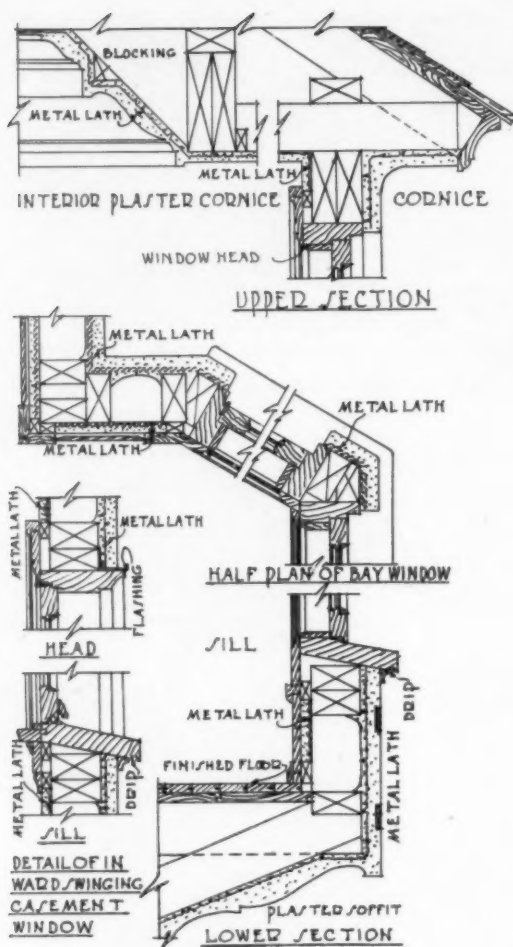


FIG. 8. DETAILS OF BAY WINDOW CONSTRUCTION. BACK PLASTERED TYPE.

the buildings at Bronxville, N. Y., here illustrated. The brick, stone or concrete foundation walls should always be carried up well above the grade level.

Careful specification of and adherence to the methods here described will insure a wall construction forming a satisfactory backing for the stucco.

Second Convention to Be Held on National Department of Public Works

The second convention of the National Department of Public Works Association will be held in Washington at the New Willard Hotel on January 13 and 14, 1920. Invitations to all engineer-

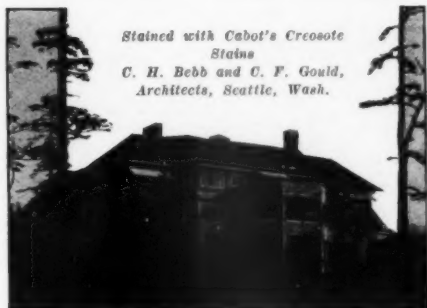
ing and technical societies and to many business, civic and national organizations have been sent to attend this convention. A large attendance is expected from each section of the Union.

The purpose of the convention is to have a general experience meeting concerning ways and means of best carrying on the campaign for the enactment of this legislation, to discover what have been the particular difficulties in the way and to learn from the experience of the campaign managers the best methods of meeting these difficulties.

The campaign for the creation of a National Department of Public Works was authorized at a conference held in Chicago in April of this year and in the early summer a start was made towards perfecting a national organization to carry on this work. As a result there are now campaign organizations at work in almost every state. Practically every engineering society has indorsed this measure as have many business organizations and groups. The engineers, architects and constructors of the country started this measure but soon realized that its appeal was to all associations and groups interested in an economical administration of Government affairs and therefore its name has been changed from the Engineers', Architects' and Constructors' Conference on National Public Works to the National Public Works Department Association.

A very encouraging number of Congressmen and Senators have been favorably impressed with this measure and during the progress of the convention, time will be allotted to each state delegation to call on their Senators and Representatives and discuss the situation with them.

Congressman Frank C. Reavis, who introduced the measure in the House of Representatives, will address the convention on "Practical Results to be Achieved by a Department of Public Works," and Gen. R. C. Marshall, Chief of the Construction Division, will discuss "Practical Economies Secured by Standardization of Specifications." The meetings will be held in the ball room of the Willard Hotel on the 10th floor. While part of the work of the proposed department will be engineering, and the engineers have taken a leading part in the work towards its accomplishment, the architectural profession will be largely benefitted if the result be successful. The profession should therefore give their whole hearted support to the movement. It will be well worth the while of any architect, engineer or business man interested in national affairs to be present. Those desiring full information can secure same by addressing the Secretary, National Public Works Department Association, McLachlen Building, Washington, D. C.



Stained with Cabot's Creosote
Stains
C. H. Bebb and C. F. Gould,
Architects, Seattle, Wash.

STAIN YOUR OUTSIDE WOODWORK

—shingles, siding, half-timbers, trellises, pergolas, sheds, fences with

CABOT'S CREOSOTE STAINS

The rich, transparent coloring effects are more appropriate and beautiful than any other colorings, and they wear better, cost less, and are easier to apply. "Painty" effects spoil the beauty of the wood, and paint costs twice as much. The creosote thoroughly preserves the wood. Don't buy stains that smell of kerosene; they are dangerously inflammable.

You can get Cabot's Stains all over the country. Send for stained wood samples; free

SAMUEL CABOT, Inc., Mfg. Chemists, Boston, Mass.
1133 Broadway, NEW YORK 24 West Kinzie Street, CHICAGO

Cabot's Quilt, Waterproof Stucco and Brick Stains, Conserve Wood
Preservative, Damp-proofing, Water-proofing.

TUDOR-STONE

and its
Color

Parallel with texture and craftsmanship are the *Colors* of Tudor-Stone. They are all nature's colors, not the added pigments of artificial products, but colors such as nature produces. Both fixed and weathering colors are available and our service is always ready to explain what Tudor-Stone can do.

THE RISING & NELSON SLATE CO.

Since 1869 Miners and Makers of High-grade Roofing Slates

Quarries and Main Office, West Pawlet, Vermont

Architects' Service Department, 101 Park Avenue, New York
CHICAGO BOSTON



ARCHITECTURAL WOODWORK
TRIM AND CABINET WORK
CHURCH, BANK AND OFFICE
INTERIORS AND CARVINGS

SHIP AND YACHT JOINERY
PERIOD MANTELS, STAIRWAYS
SPECIAL FURNITURE AND
REPRODUCTIONS TO ORDER

THE HARRIMAN INDUSTRIAL CORPORATION

WORKS AT HARRIMAN, NEW YORK

NEW YORK OFFICE
475 FIFTH AVENUE
TELEPHONE, MURRAY HILL, 6762

HARRIMAN QUALITY WOODWORK

Robert W. Chanler

Designer, in Co-operation With Architects, of DISTINCTIVE ROOMS

With Special Reference to

Ceilings, Overmantels, Stained and Painted Glass

STUDIOS: 147 AND 149 EAST 19TH STREET, NEW YORK

Architects are invited to view the important work now being executed in these studios, or to ask for photographs of completed work.

Late Quotations in Building Material Markets

(Price quotations now current on building materials and supplies as quoted by dealers and jobbers for delivery in New York and Chicago follow. The quotations set forth are placed before readers of THE AMERICAN ARCHITECT to afford an accurate review of market conditions rather than for use as a basis for actual purchase. They will not only provide knowledge of the exact state of the market as to items quoted, but will also present a basis to judge conditions as affecting correlating materials. Items marked (*) indicate an advance over last week, while those marked (†) record a decline. Other prices did not fluctuate during the week.)

(The following prices are current of January 17.)

BRICK		New York	Chicago
Common (Delivered at job in Borough of Manhattan only), per thousand.....	\$22.50		\$17.00
Face brick (delivered on job):.....			
Rough red.....	37.00		40.00
Smooth red.....	38.00		40.00
Rough buff.....	42.00		40.00
Smooth buff.....	42.00		40.00
Rough gray.....	45.00		42.00
Smooth gray.....	47.00		42.00
Colonials.....	26.00		30.00

BROKEN STONE		New York	Chicago
(Delivered on job):.....			
1½ in. per cu. yd.....	\$3.25		\$2.75
¾ in. per cu. yd.....	3.50		2.75

BUILDING PAPER		New York	Chicago
Rosin sized sheathing, 500 sq. ft. rolls, 36 in. wide:.....			
25 lbs. to roll.....	\$0.85		\$0.88
30 lbs. to roll.....	1.00		1.05
40 lbs. to roll.....	1.35		1.40
Deadening felt, 50 sq. yd. rolls, 36 in. wide:.....	85.00		105.00

BUILDING STONE		New York	Chicago
Indiana limestone, per cu. ft.....	\$1.23		\$0.83
Kentucky limestone, per cu. ft.....	1.35		1.05
Brier Hill sandstone, per cu. ft.....	1.50		1.05
Gray Canyon sandstone, per cu. ft.....	.95		1.05
Buff Wakeman, per cu. ft.....	1.50		1.50
Buff Mountain, per cu. ft.....	1.50		1.50
North River bluestone, per cu. ft.....	1.05		1.05
Seam-face granite, per sq. ft.....	1.00		1.00
South Dover marble (promiscuous mill block), per cu. ft.....	2.25		2.25
White Vermont marble (sawed), New York, per cu. ft.....	3.00		3.00

BURNED CLAY		New York	Chicago
(Delivered on job.).....			
Block partition:.....			
3 in., per sq. ft.....	\$0.13		\$0.10
4 in., per sq. ft.....	.15		.11
Chimney tops:.....			
12 x 12 for 8 x 8 flues.....	3.50		2.25
Flue lining:.....			
4½ ft. x 13 ft., per lin. ft.....	.24		.12
4½ x 8½, per lin. ft.....	.18		.16
8½ x 8½, per lin. ft.....	.24		.20
8½ x 13, per ft.....	.35		.45
13 x 13, per ft.....	.60		.50
13 x 18, per ft.....	.95		.75
18 x 18, per ft.....	1.25		.85
Wall coping (double slant):.....			
8 in., per lin. ft.....	.18		.18
12 in., per ft.....	.33		.26
18 in., per ft.....	.54		.30
Wall coping (single slant):.....			
8 in., per lin. ft.....	.16		.14
12 in., per ft.....	.22		.22
18 in., per ft.....	.54		.36
(Corners and angles four times the price of one foot of coping the same size.).....			

HOLLOW TILE		New York	Chicago
(Delivered at job, in New York below 72nd St.).....			
2 x 8 x 12 partitions, per 1,000 sq. ft.....	\$102.00*		\$102.70*
3 x 12 x 12 partitions, per 1,000 sq. ft.....	102.00		102.70*
4 x 12 x 12 partitions, per 1,000 sq. ft.....	114.75		109.60*
6 x 12 x 12 partitions, per 1,000 sq. ft.....	153.00		150.60*
8 x 12 x 12 partitions, per 1,000 sq. ft.....	205.30*		205.30*
10 x 12 x 12 partitions, per 1,000 sq. ft.....	230.00		230.00
12 x 12 x 12 partitions, per 1,000 sq. ft.....	63.75		55.00
2 x 12 x 12 split furring, per 1,000 sq. ft.....			

CHIMNEY TOPS		New York	Chicago
Revolving.....	40%		40%

CEMENT		New York	Chicago
Per bbl. in 15-cent bags (Rebate 60c. per bbl. for bags in New York), 15-cent bags in Chicago (Rebate 60c. per bbl.).....	\$3.40		\$3.10

CONDUCTOR PIPE		New York	Chicago
Galvanized steel.....	5 & 10 & 5%		
Galvanized charcoal iron.....	44½%		
Copper.....	40%		
Elbows (all sizes to 6-in.).....			
Galvanized steel.....	70%		70%
Squares.....	60%		60%
Copper.....	30%		30%

COPPER SHEETS		New York	Chicago
At the mill, hot rolled, 16 oz., base-price, per lb.....	29½c.*		28½c.
(From jobbers' warehouse add 2 to 3 cents.).....			

New York		Chicago
Cold Rolled, per lb.....	31c. to 33c.	30c.
From stock in 100 lb. lots and over.....	32c.	32c.
For less than 100 lb. lots 2c. per lb. advance.....		
Polished, 20 in. wide and under, 1c. per sq. ft. extra; over 20 in. wide, 2c. per sq. ft. extra. Planished, 1c. per sq. ft. more than polished.....		
Bottom, pits and flats, 1 oz. and heavier, per lb.....	43c.*	42c.
Tinning one side, per sq. ft.....	.06c.	.06c.

CORNER BEAD		New York	Chicago
Per foot.....	.05		.05
EAVES TROUGH		New York	Chicago
(Discounts from list):.....			
Galvanized steel.....	60%*	60 & 10%	
Galvanized charcoal iron.....	50%	55½%	
Copper.....	20%	40%	
(Also note Conductor Pipe.).....			

FIBER		New York	Chicago
Per bushel.....	.36		.30

FINISHED IRON AND STEEL		New York	Chicago
(Mill shipments.).....			
Bar iron, refined grade.....	2.77c.		2.62c.
Bar iron, double refined.....	3.77c.		3.77c.
Soft steel bars.....	2.62c.		2.62c.
Shapes.....	2.72c.		2.72c.
Plates.....	2.77c.		2.65c.

GALVANIZED SHEETS		New York	Chicago
Nos. 12 and 14 gauge, per lb.....	7.60c. to 8.10c.		
No. 16.....	7.75c. to 8.25c.		
Nos. 18 and 20.....	7.90c. to 8.40c.		
Nos. 22 and 24.....	8.05c. to 8.55c.		
No. 26.....	8.20c. to 8.70c.		
No. 27.....	8.35c. to 8.85c.		
No. 28.....	8.50c. to 9.00c.		
No. 30.....	9.00c. to 9.50c.		
(No. 28 and lighter, 36 in. wide, 20c. higher.).....			

GLASS		New York	Chicago
(Discounts from manufacturers' price lists).....			
Single strength, A quality, first three brackets.....	.79%		77%
Single strength, B quality.....	.79%		77%
Double strength, A quality.....	.79%		79%
Double strength, B quality.....	.81%		81%
Plate—up to 5 sq. ft.....	.81%		80%
Plate—over 5 sq. ft.....	.83%		80%
Plate—up to 10 sq. ft.....			80%
Plate—over 10 sq. ft.....			80%
Polished plate glass (commercial run of thickness and quality) sizes to 5 sq. ft., inclusive.....	.78%*		
Sizes over 5 sq. ft.....	.78%*		

GRAVEL		New York	Chicago
1½ in. (Borough of Manhattan only), per cu. yd.....	\$2.75		\$2.75
¾ in. (Borough of Manhattan), per cu. yd.....	2.75		3.00

GRIT		New York	Chicago
Delivered at job in Borough of Manhattan.....	\$2.25		\$2.00
Delivered in the Bronx.....	2.50		2.25

GYPSUM		New York	Chicago
Plaster Board:.....			
Delivered at job, Boroughs of Manhattan and Bronx.....			
27 x 28 x 1.....	37c.		37c.
27 x 48 x ½.....	34c.		34c.
32 x 36 x ¾.....	23c.		20c.
32 x 36 x ¾.....	24c.		21½c.
32 x 36 x ½.....	26c.		26c.

Plaster Blocks:		New York	Chicago
Delivered at job, Boroughs of Manhattan and Bronx.....			
2 in. hollow, 12 x 30, per sq. ft.....	.09c.		.11c.
2 in. solid, 12 x 30, per sq. ft.....	.12c.		.11c.
3 in. hollow, 12 x 30, per sq. ft.....	.12c.		.12c.
3 in. solid, 12 x 30, per sq. ft.....	.15c.		.15c.
5 in. hollow, 12 x 30, per sq. ft.....	.149c.		.14c.
6 in. hollow, 12 x 30, per sq. ft.....	.18c.		.18c.
8 in. hollow, 12 x 30, per sq. ft.....	.22½c.		.22½c.

LATH		New York	Chicago
Eastern spruce, per thousand.....	\$10.50		\$14.00
No. 1 white pine, per thousand.....	9.50		8.00
No. 1 hemlock, per thousand.....	8.25		7.00
No. 1 yellow pine, per thousand.....	9.00		6.00

LEAD		New York	Chicago
American pig, per lb.....	10 to 11c.*		6½ to 6½c.
Bar, per lb.....	10½c. to 12c.*		6½ to 6½c.

LIME		New York	Chicago
Common, 300 lb. bbls., per bbl.....	\$3.50		\$1.50
Finishing, 300 lb. bbls., per bbl.....	3.70		3.70
Common hydrated, in paper bags, per ton.....	18.50		18.00
Common hydrated, in cloth bags, per ton (rebate per bag, 20c.).....	26.50		24.00
Hydrated finishing lime, cloth bags (rebate for bags 20c.).....	24.60		24.60
Hydrated finishing lime, in paper bags, per ton.....	24.60		24.60

LUMBER		New York	Chicago
(Retail prices per M., delivered.).....			
Yellow pine, 2 x 4.....	\$72.50		\$65.00*
Yellow pine, 2 x 6.....	72.50		55.00
Yellow pine, 4 x 4.....	77.50		56.00
Yellow pine, 8 x 8.....	75.00		56.00
Yellow pine, 12 x 12.....	83.00		65.00
Yellow pine, No. 1 boards, 1 x 6.....	100.00		70.00
Yellow pine, No. 1 boards, 1 x 12.....	110.00		80.00*
Yellow pine, B and better flooring (plain).....	115.00*		100.00*
Yellow pine, B and better flooring (quartered).....	150.00*		117.00
North Carolina pine, flat flooring, No. 2 and better.....	115.00*		90.00*
North Carolina pine, flat flooring, No. 3.....	100.00*		95.00
North Carolina pine, rift flooring.....	137.50*		110.00*
Norway pine, 2 x 4.....	75.00*		77.50*
Norway pine, 2 x 12.....	90.00*		78.00*

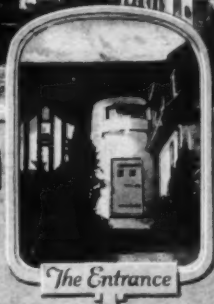
(Continued on page 774-B)

ATLAS-WHITE



Owner: John R. Hays, Canal No. 1, E. L.

Architect: Frank J. Patton, New York



The Entrance



A HOME built with ATLAS Cement—strong—gives you the economical advantages of permanent, fire-proof construction, requiring no painting and no repairs. Cement is so easily manipulated that it lends itself most readily to any desired contour, outline or structural form.

And ATLAS-WHITE for the finish coat—alone or mixed with color aggregates—produces and accentuates all desired color tones with an exactness and pleasing effect unsurpassed by any other materials.

Write our nearest office for our book "Information for Home Builders"

THE ATLAS PORTLAND CEMENT COMPANY

NEW YORK Boston Philadelphia Savannah Dayton Minneapolis Des Moines St. Louis CHICAGO

This advertisement appeared in September "House and Garden," and October "Country Life in America," and "House Beautiful"

NOT merely an advertisement of Atlas Cement; rather more an urge to build—pointing out where economies may be effected, how readily and satisfactorily the architect's recommendations may be followed, and how easily the dream of a new home may be materialized.

"The Standard by which all other makes are measured"

The Atlas Portland Cement Company

NEW YORK Boston Philadelphia Savannah Dayton Minneapolis Des Moines St. Louis CHICAGO

THE AMERICAN ARCHITECT

Late Building Material Prices

(Continued from page 774-A.)

	New York	Chicago
Douglas fir, 6 x 6 to 12 x 12.....	\$75.00	\$67.50
Douglas fir, 12 x 12 to 14 x 14.....	85.00	78.00
Hemlock, 2 x 4.....	63.00	55.00
Hemlock, 2 x 12.....	65.00	58.00
Oak, quartered, 1 in., F. A. S.....	275.00*	285.00*
Oak, plain, 1 in., F. A. S.....	210.00*	215.00*
Oak flooring, 13/16, quartered (white).....	280.00	275.00
Oak flooring, 13/16, quartered (red).....	275.00	225.00
Oak flooring, 13/16, plain (white).....	205.00*	175.00
Oak flooring, 13 x 16, plain (red).....	210.00*	185.00*
Maple, 1 in., F. A. S.....	135.00*	130.00*
Maple flooring, 13/16, clear.....	160.00*	150.00*
Maple flooring, 13/16, select.....	145.00*	135.00*
Maple flooring, 13/16, No. 1 factory.....	120.00*	100.00
Basswood, 1 in., F. A. S.....	320.00	315.00
Mahogany, 1 in., F. A. S.....	87.50*	75.00
Sap gum, 1 in., F. A. S.....	125.00	115.00
Red gum, 1 in., F. A. S.....	110.00	105.00
Chestnut, 1 in., F. A. S.....	150.00	130.00
Poplar, 1 in., F. A. S.....	150.00	100.00*
Birch, 1 in., F. A. S.....	70.00	65.00
Spruce, random, 2 in.....	75.00	70.00
Spruce, wide, 8 in.....	80.00*	75.00*
Spruce, 10 in.....	90.00*	75.00*
Spruce, 12 in.....	14,000*	130.00*
Cypress, 1 in., F. A. S.....		

	New York	Chicago
Under 100 sq. yd., per sq. yd.....	40c.	35c.

	New York	Chicago
Red, per lb.....	.05	.05
Brown, per lb.....	.05	.05
Buff, per lb.....	.05	.05
Chocolate, per lb.....	.05	.05
Black, per lb.....	.06	.05
Pompeian buff, per lb.....	.07	.07
Moss green, per lb.....	.07	.07
Colonial drab, per lb.....	.07	.07
French gray, per lb.....	.07	.07
Royal purple, per lb.....	.07	.07
Yellow, per lb.....	.07	.07

(These prices are for mortar colors in bbls. or kegs of more than 200 lbs. each. In kegs of less than 200 lbs. each add 1c. per lb. In 25 lb. cans add 2c. and 12 1/2 lb. cans add 2 1/2c. per lb.)

	New York	Chicago
Wire nails and brass, miscellaneous.....	75%	75%

	New York	Chicago
Linseed (7 1/2 lbs.) city, raw.....	\$1.80	\$1.95†
Over 5-gal. lots.....	1.79	
Linseed, boiled, advance, per gal.....	.01	.02
Out of town, American seed, at.....	1.80	2.05†
Calcutta.....	2.00	

	New York	Chicago
Leads:		
American white, in oil, kegs; lots over 100 lbs.....	13c.	13c.
White, in oil, 25-lb. tin pails; add to keg price.....	1/4c.	1/4c.
Red, bbl., 1/2 bbl., and kegs; lots over 100 lbs.....	14 1/2c.	14 1/2c.

	New York	Chicago
Dry Colors:		
Red Venetian, American, per 100 lbs.....	\$2.00 to \$4.50	\$2.00 to \$4.00
Metallic Paints:		
Brown, per ton.....	\$32.00 to \$36.00	\$32.00 to \$36.00
Red, per ton.....	35.00 to 40.00	35.00 to 40.00

	New York	Chicago
Cast Iron:		
6 in. and heavier.....	\$54.30	\$61.80
4 in.....	57.30	64.80
3 in.....	62.30	71.80

(and \$2.00* additional for Class A and gas pipe.)
(Discounts to jobbers for carload lots on the Pittsburgh basing card; freight rates from Pittsburgh to New York, and also from Pittsburgh to Chicago, in carloads, per 100 lbs., are 27c. An additional 5 per cent discount is allowed to large jobbing interests over those listed below.)

	F.O.B. Pittsburgh	F.O.B. Chicago
Wrought:		
Steel:		
Black, 1/2 to 3 in.....	50 1/2 to 57 1/2 %	42.6 to 49.6 %
Galv., 1/2 to 3 in.....	24 to 44 %	14.6 to 34.6 %
Iron:		
Black, 1/2 to 1 1/2 in.....	29 1/2 to 34 1/2 %	19.6 to 29.6 %
Galv., 1/2 to 1 1/2 in.....	2 1/2 to 23 1/2 %	9.4 to 11.6 %
Steel:		
Black, 2 1/2 to 6 in.....	53 1/2 %	45.6 %
Galv., 2 1/2 to 6 in.....	41 %	31.6 %
Iron:		
Black, 2 1/2 to 6 in.....	34 1/2 %	24.6 %
Galv., 2 1/2 to 6 in.....	21 1/2 %	9.6 %
Steel:		
Black, 1/2 to 3 in.....	46 1/2 to 56 1/2 %	33 to 43 %
Galv., 1/2 to 3 in.....	29 to 44 %	10.6 to 18 %
Iron:		
Black, 1/2 to 1 1/2 in.....	28 1/2 to 39 1/2 %	
Galv., 1/2 to 1 1/2 in.....	11 1/2 to 24 1/2 %	
Steel:		
Black, 2 to 6 in.....	48 1/2 to 50 1/2 %	35 to 37 %
Galv., 2 to 6 in.....	37 to 39 %	10 to 12 %
Iron:		
Black, 1 1/2 to 6 in.....	25 1/2 to 34 1/2 %	
Galv., 1 1/2 to 6 in.....	10 1/2 to 22 1/2 %	

	New York	Chicago
PIPE—VITRIFIED SEWER		
(Standard pipe and fittings, F.O.B., carloads):		
3 to 24 in.....	67%	67%
27 to 30 in.....	66%	66%

	New York	Chicago
PLASTER		
(Rebate for bags, 15c.)		
Neat wall cement in 15-cent bags, per ton.....	\$22.30	\$19.50*
Finishing plaster.....	25.00	19.50*
Lath mortar, in cloth bags, per ton.....	16.00	14.00

	New York	Chicago
Brown mortar, in bags.....	16.00	14.00
Finishing plaster, per bbl. (250 lbs.).....	3.80	3.00
Finishing plaster, per bbl. (320 lb. bbl.).....	4.75	5.00

	New York	Chicago
PUTTY		
In bladders, per 100 lb.....	\$6.25	\$6.25
In 1-lb. tins, per 100 lb.....	6.75	6.75
In 5-lb. tins, per 100 lb.....	6.25	6.25

RADIATION
New York reports a 45% discount on standard heights. Chicago reports a 45.9% discount on standard heights steam and 44.3% on water.

	New York	Chicago
REGISTERS		
Cast iron semi-steel or steel, in black or white japan or electroplate and small faces and borders.....	30%	30%
Wall frames.....	30%	30%
Large faced, 14 x 14 in. and larger.....	50%	50%
Base board registers.....	30%	30%
Base board intakes.....	30%	30%
White enameled goods.....	5%	5%
Solid brass or bronze goods, except grilles.....	net	net
Grilles in black and white japan or electroplate in cast iron, plain lattice design—smaller than 14 x 14 in.....	30%	30%
—Larger than 14 x 14 in.....	50%	50%

	New York	Chicago
REINFORCING BARS		
High carbon steel from mill.....	\$48.50	\$49.50
Medium steel from mill.....	48.50	49.50

	New York	Chicago
ROOFING MATERIAL		
Tarred Felt Paper:		
No. 1—25 lbs. to 100 sq. ft., per ton.....	\$62.00	\$75.00
No. 2—16 lbs. to 100 sq. ft., per ton.....	63.00	75.00
No. 3—12 lbs. to 100 sq. ft., per ton.....	64.00	75.00
Rosin sized sheathing, per ton.....	75.00*	70.00
Corrugated roofing, galvanized, 2 1/2 in. corrugation, over flat sheets, 30c. per 100 lbs.		
Rubber, 108 sq. ft. rolls, 32 in. wide, per roll:		

	New York	Chicago
First Quality:		
1 ply—35 lb. rolls.....	\$1.90	\$2.00
2 ply—45 lb. rolls.....	2.30	2.40
3 ply—55 lb. rolls.....	2.85	2.80
Second Quality:		
1 ply—35 lb. rolls.....	1.45	1.60
2 ply—45 lb. rolls.....	1.75	1.90
3 ply—55 lb. rolls.....	2.20	2.20

	New York	Chicago
ROSIN		
Common to good, strained (wholesale), 80 lb. per gal.....	\$17.50	

	New York	Chicago
SAND		
Mason, per cu. yd.....	\$1.85 to \$2.25	\$2.75
Torpedo, per cu. yd.....	1.85 to 2.25	2.75
White sand, per cu. yd.....	4.50	

	New York	Chicago
SHINGLES		
Red cedar, 6 to 2, clear, per thousand.....	\$10.00	\$6.50
Red cedar, 5 to 2, clear, per thousand.....	12.00	7.50
White cedar, extra star, per thousand.....	11.00	7.00
Cypress, 6 x 18, No. 1 hearts per M.....	17.00	14.00
Cypress, 6 x 18, No. 1 prime per M.....	15.00	12.00

	F.O.B. cars.	F.O.B. Chicago
SLATE ROOFING		
Pennsylvania:		
Best Bangor.....	\$7.75 to \$9.00	\$10.20 to \$11.45
No. 1 Bangor Ribbon.....	6.75 to 7.00	9.20 to 9.70
Pen Argyl.....	6.50 to 7.25	9.70 to 10.45
Peach Bottom.....	10.50 to 12.50	12.45 to 14.45
No. 1 Chapman.....	6.25 to 7.25	8.70 to 9.95
Vermont:		
No. 1 Sea Green.....	4.25 to 6.75	5.95 to 9.00
Unfading Green.....	9.00 to 10.50	9.40 to 12.50
Mottled Green Purple.....	9.00 to 10.50	
Red.....	12.00 to 20.00	14.80 to 22.80
Maine:		
Brownsville, U'f'g Black, No. 1.....	12.00	14.10 to 15.10
Slates felt, 30 lb. roll.....	.92	
Slates felt, 40 lb. roll.....	1.22	

	New York	Chicago
SPIRITS TURPENTINE		
Per gal. in machine bbl.....	\$1.74	\$1.73

	New York	Chicago
STONE SCREENINGS		
Lime, per cu. yd.....	\$2.35	\$2.75

	New York	Chicago
STRUCTURAL STEEL		
Beams and channel, 3 to 15 in., per lb.....	2.45c.	3.47c.
Beams and channels, over 15 in., per lb.....	2.45c.	3.57c.
Angles.....	2.45c.	3.47c.
Zees.....	2.45c.	3.47c.
Tees.....	2.45c.	3.52c.
Steel bars, half extras, from mill.....	2.35c to 2.75c.*	3.37c.*

	New York	Chicago
STUCCO		
In cloth, per ton (white, mixed).....	\$22.50	\$19.50

	New York	Chicago
STUCCO BOARD		
Medium weight stucco board, plain, per M sq. ft.....	\$42.50	\$45.00
Medium weight stucco board, creosoted, per M sq. ft.....	50.00	50.00
Heavy weight stucco board, plain, per M sq. ft.....	55.00	55.00
Heavy weight stucco board, creosoted, per M sq. ft.....	60.00	60.00
Medium weight stucco board, plain, narrow key, per M sq. ft.....	50.00	50.00
Medium weight stucco board, narrow key, creosoted, per M sq. ft.....	55.00	55.00
Insulating board, heavy felt background, per M sq. ft.....	50.00	50.00

	New York	Chicago
SHEATHING BOARD		
Heavy weight sheathing board, per M sq. ft.....	\$50.00	\$50.00
Medium weight sheathing board, per M sq. ft.....	46.00	45.00
Stucco or plaster board, sheathing board and insulating board are in rolls containing one sheet 25 ft. long and 4 ft. wide (100 sq. ft.)		

	New York	Chicago
WALL BOARD		
Wall board, shipped any length, 4 ft. wide, per M.....	\$45.00	\$40.00
Packed flat in cars if ordered in less than car lots. Add \$5.00 per M ft. for crating.		

	New York	Chicago
ZINC SHEETS		
Western slabs.....	10 1/2c. to 11 1/2c.*	
Sheets, No. 9, base casks.....	13 1/2c.*	
Open, per lb.....	14c.*	

