THE AMERICAN ARCHITECT AND THE ARCHITECTURAL REVIEW

PROCEEDINGS, FIFTY-SEVENTH ANNUAL CONVENTION, THE AMERICAN INSTITUTE OF ARCHITECTS, WASHINGTON, D.C., MAY 21-23 ❦ THE PRESIDENT'S ADDRESS ❦ REPORT OF BOARD OF DIRECTORS AND REPORTS OF STANDING COMMITTEES ❦ INTERIOR ARCHITECTURE ❦ ARCHITECTURAL ENGINEERING

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THE ARCHITECTURAL REVIEW

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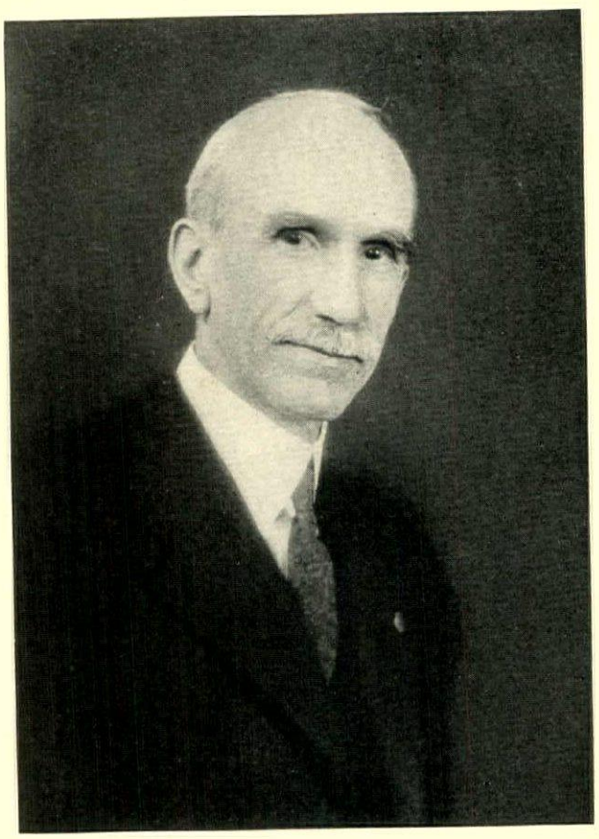

D. EVERETT WAID, LL.D., F.A.I.A.

PRESIDENT, THE AMERICAN INSTITUTE OF ARCHITECTS

THE AMERICAN ARCHITECT
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VOL. CXXV WEDNESDAY, JUNE 4, 1924 NUMBER 2447

FIFTY-SEVENTH ANNUAL CONVENTION, THE AMERICAN INSTITUTE *of* ARCHITECTS, WASHINGTON, D. C., MAY 21-23

THE FIRST DAY

SAID one of the delegates to this convention, a veteran of aviation in the A. E. F., as he settled into his seat when President Faville called the delegates to order,—"low visibility, very." Out-of-doors the rain was coming down in a steady drive and the low hung clouds were shrouding the Potomac flats in wreaths of mist. Veteran attenders of conventions recalled the meeting of three years ago, when one cloudburst succeeded another. But that was the "no smoking" year, and one might view the proceedings and listen to the flow of oratory in a clear atmosphere, at least indoors.

But this year is another story, and must be written of as it was, and it is certainly true to state that the "visibility" was "low" and the atmosphere, so charged with a variety of brands of tobacco, burned in every manner that the present smokers enjoy, formed a decided fog. Emerging from the Hemicycle, delegates would, to quote one, occasionally "come up for air," quickly to return and be lost in the fog. No one could be present on this opening day, when the outer air was so dense as to be oppressive, and not recall the atmospheric conditions of that convention hall. No conditions, however bad, could check the very serious attitude of the delegates, and the first day's proceedings were marked by a "snap" and a large measure of accomplishment that served to make a most satisfactory first day.

PRESIDENT-ELECT D. EVERETT WAID

President Faville's address, printed in part on another page of this issue, was received with unanimous approval. An incident, marking what was believed to forecast an inevitable happening in the succession to the presidency, was the long sustained applause that greeted D. Everett Waid when he arose to read his report as Treasurer.

An impressive feature of the morning's session was the delivery of a eulogy by President Faville in memory of Bertram G. Goodhue, Henry Bacon and Louis Sullivan. At the conclusion of President Faville's remarks, the delegates stood in silence with bowed heads, for one minute. The morning session was, as usual, set apart largely for the presentation of reports of the various committees. A condensation of the more important of these interesting documents is presented in this issue.

The feature of the afternoon session, presided over by Milton B. Medary, Jr., was the discussion of The Public Building Problems of the United States. This was a constructive discussion of the building problems and policies of the Federal Government, by distinguished representatives of the Government and by delegates. The principal speakers at this meeting were Lt. Col. Clarence O. Sherrill, In Charge of Public Build-

ings and Grounds, and Brig. Gen. Herbert M. Lord, Director of the Bureau of the Budget. Lack of building space had produced acute conditions, Col. Sherrill told the delegates. Continuing, he outlined the situation in various departments in Washington as, for example, the Bureau of Internal Revenue which occupies 636,000 square feet of floor space in nine buildings scattered over an area of one and a half square miles. More than 70 per cent of the entire space of this important bureau is in temporary, non-fireproof buildings, said Col. Sherrill.

STANLEY PARKER

"While the most elaborate precautions are taken to prevent fires in these structures, there is no doubt that should a fire get a good start the building or probably the entire group of buildings would be destroyed. The loss to the government from such an event would probably be in the hundreds of millions of dollars, representing income tax returns which could probably never be replaced."

PAST PRES. FAVILLE

Explaining the policy of the public buildings commission as contemplated in the Smoot bill, Col. Sherrill added:

"Not only will it be the policy of the public buildings commission to carry on this construction program in accordance with the l'Enfant plan, the McMillan commission plan and the public buildings commission plan of 1916, but the commission will in the design of these buildings carry out the existing provision of the law in reference to securing the advice of the commission of fine arts on matters relating to the location and design of these buildings, in order that the development may be made not only to carry out the needs of the government for adequate space for its business activities, but also that the beauty of Washington may be maintained and enhanced by an orderly program of building construction in furtherance of the park and building plans."

N. MAX DUNNING

Brig. Gen. Lord made an appeal for support by the profession of architecture for the continuing of the nation's business on a business basis. As a result of the budgetary system, he said, government was costing less. One year ago, for example, according to Gen. Lord, corrections by authors on proofs cost the government $240,000. This year this expense will be cut to $160,000 and, he added, the latter figure will be slashed in half "even if we have to split every infinitive in the language to do it."

EDWIN H. BROWN

During this day's session, a resolution was passed, urging Congress to adopt legislation for the purchase and preservation of the Oldroyd Lincoln Memorial Collection. Another resolution adopted declared the purchase and preservation of Monticello, the home of Thomas Jefferson, to be the most important enterprise of this character now before the American people.

The convention further endorsed in principle the program of industrial mobilization laid down by the War Department, and offered its co-operation.

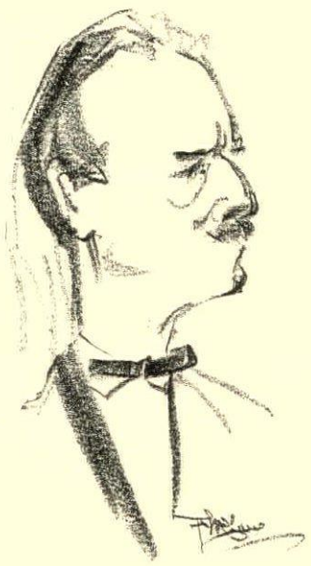
The afternoon session closed with an illustrated lecture by Albert Kelsey on "Rome, Radiating Rome."

The evening session, at which N. Max Dunning, first vice president presided, was given up to the report of the Committee on Education, when papers were read by William Emerson, George C. Nimmons and Ellis F. Lawrence. The work now going forward in the field of architectural education was very lucidly discussed by these chairmen of sub-committees, particular stress being paid to that of the Beaux-Arts Institute of Design. An urgent appeal was made for financial support of this important educational movement.

EDWIN BERGSTROM

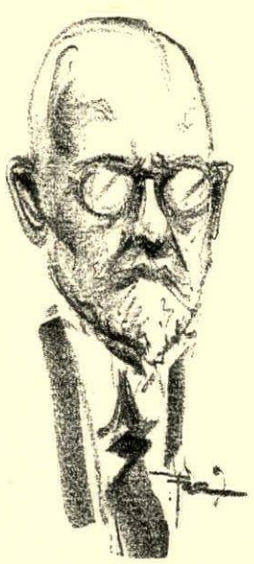
Delegates to this convention will return to their respective homes with the most pleasurable recollections of the occasion. Due to the fine work of the special committee appointed to insure a more intimate acquaintance among delegates, much of the aloofness that previously marked the hours at the headquarters hotel when the conven-

tion was not in session, was not this time noticeable. From noon of the day before the meetings opened up to a late bedtime the Washington Hotel's broad lounging spaces were thronged with delegates who with many expressions of gratification renewed old acquaintances and formed new ones. Three ex-presidents were there and many other men of repute, with whom the members from widely scattered locations fraternized in the most wonderful way. Experience in convention meetings extending over a period of eighteen years, makes it possible to declare that there never was a more satisfactory social gathering. That this intimate acquaintance among delegates resulted in more actively conducted sessions cannot be disputed.



PROF. EMERSON

Undoubtedly the Institute is yearly increasing its influence as the representative organization in the profession of architecture, and it is not unreasonable to contend that the closer and more intimate relation among the members as a result of these informal meetings "out of hours" during conventions, is creating a spirit of enthusiasm and a better class of teamwork.



PROF. HOWARD

Second Day

WEATHER conditions during the second day were in delightful contrast to the day preceding. The severe rainstorm had blown itself out, and a cloudless sky and a brisk, cool breeze served to enliven the proceedings.

The convention continued the regular routine business and then proceeded to the nomination of officers and directors. All candidates nominated for the office of president, save D. Everett Waid, having withdrawn, it was moved, seconded and carried with much applause that Mr. Waid's nomination be made unanimous. We believe that this is the first instance in the history of the Institute that a candidate for president has been unopposed.

For first vice president, the names of Edwin Bergstrom of Los Angeles, and Ellis F. Lawrence of Portland, Oregon, were placed on the ballot, while for second vice president Abram Garfield of Cleveland, and Charles Butler of New York City were opposing candidates for the office.

The morning session closed with an interesting talk by Robert Taylor Jones, technical director of the Architects' Small House Service Bureau of the United States.

PROF. GOLDSMITH

Of the afternoon session, of which H. Van Buren Magonigle was chairman, we believe it can be truthfully stated that no more constructive or deeply interesting and dignified meeting was ever held by the Institute. The topic for discussion at this meeting, as set down in the program, was, What is Precedent Doing to American Architecture? The papers read, including that of Mr. Magonigle, were all pertinent to the topic, as announced, but differently stated by the different speakers. Mr. Magonigle spoke of Plagiarism as a Fine Art. Professor Cram discussed The Value of Precedent in the Practice of Architecture. Mr. Steele discussed The Use of Precedent in Architectural Design, while Mr. Willcox asked and answered the question, What is the Use of Precedent Doing to American Architecture? It was Professor Boring alone who adhered to the title as set forth in the program. At the close of this meeting there was an expression of strong approval of all the papers presented and it was generally agreed that a very great and dignified contribution had been made to the literature of the architectural profession. Further, the sentiment was, without exception, expressed that these papers should be printed and widely distributed, not only among the profession, but through every channel where a wider knowledge of their great importance might be extended. In this feeling The American Architect heartily concurs. On another page of this issue the address of Mr. Magonigle will be found, and this will be followed in succeeding issues by the other papers until all are printed.

The special luncheon at the Washington Hotel on this day was under the direction of the Committee on Industrial Relations. It was very

largely attended. The feature of this occasion was a series of five-minute talks, the principal speakers being W. Stanley Parker, D. Knickerbacker Boyd and Robert D. Kohn.

PAST PRES. KIMBALL

During the morning session a resolution was adopted which declared that all public architecture of the United States should reflect the highest standards achieved in private and corporate work, and that this end may be attained with the lessening of work on the government bureau and the arousing of more local interest by a provision in appropriation bills for the employment of architects in private practice.

The result of such steps in the past was pointed out by the Institute in the creation of such works as the Lincoln Memorial, Freer Art Gallery, National Museum and Treasury annex and other notable national and state buildings.

HARVEY W. CORBETT

The evening session was devoted to Institute business and to a discussion of the reports of the Committee on Architectural Relations and on Competitions.

The Third Day

THE enthusiasm and strong expression of approval that marked the meeting of the preceding day had not diminished on the morning of the last day and before the convention was called to order, wherever delegates were assembled, the one topic was the discussion of the excellent program of Thursday's meeting. "Undoubtedly," said one man, "this is the most constructive and the most dignified convention of the Institute that has been held for many years." Said another, "The Institute has arrived and today it is more representative of the architectural profession than ever before."

ROBERT D. KOHN

The morning session was given up entirely to unfinished business and the report of the Committee on Resolutions, and was adjourned promptly at the opening of the polls at 11 o'clock.

The luncheon at the Washington Hotel was a get-together occasion and was enjoyed by every delegate.

In the afternoon session the announcement of the election of officers was made. The result of the ballot is as follows:

President and Director
D. Everett Waid, New York
First Vice President and Director
Ellis F. Lawrence, Portland, Ore.
Second Vice-President and Director
Abram Garfield, Cleveland
Secretary and Director
Edwin H. Brown, Minneapolis
Treasurer and Director
William B. Ittner, St. Louis
Director, Fourth District
Nat Gaillard Walker, Rock Hill, S. C.
Director, Seventh District
William J. Sayward, Atlanta, Ga.
Director, Ninth District
Sylvain Schnaittacher, San Francisco

The following honorary members were elected: Edward Bok and Charles Custis Harrison. The following honorary corresponding members were elected: Charles Herbert Reilly and John Alfred Gotch.

W. S. ALDRICH

At 3 o'clock a reception was held at the Bureau of Standards by the Honorable Herbert Hoover, Secretary of Commerce, Dr. George K. Burgess, Director of the Bureau of Standards, John M. Gries, Chief of Division of Building and Housing, and other prominent officials of the Government. This reception was largely attended.

The program of this convention may well serve as a model for later gatherings. It was marked by a very serious intention to accomplish practical results and it did just that. The informal luncheons, each a most enjoyable and practical occasion, took the place of the more formal dinner. The junketing trips were omitted and the time formerly set apart for those affairs was spent on the floor of the convention in the most constructive and progressive work.

DONN BARBER

A man who would not be thrilled to receive the warm expression of respect and confidence that marked the presentation of the resolution to make D. Everett Waid's nomination unanimous, and later when his election was proclaimed, must be a

J. M. WHITE

PERCY C. ADAMS

H. VAN BUREN MAGONIGLE

PAUL F. MANN

stoic. It is undoubtedly gratifying to the president-elect to know that he was not the candidate of a faction, and that it does not become part of his work during the next year to overcome opposition. Perhaps never in the history of the Institute has a president been elected under similar conditions. That Mr. Waid will make a good president may safely be predicted, and that he will labor to increase the dignity of the Institute and make it thoroughly representative of the profession of architecture is certain.

The meeting on Thursday afternoon was the high water mark of convention proceedings for many years. The enthusiasm evoked was long and sustained. It was the keynote that will set the program for the future. A policy so very fine and dignified, an attitude of culture and the highest expression of the art of architecture can safely be placed in Mr. Waid's hands for development.

D. K. BOYD

Any account of this convention would be incomplete that failed to make mention of the valuable activities of E. C. Kemper, the efficient executive secretary of the Institute. As usual since Mr. Kemper's incumbency, the machinery of the convention was in the most perfect working order. No question, however unnecessary, no demand for service, however unreasonable, could ruffle the temper of that well balanced young man. Much of the comfort enjoyed by those who attended this memorable gathering is largely due to the efficient direction of Kemper and the organization under him, drilled to the most perfect performance of fine teamwork.

The Next Convention

THE next annual convention of The American Institute of Architects, embracing its more than thirty-five chapters throughout the United States, will be held in New York, April 20 to May 2, 1925. It will undoubtedly be the most important meeting of the Institute held during its ninety years of existence, and it will also mark what will probably be the largest national exhibition of architecture and the allied arts ever held in this country. Joined with the Institute in this undertaking will be The Architectural League of New York, now entering its forty-third year of consecutive service and numbering an active membership of more than one thousand artists. It is the present intention to hold this exhibition in the Grand Central Palace. It is announced in a very well prepared circular that the exhibition will fol-

EXEC. SECY. KEMPER

N. MAX DUNNING

MILTON B. MEDARY

BEN J. LUBSCHEZ

low throughout the high standards set by these two representative organizations. It will undoubtedly furnish an exceptional educational opportunity not only to the members of the profession throughout the United States, but also to the public, by establishing under one roof a visual contact with every phase of architectural practice and the arts and crafts to which architecture is allied.

CONVENTION NOTES

THE exhibition of the work of winners of the Institute medals to recognized Schools of Architecture and of the Paris Prize winners of the Beaux-Arts Institute of Design, held on the gallery on the floor above the Hemicycle, was a point of interest during the convention.

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Delegates showed considerable interest in the illustrated lecture by Robert T. Jones who described the work of the Architects' Small House Service Bureau. Mr. Jones' remarks were illustrated by lantern slides. An illustrated pamphlet, giving a number of designs accompanied by plans and valuable notes, helpful to the man who contemplates building, should be of valuable assistance. This pamphlet may be had by addressing The Octagon, Washington, D. C.

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The reception at the Bureau of Standards by the Hon. Herbert Hoover, Secretary of Commerce, and Dr. Burgess, Director of the Bureau, was enjoyed by all the visiting delegates, excepting those who failed to connect with the returning buses.

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Fraternizing among delegates was never more active than at this convention. The efficient work of the get-together committee was largely responsible for this. In fact the social intercourse was so very general that the omission of the formal dinner and the usual junkets did not matter.

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A great many delegates visited the exhibition in the Corcoran and Freer galleries, and were interested observers of the work of the student classes in the Corcoran gallery.

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L. E. Robinson, of Baillie & Robinson, Peoria, was a Central Illinois Chapter delegate. He is building an Ernest Flagg house, the material being furnished by various dealers, as a model house demonstration. Just how they will dispose of it is, as yet, not decided. When it is finished it is hoped that his report of costs and other interesting data will enlighten us more than Cory did in Collier's.

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At the Friday evening session Goldsmith of Kansas described the parlous state of the brethren in Bleeding Kansas. It seems that the twelve Institute members are beset with a vast number of architects who clamor for the privilege of "submitting sketches" on the least provocation. The same situation obtains in other "hinterlands." Suggestions were made that the Institute authorize regional groups or chapters to interpret the competition code as the local situation may require. Myron Hunt, Southern California, got into the discussion and incidentally indulged in reminiscions concerning I. K. Pond, Chicago. Everybody looked at Pond. Then that Old Roman unjointed himself and becoming detached from his seat at the top of the amphitheatre, with great dignity descended to the pit. In simple, forceful language he told of the thirty years' struggle, made by the Institute, to develop the competition code to its present state. To permit a chapter or regional group to waive any of its provisions would simply nullify the work of years and destroy the influence and integrity of the Institute. The Institute might as well close up shop. Those who were, through their sympathy for the Kansans, becoming convinced that a departure was justified, swung back into line for strict adherence to the code.

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When Harry T. Stephens, New Jersey, discussed his report on Architectural Relations, the subject of "pack hunting" came up. Corbett, New York, wanted more light. Chubb, Columbus, made certain explanations of such practices in Columbus and called on Myron Hunt, Southern California, to give more light. Hunt gave a very lucid explanation of the practice. As represented, it seems to be a fine arrangement of defense and offense. THE AMERICAN ARCHITECT will give complete details in the near future.

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George Awsumb, Tennessee, said that the Municipal Auditorium (Memphis) would be completed in June and predicts a great success for it.

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D. Knickerbacker Boyd, Philadelphia, has a scheme which has been adopted by some organization in Philadelphia, of giving certificates to every one on a building job, from architect to waterboy. Our $18.00 per day bricklayer will now be a *diplomé* and want $28.00 per day for condescending to work for us.

* * * * *

H. H. Turner, Grand Rapids, drove over from the Rapids with Mrs. Turner and their son. He figures that a week out of school could not be more profitably spent by the boy. Turner didn't lose anything himself by attending the convention.

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Charles E. Fox, Chicago, made himself known as befitted a very successful president of the Illinois Society of Architects. They should re-elect him next month to maintain the high standards of Society presidents. Both the Chapter and the Society are lucky to have his active attention.

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Indiana was represented by Foltz, Cannon and Daggett. Harrison was also present. They say that Daggett's Athletic Club is the "last word." He can do it.

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Howard Greenley, New York, seemed greatly to enjoy the Magonigle Troubadours who performed so brilliantly Thursday afternoon.

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After the Thursday lunch in the grill room of the Hotel Washington, Robert D. Kohn, New York, arrested the departing delegates by his forceful and eloquent oratory. He opened and closed the topic of Building Congresses. W. Stanley Parker, Boyd and Fenner also spoke. It looks as though the Congress has made good. When Kohn as Chairman of the Industrial Relations Committee and an officer of the New York Building Congress gets busy, something happens—and to the good of the Institute and the building industry.

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Frank G. Dillard, Chicago, has left the architectural bureau of the M. E. Church and as Rowe, Dillard and Rowe, plans many churches as well as other structures.

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Alfred Granger, President Chicago Chapter, was on deck commanding his worthy crew, among whom were Armstrong, Hammond, Dunning, Cheney, Fox, Dillard and other worthies.

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Among the "double duty" men, serving as delegates and as members of various state registration boards, were E. S. Hall, Chicago; Lorch, Michigan; White, Central Illinois; and Arthur Peabody, Wisconsin, who also is State Architect and Acting State Engineer when at home.

The PRESIDENT'S ADDRESS

[To the Delegates to the Fifty-Seventh Annual Convention]

IN spite of a horizon not always unclouded, we have had a year of general architectural prosperity wherever industrial and commercial activities abound; but in those areas dependent on agriculture, the depression of a year ago continues, is rather intensified, in fact, with no apparent relief in sight although the malady is engaging the attention of many minds. And yet once again, in spite of a horizon still clouded here and there, the outlook for the present year is reassuring, judging from the volume of building permits, credit available for building operations and the volume of steel bookings recorded during the first three months of 1924. The dawn of a better spirit of good will in matters international, forecasting, let us hope, an early adjustment of many perplexing post-war difficulties still further encourages an optimistic architectural outlook.

The present Board's activities have, I believe, measured up to the record of former administrations in steadily advancing the interests of the profession. The problems which today engage the attention of our Committees and members are proceeding by slow evolutionary changes toward solution or are constantly acquiring those new aspects that indicate healthy growth.

The practice of holding Executive Committee and Board meetings in widely scattered sections of Chapter activity continues to give satisfaction; wherefore Chapters desiring joint meetings may be encouraged to send invitations to the Institute's Secretary, with the understanding that no elaborate entertainment is expected; in fact Chapter courtesies should be confined to such informal luncheons and dinners as will involve only the slightest outlay.

Two successful Regional meetings have been held, one in Mr. Steele's, the Sixth District, and one in Mr. Favrot's, the Seventh; both have demonstrated the value of such conferences. They provide convenient opportunity for discussion between officials and members, now all too rare on account of the vast area embraced within the territory of the Institute. Distance and expense, in both time and money, prevent a very large percentage of our members from regularly attending Conventions; to those members these Regional meetings are full of promise for in their regular recurrence something approximating Convention opportunity is afforded. It is the earnest hope of your President that each Director will, during the coming year, see to it that a Regional Conference is held in his district. Three such Conferences could be held in conjunction with as many meetings of Institute officials each year, thus insuring direct and local contact with the Executive Committee or Board of Directors once every third year.

With no disparagement of any of the arduous duties of our Institute Committees, I would fain direct particular attention to two committee reports.

The task assigned to the Public Works Committee, covering as it does such a wide range of possible usefulness to our profession and our art, demands our united encouragement. The Federal Government is at present deep in the problem of reorganizing the Federal Departments—a reorganization that will include the proposed Department of Public Works and establish architectural relations with the Government upon an entirely new basis.

You will recall the so-called Jones-Reavis bill, which, in 1919, proposed for architects a direct voice in Departmental Committees, and which was abandoned, giving place to the present plan as recommended in the Brown report wherein those charged with the interests of public architecture are to be left without direct contact with the heads of the Federal Departments, thereby greatly curtailing the influence of this division upon the future of our public architecture.

The Public Works Committee has been alive to this danger and will present in its report an outline of the conditions found and various resolutions intended to better those conditions and to bring about a closer and more effective relationship between the Federal Government, our profession and the Institute that stands for it, and the art of architecture.

In view of the importance to architecture, to the Government, and to the membership of this Institute, of the matters with which the Committee on Public Works is charged, I bespeak for the Committee and its offerings your most earnest support. I would have you consider well the resolutions that will be proposed, and give them your hearty adherence.

I would also direct your attention to the report of the Committee on Community Planning as one of the most vital documents ever submitted to a Convention. It is unnecessary for me to dwell upon the problems with which our urban communities are faced as their growth accelerates at a rate never before known in history. Coincident with this growth increasing attention has been given to the principles of city planning, and to the study of these principles and their relation to architecture, your Committee has given a long and patient attention.

In the conclusions presented in the Committee's report we discover that architecture the art, is not the master but the servant of our method of city building, a method which has grown up all unconsciously and with the results of which we are now face to face. The problem is a momentous one and the search for its solution is a challenge to the art and practice of architecture. For, let us never forget, our individual achievements in plan and design can never produce the type of community in which human beings can live and work with pleasure and grow constantly toward a fuller and nobler life, unless the basic plan be a sound one. Let us therefore accept the challenge and with patience and diligence insist that architecture resume the leadership which is its very birthright.

The almost universal adoption of the competitive system of judgment for student work and the uniform standards of criticism threaten to create, if they have not already done so, a standardized approach to the study of architecture and its problems, which, if blindly persisted in, may through the mere easy workableness of the system become a dangerous menace to the healthy development of individuality which, after all, is possibly the greatest claim we can make for architecture as one of mankind's most civilizing agents.

I wish to add my tribute to the general recognition which our membership accords to our several Committees—both standing and special—and to their chairmen who have guided the work during the past year—a work becoming ever more exacting as it becomes more important to the Institute, the profession, and to its great universal client—the public.

I would extend this personal tribute of a retiring President to those fellow officers whose generous and untiring help has made his administration not only what it has been in usefulness to the Institute but a broadening and pleasurable experience as well. A tribute that would be inadequate did it fail to reach our genial Executive Secretary and his most efficient staff.

To the retiring Treasurer, Mr. Waid, the Institute owes a debt of gratitude. His devotion to the interests of the Institute, his careful guidance of its finances, and his sound administrative ability have won for him the admiration and deep appreciation of the whole membership, I am sure.

The Questionnaire of the Committee on Architectural Relations has aroused widespread interest. In the response by more than twenty-five per cent of the entire membership —active, honorary, and retired—there has been made clear the great changes that have come to us as the inevitable result of the war—changes that are but in the early stages of what will be a remade world—with, I trust, a human race ready to listen as well as to talk.

The unexpected number and the general distribution of those who responded to the Questionnaire, together with the widespread desire to add to the inquiry begun, has provided a field for continued exploration—to the end that we may appreciate, among other things, the facts of our mammoth territorial dimension and the corresponding divergence of opinion—which go to show that locality must

be an ever increasing factor in the solution of our relationship problems. It would seem wise to press this form of questioning until the voice of an actual majority has been recorded. From the analysis of such a record an authentic pronouncement on many of our most vital problems may then become possible.

An interesting development in this connection shows how variously the word profession is interpreted and how universally it is reverenced. A timely development as well, in that 1924 has seen the establishment of an International Professional Men's Club, devoted to the wider recognition and firmer establishment of the professional idea. In response to the expressed desire of our membership, a meeting has been called for the evening of Thursday to be devoted to the discussion of this subject and the report of the Committee having it in charge.

In the line of future activities for the Institute I am pleased to announce that arrangements have been made for a joint exhibition to be held in New York at the time of the Convention in 1925. The Russell Sage Foundation sponsoring the Commission having in charge the development of a Regional Plan for New York City joins the Institute in this program for holding an International Conference and Exhibition of Community Planning. The Architectural League of New York joins us in assembling an exhibition comprising architecture and the allied arts covering the whole range of the building industry.

Institute members are strongly urged to see to it that their contributions to this great joint exhibition are worthy. We are reminded in this connection that our own exhibit held every third year, will be included in this effort, and our members may look forward to a Convention in 1925, exceptional in brilliancy—a Convention of National significance and value—a Convention at which we may rekindle our enthusiasm, our love of design, of color, of line and form, leading us more clearly and wisely to interpret our own individuality and the art of our people and of today.

Since its reorganization in 1914 The American Institute of Architects has become a compact and vigorous professional society. Its form of government by Convention, Officers and Directors, operates in principle and in fact on a truly democratic basis. Its administrative, committee, and other activities, as prescribed by the Convention, or by the Board of Directors, are effectively conducted. The influence of the Institute with the Press, the Public, and the Governments of our cities, states, and country is most gratifying, when one considers the smallness of our number and the slenderness of our financial resources. Thus may we fairly conclude that we have developed our organization and administrative arms to a most satisfactory and commendable degree? And yet in looking backward over the past few years and over my own term as President, a question has arisen in my mind in quite a definite form, a question which I pass on to you. It is a question that I cannot answer, which perhaps you cannot answer, but it is one which we must answer sooner or later. I therefore leave with you this question:

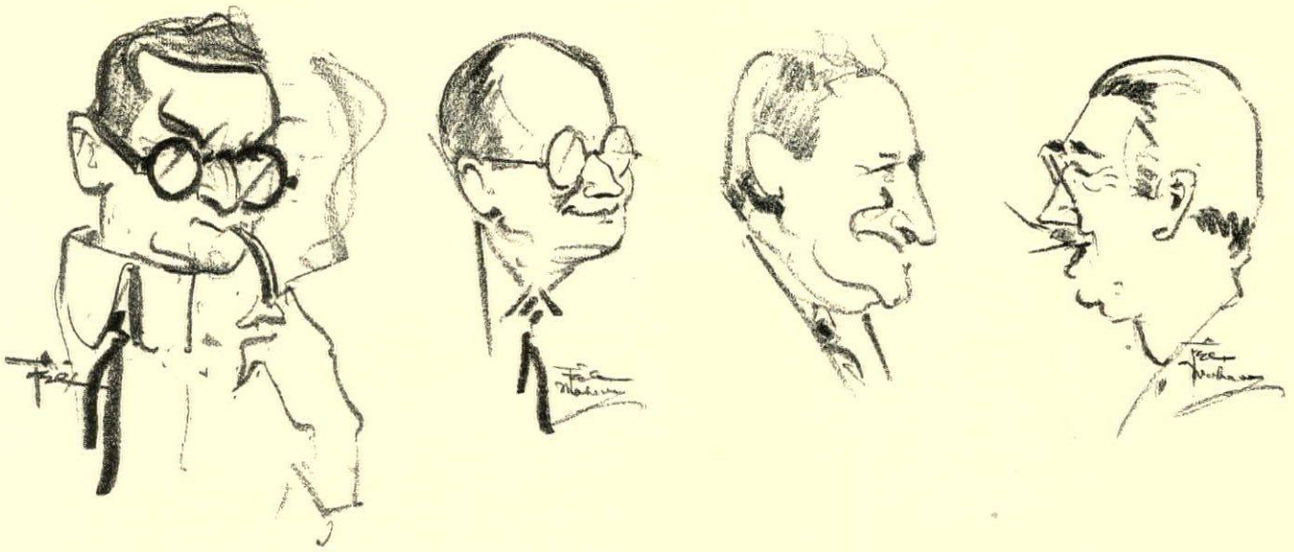
Is the Institute furnishing to the architectural profession as a whole the highest form of leadership?

Let me confess at once that the nature of my question is spiritual, that I find myself deeply wondering as to whether in the perfection of our technical contributions, and in our unceasing effort to fulfill the material obligations laid upon us, we are not forgetting that architecture is an art of which the very essence is of the spirit of man. And if it seems a far cry, in these days, to things of the spirit, must we not remember that our whole architectural heritage is utterly spiritual in its significance? It is therefore with that in mind and with the thought before me of our great profession, both within and without the Institute, with the picture in my mind of the thousands of young men who are to follow in our footsteps and take up our tasks, that I ask my question.

"WE can train the student to draw, we can teach him to theorize, we can instruct him in history, and we can show him how to construct buildings, but routine instruction will not teach him to design. We can put all kinds of knowledge into his brain, but design has to come out through his soul. Design comes from that divine love for beauty, and the gift divine for its expression which is given but sparingly to the minority, and in fullness to only a favored few.

"It is comparatively easy to feel something one must express in painting and sculpture, but really to feel it in architecture, and to be able to express it, is the mark of genius."

Extract from an address delivered before the Convention by Professor William A. Boring.



THE CHAIRMAN AND THREE OF THE SPEAKERS AT THE AFTERNOON SESSION OF THE SECOND DAY FROM LEFT TO RIGHT: PROF. RALPH ADAMS CRAM, MASS.; WILLIAM L. STEELE, IOWA; W. R. B. WILLCOX, WASHINGTON, AND H. VAN BUREN MAGONIGLE, CHAIRMAN, NEW YORK

PLAGIARISM *as a* FINE ART

Opening Address of H. Van Buren Magonigle, Chairman of a Special Meeting held on the Afternoon of May 22

WHEN the President of the Institute asked me to organize and conduct a session of the Convention this year, he gave me a free hand in the choice of topic and of the men to treat it. It appeared pretty obvious that the subject worthy of devoting a whole session to must be one of real and deep significance to the profession and be in the public interest as well. And it seems to me that nothing to do with architecture is of such vital consequence just now, in these days of readjustment to the conditions of a world awry, as to direct the thought of the whole profession, those now practicing and those who will take our places, toward the future of American design. If art be, as I believe it to be, the expression of the civilization that gave it birth, the inexorable recorder of the taste, culture, and intellectual and spiritual level of that civilization, then we architects have a grave responsibility toward contemporary society that its taste and ideals may be worthily expressed and recorded for posterity. Shall the record be an inspiration or a warning?

It was clear to me also that I must choose my coadjutors from the profession itself, since only designers may discuss design with that degree of insight we may not expect to find in even the most enlightened and intelligent laymen. And in surveying the available field I have chosen men who not only represent differing schools of thought and disparate training, but who are eminently qualified by all their talents to make valuable and constructive contributions to the subject. They need no introduction to you. They are William A. Boring, Ralph Adams Cram, William L. Steele, and Walter R. B. Willcox. Professor Boring will, I hope, not object to be called an Authoritarian, Cram I trust will not flinch from the designation Mediaevalist or even Gothicist, Steele is of that school of which Louis Sullivan was another notable exampler, Willcox may be called a progressive eclectic. I shall have something to say also but just where to place myself I know not—the Classicists I understand won't have me, and the Gothicists repudiate me, which permits me to roam at large in that delicious and irresponsible freedom known only to the excommunicated. Geography, which is to say environment, has a lot to do with moulding a man's ways and habits of thought and I took that into consideration also in framing the list from which the ultimate choice was made: Cram from Boston, Boring trained in New York and Paris, Steele in Illinois, Willcox in Boston and Philadelphia and the far Northwest, myself chiefly in New York.

As the chairman of this session, I have seized the opportunity to have the first word—and perhaps the last as well.

The most difficult part of the task was to find a name for the subject to be discussed. I knew perfectly well what it is, but what to call it on the program: Something urbane, something non-explosive, something safe—but not so safe as to make the delegates decide to go somewhere else this afternoon. Various titles suggested themselves—The Use and Abuse of Precedent—The Architect and His Use of Precedent—Adaptation or Creation—Collation or Design—all of these and others came to mind. At last Mr. Kemper suggested the official title—What is Precedent doing to American Architecture? But I will not conceal from you my own preference, which is Plagiarism AS A FINE ART.

For, ladies and gentlemen, we architects in America have raised plagiarism from the low estate in which it languishes in the other arts and professions to the rank of an art in itself and one highly esteemed. We applaud its successful practice by each other, we educate our public to applaud it, and our public responds with enthusiasm and rewards us by bestowing further opportunities for its exercise. Before you damn me quite for such a statement and bristle at it as a base betrayal of a guild secret, let us consider together and see whether I am far wrong.

In literature, the undergraduate who borrows the thoughts and phrases of any other man, living or dead, is plucked if he is found out; in our schools of architecture the unfledged plagiarist gets a medal—the fact that he is unfledged has nothing to do with his not being plucked. The mature writer, novelist, poet, dramatist, who appropriates the intellectual capital of any other author, living or dead, is universally condemned and the offense is rare.

In music, that subtle and elusive art in which it would seem almost impossible not to repeat harmonies heard perhaps years before, the composer scrupulously avoids the faintest far-off echo of the strains in which other musicians have sung out their souls; and should he perchance fail to do so by never so faint a recall, the critics and amateurs

of music instantly pronounce his work reminiscent and the value of his composition is nullified at once, in music the mere reminiscence of another's work is banned.

Pass the sculptors of the world in review and ask ourselves if they, in all the vast company of works they have wrought in the long history of their art, have not sedulously avoided the repetition of pose or gesture or character that has been used before. And what should be the fate of the sculptor who adapts another man's work, living or dead, to his own uses and calls it his own?

What of the painter? Is he content to repeat the concepts, the tones, the handling of light or of pigment of dead or living men? Is not his life devoted to the search for a meaning, a coloration, a technique, a point of view, that shall be his very own? The merest novice instinctively recoils from such heady flattery as the implication that he draws just like Michael Angelo; he wants to draw as well as Angelo but he wants to draw like himself, not another, however exalted.

It is their glory and their pride to be themselves, to be individual, these fellow artists of ours. In short, in the arts of Literature, Music, Painting, and Sculpture, plagiarism is not—well, shall we say, not admired? And the plagiarist, with us so envied, so emulated, and so rewarded, with them weeps and gnashes the despairing tooth in outer darkness.

Let us ponder these things well and then let us look ourselves square in the eye, perhaps in the sacred privacy of the bath room mirror, and ask ourselves whether we architects are plagiarists or not, and if we are, Why? And if we think not, then let us try to formulate a plausible argument to prove that while plagiarism in literature, music, sculpture, and painting is most justly to be condemned and its practitioners ostracized, it is different, somehow, in architecture, and excusable, even laudable. Or let any two of us look each other in the eye like the Two Augurs and try to keep a straight face as we solemnly aver that our work is our very own, individual and original and, above all, that it is appropriate to our own moment in history and exactly expressive of American ideals and of the civilization of the twentieth century in the United States.

Pecksniff, you know, used to add a water spout to a pupil's design and call it his own. May I descend to the vernacular long enough to suggest that Pecksniff was a piker?

Call it by all the gentle names we may, call it adaptation, refer to it as we used to in a certain office after a particularly flagrant piece of cribbing—"the old man has been anticipated again"—that which we commit daily and hourly is plagiarism; and the dictionary defines that as "the act of appropriating the ideas of another without due acknowledgment; literary or artistic theft." And you will not be surprised to learn from the same authority that a plagiarist is one who plagiarizes. I dare say we could distinguish grades of guilt, just as in law we have manslaughter, justifiable homicide, murder in the second degree and just plain murder. Let us extract what comfort we can from any excuses or sophistries we may construct, let us point with a finger trembling with resentment to the august figure of Shakespeare—the fact remains that the American School of Architecture of the present moment is essentially imitative, plagiaristic. I am not bound, I conceive, to name the exceptions which will confirm this rule; we may safely leave them to the apologists of the system.

There was a moment of great promise in the history of American design when it looked as though the influence of the genius of Joseph Morrill Wells would direct American thought toward a virile and fruitful eclecticism that would lead in its turn toward an architecture we could fairly call our own. Of all his work his last was his best and ripest. It is a fabric woven of so many threads of influence, visible and invisible, tinged with the memory of so many beautiful things, so subtly and cunningly wrought, controlled by so sure a grasp upon the technique of terra cotta, brick and marble, that it became under the hand of this lamented master a new and original work of art, respecting tradition but kindling a new fire from its slumbering embers. But Wells died in the very early nineties just as the great wave of building set in, and in the rush to keep up with the demands upon the profession the photograph and the monograph began to exert their deadly, pernicious persuasion. The World's Fair in Chicago came on and turned our minds toward Greece and Rome, and another Classic revival ensued. There was no time to devise new and native envelopes for the many and diverse new structures that were to spring up over night; and so began the baneful abuse of precedent which, from the expedient of busy hours became a habit; then a method, then was erected into virtue, and here and now, after a long and prosperous career, is being basely assailed. Dear Aunt Plagiarism: How sad it is to be betrayed by one of your old frequenters.

We architects know the reasons for our parlous state. We know how driven we are; how little time our manifold duties leave us in which to think or to invent; how often we have to take the shortest road to a result; and how easy it is to drift. We know too the popularity of Follow-my-Leader in our profession. We know that after the issue of every new book upon some freshly exploited corner of Europe with measured details complete, an eruption appears upon the face of American architecture just as inevitably as certain people exhibit a rash after indulgence in strawberries. Every new building, foreign or domestic, is the signal for a dozen or more illegitimate offspring with a fatal resemblance to the responsible parent. When the book on the Grand Palais was published about 1900, the façade designed by Girault, a natural development by a Frenchman of a style indigenous to France, the Louis Seize, had an immediate and immense vogue here, straightway American design displayed flat oval cartouches wherever they could be handily hung, and ropes of laurel which suddenly left the light of day and burrowed into the solid stone to ooze out below somewhere and hang limp, exhausted by labors no laurel garland is really fitted to perform.

Three or four years ago some new books on the work of the Brothers Adam appeared, work exquisite in its delicate strength and refinement, low relief in ornament and restraint in its use, a style eminently suited to the domestic scale of its period and destination. Instantly there was the usual race to use this fresh ready-made material. It was considered a triumph of genius to make your relief so very refined and flat that unless you caught it in a cross light you couldn't see it near the sidewalk; and its presence at the top of a twenty story building was a secret shared only by the architect and the birds. With a consistency one cannot sufficiently admire, our window reveals in buildings in the New York version of the Adam Style are becoming so slight that I for one walk on the other side of the way for fear a deep breath will pull acres of plate glass down upon me.

And just now in New York, because presumably of the notable success of a certain splendid bank building inspired by the Romanesque of Lombardy, there are signs of a coming epidemic of the crudities and *naïvetés* of the 8th and 9th centuries; and Christian symbols, the emblems of the four evangelists among them, adorn buildings of decidedly profane significance which is after all a kind of *naïveté*, isn't it? A sort of happy innocence, a don't-give-a-damnativeness that is enviable and rather charming.

Pillaging the defenseless dead is, one would think, bad enough; but what shall we say of the logical sequel, robbing the living, quite openly, without apparently any sense of its enormity, without a "by your leave or damn your soul or any other like civility?" I refer to the preposterous practice of using the several monographs that have appeared in the past few years, upon the work of living and practicing architects, as copy books in our drafting rooms.

If I had my way I should substitute for a certain unpopular amendment to the Constitution one forbidding the use of books and photographs to any architect after ten years' study of precedent and tradition in school or office.

I might go on and enumerate special examples of our favorite crime, our dearest vice, but I have said enough I think to indicate my meaning and your own memories will supply the omissions.

But perhaps someone is saying, "What does this fellow mean? Does he ask us to forget the past, forget the history of our race and of our art?" Ah no: he means no such thing. He is no iconoclast. He has a whole private Pantheon of strangely assorted deities that dwell together

in amity, collected in the course of what is getting to be a rather long professional life. No one believes more ardently than he in the just and true value of tradition and precedent. He believes that art must develop much as language develops. No man having something to say invents a new language to express his new thought; he uses the parts of speech familiar to us all, uses the alphabet of his race, and with these simple elements in new combinations makes us burn or shiver, tremble or exult. Each art must respect traditions of its past and develop new things with the old sap just as new leaves grow on old trees every spring. The leaf does not despise the roots hidden in the earth over which it quivers in the light of a new day. Mass and proportion, heights and widths, walls and openings, voids and solids, mouldings and ornament, light and shade, these are the simple elements of the language of architecture, capable of infinite modulation and variety, plastic to the expression of an individual temperament or of the genius of a nation.

In what I now feel to have been a beneficent pause in the pressure of professional life, the decline of practice during and since the War that afforded time for thought and appraisal, my thoughts on design have been turning, in a kind of intellectual and moral stocktaking, in the direction I am indicating here. I have been wondering whether it is possible to accentuate the vertical movement of a design if conditions of site, or light, or height, or use, suggest it, without its being Gothic or being immediately so labelled. May we not ourselves decline to think of it as Gothic, and regard it as the natural result of an economic condition, as the Gothic was of a spiritual? Is it possible to oppose to the strong light verticals of columns and their shadowy intervals corrective and balancing horizontal shadows without having what we do called Classic? Is it impossible, somewhere, some time, somehow, to have what we do called just architecture? Must we forever work in terror of the pestiferous maker of categories, who lurks, paste-pot in hand, ready to clap on a label the moment a piece of work is done. Above all, may we not fool him by ceasing to design things that deserve all the labels he can plaster on them through a long Summer day? May we not design an architecture firmly rooted in tradition, appropriate to its uses and therefore of infinite variety; free from freakishness as it is free of pedantry, from the timidity that shrinks from the responsibility of placing two buildings in a certain relation unless toilsome search through the books reveals the glad fact that what we propose has been done before by some braver soul; or from the revolutionary and unbalanced temerity that would sweep the alphabet of our race and art into limbo and substitute for it some impromptu and illiterate gibberish?

Do any of you remember Zenobia, the heroic queen of colonnaded Palmyra, who figured in our childhood's copy books? What would be thought of our penmanship today if we continued to reproduce the correct but colorless Spencerianisms of that copy book script? And what would be thought of our mentality if we repeated at frequent intervals as the staple of our conversation the statement, "Zenobia, Queen of Palmyra, was an heroic Queen." Might not our penmanship as that of mature men be described, by kind persons, as perhaps lacking in character, and might not our mentality with some show of Justice be rated as a trifle limited in expression? Yet what, after all, are the columns and order and details collected in Mauch and other compendia but the Spencerian script of school days? And the statement that Zenobia, Queen of Palmyra, was an heroic Queen, while a thrilling pronouncement in earliest youth, ceases to arouse a passionate interest after the first few hundred repetitions; but it is cognate to the old architectural platitudes we solemnly repeat as the phrases of our daily architectural speech.

I do not know of one architectural school in this country (and if I am doing one an injustice I rejoice in the exception and respectfully salute it) in which the basic elements of architecture are taught—to repeat the figure already used—as parts of speech. Of course we have the famous Orders; but we hear little in elementary instruction of walls and how to build and use them, of openings and how and why to place them, of void and solid and how to span and cover in these voids from solid to solid; of conceiving of architecture, not as a succession of styles ready made to our use, but as what it really is—the arrangement and modulation of light, of shade, and of shadow. Guadet has been crying the secret aloud to heedless generations of students and teachers. Viollet-le-Duc long ago suggested the rational use of precedent in the study of a problem. And in literature, Stevenson in his "prentice days," to use his own words, "played the sedulous ape" to the great masters of English, one by one, that he might penetrate the mystery of Style by a study of their styles; with the result that he formed a style of his own, rooted in the best traditions of the use of the English language, but so distinct, so personal, that a mere fragment of it torn from its context is recognizable anywhere. But the present day draftsman in America is helpless without a book open on the table before him, and a pair of proportional dividers to insure the accuracy of his crib lest he be chided by us, his chiefs and superiors, for departing from the copy we have set him. In Paris we spend years learning to evolve a design from the intrinsic conditions of the problem without looking at a book; but the moment the gang plank is made fast to these shores we yield ourselves to the embraces of the siren Plagiarism, unfair yet not unlovely, and so delightfully easy in her manners.

May we not solve an architectural problem in terms of the elements of architectural speech, constructing our own phraseology, developing our own idiom, instead of repeating the phrases and sometimes the entire compositions in which the men of generations dead and gone have expressed the ideals and the modes of thought and living of civilizations long since passed into silence? Must our minds, until we drop doddering into *our* last long sleep, go instinctively first, not to architecture as just architecture but to the thing represented by some qualifying adjective such as Spanish, Byzantine, Elizabethan, Colonial? Must we forever repeat the gestures to which the chlamys of the Greek, the toga of the Roman, or the hooded cloak of the Middle Age, are appropriate and graceful vesture? Is it impossible to be expressive, even eloquent, even beautiful in that virile garment the American pant?

Please observe that I am not dogmatizing; I am asking. This is not a lecture, it is an inquiry. And my contribution to this occasion, like those you are very soon to be privileged to hear, is directed toward one single end and that end is the stimulation of thought.

Now, if ever, in the dawn of a new and different tomorrow, is the time for self-searching, for ruthless self-criticism, for high resolve and for laborious and sincere endeavor to cease stammering in alien tongues and to develop and to learn to speak plain and clear, eloquently and beautifully, the language of our own day, the idiom of your own civilization.

I do not propose that we should rush out from here and instantly, in the twinkling of an eye, change the character of American architecture. I have always pleaded with impatient laymen for time for our profession to find itself. I know that we cannot evolve a national art with a true native content and accent in a few years. But is it not time to make a conscious and deliberate beginning; to cease to drift; to cease to borrow and commence to pay the world the debt we owe it? If we were mere tyros there might be some excuse for us as there was for the men of 1890, for they had no such supporting background as that they prepared for us. We have worked out our own skeleton, native and American, but we continue to drape it in the costume of Harlequin, a thing of shreds and patches from the European ragbag, too indolent or too indifferent or too ignorant or too driven to devise new garments for it; and the children of our fancy, poor things, are forced to figure in life in the garments of their great great-grandparents, cut down and made over—a process that fails to conceal their poverty. We could do better by them. I believe the American architect can do anything. But he is a captive in the squirrel cage of the styles; sooner or later, one by one, they all come 'round. If the styles would only die of fatigue and Style be born—and liberated.

For we have had a generation of design now. We are, as a school, sophisticated, even erudite—too sophisticated, too erudite—and there seems to be little sign of change in our ideals or methods unless a change from the style in which we make our buildings masquerade or from the man to whom we play the sedulous ape, a change from the deli-

cate sophistications of the Brothers Adam to the crudities and quaintnesses of the Lombard Romanesque, may be considered change. Of course I am speaking just here of what is going on now in New York, the town I know best. If this latest wave has not yet swept beyond the Palisades that are said to mark the New Yorker's Western horizon, fear not. It will: New York always gets these advance styles first—but I hasten to say there is no cause for jealousy in that fact.

Let us, in the silence of after-hours when every one else has gone home, or in the quiet of the office on a Sunday, sit down somewhere and think; remember our responsibilities as the pilots and guides of a new generation of mankind; pause to take our bearings, estimate the winds and the currents and our drift and so lay our future course that what we do shall shed luster on this, our own, generation; and men in ages yet unborn shall say—There were giants in those days, creators not collators, who gave richly but were too proud to borrow or steal.

The COMMITTEE REPORTS

THE reports submitted to the present convention are, if possible, more complete and voluminous than in previous years. The amount of labor necessary exhaustively to prepare the various matters of interest in report form shows a painstaking and conscientious sense of duty. Consideration of these reports in their entirety emphasizes a conviction long held that few, if any, organizations representing important professional and technical fields more thoroughly consider the vital questions that surround their work. This thorough work on the part of competent committees usually ends in the adoption of the reports with much enthusiasm. It seems a pity that interment in the archives of the Institute is their probable fate.

Competitions

THE interesting feature of this report is the inclusion of a series of communications from Institute members in widely separated locations as to the necessity for certain changes and modifications of the existing Code and Circular of Advice.

The report states in part:

Your Committee does not wish to appear to encroach upon the territory of the Committee on Public Information. We have no criticism to make of the excellent work of that Committee or the publicity work of the various Chapters. We feel, however, that the co-operation of all the committees affected is necessary, and that the particular policy suggested should be undertaken along lines of the broadest possible scope.

We believe that with Kansas calling for help, Kansas is a good place to begin and we, therefore, recommend that a campaign of education in Kansas be considered by the Board of Directors as the first step in a program which ought to extend over a period of, say, ten years.

Your Chairman was invited to attend two meetings, one private and one public, to explain the Institute Competition Code. This experience leads to the suggestion that a larger working budget would make it possible for the nearest member of this committee to visit a Chapter where a competition might be contemplated. Personal contact and advice will often do more toward straightening out a complicated situation than correspondence.

As to any modification of the Code as now existing, the only suggestion which has come to the desk of your Chairman is as follows:

"I am of the opinion that there should be some modification in the requirements for two stages for an open competition. That provision is there to eliminate inexperienced men, but I do not see that this accomplishes that result, inasmuch as a brilliant preliminary sketch may be submitted by an inexperienced man and if it is among the winning designs would entitle him to compete in the second stage. It is true that there is then an opportunity for the jury to notify such a winner that he must associate himself with a man of experience, but I do not see that it is any more embarrassing to do it in a one-stage competition than at the close of the first stage of a two-stage competition, otherwise, almost every condition of the program and circular of advice as now enforced, appears to me to afford the best and fairest arrangement for all concerned."

A suggestion from a member as to the wording of the "Circular of Advice":

"I think the Circular of Advice in relation to competitions could be rewritten so that it would approach the subject from the point of view of benefit to the owner and not appear quite so dictatorial as it now does. I sometimes feel that it has a tendency to antagonize the public towards The Institute, when what we are really trying to do is to work for fair play for all concerned and principally for the benefit of the client."

Your Committee hopes that it has been an efficient Committee in that it has promptly acted to the best of its ability upon the several Competition Programs which have been presented. It is painfully aware that it has no definite solution ready for the Kansas problem. Perhaps there may be no definite solution. We dream of a time to come when all architects, especially all who are members of the American Institute of Architects, may be competent and honorable. If that happy condition could be realized all our trouble would vanish and the need for this Committee would be purely formal.

Our little contribution to the literature and annals of the momentous subject "Competitions" may perhaps be the mere expression of the hope that what is done by future Committees, future Boards of Directors and future Conventions may be directed toward making architects more competent and honorable.

One of the most potent forces for the upbuilding of character is to recognize the elements of good will, the rudimentary sparks of honor that exist in men. Our most heinous sin against Democracy is our faith in legislative "don'ts." The word "Verboten" ought to be an American word. We have the big idea which it stands for. What is needed in the American Institute, it seems to us, is to set our faces toward the positive and constructive and away from the negative and destructive. It is time to show faith in our membership, to cease burdening our committees with watch-dog, tell-tale and police jobs. It is time to make of these committees dynamic sources of inspiration, leadership and helpfulness.

Mere "don'ts" will not change us. Those men who haven't had experience enough with competitions to convince them that "competition" is poor policy will continue, as they do now, to burn their fingers. On the other hand, the growth of a better understanding of professional practice both inside and outside the profession will lead architects to realize that a "competition," however well conducted, is not the best way to select an architect. There is need to employ our whole energy and effort to show our membership that the only right way to get work is,

first, to become and to be real architects; and second, to "go after" the work, as honorable gentlemen and not peddlers. We must show clients that we are not promoters or salesmen, but that we are qualified and able to help them build what they need.

Just a word as to policy. People have respect for a business policy if they think it is a man's personal belief and practice, but they become infuriated if they are told that the policy is a "rule" of an association or even of an "Institute." In dealing with the public stress should be laid upon the principles which underlie the Institute Code. If we understand these principles we can scarcely help believing them. If we honestly believe them, putting them into our daily practice is but a short step to take. When we have done so we may wear our Institute medal as a badge of distinction, infinitely removed from any suggestion of servitude.

Public Works

THE committee at the beginning of its report paid tribute to the memory of the late Frank L. Packard, whose advice and co-operation were an invaluable service in the matters on which the committee is working. Continuing, the report states:

There are apparently only two regular offices under the Federal Government which bear the title of architect—one the Supervising Architect of the Treasury, and the other the Architect of the Capitol. Neither of these offices is at the present time occupied by an architect. The architect members of the National Commission of Fine Arts are, therefore, the only architects now in official relationship to the Federal Government and these only in an advisory capacity.

The Tarsney Act, which formerly authorized the employment of architects in private practice for Government work, had been repealed a number of years ago, and the architects of the country are now only available for Government work through special acts of Congress in connection with individual appropriations or where special technical assistance is authorized in any general appropriation.

There had been no general public building bill enacted since the Act of March 4, 1913, and the report of the Secretary of the Treasury for the fiscal year ended June 30, 1923, states under the report of the Office of Supervising Architect that of the buildings authorized prior to the Act of March 4, 1913, there were 14 not under construction on June 30, 1923, and of the buildings, miscellaneous projects, etc., authorized by the Act of March 4, 1913, and subsequently, there were 125 not under contract June 30, 1923.

In 1919 the American Institute of Architects had cooperated with the Federated Engineering Societies in looking toward the creation of a Department of Public Works, in which all of the affairs connected with public construction might be co-ordinated, and in the organization of which the importance of the public architecture of the Nation might be recognized and its most distinguished expression made available. This movement resulted in the introduction of the Jones-Reavis Bill, providing for a Department of Public Works with several assistant secretaries, each a technically qualified man, directly under the Cabinet Officer, who would be the head of the Department. One of these would be an assistant secretary for Architecture. Efforts to secure the enactment of this bill were suspended when it was learned that President Harding had in mind a reorganization of all the executive departments and that a Joint Committee on Reorganization was at work on the broader problem. This seemed to offer the opportunity to suggest that the great volume of building required of the Federal Government, the large sums of money involved and the imperative demand for long delayed construction not only in the District of Columbia but throughout the whole country, might be met by the reorganization of the Supervising Architect's Office or the creation of a new Government agency.

In view of the situation your Committee recommends that the Convention consider resolutions embodying the following principles:

First, That a Government agency be established following more or less the form outlined by Secretary Cortelyou in 1908 and repeated and endorsed by Secretary Mellon in 1923;

Second, That means be found by which the Government can avail itself of the services of architects in the various sections of the country to the end that our public architecture may be kept abreast of the most distinguished private and corporate work;

Third, That the location and design for all public structures within the District of Columbia provided for in Senate Bill 2284, introduced by Senator Smoot, shall be in harmony with the Park Commission Plan of 1901.

In order properly to present the essence of this report before the convention and in a form through which the Board of Directors might work to secure desired results, a series of resolutions were presented by the committee. These may be read in the full proceedings later to be published by the Institute.

Community Planning

COMMENTING on the lack of interest shown in city planning by architects in this country, this report urges that architects should take leadership in these matters. "Today," continues the report, "the architect has abandoned city planning." How has this come about? is asked. In reply, it is set forth:

On the face of it, his indifference and his lack of initiative are surprising. The architect's work in planning the individual house or factory or office or public building is governed by the plan of the city; the layout of the roads, the location of traffic thoroughfares, the size and shape of lots, the innumerable legal restrictions that relate to height, air space, and mode of construction; all these factors touch the architect's proper job and help or hinder it. Over these factors, however, he continues to exercise little or no control. While in most foreign countries the architects are the principal city planners, in America others first created the mangled regularity of the gridiron, and still control the form of our cities' growth.

The situation is all the more curious for the reason that the architect's training as an imaginative and at the same time practical planner obviously fits him for leadership in this work. For lack of his guidance as a community planner, some of the most admirable achievements in American architecture have been rapidly buried under the debris that marks the unending transformation of the American city. Aside from the architect's potential opportunity for service to the community in preparing the mould that will govern its future growth and activities, one would, perhaps, think he would insist upon taking the leadership, if only for his own protection. On the contrary, the city planning movement has fallen into the hands of specialists who are chiefly interested in isolated phases of city development. The transit expert, the municipal engineer, the real estate broker, the sanitarian combine to exert a far greater pressure upon the architect than his individual client; for both architect and client must work within the rigid frame that these special interests have, at one time or another, provided.

It is all but hopeless for the architect to design sane and beautifully unless he can relate his individual works to a sanely and beautifully designed city, to a sane and beautiful community. If each particular work of the architect is to do its part, as the pieces in an orchestra perform their parts, it seems necessary that the architect himself should preside over the whole performance and take the place now occupied by the specialist who is connected only with the wind or the strings or the brass, or the arrangement of the orchestra's chairs. The architect's actual task

of bringing together all the arts necessary for the better ordering of cities and buildings has scarcely begun.

Following this preliminary statement, this report, one of the most exhaustive of the present convention, discusses with much detail the various phases of planning and the differences between city planning and community planning. In conclusion the report states:

It has not been our purpose to offer any final suggestions in this report. Our effort has been to define clearly the difference between two objectives, between city planning and community planning, between promoting commercial values and promoting primarily human values, between attempting to rectify the resultant defects of the traditional scheme of American city development, and centering upon the causes which lie at the bottom of them. Before any community can undertake to plan its future development, it must face this alternative.

The planning of communities is probably the greatest undertaking that we have before us. It is the making of the mold in which future generations will be formed. Plainly, it is not a task for one group, one profession; still less for any section of one group or one profession. Community planning is a co-operative undertaking. Its aims and its technique are of such a nature, however, that architects, because of their training and experience, should be fitted to take a leading and not a subordinate part.

In America we have never stopped growing long enough to diagnose the fundamental ailments of modern urban growth. Until we, individually and as a community, undertake this examination, the field for community planning will be limited, and the architect will continue to design, in subservience to the forces outside his work which are daily determining his milieu. Once our American communities are ready to alter, not simply their superficial physical characteristics, but some of their fundamental habits and traditions, then community planning will be possible. It is our belief that it will be to the supreme advantage of the architect to hasten this day. When it comes, his genuine opportunity for service to the community and his genuine opportunity as a creative artist, will come, too.

Architects are strongly urged to secure a copy of the complete report. It will repay the time spent in studying it.

Publications and Public Information

IT is proposed in this report to organize this committee on a national basis, in order that the functions of the architect and the necessity for his services should be better understood. There are many recommendations, not all of them based on an exact knowledge of just what "public information" really means, but in the main the committee shows a laudable interest in its work and a firm intention to extend largely its field of effort.

Allied Arts

THIS report shows so clear an idea as to just what are the arts allied to architecture, and the proper attitude of the profession toward them, that it is herewith printed in full:

We are living in a period in which the development of knowledge, skill and imagination on the part of the architects has far surpassed the development of these qualities on the part of the artists and craftsmen upon whom we are relying to supply the numberless objects, materials and treatments necessary to impart to Architecture the finished quality due to a proper blending of tradition and imagination. Study of the art of the past makes it evident that the variations by means of which we distinguish the work of one country or epoch from another country or epoch, have been largely contributed by the specialists called in for the enrichment or furnishing of the structure and, for the past century or so, the invigorating influence of this kind of contribution to the art of architecture has been almost nil.

The arts that we may regard as distinctly accessory to architecture are dominated either by technicians without much aesthetic training or by trained artists whose knowledge of the technique of the crafts through which their designs are to be rendered is but slight. The vitality of the art of Architecture in America today is displayed rather in finding new combinations and arrangements of traditional forms and details than in adding to architecture new motives and details.

The architect as the presiding intelligence in the general evolution of decorative art, in order to contribute his full quota to this evolution, must acquire more knowledge of the traditions and practice of craftsmanship than has as yet characterized his equipment and we would especially direct the attention of the profession to the allied schools of Architecture and the other arts now being carried on under the auspices of the University of Oregon.

The architectural sculptor and the mural painter on their part must acquire a fuller knowledge and comprehension of design and ornament and, thereby, put themselves in a position to contribute something tangible to such arts as stained glass, mosaic, woven textiles, printed textiles, faience, metal work and wood and stone carving.

During the past ten months your Committee on Allied Arts, of which the membership is sufficiently distributed over the country to cover a broad field of observation, has been on the alert in the desire to recognize and bring to the attention of the Institute members such accomplishment in the field of art and craftsmanship as might prove of special interest. In general, we note a steady improvement in the quality and intrinsic interest of many manufactured products. The falling off in the supply of technically trained designers, heretofore constantly recruited by immigrants possessed of a considerable amount of foreign schooling, has brought about a transitional period in which encouraging indications of an effort to break away from the foreign models which have, so to speak, been done to death, is generally observable; but the lack of any really comprehensive knowledge and training in the traditions of decorative craft on the part of our own men and women is still blocking progress and must for years continue to do so.

In spite of the excellent work now being produced in many parts of the country, much of which has been called to our attention by local members of the Institute, your committee has found no individual or association of individuals whose productions occupy such a place of eminence as compared with their competitors as to warrant the award of either of the medals which come under the jurisdiction of this committee and, for the present therefore, we merely bespeak for our successors a continued alertness and discerning interest in these matters on the part of all members of the Institute.

Registration Laws

THIS report briefly but clearly sums up just what has been accomplished up to this time by registration laws. The report states:

The answer which registration gives to the profession and the public is a program of education which at once results in placing the practice of architecture with those who have had preliminary and technical training equal to that required for the practice of any learned profession.

Any statute that fails to make this requirement is valueless.

The Institute in its model law and by resolution in Convention has placed emphasis on the inclusion of preliminary education as above cited. Notwithstanding the attitude of the Institute we find no provision in the statutes of eight states for any preliminary education whatever. The failure to include the foundation as a part of the structure has led to confusion in interstate practice.

Your Committee advises the Institute to use every possible effort to cause the laws in these states to conform to the expressed conclusion of its members. The enacted laws which do comply with the Institute ideals or rather logical conclusions, certainly render a great service to society, to the student and to the profession.

Technical education is, to a great extent, fixed by the leading schools of architecture in our universities. These courses vary but in general approximate. The graduate is usually in a position to qualify for his certificate to practice if he applies himself to his work subsequent to graduation.

What has been accomplished by registration laws? is answered; the person who seeks to practice architecture must be better trained in preliminary and technical education than the great majority of those who were before his time. He is now entering the ranks of architects and in the states where the advice of the Institute has been accepted, he is well prepared to take up problems in practice which but few of the architects of today are properly trained to approach. It is true that law cannot add to intelligence but it can provide the requirement that such intelligence that there may be shall be fed by education.

Preservation of Historic Monuments and Scenic Beauties

IT is gratifying to note that the work of this committee is producing such excellent results. It is learned that reports received from representatives of thirty-six chapters show an active interest and that results of the utmost importance are being secured. We have in the past been wasteful of our architectural heritage. It is the duty of this committee to see that this waste, amounting almost to sacrilege, is checked. Old landmarks have been saved from demolition and correctly restored, the defacement of public highways checked, and, in short, every detail that might properly seem to come within the scope of this committee most carefully looked to. The report concludes:

After extended correspondence with members in every section of the country, the conviction is deepened that there is no region so recently settled as to be without its landmarks, the loss of which would ultimately be regretted. Suggestions in some quarters that there will be more occasion for activity in preservation there fifty years hence, can be matched by the regrets that this activity was not begun years ago when many buildings now lost were still standing.

EXTRACTS *from the* REPORT *of the* BOARD *of* DIRECTORS

THE Board of Directors and the Executive Committee have not been able to hold their meetings in as many different parts of the country as they had hoped to, due to special emergencies that have arisen. The experience of past Boards and the one experience of the Executive Committee this past year prove that conferences between the officers of the Institute and groups of Chapters at their own headquarters are distinctly valuable to all parties concerned and the practice should be continued and developed still further if possible.

Regional Conferences

The reports of the several regional conferences that have been held during the past year, and the experience of the officers of the Institute who were able to be present at one or more of them prove beyond question the desirability and real value of these informal gatherings. The Board hopes that they will grow in popularity and that there will be many of them throughout the country during the coming year.

Finances and Octagon Property

The Board calls attention to the fact that the Institute owns free and clear of encumbrance the exceptionally choice property which serves as headquarters in Washington. Through a series of years the finances of the Institute have been steadily growing stronger; and that despite the war and disturbed business conditions.

The Endowment Fund has been built up for the maintenance of our property and at the same time a considerable amount of money has been spent in providing a new heating plant and in otherwise improving and protecting the Octagon House. For a number of years past the membership has been looking forward to the erection of a new building. This building should be an office and convention headquarters which will serve allied organizations as well as our own. The new building will supplement the Octagon House which the Board desires to see kept distinctly and solely for Institute use. The restoration of the Octagon House then can be completed in such a way that it will be at once an interesting and notable old Colonial mansion and an office, museum, library and Directors and Committee conference headquarters.

Membership

The total membership of the Institute on May 17, 1924, was 2,867, as against a total on May 16, 1923, of 2,714.

Chapters

The Board reports the addition of four Chapters to the Institute:

Grand Rapids Chapter	North Texas Chapter
West Texas Chapter	South Texas Chapter

Education

In the Treasurer's Report, the creation of the Henry Adams' Fund is announced. From the interest on this fund there will be awarded annually cash prizes in the archaeology course of the Beaux-Arts Institute of Design on the problem in medieval architecture, the amount not to exceed $200.00. This action has been taken by the Board on the recommendation of the Education Committee in the belief that in this way the Institute can best carry out Henry Adams' wish that the proceeds of the royalties on his book be applied to the stimulation of interest in early Christian Architecture.

Small Houses

The Board has reviewed with interest the report of the Committee on Small Houses, which is a synopsis of the work of the Small House Service Bureau. The Board regrets that so few architects have taken a real interest in

this valuable movement, and that the architectural magazines as well have shown no interest. Once more the Board calls to your attention the fact that this project, while placed on a business basis, is limited in its possible return on capital invested, and must necessarily involve a burden of expense to finance the work of the various Bureaus during their initial stages.

Universal Contract Forms

The Board reported a year ago on the development of the new Standard Contract Form, the result of the deliberations of the joint conference on Standard Construction Contracts, the Institute being one of the national organizations represented in the joint conference and the new form being based very largely on the present Institute Standard Documents.

During the past year the draft has been further slightly revised in phraseology and much improved in arrangement. The Board will present a resolution providing for full co-operation with the other national organizations interested in this movement and at the same time assuring full protection of the Institute's substantial interest in the present Standard Documents.

The Oldroyd Lincoln Memorial Collection

The Board learns with gratification of legislation proposed in Congress for the Governmental purchase and preservation of the Oldroyd Lincoln Memorial Collection, of objects intimately connected with the life of the great President. It respectfully urges upon Congress the enactment of the measure so that this collection may be preserved for future generations.

Industrial Relations

The Board wishes to record its pleasure over the results attained by this Committee during the past year. The position of co-operation with the Government, the American Construction Council, and others is most gratifying. The Board cannot emphasize too strongly the value and importance of the Building Congress movement. The architects should be the leaders in this movement, both in initiating new Congresses and in sustaining those now formed. The Board presents to the Convention the Committee's resolution.

Registration Laws

The Board wishes to recognize, as does this Committee, the notable and valuable work being done by the National Council of Architectural Registration Boards. The Board recommends as a further step in the line of proper registration that wherever possible architects apply for examination to the N. C. A. R. B., and so help toward the ultimate goal of reciprocal and satisfactory registration.

Co-operation with the Department of Commerce

The Institute has continued and expanded its co-operation with the Department of Commerce during the last year. It has two representatives on the Committee on Building Codes which is carrying on its work steadily and as rapidly as such work can be carried on. Many of the Chapters and individual members of the Institute have rendered valuable advisory service to this Committee. It also has representatives on many other Committees, such as Lumber Standards, which have accomplished notable results during the past year. It is also represented on the Advisory Council and the Board of Directors of the "Better Homes in America Corporation" of which Mr. Hoover is the President, and which is doing noteworthy work along the lines of small homes throughout the country. Here again many of the Chapters have given active co-operation.

Scientific Research Department and Structural Service Committee

The newly created Scientific Research Department with Ben. J. Lubschez, Director, and Leroy C. Kern, Technical Secretary, is functioning smoothly and gives promise of becoming a most important Institute activity.

Convention of 1925

The Board announces with anticipation that the Convention for 1925 will be held in New York. The details, so far as they have been worked out, are given in the Committee's report.

Associateship, Extension of Period

The Board believes that it is desirable to extend the probationary term for Associates from three years to five years.

Two-Year Term for President

The Board offers, as requested by the Sixth Regional Conference, but does not approve, an amendment to the By-laws providing for a two-year term for the President of the Institute and no re-election.

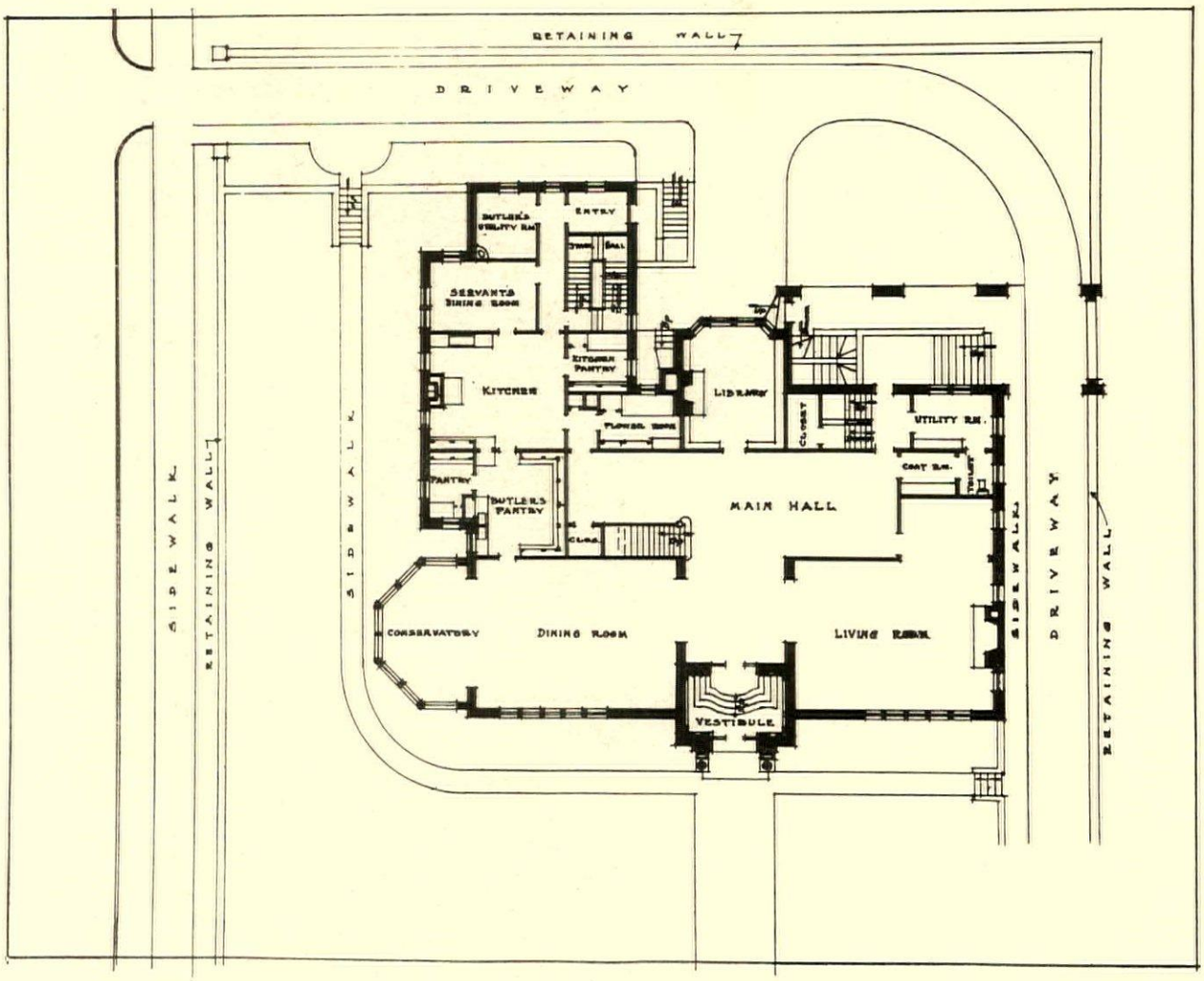
"THAT old idea that an architect is, or ought to be, an artist lies closest to the root of our difficulty. If we formally renounce it the whole trouble clears. There is no force in any argument against standardizing and copying everything. If we are not artists, who can do aught but praise if we follow the line of least resistance and devote our whole energy to reducing the cost of production, which copying certainly does? But somehow the old idea persists, and though some of us ignore it and some assume it, jackdaw like, others of us are worried about it. It is more or less generally believed by members of the profession and people generally that an architect becomes an artist when he becomes an architect. If we could only abandon that superstition once and for all, we might be able to start all over again and get somewhere."

Extract from an address delivered before the Convention by William L. Steele, F.A.I.A.

HOUSE OF CHARLES S. PILLSBURY, 100 EAST 22ND ST., MINNEAPOLIS, MINN.

HEWITT & BROWN, ARCHITECTS

(See plan on back)

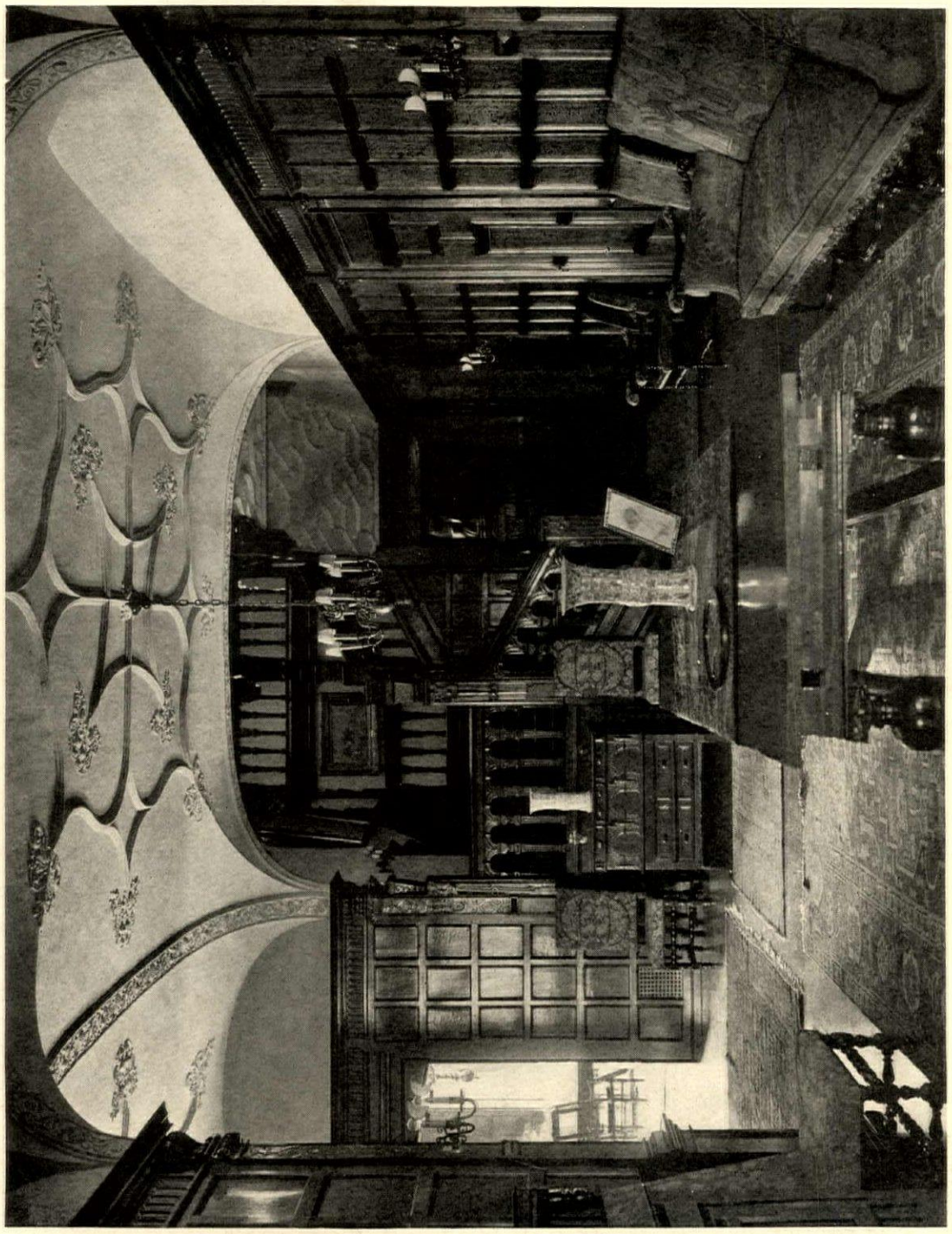


FIRST FLOOR PLAN

The exterior of this house is of random jointed Bedford stone. It should be noted that the window mullions are of stone throughout. There was question if there would be any disadvantage in having this stone appear in the interior in a climate like that of Minnesota. Means were devised to prevent any possibility of frost penetration and results have proven that such construction is perfectly feasible. The introduction of painted glass, more or less of the period, serves to relieve the large windows of much of their severity of line

HOUSE OF CHARLES S. PILLSBURY, 100 EAST 22ND ST., MINNEAPOLIS, MINN.

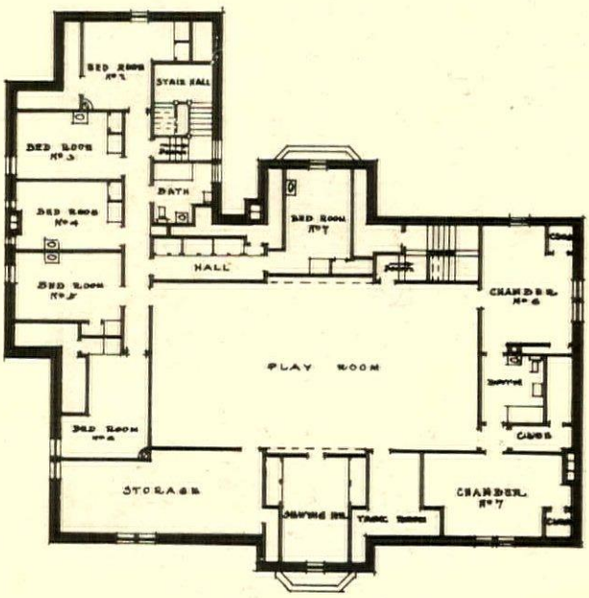
HEWITT & BROWN, ARCHITECTS



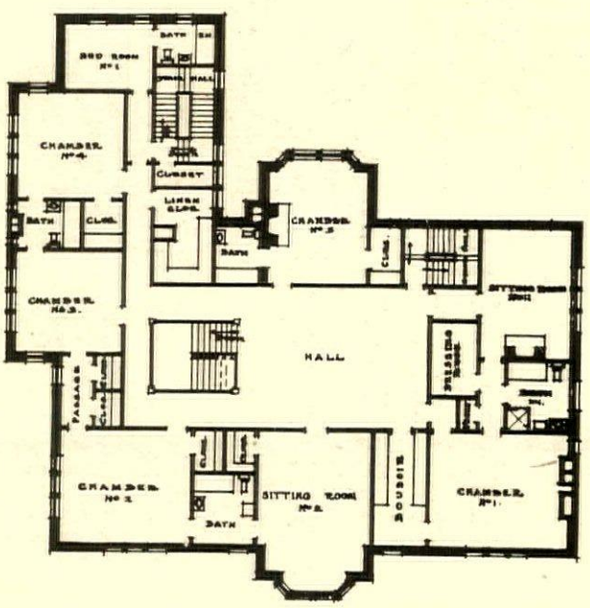
HOUSE OF CHARLES S. PILLSBURY, 100 EAST 22ND ST., MINNEAPOLIS, MINN.

HEWITT & BROWN, ARCHITECTS

(See plans on back)



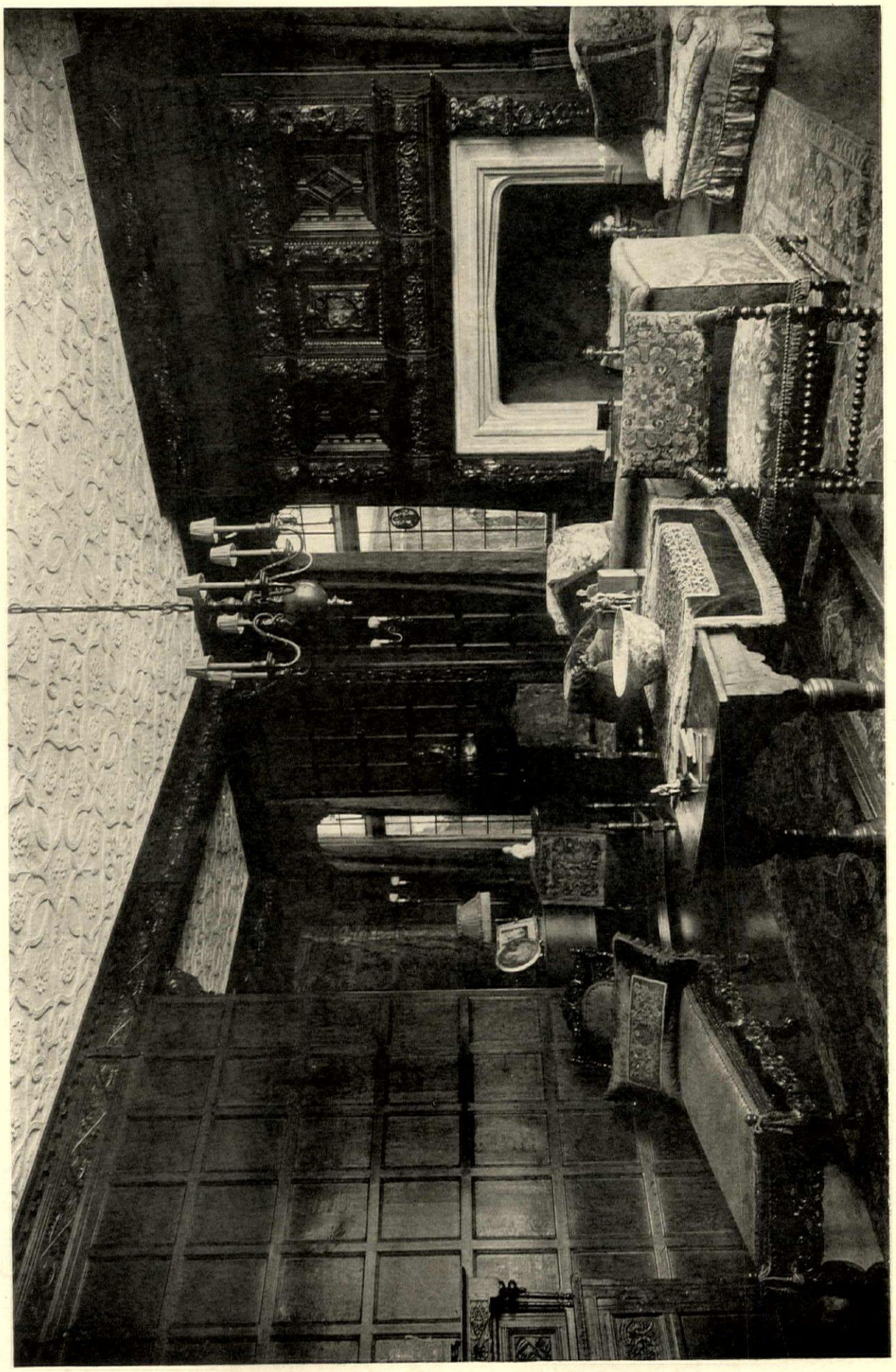
THIRD FLOOR PLAN



SECOND FLOOR PLAN

HOUSE OF CHARLES S. PILLSBURY, 100 EAST 22ND ST., MINNEAPOLIS, MINN.

HEWITT & BROWN, ARCHITECTS



HOUSE OF CHARLES S. PILLSBURY, 100 EAST 22ND ST., MINNEAPOLIS, MINN.

HEWITT & BROWN, ARCHITECTS

DINING ROOM

The hardware, the lighting and fixtures, locks and latches, throughout are of the period. The floor is of teak wood, screwed and pegged and finished to carry out the soft tone of the interior. It was possible to get excellent replicas of plaster ceilings to fit in with the entire scheme. This material came ready to set up. The furniture and rugs, to a large extent, were selected under the direction of the architects

HOUSE OF CHARLES S. PILLSBURY, 100 EAST 22ND ST., MINNEAPOLIS, MINN.

HEWITT & BROWN, ARCHITECTS

CORNER OF LIBRARY

After the construction of the house had proceeded for a considerable time, it became possible to purchase in England the oak panelling and the fireplace. Careful drawings were sent to England and the work was set up to exact measurement. The material arrived, ready to set in place. At this time the architects went over all the panelling and found that, with very few exceptions, practically the entire woodwork was genuine, over ninety per cent of the panelling being hand-riven and shaped, Park oak.

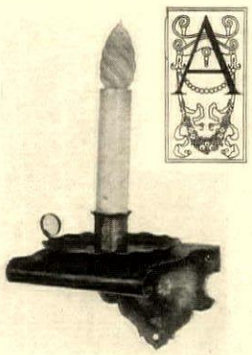
The fireplace in the library is of particular interest and unusual in quality as it is either the original or the copy of a piece dating from the great fire of London, 1660. It was sold to the owners as a replica, the original of which was supposed to be the property of a well known Eastern family.

HOUSE OF CHARLES S. PILLSBURY, 100 EAST 22ND ST., MINNEAPOLIS, MINN.

HEWITT & BROWN, ARCHITECTS

INTERIOR ARCHITECTURE

Decorating *the* Public Dining Room



WALL BRACKET IN IRON DESIGNED ALONG THE LINES OF THE OLD-FASHIONED CANDLE HOLDER

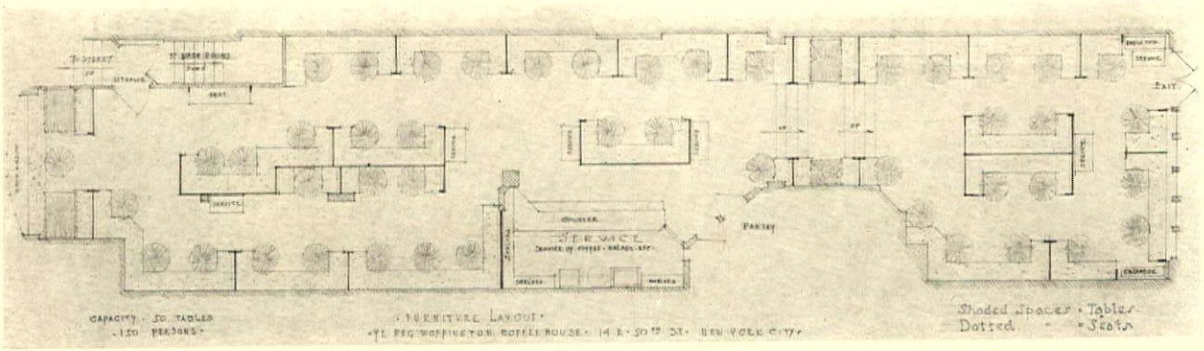
A RECENT article in this department dealt with the decorations and furnishings of the home dining room, in which it was stated that the decorative scheme for that room could lean perceptibly toward the radical or unusual on account of the interest which the decorations must stimulate in a room in which so little time is spent. Besides, the environment of the home dining room is so decidedly familiar and friendly that, in order to create interest, the decorations of that room must depart from the commonplace. The conditions with which the public dining room is surrounded call for quite the opposite. Home environment is entirely lacking there, and the main function of the decorative treatment of the public dining room is to affect a comfortable and "at home" feeling amongst its patrons. Properly to enjoy a meal served in any kind of room, one must be made to feel "at home," not in the literal meaning of the words, but in their colloquial sense; that is, to be at ease. Environment plays such an important part on our feelings that it must be carefully considered in weighing the various qualities which determine the decorations, as pointed out in the case of the home dining room. Then, too, the various types of patrons to which the public dining room caters and the different manner in which they interpret the expression "at home" must be taken into account.

In order to classify these various types of patrons, which, after all, are the determining fac-

YE PEG WOFFINGTON COFFEE HOUSE, NEW YORK CITY

RICHARD HAVILAND SMYTHE, ARCHITECT

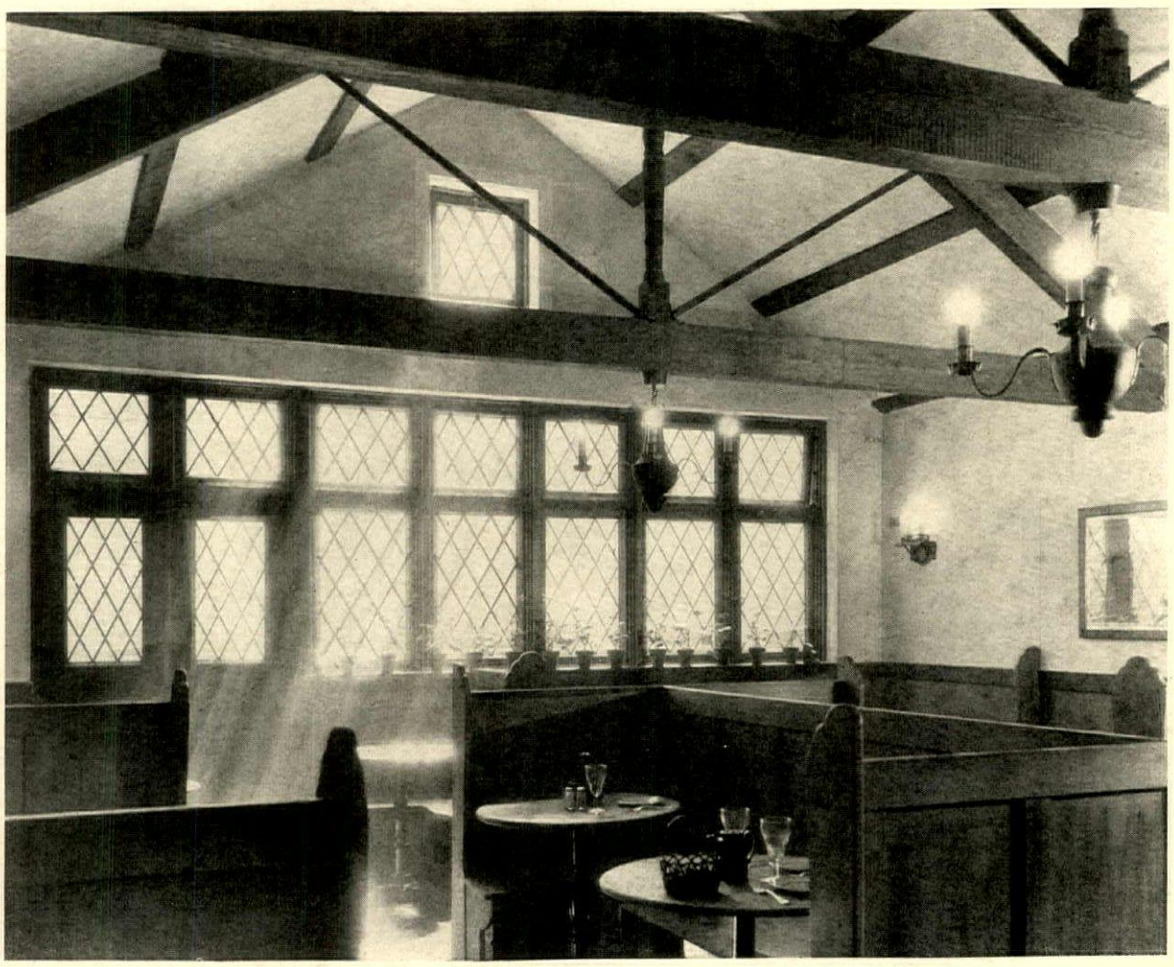
Looking toward the rear from the entrance door. The woodwork is all stained dark brown, walls and ceiling are rough plaster and the lighting fixtures are old iron. The floor covering is a composition product, lined off to represent tiles of various colors



FLOOR PLAN AND FURNITURE LAYOUT OF YE PEG WOFFINGTON COFFEE HOUSE, NEW YORK CITY

RICHARD HAVILAND SMYTHE, ARCHITECT

tor in choosing the decorative scheme, public dining rooms may be divided into three groups: the restaurant, the hotel dining room and the club dining room. Actually, each of these might be subdivided into classes in order to cover all of the different types of restaurants, hotels and clubs which might be mentioned, but, generally speaking, in the manner in which this article is to consider the subject, these three include all. It is, of course, understood that the class of restaurant located in a poorer part of a city where its patrons are drawn from a lower class of people cannot afford to be decorated in the same manner that one located in a more select neighborhood would be;



THE EXTENSION OF YE PEG WOFFINGTON COFFEE HOUSE, NEW YORK CITY

RICHARD HAVILAND SMYTHE, ARCHITECT

Several steps up from the main floor, is a room in real Tudor style. The roof trusses are of rough timber and the walls and ceiling rough plaster. The group of leaded casements makes the room bright with sunlight

DINING ROOM OF THE BELLERIVE HOTEL, KANSAS CITY, MO.

PRESTON J. BRADSHAW, ARCHITECT

The air of formality which is prevalent throughout a hotel must be carried into the dining room. The spaciousness of the room calls for so much repetition of motives that this feeling is further emphasized by the regularity and precision of the decorations. The decorations are in light shades throughout

nor would such decorations be appropriate. Similarly, the decorations of the dining room of a so called commercial or travelers' hotel would not be appropriate for the dining room of a hotel of a more social and select character; nor would a dining room of an artists' club be suitable for a university club. But a happy average can be struck, and it is this average type of restaurant, hotel and club that is here to be considered. The lines could be drawn in this way: the restaurant caters to an unrestricted patronage; the hotel, although literally unrestricted, draws its patrons from a limited class of people to which it is intended to cater; the club is actually restricted to its members. United in the usage to which they are put, to serve meals to their clientele in the manner and surroundings which they expect to find there, these three types of eating places must be treated radically different in architectural decorations and furnishings. What the patron of the hotel may consider comfortable decorations, the restaurant customer may consider stiff and awkward; what the club members may consider informal, the hotel patron may think common. There are no hard and fast rules by which to determine whether a scheme be formal or informal, dignified or familiar, stiff or homelike, but, taking the standard styles and periods as a basis, certain ones are generally accepted as expressing certain emotions better than others, and it is this which will help in solving the problem which confronts us. Most architects and decorators will agree, for instance, that the periods based on classic lines and principles tend to give a room an air of severity and formality; the more accurate in period details, the more formal its character. On the other hand, the early Italian and Spanish, and the Tudor in England lean noticeably to the other extreme. Between these two, there might be classed the panelled rooms of English design,

MAIN DINING ROOM OF THE CORNELL CLUB, NEW YORK CITY

FRANCIS Y. JOANNES, ARCHITECT

The room, carried out in decorations suggestive of the Georgian style, is dignified throughout. The wood panelled walls are painted in apple green which gives the room a most friendly feeling. The chairs, of informal and comfortable lines, add those desirable qualities to the scheme, while the floor covering in various soft colorings brightens up the room perceptibly

which, although dignified in their symmetry and detail, are yet informal in their proportions and lines. A table might read as follows:

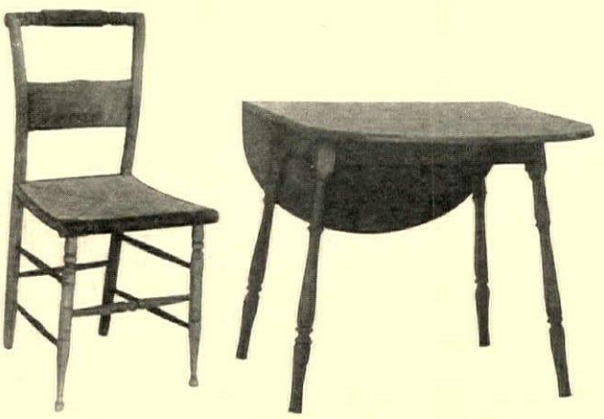
Formal	Semi-formal	Informal
Italian Renaissance	Jacobean	Tudor
Louis XVI	William and Mary	Early Italian
Empire	Queen Anne	Spanish
Adam	Georgian (Colonial)	Flemish

Let us consider, first, the restaurant. The radical is strikingly marked in its plan and environment. There is nothing in either one to suggest homelikeness or ease. Formality is ever present through its unfamiliar associations. A great deal of informality is needed to counteract their combined undesirable effect, which, however, must not be carried to a point of familiarity. Comfort, then, must be more suggested than actually evidenced, for it breeds familiarity. The architectural scheme should be selected, therefore, from one of the informal styles.

A new restaurant, recently opened in New York City, designed by a New York architect, is illustrated herewith as capably solving the problem of combining informality with suggested comfort. The Tudor style has been chosen as the inspiration for the architectural decorations, and the built-in seats and small round tables carry out the suggestion of informality and comfort to perfection. In an extension at the rear, which is approached by several steps up from the main floor, the Tudor details have been more accurately adhered to, where a raftered ceiling is supported by visible roof trusses, of rough timber. Rough plaster walls and dark woodwork further carry out the old English idea, while the composition tile floor covering affects the old-time tile perfectly at much less expense. The arrangement of built-in benches allows of a full seating capacity, the feature of which is the unusually large number of corner seats which have been formed. The architect claims, perhaps from personal experience, that people can make themselves feel more comfortable in corners, and has planned the seats to make as many as possible and practical.

The second group is the hotel dining room. Here is quite a different proposition. Formality is evident everywhere,—in its environs, its strange associations and its social conventions. Once more, the guests desire to preserve this formal atmosphere. That is their interpretation of ease under these conditions. Even comfort is sacrificed to keep formality. Formality, then, in a greater or less degree, according to the type of hotel and its patrons, is far and away the most conspicuous element of the architectural and decorative scheme of the hotel dining room. The illustration, shown herewith, of a hotel dining room, is representative of this idea. The decorations are of accurate Adam detail and, in their refined character, give an air of formality to the room. The more informal tone of the chairs and floor covering prevents the carrying of formality to an extreme, yet not allowing any loss in dignity.

This brings us to the third and last group: the club dining room. Literally, this is not a public dining room, but its membership represents so many different walks in life, that it has a certain public character, in one sense of the word. Environment here is always cordial and friendly, directly contrary to both restaurant and hotel. Familiarity marks its associations. However, its publicity, like that of the restaurant, must not be overlooked. Dignity, then, must be combined with comfort and informality. The main dining room of the new Cornell Club of New York, a photograph of which is reproduced herewith, has woven these two elements into an interesting decorative scheme. The walls are constructed of



Type of furniture suitable for the small, homelike restaurant. The design is entirely informal which is emphasized by painting the pieces in some friendly color, just as the old Italians did

wood panels from floor to ceiling, following proportions and details of the Georgian period, and present a most dignified effect. The entire woodwork of the room is painted in an apple green shade, typical of the Georgian period, with mouldings occasionally high-lighted. The ceiling is tinted in a harmonious soft yellow. The window draperies are of a dull red, which gives a note of peculiar interest against the green panelling, and all three colors, green, yellow and red, are combined in an unconventional design for the carpet. The design of the chairs, as well as the arrangement of the tables (with one large table in the center of the room), not only suggests, but actually gives comfort to the club members.

Just as certain styles and periods are said to satisfy certain inclinations, so are certain colors more truly suggestive of certain emotions than others. Opinions may not always agree as to what various colors suggest; rather, in fact, are per-

sonality and individuality added to a decorative scheme through this variance of opinion. It is difficult to class certain colors as suggestive of certain emotions, for, in conjunction with other colors in different proportions, as they are used in decorative schemes, they may suggest something quite the opposite. Under most all circumstances, yellow is the most generally liked of all colors and the most cheerful. Red may be called the most satisfying, in that it creates more interest than yellow. Blue is the most somber or dismal, while green is the most comfortable. The lighter shades of red, blue, yellow and all grays are more formal, and the secondary colors, especially those in which yellow dominates—orange and green—are more informal. While yellow is the most generally liked, it does not stimulate the interest that red does. With red, forming orange, it might be said to be the most satisfying and interesting of all. In a room where blue is very prominent in the color scheme, a great deal of yellow inclining to red is invariably introduced into the decorations. This is, of course, to brighten the somber effect of too much blue. Similarly, a little red will be added to a scheme in which green dominates, to give interest which the comfortable effect of the green lacks.

In the table of styles and periods, shown on a previous page, the colorings typical of the style or period have an important bearing on establishing it under the particular heading. The Louis XVI and Adam were invariably carried out in light shades, with dark tints only used to create contrast here and there. The Tudor style used dark tones in the woodwork and generally dark draperies, and tints of yellow or orange for the walls. The Georgian frequently painted the entire walls in dull green, and yellows and reds were combined with it.

The lines and proportions of chairs can as easily express feelings and emotions, and a little more consideration of that fact would create more unity in design between walls and furniture, as well as adding personality to the scheme. An illustration herewith shows three distinctly different types of chairs, one suitable for each of the three types of public dining rooms here considered. The first represents the formal type, for the hotel dining room. It is designed on Louis XVI lines, and there is no question of its formal character. The second shows the club chair,—informal in every respect. Its design might have been inspired by early Italian or English. The third is the informal but dignified type, suitable for the restaurant. It represents the Jacobean style of design. Its simplicity suggests comfort and informality, but its lines insist on dignity when within its embrace.

Three distinct types of chair designs, each expressing very different emotions from the others. The first is strictly formal, as required by the hotel dining room; the second is informal and comfortable, as used in the club, and the third is cordial and friendly, yet dignified, necessary for the restaurant

Architects are invited to correspond with the editor of this department in regard to any problem of interior design or the availability of materials. Acknowledgment is made to the following firms for their courtesy in supplying illustrative material: Albano Company, Inc., Brooklyn Chair Company, Century Furniture Company, Comly and Company, Thonet Wanner Company, Inc.

The LAW *as to* ARCHITECTURE

BY CLINTON H. BLAKE, *Jr., of the New York Bar*

THE difficulties of architects who proceed with work, without concluding sufficiently definite arrangements with their clients beforehand, are not confined by any means to the United States. I was in Montreal recently on the trial of a case and the Press, while I was there, reported a litigation which had been just decided, and in which the plaintiff, an architect, was endeavoring to collect his fees.

The facts appear to have been as follows: The architect claimed that he had conferred with the son of the defendant concerning the proposed construction of a house to cost not more than a fixed sum. The son submitted to the architect sketches of the proposed building, and the architect claimed that it was understood and agreed that these were to serve as the basis for the plans and specifications which the architect was to prepare. The architect prepared plans and specifications and claimed that he showed them to the defendant and that she was satisfied with them. He also claimed a special agreement on her part to pay him a certain sum for his work, in the event that he should succeed in obtaining bids for the house within a certain figure. He obtained two bids, both of which were slightly in excess of this figure. Later, according to the architect's testimony, the defendant advised him that she was not then ready to proceed with the building. He claimed that she should pay at that time one-half of the fees due for completing the plans and specifications. This she refused to do.

The evidence showed that the defendant, on the submission to her of the plans, criticized them in various particulars and then paid no further attention to them. The question arose, whether her examination and criticism of the plans and retention of them amounted to a ratification by her of the work done by the architect. It was agreed by both sides that she made no actual use of the plans.

Aside from the amount of the charge which the architect might, under the circumstances, make, and which would vary according to the facts and to local custom, the issues of interest in the above case are those dealing with the possible ratification by the client of the architect's acts, the extent to which the defendant is bound, if at all, by the acts of her son under the circumstances, and the effect of the agreement claimed by the architect that he should be paid an agreed amount, provided the bids were within a certain sum.

The court held that the defendant's son had no authority from his mother to act for her in the matter, and that she was not bound by his acts, as she had given to the architect no ground for believing that her son was her attorney. The court further held that the examination by the defendant of the plans submitted by the plaintiff and her criticism thereof did not amount to a ratification by her of the plans or the preparation of them; that she had made no use of them, and that she should not, under the circumstances, be compelled to pay for them. The architect's case was accordingly dismissed, and he was compelled to pay costs.

So far as the question of ratification in the above case is concerned, the holding of the judge that the consideration and criticism of the plans were not a ratification seems to be quite correct. This situation might well be varied, however, and a different decision arrived at, if a slightly different state of facts were shown. An examination of the plans by the defendant is inconsistent to some extent with an entire repudiation by her of the work done. The natural course for her to follow, when the plans were submitted to her would be to say that she had no interest in them, had never authorized anyone to prepare them and did not care to see them. If, in addition to examining them, her criticism had taken the form of suggestions indicative of her desire to make some use of them and to have the architect proceed with his work, and if her retention of them thereafter was such that it might be construed as an acceptance by her of the plans, implied from her failure to return them, there would be a possibility of the architect's recovering for the work done. This recovery, under such conditions, would not be defeated by the fact that the plans had not been used. The non-use of plans by a client cannot defeat the right of an architect to claim compensation for them, provided it can be shown that he was employed to prepare them in the first instance.

With respect to the alleged agreement that an agreed fee was to be paid, if the bids were less than a specified amount, it was clear that the architect could not claim this fee, unless the bids were less than that amount. This agreement might well be considered as a separate term of the

contract, however, and should not defeat the right of the architect to recover the reasonable value of his services, or the value of his services at the regular agreed rate, if the work did cost more than the amount specified. This is a quite different situation, of course, from that which arises where it is agreed that the architect's whole fee is dependent on the work not exceeding a certain amount. In such a case, the architect could not recover, if the fee did exceed that amount.

It is obvious that in this Canadian case, the architect would have spared himself the expense of a law suit and the loss of his fee, had he in the first instance confirmed the authority of the son to act. A few words in writing from the mother that the son was authorized to act for her, and that she desired to have the architect prepare plans and specifications, in accordance with such rough sketches as the son might submit, would have brought about an entirely different result and saved the architect from a substantial loss.

It is never safe to proceed with work in dependence on the authority of the agent who gives the order being ratified by the principal at a later date. Where an architect does this, he is taking a grave risk. If he wishes to take this risk deliberately, he may, of course, do so. He must not, however, blink the fact that in such event the foundation upon which his employment rests may be swept away at any moment, leaving him powerless to seek redress or to collect any compensation for the work which he has done.

LEGAL DECISION

A FIRM of architects brought action to recover the sum which they claimed was due them for professional services. It appeared that the architectural firm learned of the client's purpose to erect a church, and called upon the Committee in charge. One of the architects testified that he proposed to the Committee that they would prepare preliminary sketches and advise the Building Committee for a compensation of 1% of the estimated minimum cost of the building, this compensation to be payable upon the performance of the architects' services, irrespective of whether or not the sketches submitted were accepted. The members of the Building Committee denied this statement of fact, and testified that it was especially understood and agreed that the architects were only to be paid their compensation, in the event that some one of the sketches submitted by them was finally accepted by the Committee. The evidence showed that the matter was reported by the Building Committee to the Board of Trustees, and the Board of Trustees thereafter adopted a resolution which, in substance, provided that the officers were authorized to enter into a written contract with the architects, employing the latter to assist the Committee, for a commission of 1% on the estimated cost "of accepted sketches and four per cent for supervision as the work progressed." Thereafter, the clerk of the Board of Trustees wrote to the architects, stating that "Last Monday, the trustees met and authorized the Committee to employ you upon the terms and conditions you offered to the Committee." Upon receipt of this letter, the architects replied and wrote, among other things, as follows:

"Your letter constitutes a contract, as it stipulates that the trustees have voted to employ us upon the terms and conditions we offered to the Committee when we were in Spokane, namely, to prepare preliminary studies of your proposed buildings for a fee of 1% of the estimated cost.

"We are therefore hastening to prepare these preliminary studies and hope to be in Spokane within a few days to present same."

The evidence presented, as a result of the foregoing, a clear question of fact as to what the terms and conditions offered by the architects had been. The evidence given by the trustees agreed that the compensation was to be conditional on the acceptance of the sketches. The letter from the Clerk of the Board, referred to, contained a reference to the fact that the 1% covered accepted sketches.

The court held that the weight of the evidence was overwhelmingly in favor of the client, and that the fact, that the architects, in their reply, had not taken exception to the reference to "accepted sketches," was additional evidence in the client's favor. The evidence, without dispute, established further the fact that no sketch or plan submitted by the architects had ever been accepted by the client. It also established the fact that the failure to accept any sketch or plan had not been arbitrary. Under these conditions, the Trial Court had held that the fact was that, if no plans or sketches were accepted, no compensation would be due to the architects. The Appellate Court, on appeal, confirmed this judgment and held that the evidence supported the contention of the client and that, where a contract is entered into that architects shall be paid upon accepted sketches only, and no sketch or plan submitted by them is accepted by the client, and the failure to accept them is not arbitrary, the architects cannot recover. The judgment in favor of the clients was accordingly affirmed.

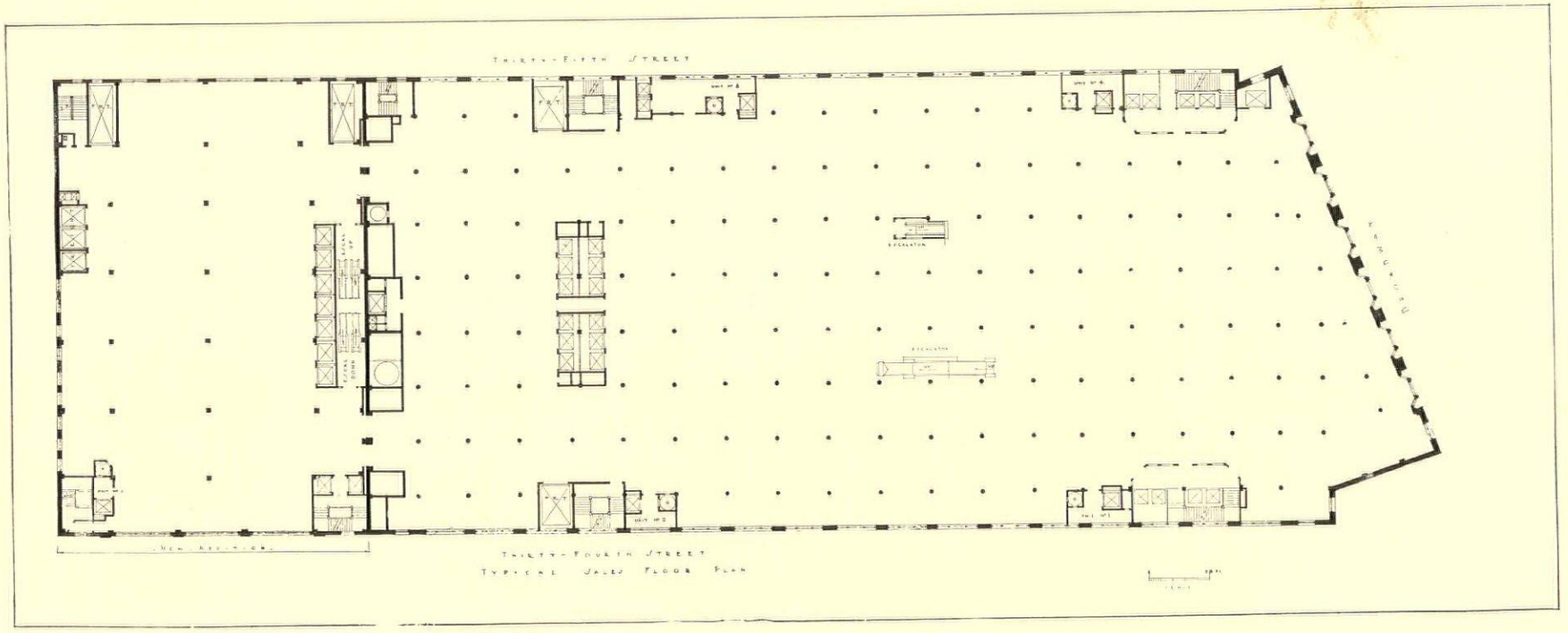
Baker et al v. Central Methodist Church of Spokane, (*Supreme Court of Washington*) 203 *Pacific* 977.

VIEW OF 34TH STREET FACADE

ADDITION TO DEPARTMENT STORE OF R. H. MACY & CO., INC., NEW YORK

ROBERT D. KOHN AND ASSOCIATES, ARCHITECTS

(See plan on back)



ADDITION TO DEPARTMENT STORE OF R. H. MACY & CO., INC., NEW YORK

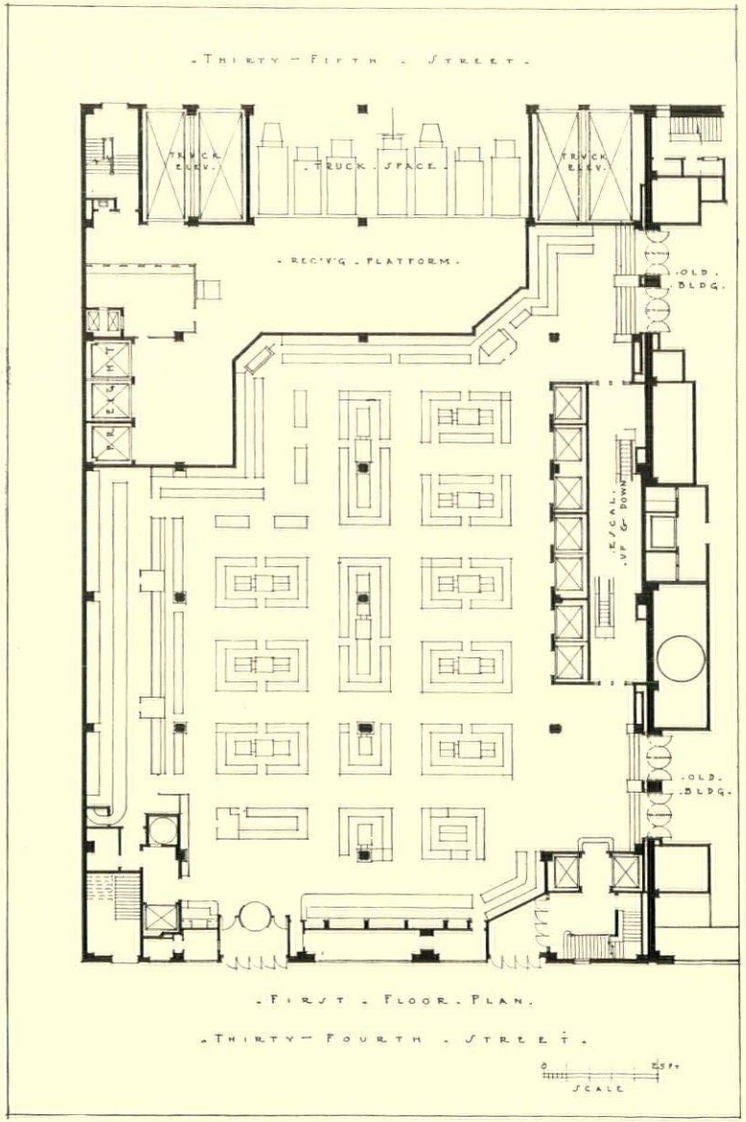
ROBERT D. KOHN AND ASSOCIATES, ARCHITECTS

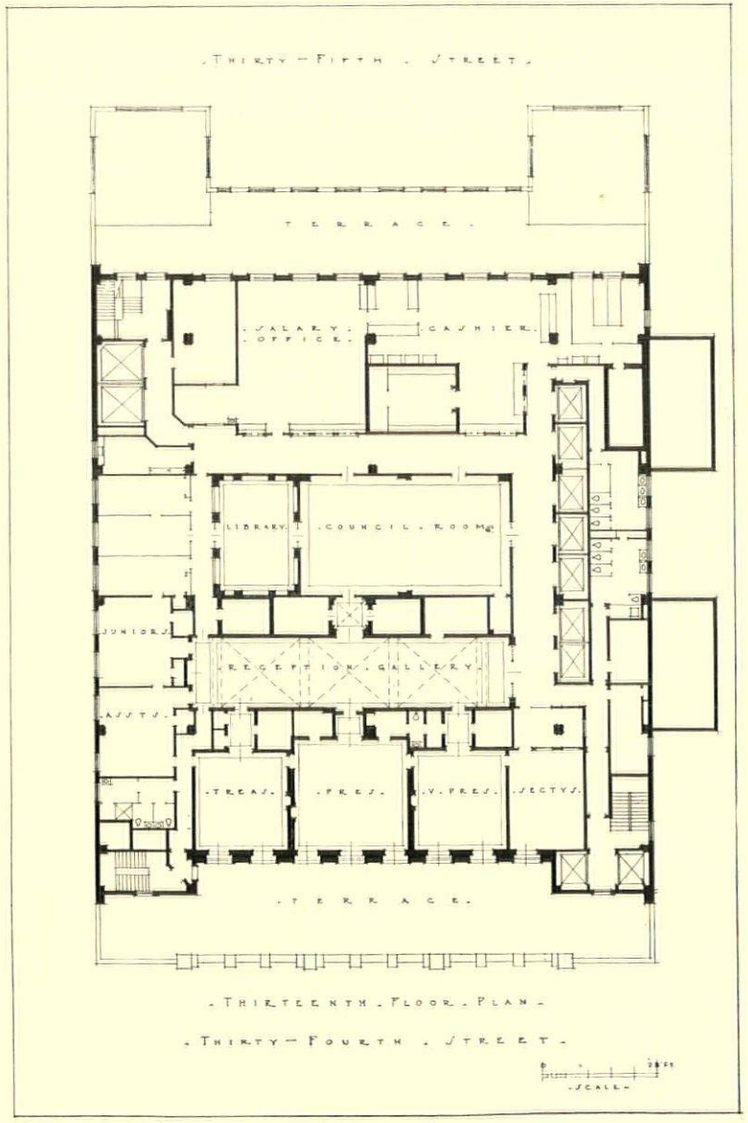
VIEW ON 35TH STREET

ADDITION TO DEPARTMENT STORE OF R. H. MACY & CO., INC., NEW YORK

ROBERT D. KOHN AND ASSOCIATES, ARCHITECTS

(See plans on back)





ADDITION TO DEPARTMENT STORE OF R. H. MACY & CO., INC., NEW YORK

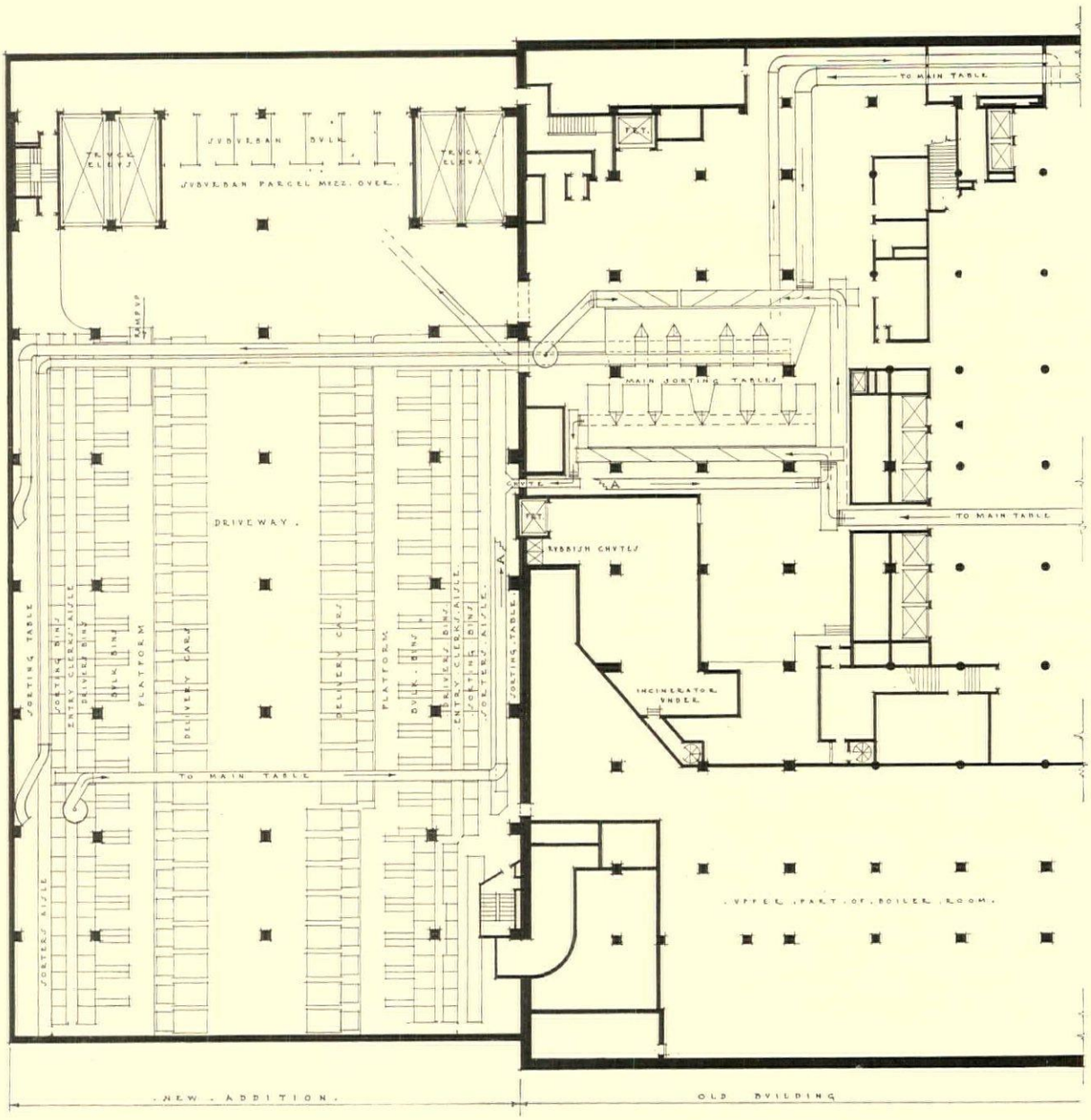
ROBERT D. KOHN AND ASSOCIATES, ARCHITECTS

VIEW OF LOWER STORIES ON 34TH STREET

ADDITION TO DEPARTMENT STORE OF R. H. MACY & CO., INC., NEW YORK

ROBERT D. KOHN AND ASSOCIATES, ARCHITECTS

(See plan on back)



BASEMENT PLAN
SHOWING DELIVERY SYSTEM.

0 5 10 15 20
SCALE

ADDITION TO DEPARTMENT STORE OF R. H. MACY & CO., INC., NEW YORK

ROBERT D. KOHN AND ASSOCIATES, ARCHITECTS

ADDITION *to* DEPARTMENT STORE *of* R. H. MACY & CO., INC., NEW YORK

BY ROBERT D. KOHN, F. A. I. A.

THE original building occupied by R. H. Macy & Co., Inc., was erected about 1900, the architects being DeLemos & Cordes. It is nine stories high with two basements and occupies a space 200′-0″ wide, extending from Thirty-fourth to Thirty-fifth Streets and 400′-0″, more or less, west from Broadway toward Seventh Avenue. A partial tenth story was added to the building about 1908 for the storage of reserve stocks. The floor area of this building is about 852,000 square feet, exclusive of the space occupied by elevators, stairs, plant, equipment and utilities.

The new addition, which has just been completed, adjoins the original building on the west and occupies a lot 125′-0″ wide with a depth of 200′-0″ from Thirty-fourth to Thirty-fifth Streets. This addition is nineteen stories high above the street and has two basements. It has a floor area of about 400,000 square feet, exclusive of elevators, stairs, escalator spaces, plant and equipment. The total floor area available in the new and old buildings, jointly, is about 1,252,000 square feet, or something over thirty acres.

The purpose of mentioning these facts is an interesting and important one, namely, that the percentage of the total floor space in the old building actually used for selling is almost the same ratio as that which results from the changes due to the addition of the new building. Fifty-five per cent of the total area is devoted to selling and forty-five per cent is used for administration, stock reserves, employees' accommodations and other purposes. If we add to these areas the actual space occupied by boiler and engine rooms and elevators and escalators, it is apparent that more than one-half of the total space in one of the largest department stores in America is required for purposes other than selling.

The enormous amount of traffic to be taken care of in an establishment such as Macy's is made evident by the fact that the original building was provided with fourteen passenger elevators and twelve freight or service elevators of various kinds and, in addition, with one public escalator from the first to the sixth floors. The completed plant, including the old and new buildings, is served by fifty-one elevators of which twenty-nine are passenger elevators, the balance of twenty-two being used for service. In addition to the escalator originally provided in the old store, there have been installed two additional runs of escalators extending from the first to the eighth floors and one escalator descending from the eighth to the first floors. In estimating the capacity of the escalators at Macy's it was found that the one original escalator had carried as many as between five and six thousand people, per hour, per story. Each escalator, therefore, had a capacity of between ten and fifteen elevators.

Aside from serving the public in a building such as the Macy Department Store there is the considerable problem caused by the arrival, departure and convenience of the employees. These facilities in the completed Macy establishment are arranged to accommodate a maximum of 10,000 employees. The temporary first-aid and hospital accommodations alone occupy a portion of the sixteenth floor in the new building. The most extraordinary feature of these accommodations is the fact that the dental clinic is provided with chairs for six dentists. The restaurant accommodation for employees consists of four cafeteria units, each capable of seating two hundred and fifty persons at one time, or a total of three thousand persons per hour.

The casual observer or customer of an establishment of this kind readily appreciates the provisions that must be made to serve the enormous number of customers and employees. To him a more unusual and not generally known problem is the necessity for providing facilities for the receiving, distribution and delivery of large quantities of merchandise. When the merchandise is received it is examined, marked and distributed to the several stockrooms which occupy the entire ninth, tenth and eleventh floors of the new building and to the stockrooms located in the old building. From these rooms the merchandise filters down through the building to the selling places and from there to the delivery department. All merchandise except furniture is received at the west end of the Thirty-fifth Street side of the building. From this receiving department it is distributed by means of small freight elevators, vertical conveyors or large van size elevators capable of lifting a ten ton motor truck up to the eleventh floor. From the storage area merchandise is distributed down to the selling departments by five service units which are noted on the plan. Each unit consists of an elevator and spiral chute. Each chute has three blades, two of which are used to deliver the goods from the stockrooms which are directly above

their selling departments on the lower floors; the third blade connects the selling departments with conveyor belts which carry the merchandise which has been sold, to a great double sorting table near the westerly end of the structure. From this sorting table it is conveyed by eight belts, each of which carries the parcels to a platform located either in the basement or sub-basement of the new structure. The delivery system of this establishment is divided into eight districts. The delivery department is located in the sub-basement which is 44′-0″ below the street level. Four large elevators, each capable of holding a large motor truck, extend from the street level to this sub-basement. Two of these elevators also extend from the street level to the eleventh floor. Bins and delivery docks are placed on both sides of the sub-basement with a distance of about 80′-0″ between them. There is sufficient dock frontage to permit of the loading of fifty motor trucks.

The new building has two basements, 22′-0″ and 44′-0″ below the street level, which are served by the motor truck elevators previously mentioned. These two basements jointly provide for the loading of about 100 motor trucks at the same time. The capacity of the parcel belt-conveyor system, the sorting aisle and the distribution system to the trucks is designed on a basis of handling between 60,000 and 75,000 parcels per day.

The west end of the original building was completely cluttered up with various service departments, mezzanine floors, elevators, conveyors and the great central staircase, all of which had to be removed in order to make a connection between the old and the new selling spaces. Some of these changes involved serious structural problems. These were less difficult to solve than the problems involved in conducting the work according to a schedule which would permit of the uninterrupted operation of the business during the time of construction. Active work on the design was commenced in 1919, and up to the time of completion more than four years had been spent in studies, design and construction.

The composition of the exterior was a most puzzling and important problem in the aesthetics of architectural design. The design of the original building was considered, at that time, appropriate to a commercial structure. The architects for the new building considered it to be impossible to design a nineteen or twenty story building, with the required set-backs, similar to the original structure, with another of the same character superimposed at the set-backs. The new addition was designed independently of the old structure except that certain horizontal lines were maintained to establish a proper relationship between the two structures. The problems involved in this designing were unprecedented as such requirements had never before been incorporated in a building of this kind. The success of this designing remains to be appraised.

The innumerable difficulties which were encountered at every point of this undertaking influenced the design of both the interior and exterior of this building. It is useless to attempt to enumerate them, as well as equally difficult to give due credit to all of those whose co-operation made possible the success of this project. The chief architect gladly acknowledges the invaluable assistance of his staff and associates. Among them extremely important service was rendered by the consulting engineer for the structural work, Major E. W. Stern; the consulting engineers for heating and ventilation, Werner Nygren and E. Krimmel, and the consulting engineers for electrical work, Messrs. Kaiser, Muller & Davies. Of the architect's personal staff John J. Knight was in charge of the office force with squad bosses George C. Culhane, Leon H. Hoag and F. G. Seelman. Frank H. Holden, A.I.A., throughout the entire undertaking, was in charge of studies and layouts for employees' cafeteria, lunch and locker rooms, studies for the storage of reserve stocks and plans and details for the delivery system, constituting a most complicated and exacting portion of the work. In the closing of his three years' work on this particular phase of the building Mr. Holden had the assistance of C. W. Adams of Martin C. Schwab, Chicago, consulting engineer for conveyor work. The counters, shelving and interior fixtures were designed and installed by C. A. Wheeler, Inc., Chicago.

A record of the construction of this building would be incomplete without mentioning the admirable service rendered throughout the entire operation by the contractors, Messrs. Marc Eidlitz & Son, of New York. Without their assistance the chief architect is certain that he would have become so wearied that he would have long since been carried to his grave.

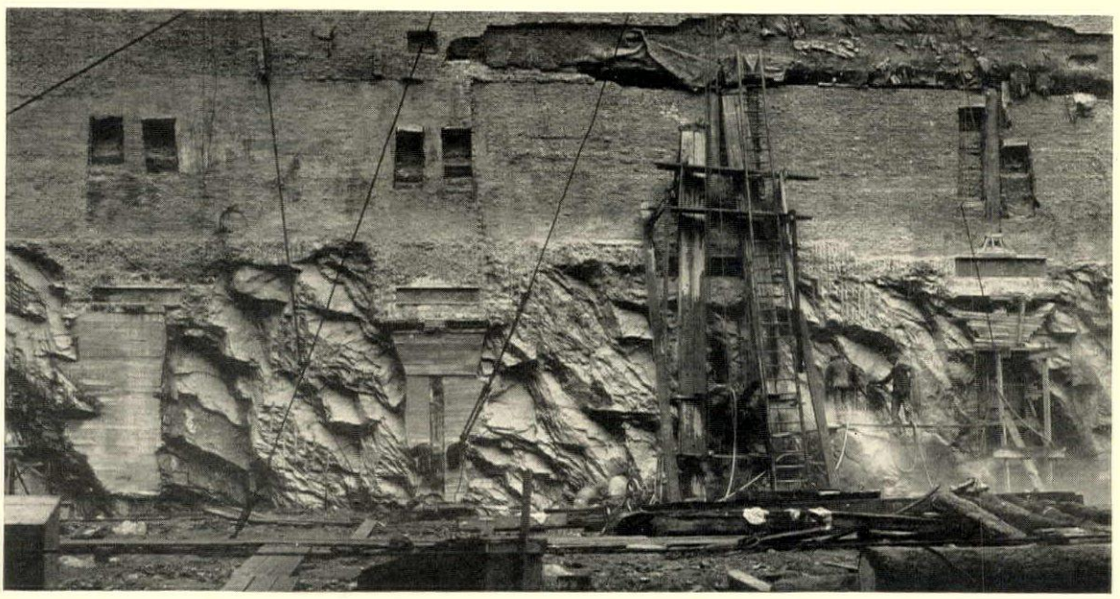
ARCHITECTURAL ENGINEERING

NINETEEN STORY ADDITION *to* DEPARTMENT STORE *of* R. H. MACY & CO., INC.

Structural Frame, Foundations *and* Details

ROBERT D. KOHN AND ASSOCIATES, Architects
EUGENE W. STERN, Consulting Engineer

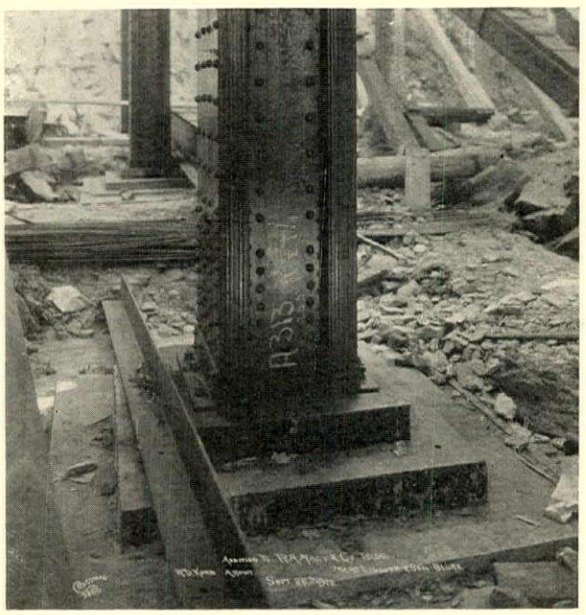
IT is important and highly desirable that a space devoted to retail merchandising has the least possible number of columns. By eliminating columns it is possible to secure a better arrangement of the fixtures as well as to afford better facilities for the circulation of the customers. The comfort and convenience of the customers are features which add materially to the attractiveness of a store. The providing of these advantages has a marked effect on the structural design of a building. Ordinarily the column centers in mercantile buildings are about 20′-0″ apart. On that basis the addition to the premises of R. H. Macy & Co., Inc., being 125′-0″ x 197′-6″ in size, would ordinarily be six bays wide with five interior columns and ten bays long with nine interior columns. This addition, as constructed, is four bays wide and seven bays long, eliminating two columns in the width and three columns in the length. The resulting floor panels are of quite unusual dimensions, the majority of them being 41′-0″ x 30′-0″ in size. A structural frame designed to comply with these conditions necessarily is of a greater tonnage than one of ordinary design. This small added cost is offset, to a certain extent, by the saving in the fireproofing and furring of the columns and the advantages of a space better adapted to retail merchandising.



VIEW OF WEST WALL OF PRESENT BUILDING, SHOWING STEEL STRUT AND CONCRETE UNDERPINNING OF EXISTING FOUNDATIONS. HEAVY TIMBER SHORES USED TO PREVENT LATERAL MOVEMENT OF THE EXISTING COLUMNS

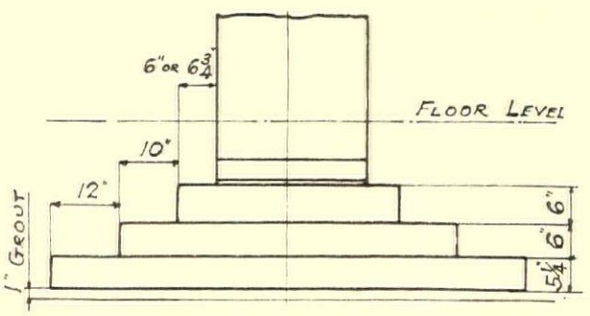
It will be noted, by reference to the framing plan, that the bays from east to west, measured from center to center of columns, are 18′-11″, 41′-11″, 40′-10″ and 20′-0″. The easterly bay is used largely for passenger elevators, escalators, truck elevators and stairways. In the westerly

bay there are also placed truck elevators, freight elevators, stairways and chutes, leaving a portion of this bay and the three central bays devoted entirely to sales space. The two central bays, having a width of 83′-0″ with a length of 122′-0″, are entirely free of obstruction except for the six columns extending from north to south, through the center of this space. The principal floor girders extend across the building, and ordinarily for such large spans these would be quite deep. Where such deep girders are used it makes a distinct division of the ceiling which produces the undesirable effect of a smaller space. In the designing of the floor framing in this building it was decided to use girders of comparatively small depth which would project about 6″ below the ceiling line. It is found that these girders, so constructed, have the effect of dividing the ceiling and at the same time not destroying the impression of spaciousness and large area.

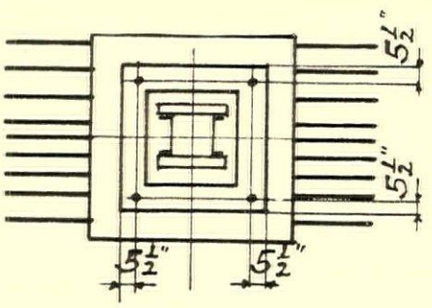


VIEW OF STEEL BILLET FOUNDATION AND BASE OF COLUMN

In general the floor beams are 15″ I 42.9 with cover plates 7″ wide of various thicknesses and lengths. Other floor beams in the smaller panels are of the usual character. The girders for the long spans are made of 2—24″ I 105.9 placed on each side of the supporting columns and 3′-1″ apart, center to center. They are reinforced with 10″ cover plates of various thicknesses and lengths. Between these girder beams are placed separators of the diaphragm type made up of plates and angles. The girders are attached to the column by a diaphragm placed between the beams and riveted to the face of the column and the webs of the girder without any projection either above or below the girder. These connections have also been designed to take their proper proportion of wind load, the stresses due to wind being distributed between every girder connection in the building, which method eliminates many of the undesirable features usually introduced in wind bracing design. This type of connection eliminates the angle and gusset bracket which is usually employed to support large girders. In this building an angle is attached to the column on which rests the lower flange of the girder and is used merely for erection purposes. Architects will appreciate this type of connection as it eliminates those structural details which commonly project materially beyond the column and interfere with the architectural treatment of the column head. Another advantage of this type of girder is that it permits the installation of utility pipes between them and close to the column, without large offsets, thus making possible a smaller size of column fireproofing and furring.



ELEVATION OF FOUNDATION, COLUMN 323

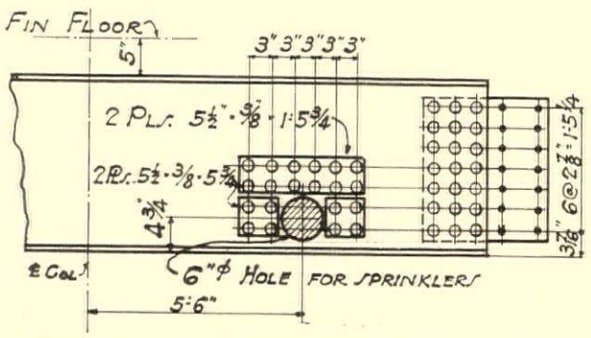


FOUNDATION FOR COLUMN 323

Load 6,374,000 lbs.
Top Billet 38″ x 38″ x 6″
Middle Billet 58″ x 58″ x 6″
Bottom Billet 82″ x 82″ x 5¼″
9—24″ I 100—12′-7″
18 cov. pts. 8″ x ⅝″ x 11′-0″
18 cov. pts. 8″ x ⅝″ x 9′-0″
beams 10″ c to c

By referring to the plan, it will be seen that a typical girder between columns 322 and 323 extends a distance of 7′-9¼″, as a cantilever, beyond column 323. From the end of this cantilever a girder extends to and is supported by column 324. This latter girder is designed as a simple beam supported by column 324 and the end of the cantilever girder. The cantilever girder has, under certain loadings, a continuous effect which involves a point of contraflexure. Owing to this fact, all of the possible conditions of loading must be considered before the final design is made. The advantages of using this system of cantilever girders, over the ordinary type of construction in which the girder is freely supported at each end in the columns is that for a given spacing between columns, the effect of the cantilever system is to reduce the unsupported length of girders, and thereby reduce their stresses, permitting lighter or shallower girders to be used than if the girders were freely supported.

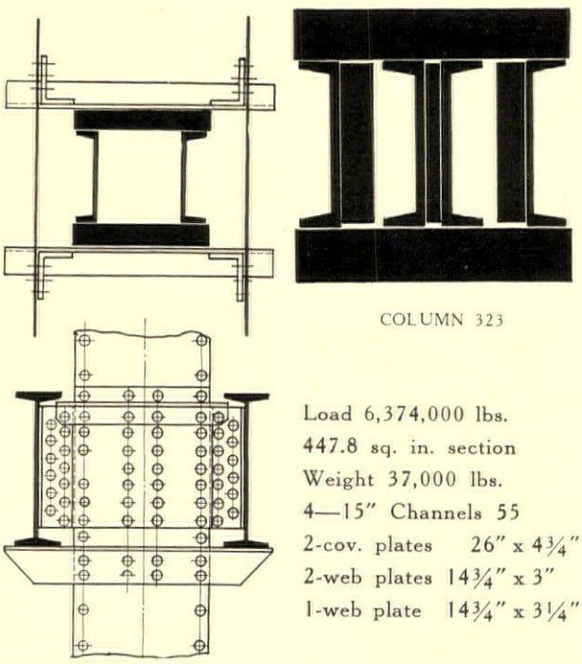
A portion of the ninth, tenth and eleventh floor plans is illustrated. This space is used by motor trucks which are delivered to these floors by the truck elevators. The hatchways for these two elevators are indicated on the plan. Rather than to design a heavier floor slab of sufficient strength to support the concentrated motor loads, the floor beams are placed more closely together in order to reduce the slab span. The beams in this section of the floor are, in general, 20″ I 65.4 without cover plates.



DETAIL OF END OF CANTILEVER GIRDER, SHOWING OPENING FOR SPRINKLER MAIN

In general the girders are 24″ deep and the floor beams 15″ deep, both with cover plates. The sprinkler system is so designed that the horizontal mains run normal to the girders. To conceal the sprinkler system in the salesrooms, it was decided to pass these mains through the webs of the girders. A detail of this arrangement is shown. It will be noted that the opening for the sprinkler main is in the cantilever portion of the girder and 5′-6″ distant from the center line of the supporting column. The detail was designed in accordance with these conditions. From these mains the laterals supplying the sprinkler heads are run parallel to the girders. Below these mains and laterals is placed a suspended ceiling which is supported by the floor beams and which conceals all of the horizontal piping connected with the sprinkler system. The sprinkler heads are inverted in the usual manner and extend below this suspended ceiling. In this manner is secured the comparatively shallow projection of the girder below the ceiling which has been mentioned before.

It will be interesting to note the assumed live and dead loads and the corresponding total loads



COLUMN 323

Load 6,374,000 lbs.
447.8 sq. in. section
Weight 37,000 lbs.
4—15″ Channels 55
2-cov. plates 26″ x 4¾″
2-web plates 14¾″ x 3″
1-web plate 14¾″ x 3¼″

DETAIL OF COLUMN CONNECTION TO DOUBLE GIRDER

used in the designing of this building. These loads are given herewith:

COLUMN LOADS PER SQUARE FOOT

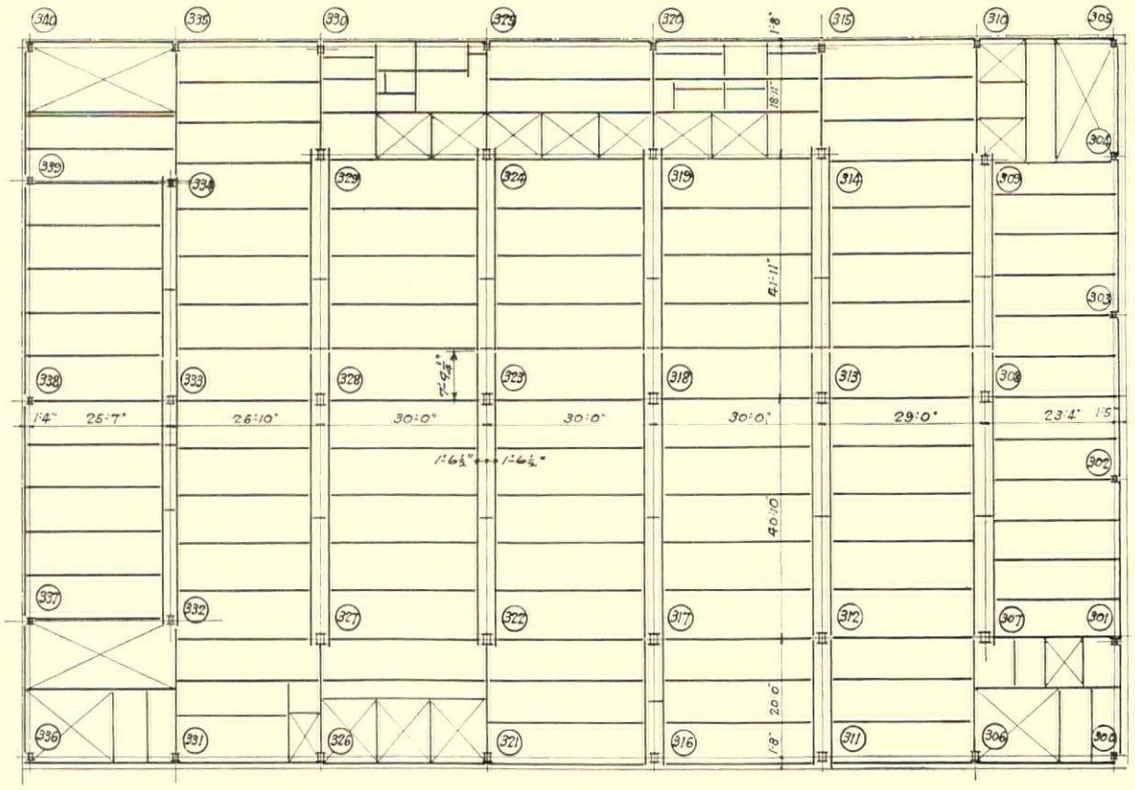
Floor	*Live*	*Dead*	*Total*
Roof	40	100	140
Balcony to 19th Fl.	120	112	232
Driveway First Floor	200	210	410
Driveway in Basement	120	215	335
Driveway 9th, 10th, 11th Fls.	120	200	320
Sidewalk 34th St.	300	130	430
Sidewalk 35th St.	300	190	490
Selling Space 1st Fl.	120	112	232
Working Sp. Bs't. Mezz.	120	112	232
Work. Space Bsm't.	120	112	232
Platform 1st Fl.	150	112	262

The column foundations are designed in accordance with a method which was introduced by Major Stern some years ago. This type of foundation consists of the use of heavy steel billets in lieu of the customary I beam grillage. One

of the principal advantages of this type of foundation is that it obviates the necessity of the deep excavation made necessary by the grillage type of foundation. In certain localities, as in New York, the cost of this excavation in rock is very great and any method which will reduce this cost is desirable. The bolts which secure the column base in position on the foundation billets extend through them and the angles which are attached to the base of the columns.

The foundations in this building were designed to consist entirely of billets but when the excavation was made in the rock to the levels assumed, it was found that the rock was not sufficiently strong to support the calculated loads. This made it necessary to support these loads on a larger area of rock. In order to avoid delay in securing larger billets, an additional bottom layer of grillage beams was used to provide the necessary bearing area. This type of billet foundations is designed in a simple manner. The section of the lower billet is calculated to resist the bending moment which is induced by the assumed resistance of the footing at the edge of the billet immediately above. The moments in the successive layers of billets are estimated in this manner. They are also estimated by calculating the moments in the combined sections of two, three or four billets, as the case may be, about the face of the column.

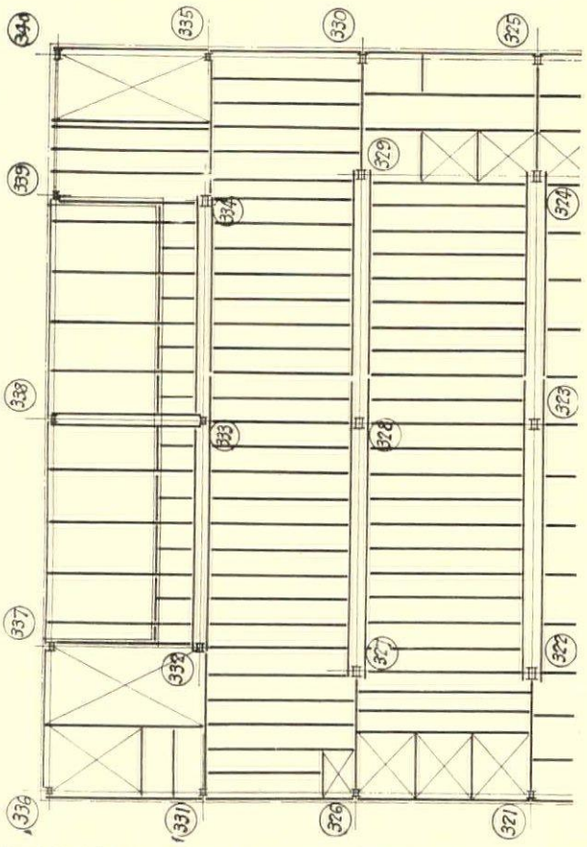
This addition to the Macy Building extends one story below the basement of the existing structure. Although the foundations of the old building rest on rock, it was desirable that they be supported from the level of the new foundations. The basement columns in the old building have cast iron bases which rest on beam grillages. These old foundations are each now supported by a 30″ Bethlehem G which extends from the underside of the old foundation to the level of the new foundation. They were placed in chases cut in the rock and supported on the bottom by a suitable base plate. When this strut was wedged in place so as to have a perfect bearing, it was encased in concrete, after which the rock was removed on each side of the same, completely underpinning the old foundation. The strata in the rock in this locality is inclined about 20 degrees from the vertical and at several places in the face of the rock supporting the old basement wall, holes were drilled and long steel dowels were introduced to prevent any possibility of portions of the rock later becoming displaced and falling into the sub-basement.



TYPICAL FRAMING PLAN, THIRD TO EIGHTH FLOORS, INCLUSIVE

One advantage of this type of base as compared with grillage girders is that it is much shallower and therefore requires less excavation. In this particular building the total depth of the base below bottom of column was about 3′-6″ in the most extreme case, whereas grillage girders would

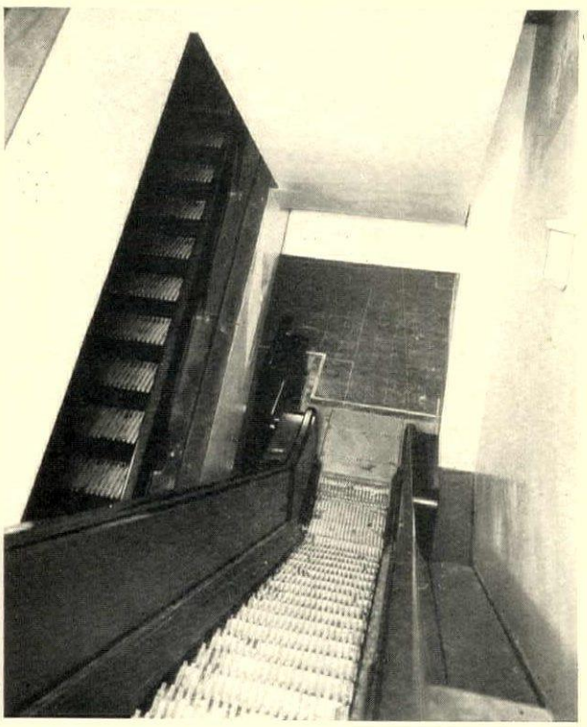
have required a depth of about 8′-0″. Another advantage is that it costs less. Of course, as compared with any form of steel casting, this type



FRAMING PLAN FOR THE NINTH TO ELEVENTH FLOORS, INCLUSIVE, SHOWING PORTION USED BY MOTOR TRUCKS

is greatly superior, both as to dependability and cost. Another advantage is that it saves the cost of the concrete filling between and around the grillage beams.

The advantages of the double cantilever girder are apparent. By the use of these girders it is possible to make them much more shallow than they are in the ordinary system of designing. This obviates the great projection of girders below the ceilings which is objectionable for many reasons. These girders also permit the utility pipes to be placed more advantageously



LOOKING DOWN ESCALATOR SHAFT, SHOWING CONTINUOUS UPGOING AND DOWNGOING ESCALATORS IN THE SAME WELL

and to hug the column more closely than in the usual type of construction. The designing of all of the connections between the girders and the columns to take up their portion in the wind load, results in a more simple type of detailing.

This building was constructed by Marc Eidlitz & Son, Inc., and the steelwork was fabricated and erected by Levering & Garrigues Co.

PAINTS FOR METALS

TWO important series of tests of paints applied to metals were instituted in 1906 and 1910 under the auspices of the A. S. T. M. and a later series of tests were made by Dr. H. A. Gardner at Washington. The protection of metal, especially when exposed to the weather, is a matter of importance to architects and property owners. These tests are probably the most important ever undertaken in this country. Owing to the demand for information pertaining to these tests, it has been incorporated by Dr. Gardner, 1845 B St., N. W., Washington, D. C., in Circular No. 202, issued by the Scientific Section, Paint Manufacturers' Association of the U. S. and the National Varnish Manufacturers' Association (Co-operating).

THEATRE FIRE CURTAINS

ONE of the most interesting tests recently conducted by the Bureau of Standards was that of a theatre fire curtain. In this test the curtain formed one side of a furnace fired by fuel oil burners.

The test just completed is the last of a series in which the types of curtains now in use were included and in the course of which some new types and improvements were developed. The first curtains tested were of the rigid steel type having a sheet metal face on the auditorium side and an asbestos board covering on the stage side with structural steel framing between them, the total thickness being about 7 inches. This type of curtain held back fire, smoke and glow for a period of over half an hour, which gives more than ample time for the audience to leave the theatre, the exit facilities of which are usually arranged to empty the house in 5 minutes or less. Tests were then made of the ordinary single asbestos cloth curtains. These were found rather inadequate as fire stops, the cloth losing strength readily when exposed to fire, while the single thickness permitted smoke and glow to show on the auditorium side. An asbestos cloth was then developed having fine nickel or chromium-nickel alloy wires woven into the asbestos, which retained its strength much better than the plain or brass wire reinforced cloth, but as tested in single thickness considerable smoke and glow still showed on the unexposed side. Tests were then made on curtains of two plies of cloth, the one just tested having the front and back asbestos cloth facing separated by a metal framework which connects with guides, trolleys and track at the side in such a way as to maintain the curtain in place and enable it to operate under considerable pressure as from wind or drafts produced by a fire. Improved details were also provided to prevent smoke from passing around the edges of the curtain.

The results of the test of this curtain can be regarded as fairly satisfactory. Very little smoke, and almost no glow, showed on the unexposed side during the test which lasted for 15 minutes. At the end of this time a temperature of 1700° F. was attained in the furnace, which corresponds to a very bright red heat. A curtain made similar to the one tested would weigh about one-fifth of that of a rigid steel curtain of the same size which would permit installing it in buildings that could not carry the heavier curtain.

RESEARCH NARRATIVES

IN January, 1921, Engineering Foundation, of New York, began printing twice a month leaflets entitled Research Narratives. Each contained a five-minute story of research, invention or discovery. The stories, or the materials for them, were contributed by scientists and engineers of international reputation.

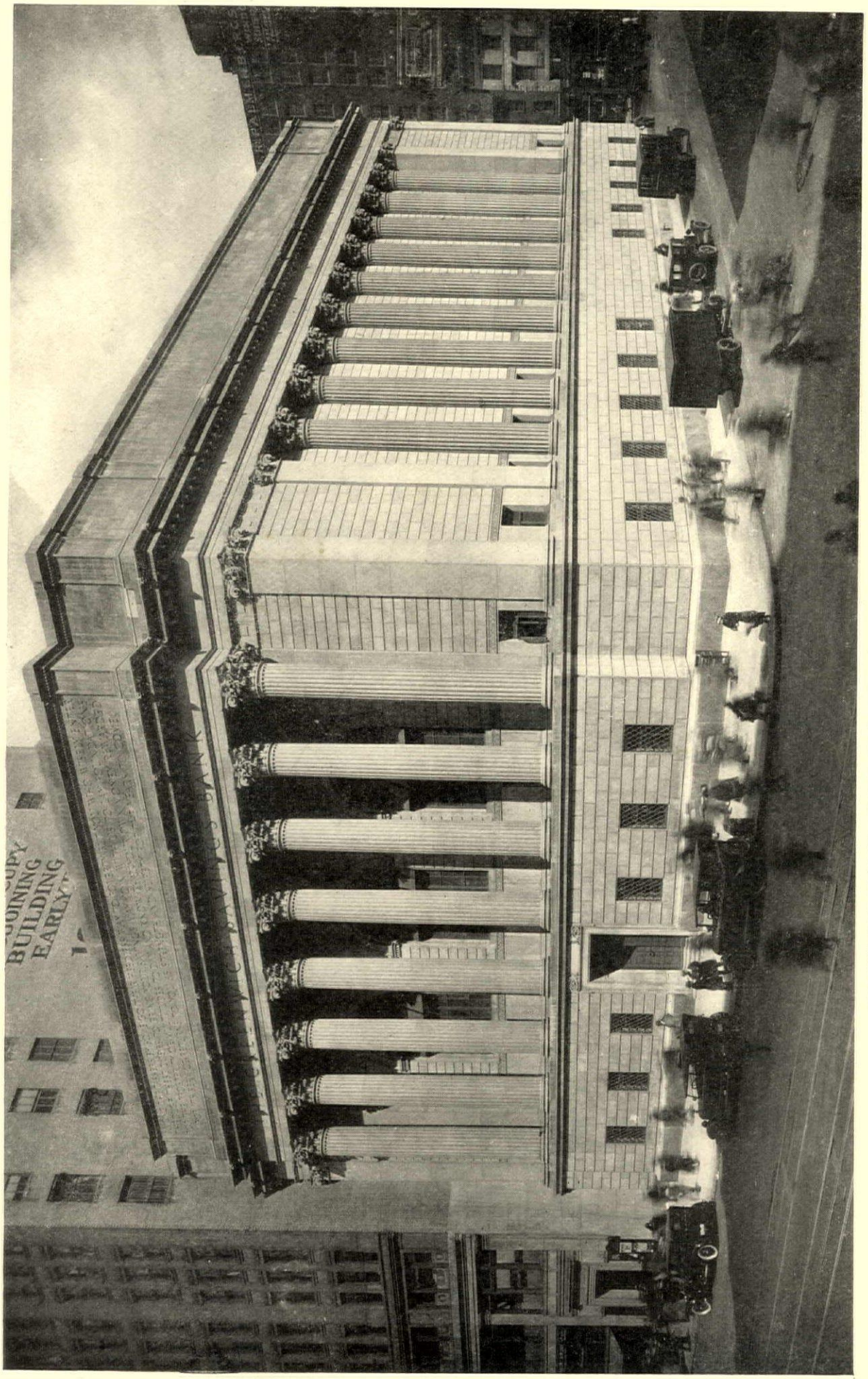
The purposes were to broaden general intelligence about research in science and engineering and to increase interest. Means at disposal of the Foundation permitted mailing the Narratives only to a limited list. The editions were soon exhausted and numerous requests for back numbers could not be satisfied. Suggestions came to the Foundation that the Narratives should be collected into a book and reissued.

Believing that these Narratives would be interesting and useful to thousands of persons who have not known about them, Engineering Foundation is having the first fifty made into a small well bound book and offering it at fifty cents a copy.

The Narratives cover a wide range of subjects. A few titles will be suggestive: The Story of Mendelism; Electric Welding; Nitrogen, Its Capture and Utilization; Whittling Iron; A Serbian Herdsman's Contribution to Telephony; The Birth of Bakelite; The Upper Critical Score.

"PLUGGING" CONCRETE

ACCORDING to press announcements, a device has recently been invented by an Akron (Ohio) man whereby concrete work can be tested to ascertain the quality of the work before the bill is paid. It is patterned after the old custom of "plugging" a watermelon before buying it. This machine removes a plug from concrete work after the process of hardening has been completed. The city is using the machine to make a check on the contractors in public work. It also is a final check on the reports of the city's building inspectors.



GREENWICH SAVINGS BANK, BROADWAY AND 36TH STREET, NEW YORK

YORK & SAWYER, ARCHITECTS

ENTRANCE ON BROADWAY

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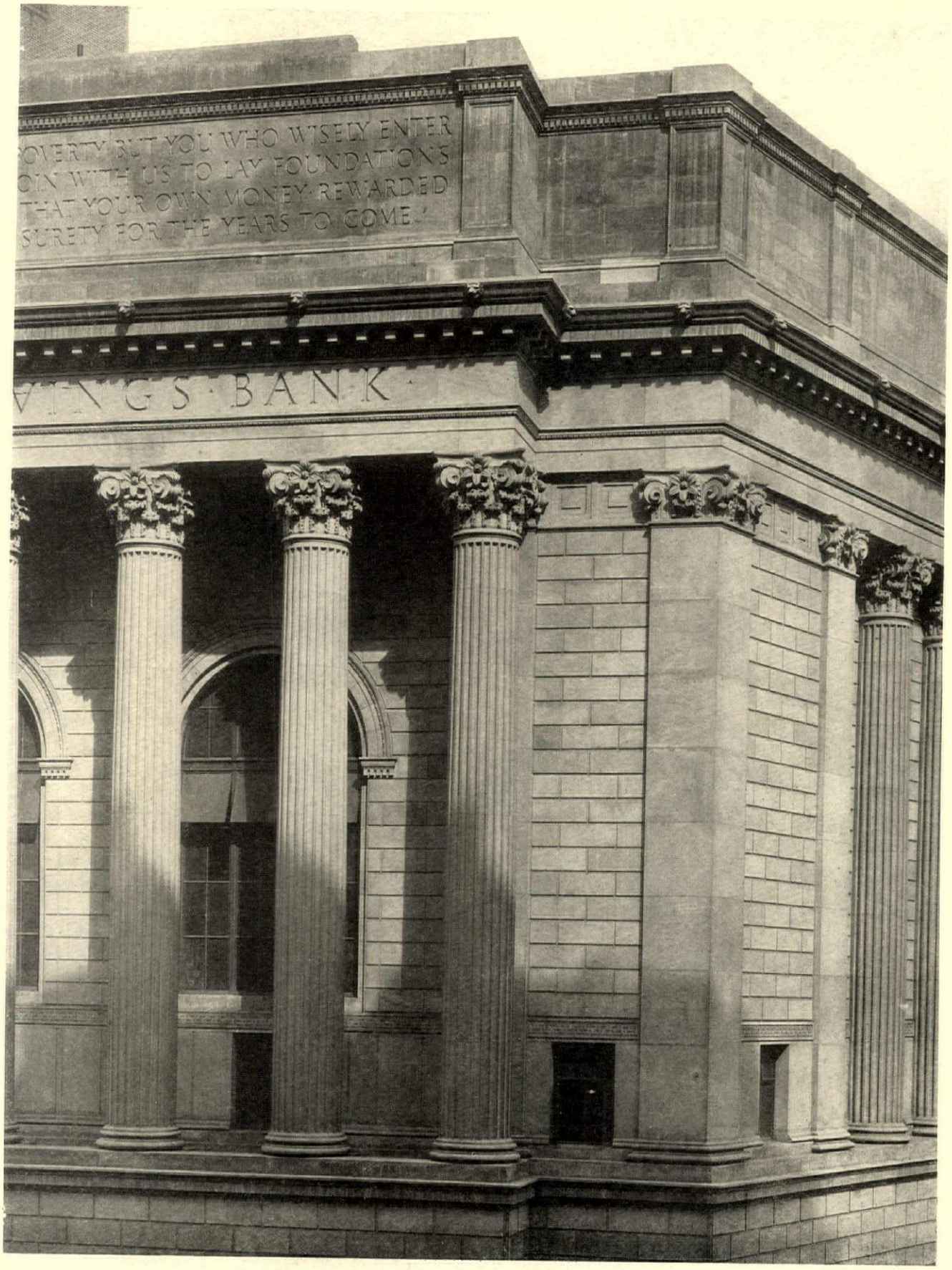

DETAIL OF UPPER STORIES

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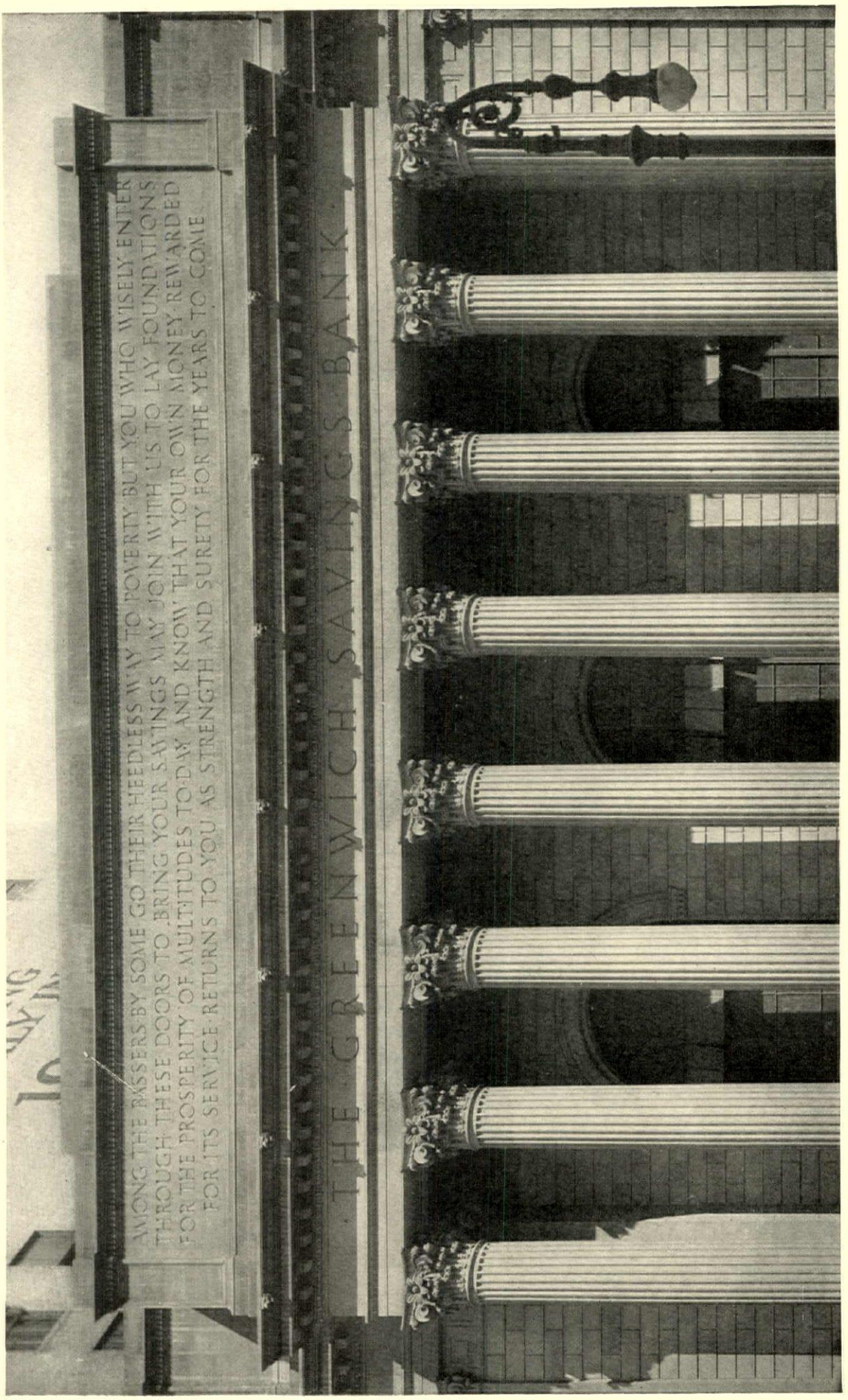

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SPECIFICATIONS

Brick Masonry Specifications (*Continued*)

THE next subject in sequence in brick masonry specifications is the matter of clay tile walls, partitions and furring. The characteristics of tiles for these purposes in respect to the quality of materials and the various mortars which may be used, have been discussed in previous issues.

The Handbook of Hollow Building Tile Construction, prepared by the Hollow Building Tile Association, is a very complete record of study and usages of hollow tile for all purposes. The matter of fireproof construction and the fireproofing of structural steel will be discussed later under the subject of fireproofing as a major subdivision of specifications.

Tiles for exterior or load bearing walls are generally laid with the cells or partitions vertical. As a matter of fact, building regulations usually require that the tiles be set in this way if they are to be considered as capable of bearing transmitted loads.

Partition tile and furring tile ordinarily are not load bearing, and may be laid with the cells vertical or horizontal. In the first place, hollow tile has been used with success for foundation walls and there should be no difficulty in building walls of this material especially where underground water conditions are not severe. For soil that is subject to occasional saturation which would cause stone or concrete walls to become damp and bring about condensation, the use of hollow tile will no doubt eliminate much of the difficulty caused by dampness and the resulting condensation. If there is any question about the dryness of the soil, the outer face of the tile foundation walls should be plastered with a heavy coat of Portland cement mortar, over which an asphalt or cold tar pitch waterproof coating may be applied if that additional precaution is deemed necessary. While it is not probable that foundation walls built of hollow tile will be used in heavily saturated soils, and while the nature of the material is against it, there may be a possibility that will come up from the subgrade wall. This, of course, can be obviated by the use of a concrete or stone water table, slate slabs, or waterproof felt bedded on a mortar dressing to provide reasonable assurance against becoming broken. This of course is a precaution that should always be observed in any foundation walls under such conditions.

All hollow tile for foundation walls should be laid in cement mortar with a very small amount of lime gauging, if the tile setters find it impossible to use the straight cement mortar. In this connection it must be remembered that in laying the tile with the cells or partitions vertical, the bearing edges being 1″ or less thick, require mortar of somewhat different character and applied in a manner that is dissimilar to that used in laying other masonry. There is a tendency for the mortar to curl off or become dislodged and if this occurs, the tile will, of course, lose the bearing that they should have.

For all load bearing walls the hollow tile manufacturers provide a number of shapes of special form to accommodate window and door frames to form pipe chases and to receive other items that must be built into or surrounded by the tile walls. Closing pieces at the ends of courses may sometimes be necessary and the specifications should require that all special shapes be furnished, referring the contractor to indications on the drawings, or if such indications are not presented, scheduling the various requirements for special tiles.

It is presumed that the thickness of the hollow tile load bearing walls will be indicated on the drawings, but if this is not done the specifications should present a table of thicknesses either as minimum dimensions, or as the only dimensions allowable. Openings require lintels of some sort and these are usually made with hollow tile filled with concrete and reinforced with one or two rods placed in the lower cells, the cells in this case being arranged horizontally.

Walls forming bearings under concentrated loads should have the upper courses filled with concrete or capped with a concrete slab having small reinforcing rods. Sometimes 1″ thick slabs are provided for bearing of floor joists or other light, concentrated loads. The specifications should require that all tile receiving such loads should be free from cracks of any kind and the drawings should not indicate chases cut into these walls under such points unless some provision has been made to maintain the strength of the wall of nominal thickness. It is impossible, of course, to locate all of the pipe runs in an exact manner, but sufficient study should be given these items so that the benefits derived from the use of hollow tile are not vitiated by defects in wall construction that are a direct result of disregarding these points.

Hollow tile for building walls above the grade line should be laid with gauged Portland cement mortar, as mentioned above for foundation walls. All joints in the tile walls vertical as well as

horizontal, must be filled with mortar. The joints should be broken in horizontal rows and broken pieces of tile should not be used in the building in substitution of perfect pieces. The use of broken pieces that have been especially trimmed for fillers or other purposes, is not objectionable, but the indiscriminate use of tiles that are greatly damaged, is condemned in best practice. The hollow tile walls, of course, must be carried up plumb and with level courses, they must be braced substantially while in a green condition, and they should be protected from the washing out of mortar at the end of the day's work using planks or other effective means.

Hollow tile load bearing walls are often faced with brick or stone and in this case a masonry bond should be provided. This is often a requirement of building regulations but whether or not that is so in a particular case, good construction calls for a bond that is accomplished in such fashion. This requires that the stone courses be so arranged in height that bond stones may be used. The bonding of face brick is not difficult to accomplish. If the combined thickness of the wall faced with other materials is depended upon for the structural strength, the specifications should prohibit the use of any bonding methods other than masonry bonds. If the tile backing is of the required thickness for load bearing walls, the facing material may of course be applied strictly as exterior facing, in which case, metal anchors may be used in the normal fashion. Where stone and especially limestone is used for facing materials, the tile backing either should be laid in lime mortar with stainless cement gauging, or in gauged stainless cement mortar, or else provisions must be made for thoroughly protecting the stone against discoloration from any cement used in the backing mortar. This is merely the precaution that must be used continuously where limestone or similar material is used in connection with masonry backing.

Hollow tile is often used in exterior walls for backing up and especially for curtain walls where they are supported at each story. Specifications for hollow tile for such use must be written in a manner similar to their use for load bearing walls, with the exception that local building regulations will permit the laying of the tile with cells or partitions horizontal instead of vertical. In this case, due regard must be given also to the matter of special tiles, and to the location of pipe chases or other slots or channels.

If smooth-faced or glazed hollow tile is to be used for exterior wall work, specifications should require that every piece of tile exposed be perfect. The mortar may be colored for such use or left in natural state. The joints should be weathered with a trowel point or left flush as in all masonry work. Similar tile may be used for other purposes having interior exposures in which case probably the only item to have in mind especially is the pointing of the joints. In the use of this tile, however, one important phase is that the arrangement of vertical joints be regular and that the tile be so laid that this regularity can be maintained in each wall face.

Tile partitions and tile furrings are ordinarily used in buildings of fireproof construction. Their use, however, is practical in basements of ordinary construction, and in other wood constructed buildings where they may be set on concrete or steel structural framework. Hollow tile partitions and furring should be bedded solidly on substantial bearings. The tile should be laid up in cement gauged lime mortar with joints made horizontal and with the vertical joints broken in alternate rows. The tile should be extended tight to ceilings or other overhead construction, using smaller pieces of tile or brick if need be to make a good finish. Sometimes strips of wire mesh are laid in joints for strengthening the partitions. Openings in hollow tile partitions and furring should have reinforced tile lintels or structural lintels, consisting usually of angles. The masonry contractor should be required to furnish these lintels.

The thickness of the tile partitions and furring is generally indicated on the drawings, and this of course should be ascertained and specified, if not otherwise provided for. The furring tile ordinarily is split tile, especially made for that purpose, but where the walls are being furred out and the split tile cannot be used, partition tile 3″ thick, or of greater thickness as conditions require, should be specified. It is well to remember that where tile partitions are used, conditions may require a greater thickness of wall for the sustaining of heavy loads than would be ordinarily required where subdividing partitions performing that function only are desired. These loads ordinarily consist of vitreous ware plumbing fixtures which cannot be supported by the thinnest partition tile available without having recourse to special devices. Clay tile, however, should be provided back of all plumbing fixtures or other supported loads of that character.

Building regulations frequently require hollow clay tile for corridor stair shaft and elevator shaft enclosing walls and for the walls of other shafts extending vertically through the building, which may form either exits during fire or which may be required as fire stops. Other cities permit the use of gypsum block for such purposes and the building regulations of the particular locality must be studied to discover such requirements. It must be remembered, however, that gypsum block presents some difficulty in the installation of marble or wall tile wainscoting or similar material that requires a special scheme of anchorage. It has been found possible in some cases to use gypsum block as a backing for such materials,

but ordinarily the best practice seems to demand the use of hollow clay tile. Other uses for this material seem to preclude the utilization of gypsum block as a substitute, but the judgment of the specification writer, taken in connection with local usages and conditions must govern.

Specifications should require that where hollow tile partitions intersect brick, concrete or stone walls, they should be anchored thereto by means of metal anchors or the partitions should be built into slots or chases left in the adjoining masonry work for that particular purpose.

Chimneys may be constructed of hollow clay tile in the usual manner. Special tile may be required in some cases and the use of fire clay flue linings or fire brick for the smoke passages is necessary. Fireplaces also may be constructed of hollow tile, using common brick as may be required to form or shape up the jambs, throats, etc., in the proper manner for good design. Tile arches may be used under the hearths in a manner similar to the usual brick arch. Where tile chimneys are provided they should be capped with concrete precast or poured in place, or with stone or some other material available for this purpose.

Where parapet walls are built of hollow clay tile the specification writer should exercise caution in stipulating the methods of laying the tile and the perfection of the joints. Previous discussions on the construction of parapet walls have indicated the great difficulty that may be encountered in such locations, and all that has been said in respect to brick parapet walls applies with equal force to tile parapets.

Circular or other forms of curved arches may be required in tile walls. It is ordinarily difficult to construct these using the usual hollow tile units. It will be found more convenient to use common brick in two or more rowlocks in the usual manner.

Other particular masonry construction items may be accomplished with hollow tile with equal facility as that used in brick masonry or stone masonry construction. For all of these particular uses the gauged cement mortar should be used except where the facing material that may become stained on account of the cement is indicated.

Specifications for this work should require that the contractor do all the cutting and patching of the hollow tile furnished by him as required to receive or accommodate the work of other trades. He should also build in work furnished by other contractors and provide all means for the installation of other work that is set into or in connection with his work. It is oftentimes essential to locate anchors with accuracy where in brick construction such anchors should be located with more tolerance. It is not possible to get the same kind of anchorage by the use of expansion bolts or other anchorage attachments but toggle bolts of course may be used in many instances, and the tile masonry contractor should anticipate such contingencies and ascertain the probable necessities for withholding his work or making provisions to receive certain work at certain times.

Miscellaneous Specification Data

At a recent meeting of the Illinois Society of Architects, Virgil G. Marani, Chief Engineer of The Gypsum Industries, read the following paper:

The Gypsum Industries will always be interested in steps that may be taken by architectural organizations entering into the construction of fireproof and other buildings.

It is conceded that there is a volume of data covering almost every conceivable feature of the many materials in common use. The busy architect or engineer, having problems of his own to solve, cannot consistently give much of his time to a careful study of all the matter published. For this reason many statements are accepted as facts, upon common hearsay, rather than upon the results of properly conducted authentic tests, carried forward by responsible organizations of national scope that have nothing to sell, their sole interest being the dissemination of the truth to those interested.

These and similar reasons have prompted me, as the technical representative of The Gypsum Industries, to seek the information necessary only through the most efficient and highly ethical channels, and therefore the substance of all the data on gypsum and gypsum products published by this Industry has for its origin the following sources:

The American Society for Testing Materials, which has prepared, or has in the course of preparation the following specifications of quality:

1. Standard Specifications for Gypsum Plasters (C28-21)
2. Standard Specifications for Methods of Testing (C26-23)
3. Standard Specifications for Calcined Gypsum (C23-22)
4. Tentative Specifications for Gypsum (C22-23T)
5. Tentative Specifications for Gypsum Tile (C52-23T)
6. Tentative Specifications for Gypsum Wall Board C36-22T)
7. Tentative Specifications for Gypsum Plaster Board (C37-22T)
8. Tentative Definitions of Terms Relating to the Gypsum Industry (C11-23T)
9. Tentative Specifications for Gypsum Plastering Sand (C35-21T)

The U. S. Bureau of Standards, which uses gypsum materials of a quality not less than equal to that prescribed by the American Society for Testing Materials, has, or is developing the following:

10. The Fire Resisting Properties of Gypsum Plaster and Products.
11. The Acoustic Properties of Gypsum Plaster and Products.
12. The Strength and Other Physical Properties of Gypsum Tile, Plaster Board, Wall Board, Plaster, etc.
13. The Drying Out of Plastered Surfaces When Considering the Minimum Time Before Such Surfaces May be Decorated.
14. Recommendations on the Practice of Plastering as detailed in their forthcoming Circular No. 151, known as the Report of the Bureau of Standards Plastering Conference.

The American Engineering Standards Committee, to which the data developed by the American Society for Testing Materials, and the Bureau of Standards are being submitted for adoption as American Engineering Standards.

The U. S. Department of Commerce Building Code Committee, which establishes recommended minimum requirements as applied to building materials and their use in construction.

The National Fire Protection Association's Committee on Building Construction, which functions mainly on recommendations applying to materials and construction from a fire safe point of view.

THE BUILDING OFFICIALS' CONFERENCE, which discusses all new materials and types of construction from a legislative and safety to life viewpoint.

THE UNDERWRITERS' LABORATORIES, INC., which conducts fire, water and strength tests and determines the suitability of the material tested for the intended purpose.

I am firmly convinced that development of the information necessary, following closely the outline to which your attention has been drawn, cannot help but provoke favorable comment on the part of the thinking architect, engineer or builder. In following this course The Gypsum Industries feels assured that the results obtained will more than compensate them for the time and expense involved in the development of information, which is not hearsay or the opinion of the interested industry, but is the result of specially conducted tests and investigations carried out at the testing laboratories of the United States Bureau of Standards.

It is gratifying to note that the most progressive industries follow a course similar to that which I have outlined. The matters of primary importance, at least to the architectural profession, and upon which there is not, as yet, reliable or authentic information, include the following:

ACOUSTIC PROPERTIES OF PLASTERED SURFACES. Without exception of any kind, the fact remains that there is no sound test evidence which justified the choice of any plaster as compared with another when considered solely from an acoustic standpoint. This has been fully explained in an article entitled "Fallacious Deductions Possible Upon Existing Evidence of Sound Tests," which contains corroborative evidence in fully quoted letter of January 9, 1922, from the Bureau of Standards; data quoted from recent sound test report of Professor Paul E. Sabine, published in full in the April 4, 1923, issue of THE AMERICAN ARCHITECT; and the acoustic tests conducted at the Massachusetts Institute of Technology by Professor Chas. L. Norton. The last mentioned tests resulted in the adoption of gypsum plaster and products in the construction of the sound deadening partitions in the Boston Conservatory of Music and later, the Eastman School of Music, at Rochester, New York.

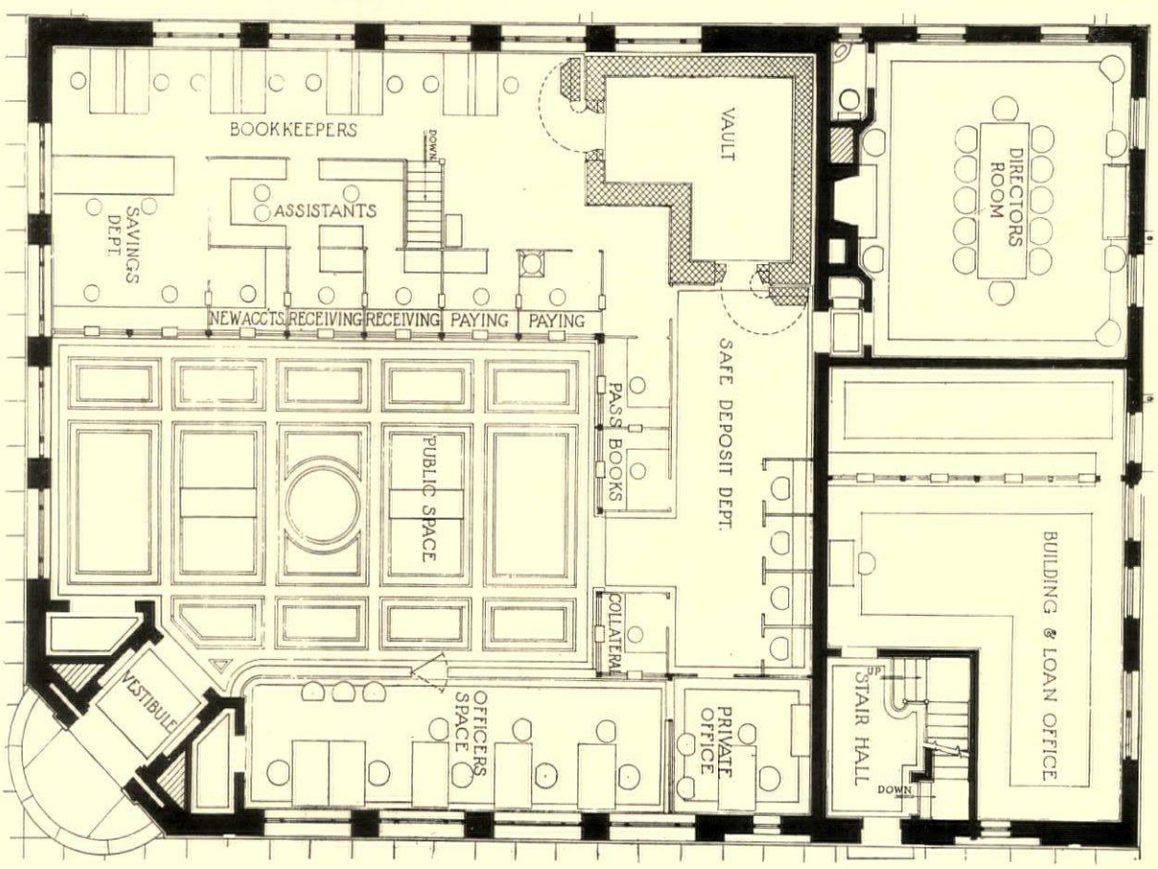
CORROSION OF METAL LATH. This much mooted question is covered in an article entitled "The Question of Corrosion" which outlines the results of panel tests at the Bureau of Standards in which gypsum plaster and metal lath panels showed exactly a general average condition of all the interior panels tested. In this article numerous examples are given, illustrating the protection afforded any metal, painted or unpainted, which is completely embedded in gypsum. Dr. W. F. Hillebrand on January 26, 1916, stated, "It is incorrect to speak of a 'sulphuric acid content of gypsum.' The properties of sulphuric acid are lost when the acid is fully neutralized as in gypsum."

PRACTICABILITY AND LASTING PROPERTIES OF GYPSUM PLASTERS. All of the strength, fire-resisting, wearing and other of the desired physical properties of any plastering material are fully discussed in article "Gypsum Plaster Affords Fire Protection." It is a gypsum plaster upon metal lath that has received a one-hour 1700 degrees Fahr. fire duration rating from the Underwriters' Laboratories, Inc. A full digest of this amazing ability to withstand fire and water can be obtained by writing to the Laboratories at 207 East Ohio Street, Chicago, and asking for Retardant Report No. 1355. Similar test information published by the Bureau of Standards is quoted in this article in full as well as all of the economic and logical arguments favoring the use of gypsum plaster, the consumption of which at this time, amounts to nearly four million tons each year.

DECORATING AND PAINTING ON GYPSUM PLASTER SURFACES. The Gypsum Industries is conducting a research at the Bureau of Standards on the above question. At the present time it is indicated that the state of dryness of the plaster is more important, in this respect, than the chemical composition. In a letter dated February 11, 1924, the Bureau of Standards states:

> "Lime, until carbonated, in any quantity, if moisture is present, will saponify the oil in paint with deleterious results. If on the other hand, the lime is dry, there is no reaction between the lime and the paint. Mr. Walker's of the Bureau of Standards Paint Section) statement advising the washing of lime plaster with solution of zinc sulphate should not be construed to apply only to lime plaster but also to all walls containing even a small per cent of lime."

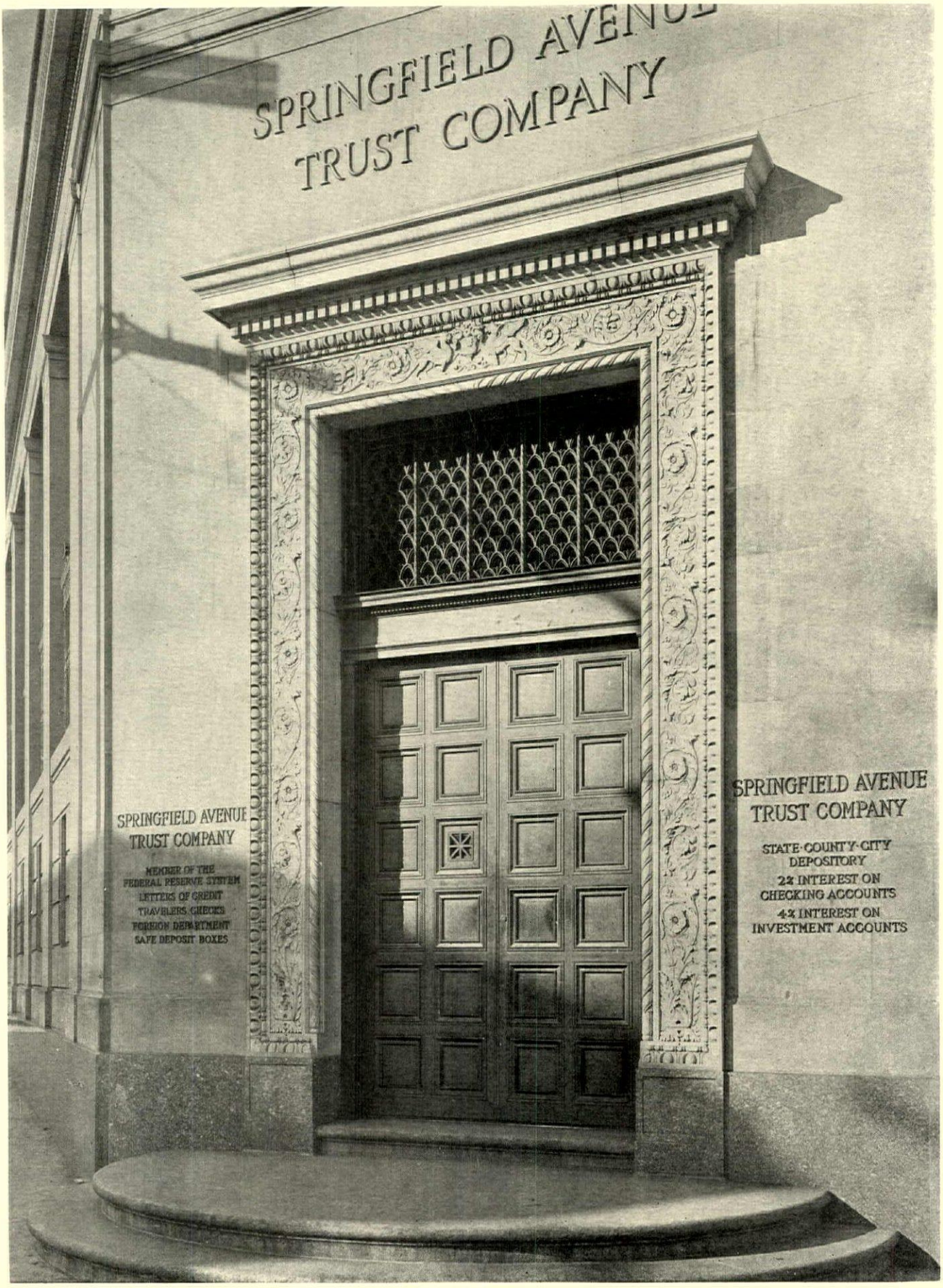
It is because of the above quoted opinion that The Gypsum Industries is interested in the development, by the Bureau, of information as to when it is safe to decorate or paint, plastered surfaces. The usual finishing coat of plaster is composed of lime and gypsum. Enough has been outlined to illustrate the work at hand and the authority we look to for the information which this Industry feels the architect and others are entitled to and will regard as reliable and unbiased. Therefore, for the reasons outlined, and until information upon the sound conductivity and reverberation of present accepted standard partition constructions, plaster finishes, etc., is published by the U. S. Bureau of Standards, or by a similarly equipped and responsible laboratory, using in the conducting of the necessary tests the standard method selected, architects, engineers and others interested, are fully justified in reserving their final conclusions.



SPRINGFIELD AVENUE TRUST CO., NEWARK, N. J.

GUILBERT & BETELLE, ARCHITECTS

THOMAS BRUCE BOYD, INC., BANK EQUIPMENT ENGINEERS



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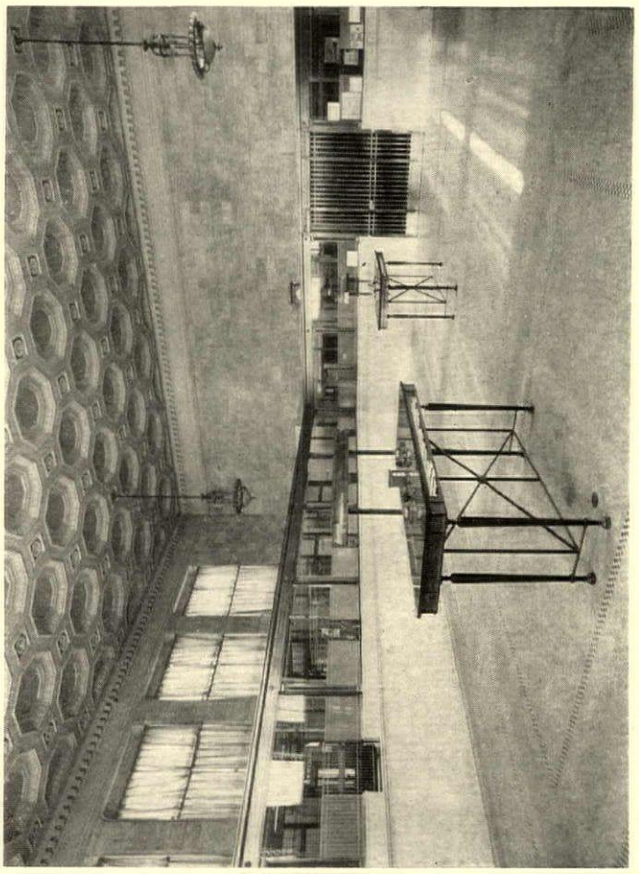

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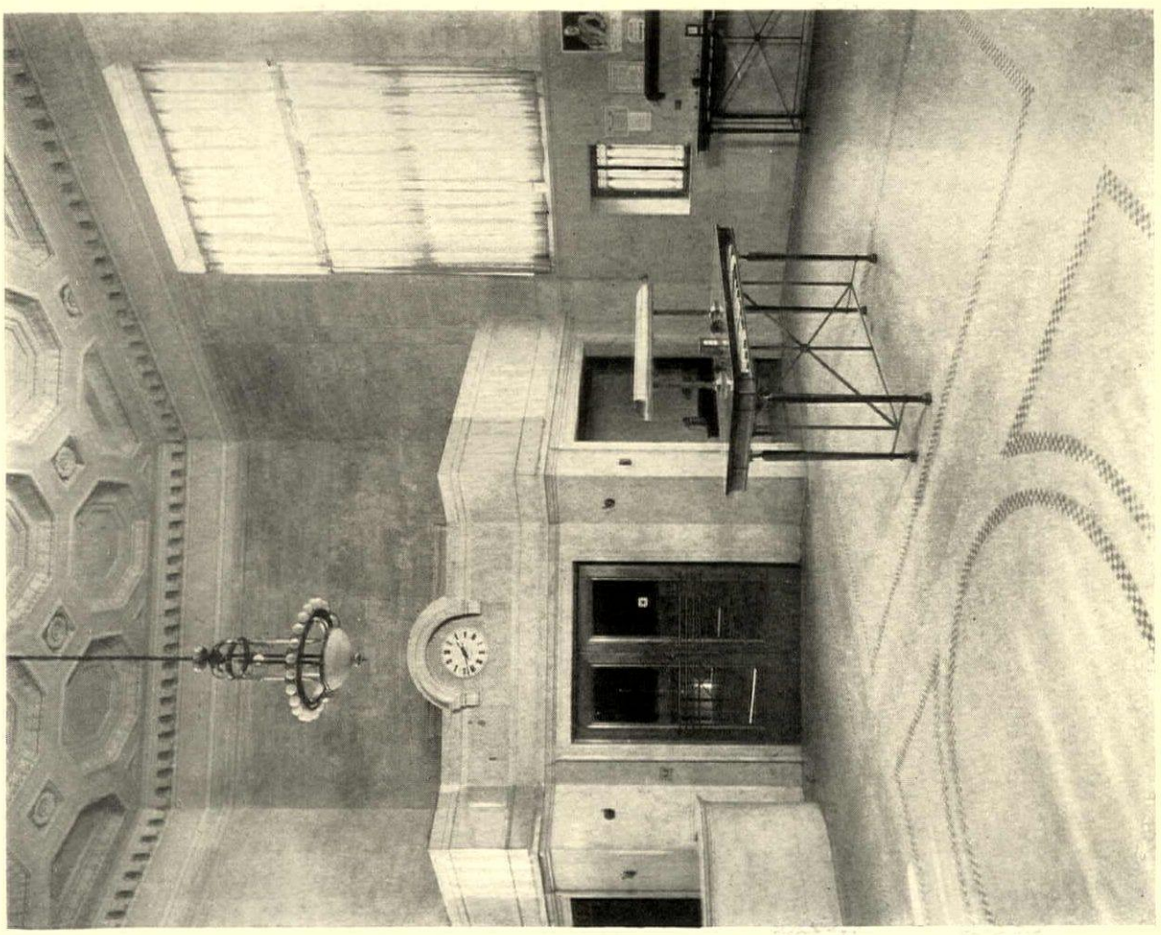
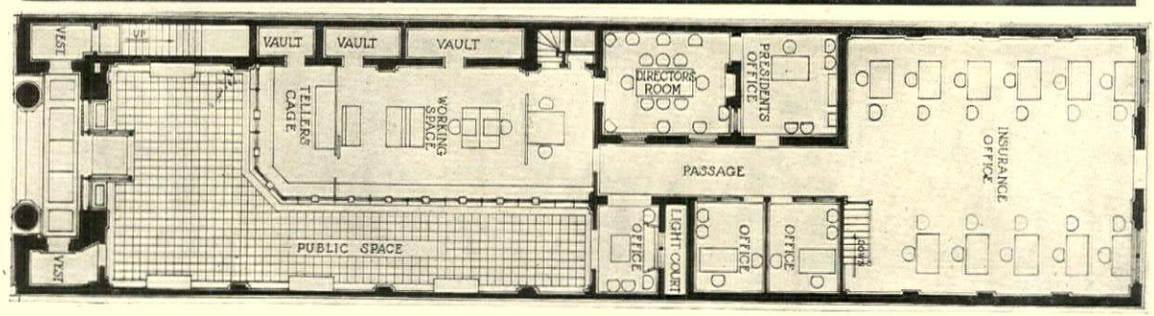
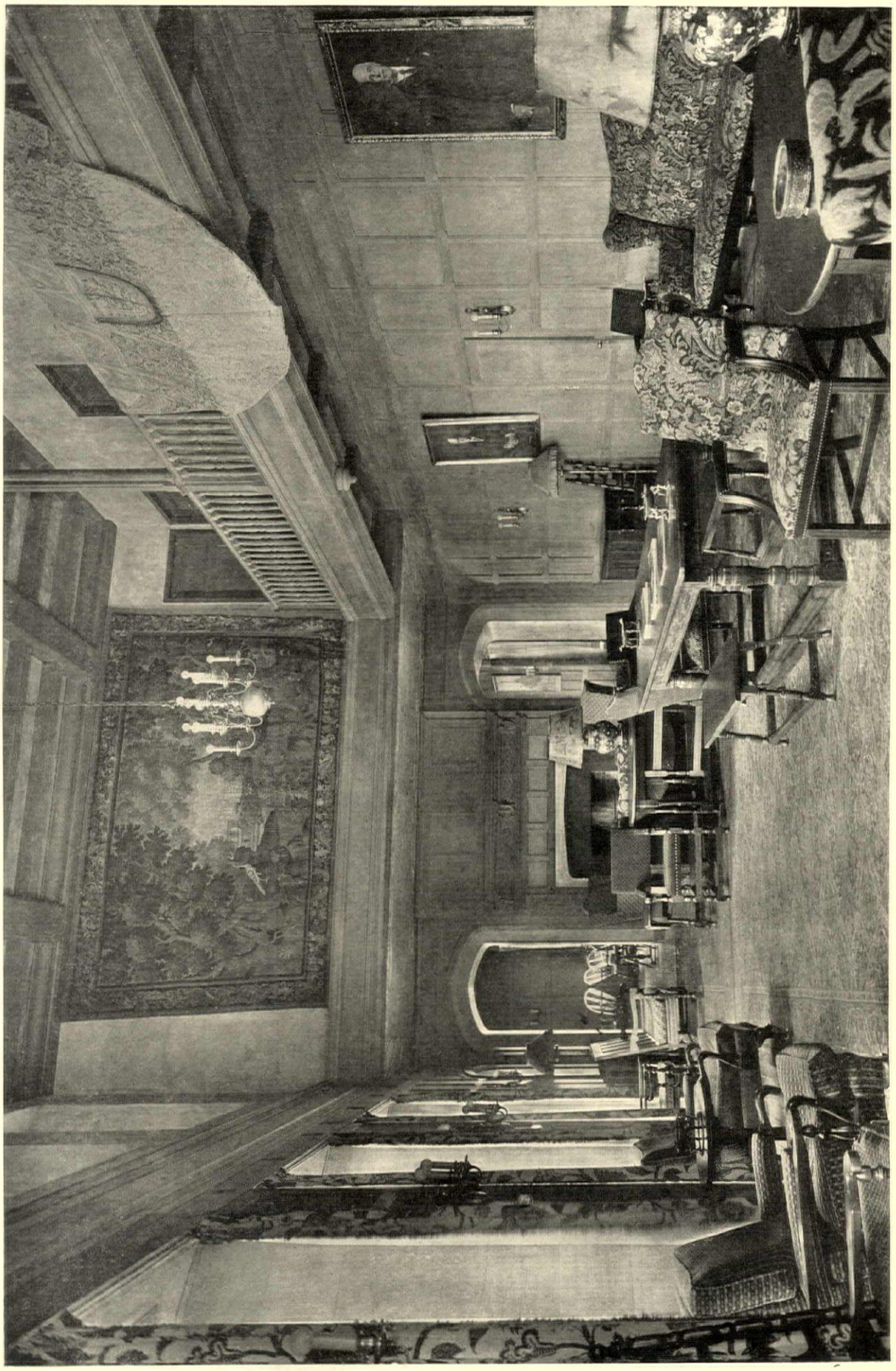




UNITED STATES SAVINGS BANK, NEWARK, N. J.

GUILBERT & BETELLE, ARCHITECTS

THOMAS BRUCE BOYD, INC., BANK EQUIPMENT ENGINEERS



LOUNGE

THE CORNELL CLUB OF NEW YORK

FRANCIS Y. JOANNES, ARCHITECT

Wall panelling in oak; rough plaster walls above and old oak plank flooring

LOUNGE GALLERY

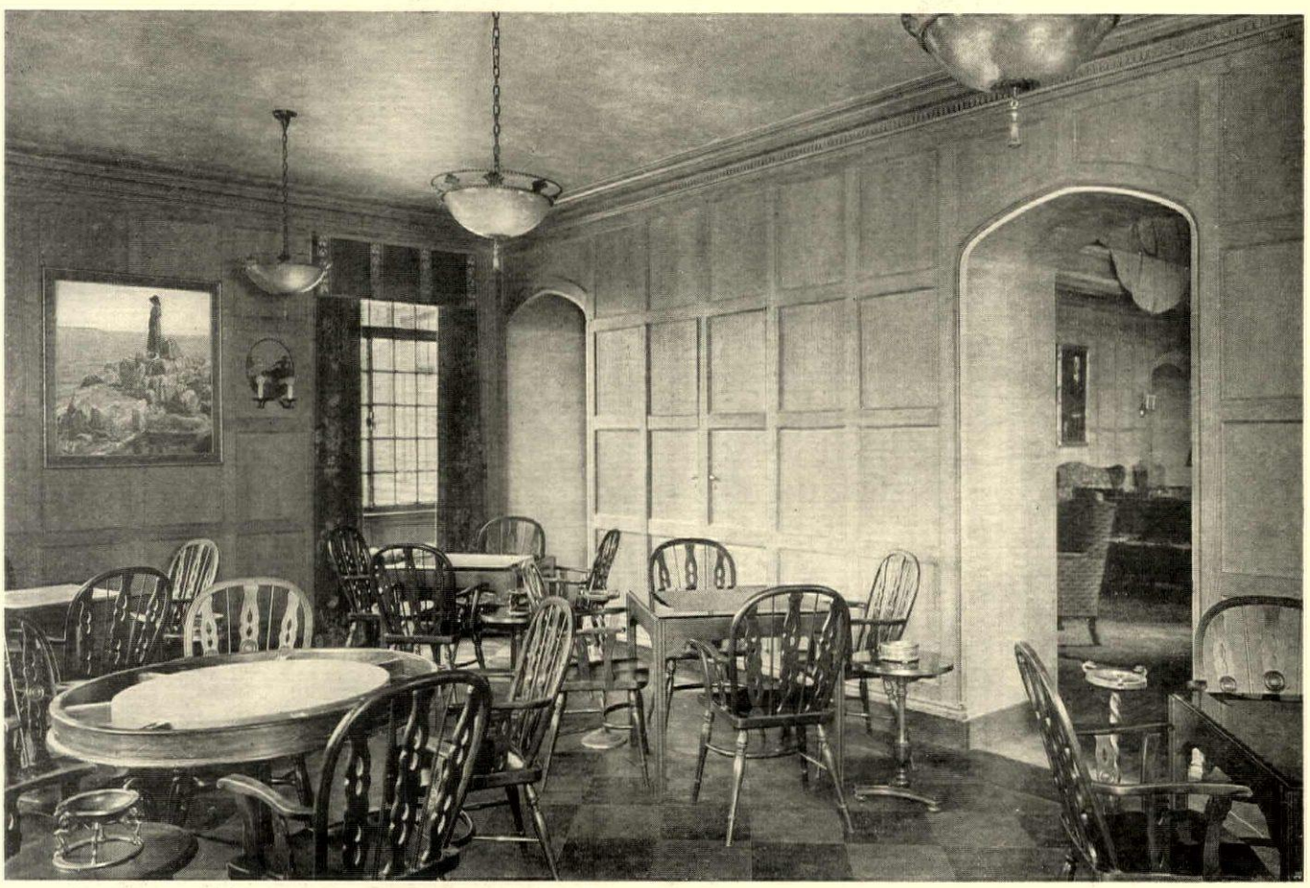
THE CORNELL CLUB OF NEW YORK

FRANCIS Y. JOANNES, ARCHITECT

Oak woodwork; rough plaster walls in mottled colors, and tile floor. Lighting fixtures of wrought iron

"CAMPUS" ROOM

Mural paintings represent scenes of the campus and environs at Ithaca



GAME ROOM

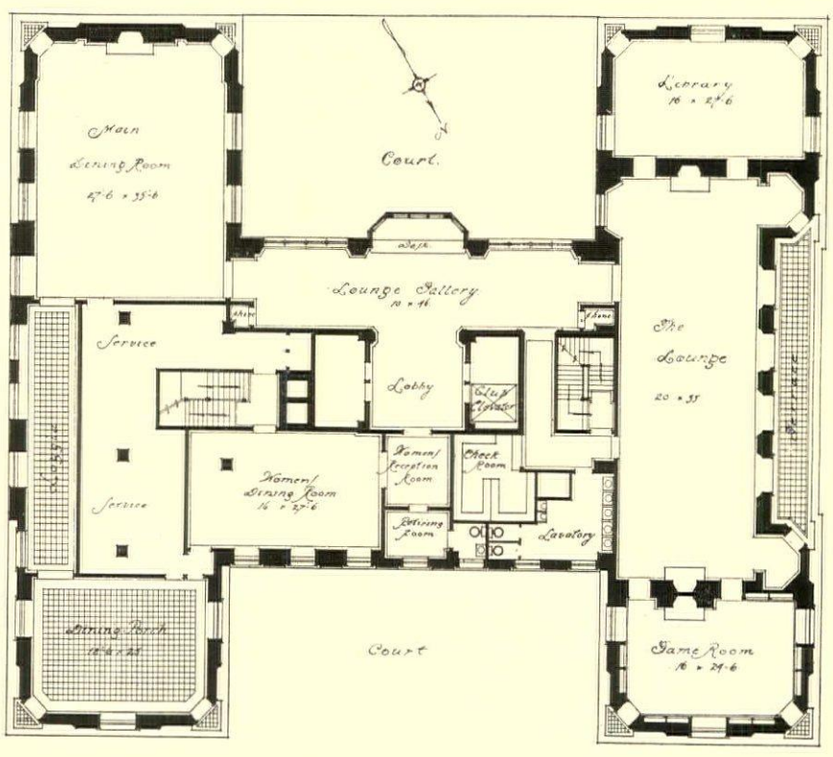
Walls panelled in oak surmounted by rough plaster ceiling. Floor is a composition tile effect

THE CORNELL CLUB OF NEW YORK

FRANCIS Y. JOANNES, ARCHITECT

LADIES' DINING ROOM

Furniture painted in dull green and upholstered in blue which is repeated in floor covering. Walls painted in ivory. Cretonne hangings



THE CORNELL CLUB OF NEW YORK

FRANCIS Y. JOANNES, ARCHITECT

BEAUX-ARTS INSTITUTE *of* DESIGN

ACTING DIRECTOR OF THE INSTITUTE—WHITNEY WARREN

ARCHITECTURE—RAYMOND M. HOOD, DIRECTOR

SCULPTURE—EDWARD FIELD SANFORD, JR., DIRECTOR INTERIOR DECORATION—FRANCIS H. LENYGON, DIRECTOR

MURAL PAINTING—ERNEST C. PEIXOTTO, DIRECTOR

JUDGMENT OF FEBRUARY 19, 1924

CLASS "A"—III ESQUISSE-ESQUISSE

"A MONUMENTAL FOUNTAIN"

A reservoir is located in a city park and against its wall it is proposed to erect a monumental fountain. Before the fountain will be an open plaza, whence the play of the fountain's waters may be seen to advantage. Balustrades, seats and statues adorn the plaza. The height of the reservoir wall is 50′-0″ and the greatest width of the fountain proper shall not exceed 50′-0″.

CLASS "A" AND "B" ARCHAEOLOGY— III

MEASURED DRAWING

"THE MAPPA HOUSE, TRENTON, NEW YORK"

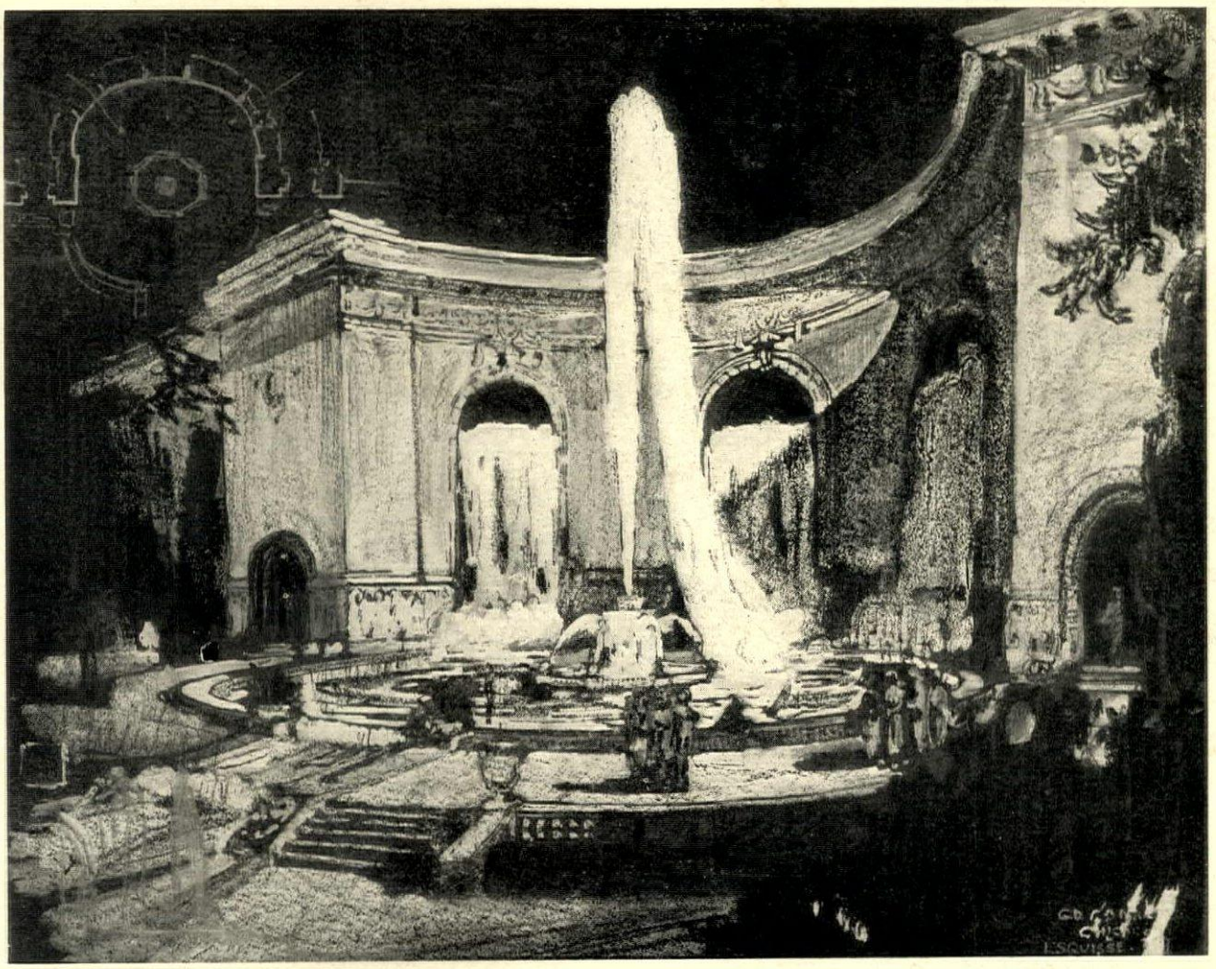
CLASS "B"—III ESQUISSE-ESQUISSE

"A FRONTISPIECE FOR A BOOK ON ARCHITECTURE"

Early editions of Vignola had frontispieces very beautifully designed and engraved. An American publisher who is preparing a fine modern edition will reproduce his title page in photogravure. It will have the following lettering on it:

"The Five Orders of Architecture by G. Barozzi da Vignola. Adam Banks Sons, New York, London, 1923."

That the sheet should be beautifully composed is essential. The drawing should be designed for reproduction at the same scale.

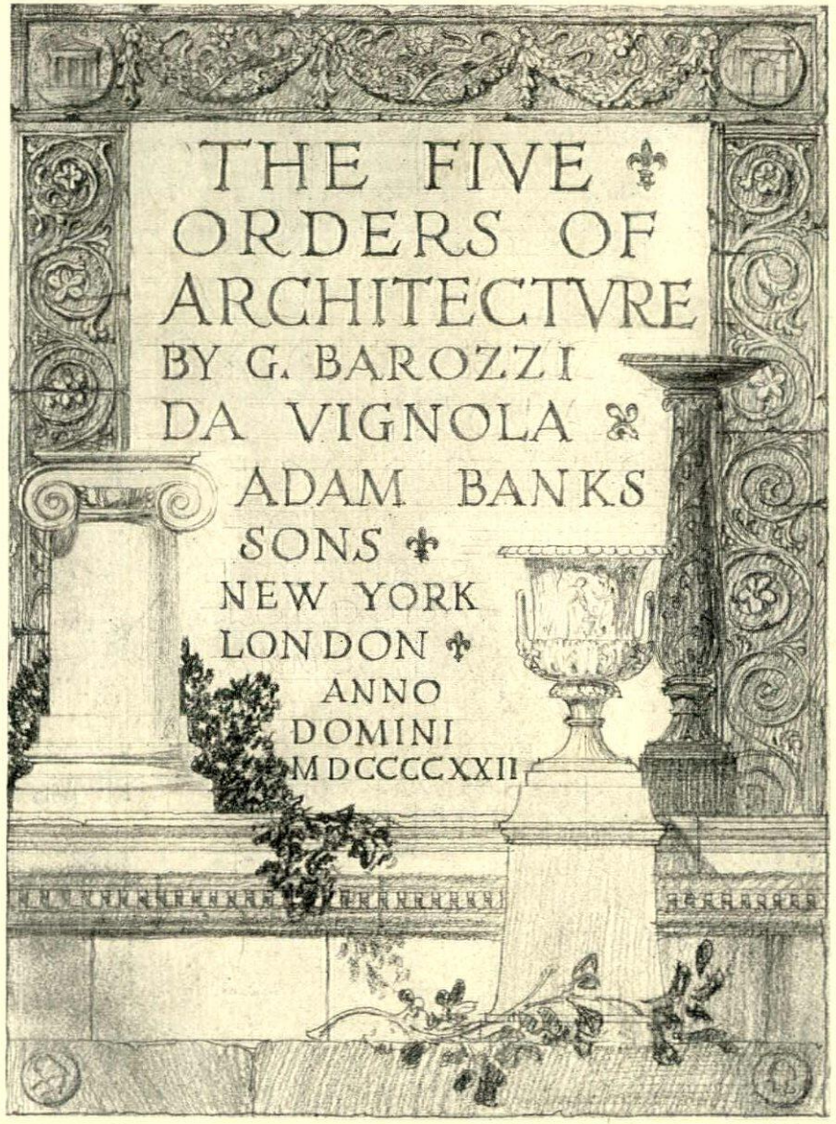


G. D. CONNOR — CHICAGO ATELIER

FIRST MENTION

CLASS "A"–III ESQUISSE-ESQUISSE—A MONUMENTAL FOUNTAIN

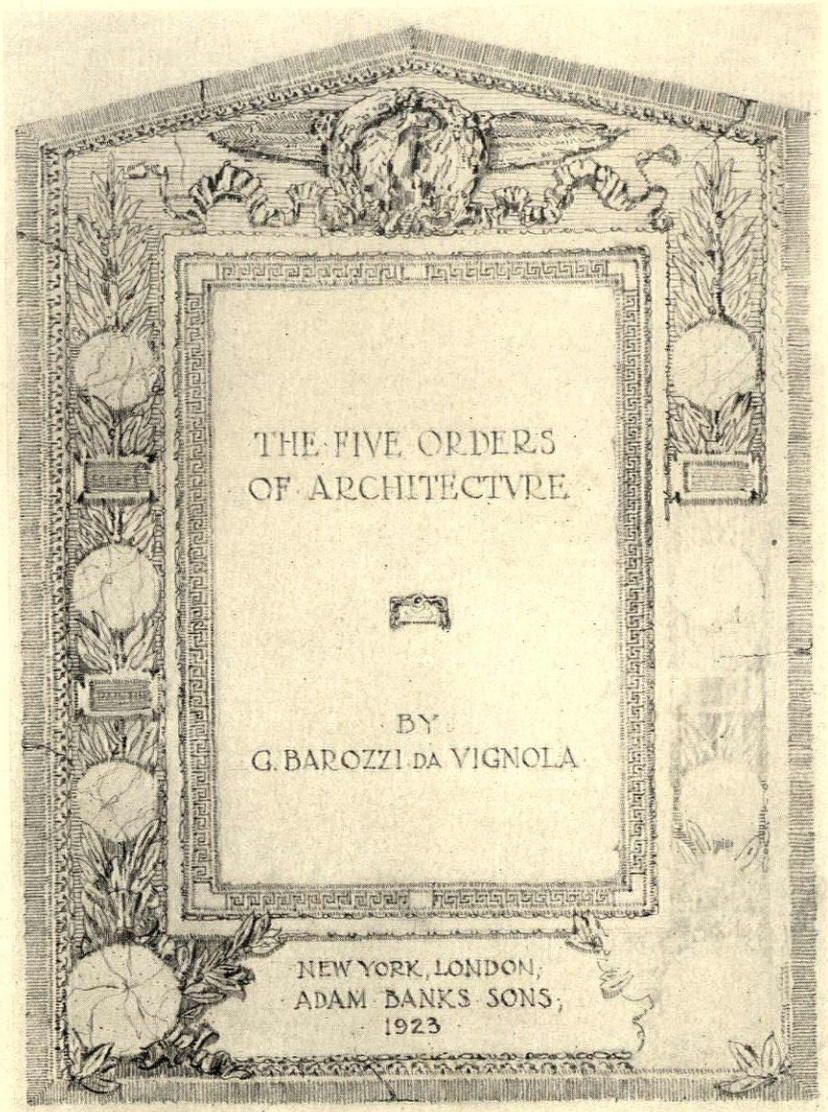
STUDENT WORK, BEAUX-ARTS INSTITUTE OF DESIGN



T. ROSS, JR.
PATRON—JAMES GAMBLE ROGERS
FIRST MENTION

J. C. EHRLICH
ATELIER SIBLEY
FIRST MENTION

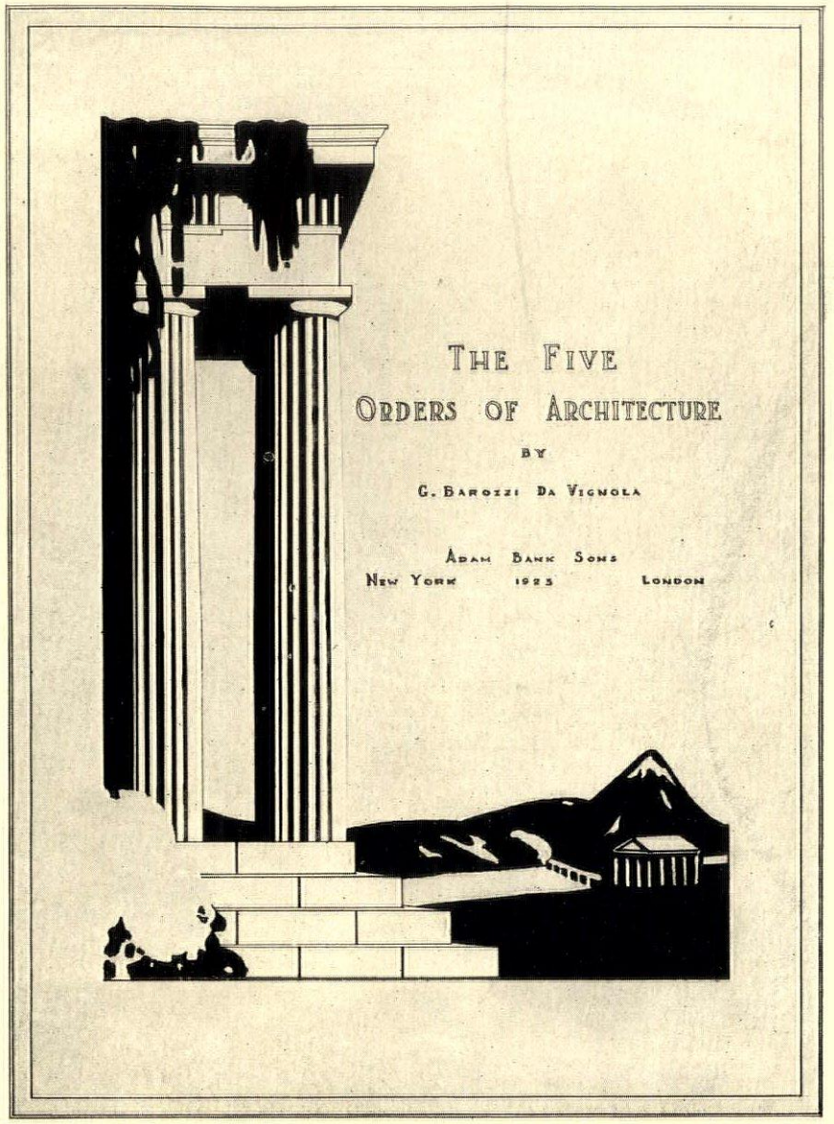
CLASS "B"–III ESQUISSE-ESQUISSE—A FRONTISPIECE FOR A BOOK ON ARCHITECTURE
STUDENT WORK, BEAUX-ARTS INSTITUTE OF DESIGN



G. V. D. CORTELYOU

FRENCH CURVE ATELIER

FIRST MENTION



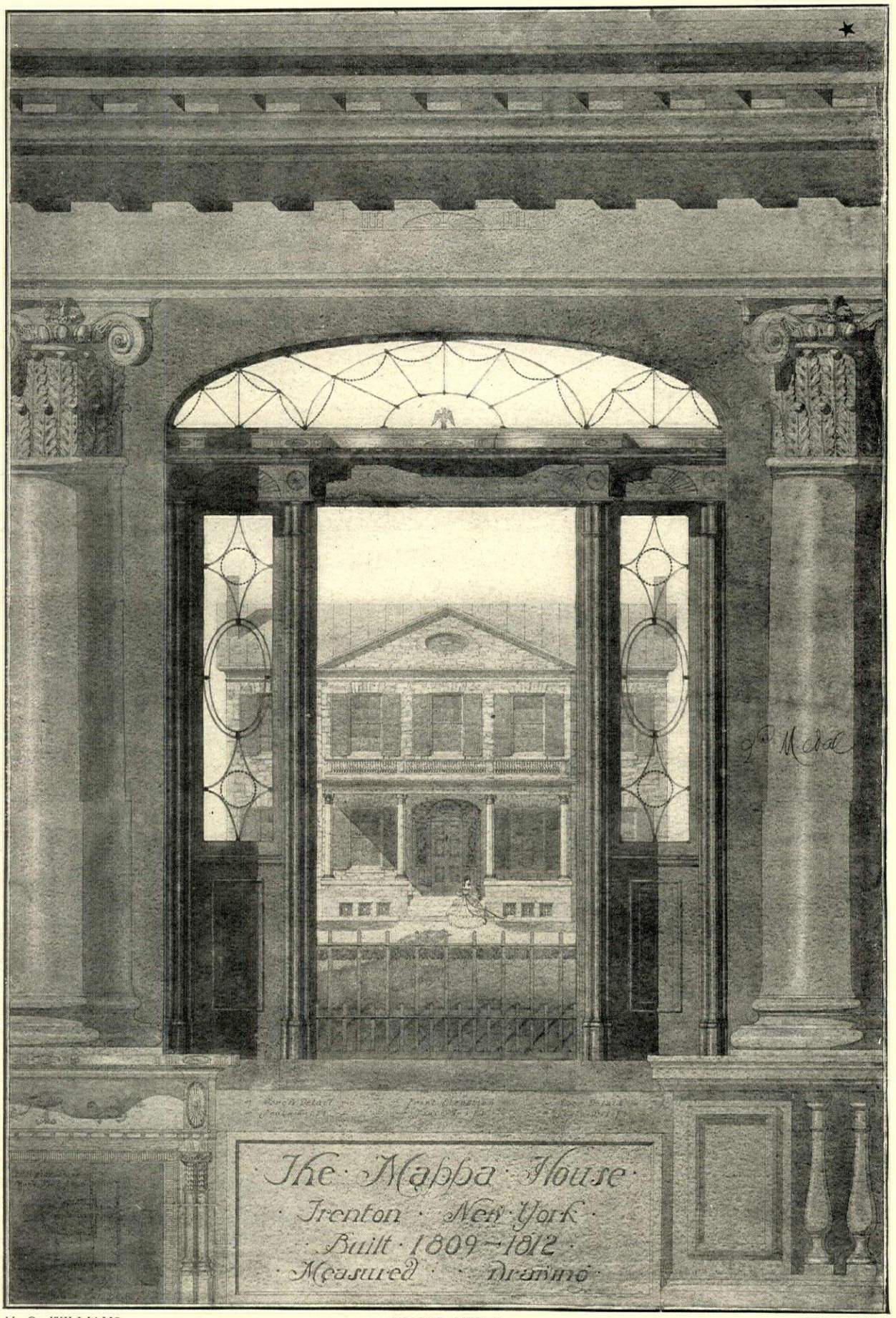
M. B. IVES

YALE UNIV.

FIRST MENTION

CLASS "B"–III ESQUISSE-ESQUISSE—A FRONTISPIECE FOR A BOOK ON ARCHITECTURE

STUDENT WORK, BEAUX-ARTS INSTITUTE OF DESIGN



H. O. WILLIAMS SECOND MEDAL YALE UNIV.

CLASS "A" AND "B" ARCHAEOLOGY–III MEASURED DRAWING—THE MAPPA HOUSE, TRENTON, N. Y.
STUDENT WORK, BEAUX-ARTS INSTITUTE OF DESIGN

The AMERICAN SPECIFICATION INSTITUTE

Member of The American Society for Testing Materials

160 North LaSalle Street, Chicago, Illinois

THE Board of Governors represent memberships in the following national societies: American Institute of Architects; American Society of Civil Engineers; American Society of Mechanical Engineers; American Institute of Electrical Engineers; American Society for Testing Materials; American Concrete Institute; American Iron and Steel Electrical Engineers; indicating the scope and activities of The American Specification Institute.

THE AMERICAN ARCHITECT AND THE ARCHITECTURAL REVIEW *has gratuitously set apart this section for use by The American Specification Institute. The Editors and Publishers assume no responsibility for any statements made, or opinions expressed.*

The purpose, simply stated, is to afford an organization which, it is believed, will become a most important element in architectural practice and building operations, a medium through which it may, without expense to itself, reach a class of readers that are most intimately identified with the field of the activities of The American Specification Institute.

Publishers, THE AMERICAN ARCHITECT AND THE ARCHITECTURAL REVIEW.

OUTLINE OF TENTATIVE SPECIFICATIONS FOR HORIZONTAL RETURN TUBULAR BOILERS

I. CONTRACT AND LEGAL

1. Parties:
2. Drawings:
3. Agreement:
4. Terms of Payment:
5. General Conditions:
6. Regulations and Codes:
7. Standards:
8. Patents:

II. ECONOMIC

9. Scope of Contract:
   - 9-1. Work Included:
   - 9-2. Schedule of Work:
   - 9-3. Work not Included:
10. Methods of Analysis and Comparison of Bids:
    - 10-1. Methods:
    - 10-2. Basis:
    - 10-3. Form of Bids:
11. Conditional Payments:

III. GENERAL DESCRIPTIVE

12. Characteristics:
13. Service Conditions:
    - 13-1. Location of Boilers:
    - 13-2. Railroad Siding:
    - 13-3. Visiting Site:
    - 13-4. Working Facilities:
    - 13-5. Water Supply:
    - 13-6. Water Pressure:
14. Ultimate Requirements:
    - 14-1. Smokelessness:
    - 14-2. Uptake Temperature:

IV. PRELIMINARY PREPARATION

15. Field Measurements:
16. Shop Drawings:
17. Samples:

V. MATERIALS

18. Properties, Chemical and Physical:
19. Sizes, Weights, Gauges:
20. Quantities:

VI. DESIGN AND CONSTRUCTION

21. Shop Work:
    - 21-1. Boilers:

21-2. Shell:
21-3. Tubes:
21-4. Nozzles:
21-5. Dry Pipe:
21-6. Manholes:
21-7. Water Backs:
21-8. Smoke Uptake and Damper:
21-9. Damper Regulator:
21-10. Blow-Off:
21-11. Feed-Pipe and Fittings:
21-12. Piping:
21-13. Soot Blowers:
21-14. Soot Blower Piping:
21-15. Boiler Feed Regulator:
21-16. Low Water Level Protection:
21-17. Boiler Accessories:
21-18. Furnace and Boiler Tools:
21-19. Grates:
21-20. Fronts and Castings:
21-21. Structural Steel:
21-22. Fire Brick:
21-23. Fire Clay:
21-24. Smoke Indicator:
22. Field Work:
22-1. Foundations:
22-2. Erection:
22-3. Brick Setting:
22-4. Fire Brick Lining:
22-5. Common Brick:
22-6. Brickheaders:
22-7. Clearances:
22-8. Combustion Space:
22-9. Covering:
22-10. Drying Out:
22-11. Air Proofing:
22-12. Steel Jacket:
22-13. Openings:
23. Finish:
24. Protection of Work:

VII. SCHEDULES

25. Shop Production:
26. Field Operations:
27. Shipment and Delivery:

VIII. RESULTS

28. Inspection and Performance:
29. Guarantees:
30. Tests:
31. Boiler Insurance:

PERSONALS

C. D. Goodman, architect, has moved his office from 14 St. John Street to 189 Bleury Street, Montreal, Canada.

Kocher & Larson Company, Inc., architects, have moved their offices from 6250 to 6405 South Halsted Street, Chicago, Ill.

Whiton & McMahon, architects, have moved their offices from 36 Pearl Street, Hartford, Conn., to 803 Main Street, that city.

Harwood Hewitt, architect, formerly at 1130 Van Nuys Building, has moved his office to 515 M. Harris Building, Los Angeles, Cal.

Charles J. Sullivan, architect, is now located at 9103 Third Avenue, Detroit, Mich., having moved from 612 Mckerchey Building, that city.

Frank A. Randall, architectural engineer, is now occupying offices at 160 North LaSalle Street, Chicago, Ill. Mr. Randall was formerly located at 19 South LaSalle Street.

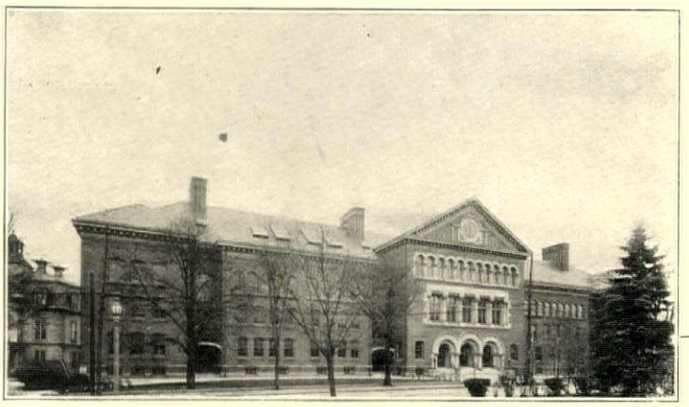
The office of John Russell Pope, architect, is now located in more extensive quarters at 542 Fifth Avenue, New York City, having been moved from 17 West Forty-sixth Street.

Paul W. Hofferbert, architect and engineer, has opened an office in Florence, Ala., for the general practice of architecture and engineering. Manufacturers' catalogs and samples are requested.

Edwin St. John Griffith, architect, has established an office at 306 Masonic Building, Hoquiam, Wash., the former firm of Dobell & Griffith having been dissolved. Daniel R. Huntington, A.I.A., of Seattle, Wash., will be associated with Mr. Griffith.

The architectural firm of Minchin-Spitz & Company has been dissolved. Alexander H. Spitz will continue the practice of his profession at the old address, 19 West Jackson Boulevard, Chicago, Ill., where he would appreciate receiving manufacturers' catalogs and samples.

Levy & Schreyer, architects, have dissolved partnership. George H. Levy will continue practicing at the old address, 17 West Forty-second Street, New York City. Benjamin Schreyer has established offices at 105 Montgomery Street, San Francisco, Cal., where he would be pleased to receive manufacturers' catalogs and samples.



The Malden High School, Malden, Mass.

F. Irving Cooper, Architect, Boston
R. D. Kimball Co., Engineers, Boston

Another

25 year old Installation of Powers Temperature Control giving perfect satisfaction

Malden, Mass., October 11, 1922.

Powers Heat Regulation Co.,
Boston, Mass.

Gentlemen: I am sending you the information you requested concerning the length of time your thermostats and diaphragm motor valves have been in service in the Malden High School.

The system was installed in 1897 or 1898 and has been in operation constantly since that time and the cost of maintaining it has been practically nothing to the City.

At the time of installation there were 22 rooms in the building, all equipped with thermostats and diaphragm motor valves and in 1906 when the addition was made to the building 34 thermostats, 37 damper valves were added and 9 motor valves in connection with the tempering coils, and 12 motor valves in the main vent dampers.

I have had ten years' experience in this building with your system and I am very glad to recommend it at every opportunity. The cost of operation is very small.

Very truly yours,
JOSEPH T. TUPPER,
Engineer.

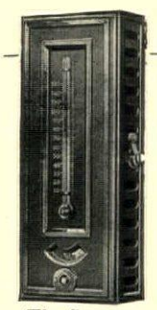
Is service like this worth a premium?

Cited here is an example typical of many Powers installations giving accurate control for more than a quarter of a century.

When DURABILITY and accurate control are of greatest consequence, should not the premium paid for Powers control be considered in relation to its performance, rather than by a comparison of its first cost with that of another system?

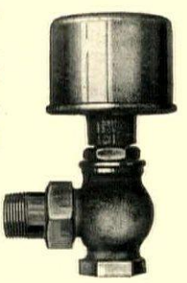
High first cost of Powers Control is cheapest in the end

Our book, THE ELIMINATION OF HEAT WASTE shows how and why a Powers system of temperature control gives such remarkably long and accurate service, and why its high first cost is cheapest in the end. May we send you a copy?



The Powers D, Thermostat

The reason for the remarkable accuracy and Durability of a Powers system of temperature control lies in its famous Vapor Disc Thermostat. It is extremely simple—has no moving parts to get out of order—the intense heat of summer and occasional chill of unheated rooms in winter causes no error in its adjustment. For detailed description send for our interesting book THE ELIMINATION OF HEAT WASTE.



The Powers All-Metal Radiator Valve

THE POWERS REGULATOR COMPANY

Over 30 years of specialization in automatic temperature control

2797 Greenview Avenue, Chicago

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BOSTON	DENVER	KANSAS CITY	NEW ORLEANS	ROCHESTER	TORONTO	WINNIPEG
BUFFALO	DES MOINES	LOS ANGELES	NEW YORK	ST. LOUIS	MONTREAL	CALGARY
BUTTE, MONT.	DETROIT	MILWAUKEE	PHILADELPHIA	SALT LAKE CITY	HALIFAX	VANCOUVER
CHARLOTTE, N.C.	EL PASO					

2829

BOOK NOTES

THE VILLAS OF PLINY THE YOUNGER

PLINY the Younger left descriptions of his Laurentine and Tuscan villas and their plan appears to have been an attractive field of speculation for some persons. The author of this book collected these designs, twenty-three of the Laurentine and ten of the Tuscan villa, for the use of students of Roman life and literature. As Pliny's descriptions are general and lacking in dimensions there is a considerable latitude in the reconstructions, hence any person's plan might be as valid as another's. Then to what purpose could these be made except to while away time, a use for which nothing better could be found? The book contains little of use to American architects except possibly in California and even then it is doubtful if such a villa could be made adaptable to our social and domestic customs.

To architects this book may serve to interest an idle hour or appear to increase the scope and value of a library.

The Villas of Pliny the Younger, by Helen H. Tanzer, Assistant Professor of Classics, Hunter College, New York. 152 pages, illustrated. Columbia University Press, New York. Price $2.50.

STRESSES IN FRAMED STRUCTURES

THIS is the fourth of a series of six volumes prepared to provide a complete work covering the design and construction of the principal kinds and types of modern civil engineering structures. Each volume is a unit in itself, as references are not made from one volume to another by section and article numbers. This arrangement allows the use of any one volume without reference to the others.

The book consists of eight sections. The first, comprising about one-third of the book, is devoted to the general theory of measuring and determining the nature of the stresses in framed structures and beams induced by the various conditions of supports and loads. It covers the principles of statics, reactions, moments and shears in beams and trusses and influence lines. This section is unusually complete. The remaining sections are devoted to methods of computing stresses in roof trusses and bridge trusses, lateral trusses and portal bracing, deflection of trusses and the stresses in redundant members. Of particular importance to architects are the sections devoted to statically indeterminate frames, wind stresses in high buildings and rectangular tower structures. Appendix A consists of equations giving the moments in statically indeterminate frames most commonly used when subjected to various loads. Appendix B gives the derivation of fundamental equations for analysis of statically indeterminate frames.

Many illustrative problems are given throughout which add to the usableness of the book. The illustrations and diagrams are very clearly drawn and of a scale sufficiently large to be easily read. The typography and general make-up are of the same high character that is found in the volumes already issued. In every part of the book is shown a successful intention to make this volume of such a scope that it will completely serve the needs of the structural engineer. The book should find a place in every architect's and structural engineer's library.

Stresses in Framed Structures. Editors-in-chief: George A. Hool, Professor of Structural Engineering, University of Wisconsin, and W. S. Kinne, Professor of Structural Engineering, University of Wisconsin, assisted by a staff of six specialists. 620 pages, 6 x 9 inches, fully illustrated. New York, McGraw-Hill Book Company. Price $5.00.

MORE INTERIORS OF THE XVII AND XVIII CENTURIES

A BOOK entitled "Die Raumkunst im Kupferstich des 17 und 18 Jahrhunderts" is a collection of some three hundred interiors of the XVII and XVIII centuries. It includes work of architects of all nationalities, Jean Lepautre, Charles Lebrun, Paul Decker, Lucas von Hildebrandt, Piranesi, Pergolesi, Robert Adam, Inigo Jones, and others. Such a collection is sure to contain much that is good. All the works have been selected to suit the Teutonic taste and thus they somewhat represent the trend of German decoration of the present day, and we might not make the same selection. The plates are of worth more for their merits of composition and rendering than for any value to the interior architect. As in so many publications of the present day, there is little or nothing that is adaptable to the design or decoration of the average size house, and much is contained in this book that has appeared often in other publications.

Die Raumkunst im Kupferstich des 17 und 18 Jahrhunderts. 375 plates compiled by Wilhelm Kurth. Size 9 by 12 in., cloth bound. Published by Julius Hoffman, Verlag, Stuttgart, Germany.

AN ADDRESS TO STUDENTS

THE following are extracts from an address to students delivered at the annual meeting, in February, of the Royal Institute of British Architects by its President J. Alfred Gotch, F.S.A.:

Imagination is one of the most enviable possessions of the artist, who may also conceivably be an architect; imagination can lift him from earth to heaven. But for heaven's sake, and for earth's sake too, do not imagine that a new style of architecture can be invented even by the most gifted student in the full flush of his intuitive perceptions. We are all prone to wish that it could be so, and some, maybe, think it actually possible; but all history teaches the contrary. Wherever we look we find that changes have been gradual, whether we examine architecture, or mankind, or the universe itself. Violent upheavals there have been in the framework of the earth, but their range has been limited and they have not changed the essential development of the great globe. Violent upheavals have occurred among mankind, but they have not permanently affected the orderly processes which control its fate.

* * *

One of the greatest charms of a work of art is the absence of any visible effort in its production. The most touching music, the most restful pictures, the most captivating style in literature, all possess this quality of ease, and so it is with architecture. The most delightful buildings are wholly unselfconscious, they almost seem to have grown of themselves, their special features are there because they are wanted, and not because the designer wanted to introduce them. One of the greatest foes of art is affectation—and affectation is the offspring of conscious effort. There are many forms of affectation, and there is an affectation of omission as well as of commission. No new style in architecture or painting or any other art has a chance of life which is a mere negation of what has hitherto been accepted as being in itself beautiful or as lending beauty. Such negation is only a form of affectation: the discarding of all ancient methods of adornment entails a visible effort; it is an obvious indication of self-consciousness. Qualities such as these have never yet been found in fine architecture.

* * *

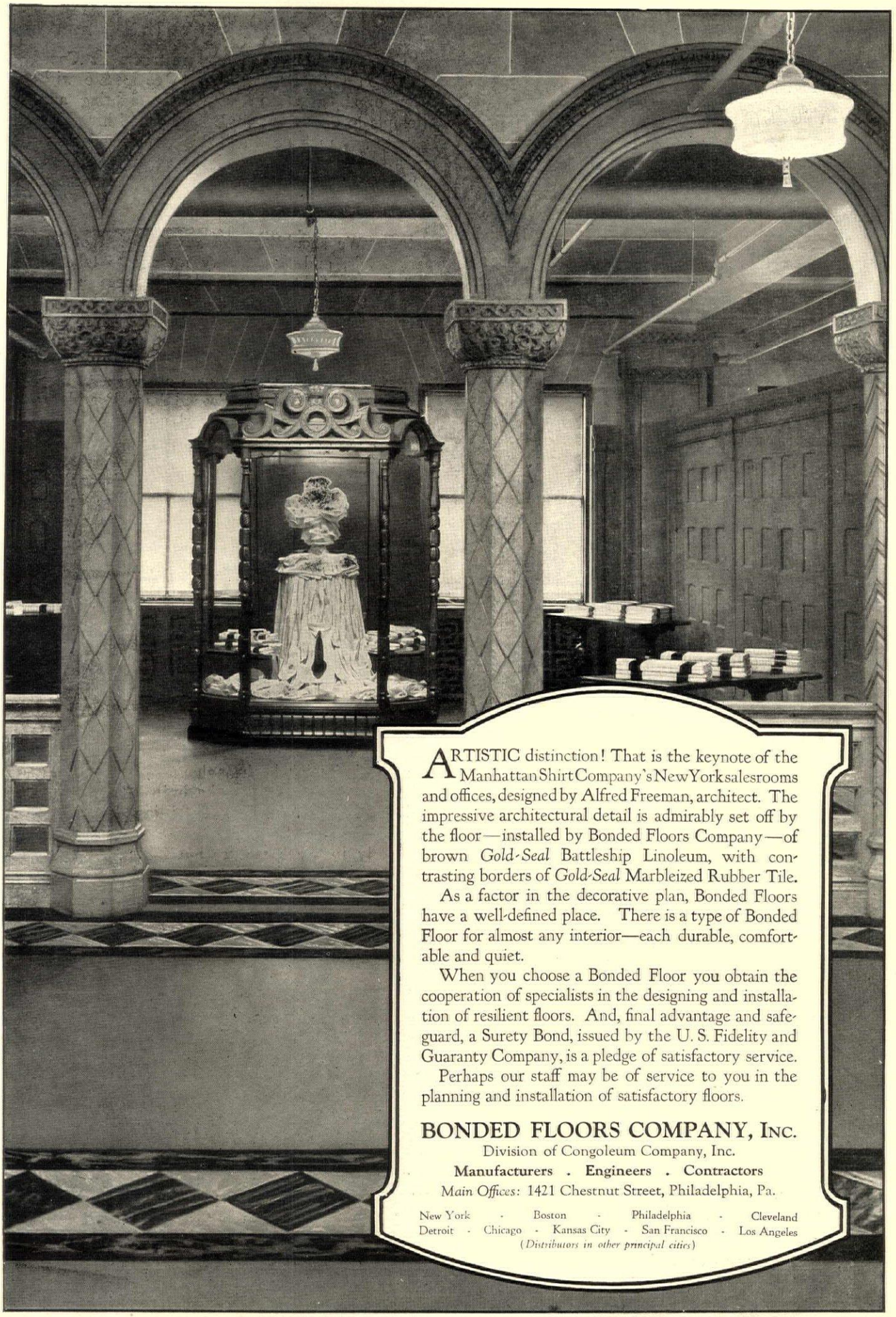
After all, architectural expression is controlled by the circumstances of its time. In the Middle Ages circumstances changed slowly and so did architectural style, but with the awakening of activity at the Renaissance the change was more marked. The new classic gradually established itself and has held the field ever since, save for the brief incursion of the Gothic revival, which eventually succumbed to the force of circumstances, since it became manifest that Gothic forms were out of harmony with the demands of modern convenience except in ecclesiastical buildings. It may be hoped that the battle of the styles, which raged during a large part of last century, is over, and that we may all march peacefully together toward the same end and under the same banner, just as our forefathers did in ancient days.

WHY "ART" COMMISSIONS?

DR. CHARLES BEARD, the American expert on municipal government and administration, who has recently returned to the United States after a visit to Tokyo, states a recent issue of *The Architects' Journal*, London, has prepared a report on the rebuilding of that city, in the course of which he urges the appointment of a permanent art commission for the capital, instancing the success that such commissions have had in America in improving public taste. "To allay the fears of hard minded practical business men," he says, "I may add that beauty and distinction in Tokyo will 'pay'." Of course. How long must it be, then, before this country of hard-headed business men takes Dr. Beard's excellent advice to heart? Probably as long as we continue to talk about "art" commissions. The average Englishman prides himself not upon his knowledge of art, but upon his practicability. Both terms really mean the same thing, but he doesn't know it. Talk to him of "practical improvements" and he is with you heart and soul. So let us hear no more of "art" commissions. If we are to win over the man in the street and help him to a knowledge of good architecture we must talk of "public improvement commissions." There may occasionally be a good deal "in a name."

A NATIONAL STYLE OF ARCHITECTURE

IN the course of the interesting address given by Lord Curzon at the opening of the second exhibition of the Architectural Club, London, his lordship said the answer to the question as to whether they "were capable of producing any new national style of architecture" was doubtful—and this may well be the case, states a recent issue of *The Builder*, London. It is not in any conscious way that such a result will be reached and it is altogether to be doubted whether we should be aware of having reached it if we did. Of the good we are seldom conscious, and to set out to produce a new style of architecture might lead us very far astray. It is better to have as our aim to do the best in the conditions presented to us, and to leave style to take care of itself.



ARTISTIC distinction! That is the keynote of the Manhattan Shirt Company's New York salesrooms and offices, designed by Alfred Freeman, architect. The impressive architectural detail is admirably set off by the floor—installed by Bonded Floors Company—of brown *Gold-Seal* Battleship Linoleum, with contrasting borders of *Gold-Seal* Marbleized Rubber Tile.

As a factor in the decorative plan, Bonded Floors have a well-defined place. There is a type of Bonded Floor for almost any interior—each durable, comfortable and quiet.

When you choose a Bonded Floor you obtain the cooperation of specialists in the designing and installation of resilient floors. And, final advantage and safeguard, a Surety Bond, issued by the U. S. Fidelity and Guaranty Company, is a pledge of satisfactory service.

Perhaps our staff may be of service to you in the planning and installation of satisfactory floors.

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NEW YORK CHAPTER, A. I. A.

THE last meeting of the season 1923-1924 of the New York Chapter, A. I. A., was held on May 14. The meeting was devoted to the election of officers and presentation of Committee Reports. The following officers were elected:

President.....Benjamin Wistar Morris
Vice-President.....Francis Y. Joannes
Secretary.....Hobart B. Upjohn
Treasurer.....Julian Clarence Levi
Recorder.....LeRoy E. Kern

One of the most important reports was the preliminary report of the Committee on Uneconomic Practices in the Building Industry. When this committee began to make its investigations it found that the field to be investigated was of great extent. As it studied the problem it became quite apparent that they would meet with criticism of the profession. The committee, therefore, decided that as its first step they would consider those things for which the architect himself might be held responsible. The committee then conferred with every interest which had any connection whatever with the building industry. It was then decided to classify the collected data under three heads: *One,* Constructive criticism, a mere statement of which is both interesting and helpful. *Two,* Criticisms involving questions of policy which were debatable or required further inquiry and development before they could be presented for the consideration of the Chapter. *Three,* Criticisms involving the relationship of the architect and owner and of the owner to the job.

The preliminary report only covered the first classification. This is separated into ten divisions. It is regretted that space does not permit the copying of this report in full at this time. The reading of this would be most helpful to architects generally. The report indicates that the committee spent a great deal of time and labor in its preparation and it is to be congratulated on the service which it has rendered to the profession.

This meeting closes a very satisfactory year for the New York Chapter and its success is due largely to the officers who have had its work in charge. D. Everett Waid, as President of the Chapter, and his associates have set a mark for chapter work that it will be difficult to surpass.

NEW YORK SOCIETY OF ARCHITECTS

THE New York Society of Architects at its annual meeting and dinner, May 20, at the Hotel Astor adopted a resolution opposing an invasion of the parks. It reads:

"Resolved, That the New York Society of Architects reaffirms its opposition to invasion of the parks for any purpose other than the use for which they were created.

"Resolved, That it hereby instructs its Committee on City Departments to co-operate with other organizations in vigorously fighting any attempts to divert the city's beauty and breathing spots to any purpose which this society believes is against public welfare and the general good."

"The responsibility for preserving the parks is a duty that rests upon every citizen of this city," said James Riely Gordon, President of the Society. "We should oppose any invasion of our park lands, and this society intends to take its part in any fight that may become necessary to prevent the use of the parks for other than the purpose for which they were set apart for the use of all the people."

Mr. Gordon was re-elected President. Other officers re-elected were Adam E. Fisher, Vice-President; E. W. Loth, Second Vice President; Henry Holder, Treasurer; Arland W. Johnson, Secretary, and Walter H. Volckening, Financial Secretary.

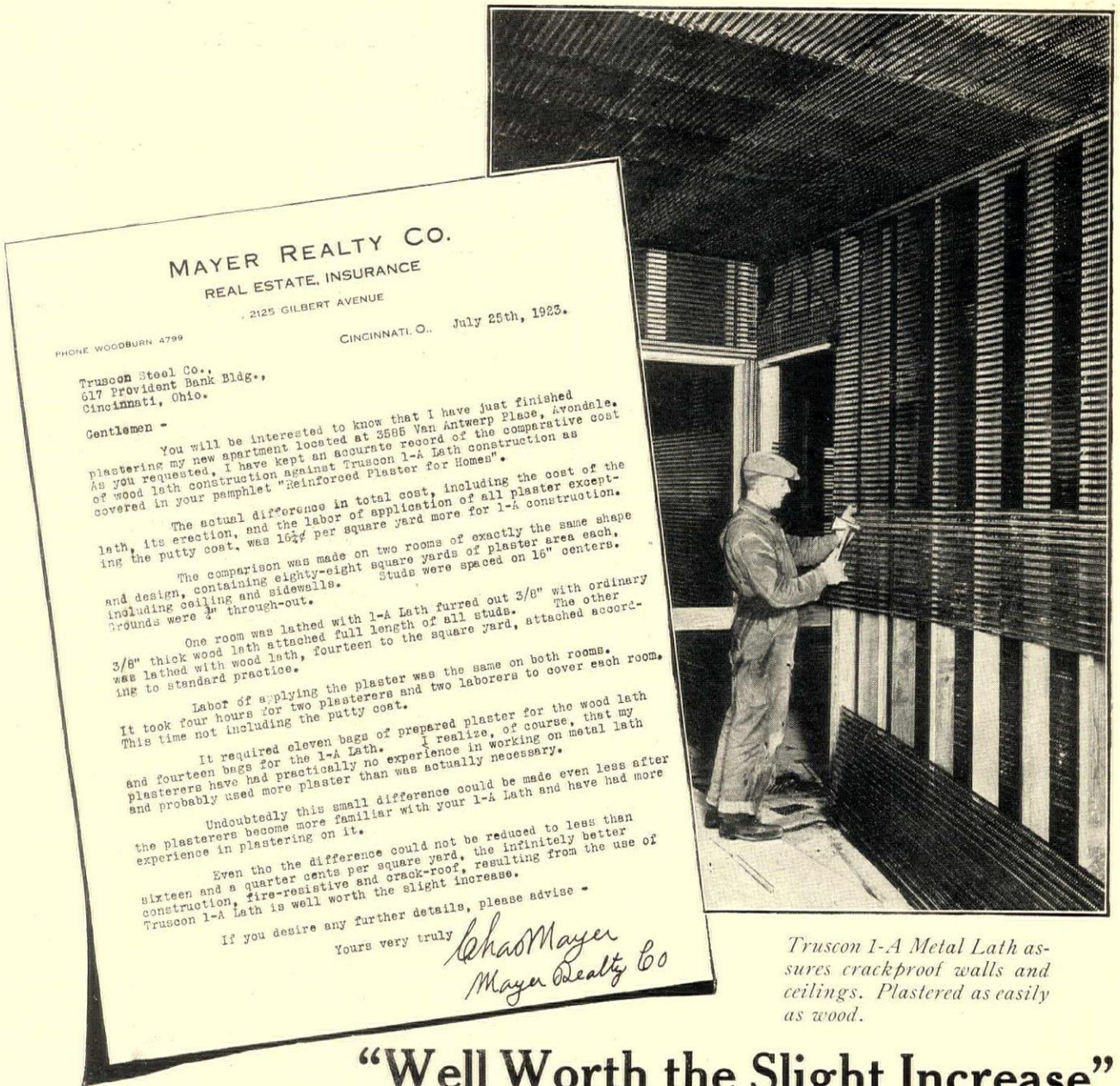
It was announced that three medals will be awarded for the best work in sculpture in the New York district during the year and three for the best mural painting. The awards will be made on October 21 at a meeting to be held at the Hotel Astor.

MILLIONS FOR NEW HOTELS

HOTEL building is today classed among the four greatest American industries. All records for such construction were eclipsed last year when more than a quarter of a billion dollars was spent to build hotels throughout the country. If all the hotels planned to be built this year are completed, more than half a billion dollars will be expended. This activity is widely scattered. Not only in the big cities but in comparatively small towns luxurious hotels are now going up. Last year sixty-four hotels were built costing more than $1,000,000 each. Of these fourteen were in New York City. Five of these hotels have more than 1,000 rooms each. In some cases a single hotel costs nearly $10,000,000.

There were more than 300 hotels built and opened last year in the United States ranging from 40 to 1,200 rooms. In addition to these some $25,000,000 was spent in building smaller hotels.

Among the smaller cities which have recently acquired hotels costing a million dollars or more are Memphis, Butte, Hazleton, Pa.; Syracuse and Sacramento. A hotel to cost $6,000,000 has been built at Louisville and one costing $3,000,000 at Virginia Beach. Miami, Fla., has a $2,000,000 hotel. New hotels containing more than 1,000 rooms have been built at Washington, Detroit and Atlanta.



MAYER REALTY CO.
REAL ESTATE, INSURANCE
2125 GILBERT AVENUE
PHONE WOODBURN 4799 CINCINNATI, O., July 25th, 1923.

Truscon Steel Co.,
617 Provident Bank Bldg.,
Cincinnati, Ohio.

Gentlemen -

You will be interested to know that I have just finished plastering my new apartment located at 3585 Van Antwerp Place, Avondale. As you requested, I have kept an accurate record of the comparative cost of wood lath construction against Truscon 1-A Lath construction as covered in your pamphlet "Reinforced Plaster for Homes".

The actual difference in total cost, including the cost of the lath, its erection, and the labor of application of all plaster except-ing the putty coat, was 16½¢ per square yard more for 1-A construction.

The comparison was made on two rooms of exactly the same shape and design, containing eighty-eight square yards of plaster area each, including ceiling and sidewalls. Studs were spaced on 16" centers. Grounds were ½" through-out.

One room was lathed with 1-A Lath furred out 3/8" with ordinary 3/8" thick wood lath attached full length of all studs. The other was lathed with wood lath, fourteen to the square yard, attached accord-ing to standard practice.

Labor of applying the plaster was the same on both rooms. It took four hours for two plasterers and two laborers to cover each room. This time not including the putty coat.

It required eleven bags of prepared plaster for the wood lath and fourteen bags for the 1-A Lath. I realize, of course, that my plasterers have had practically no experience in working on metal lath and probably used more plaster than was actually necessary.

Undoubtedly this small difference could be made even less after the plasterers become more familiar with your 1-A Lath and have had more experience in plastering on it.

Even tho the difference could not be reduced to less than sixteen and a quarter cents per square yard, the infinitely better construction, fire-resistive and crack-roof, resulting from the use of Truscon 1-A Lath is well worth the slight increase.

If you desire any further details, please advise -

Yours very truly
Chas Mayer
Mayer Realty Co

Truscon 1-A Metal Lath assures crackproof walls and ceilings. Plastered as easily as wood.

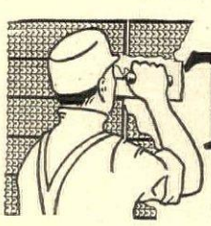
"Well Worth the Slight Increase"

Experienced home builders, such as Mr. Mayer, are finding that "the infinitely better construction, fire-resistive and crackproof, resulting from the use of Truscon 1-A Lath is well worth the slight increase" over other constructions. Home builders are demanding more durable plaster work. The architect who specifies Truscon 1-A Lath for homes finds as a result a more substantial construction, which in the end means better advertisements for his work and more satisfied home owners.

Let us give you definite facts and figures on the reason for choosing Truscon 1-A Metal Lath in building profitable homes. A copy of the Metal Lath Data Book will be sent on request. Write for it.

TRUSCON STEEL COMPANY, Youngstown, Ohio

Warehouses and Sales Offices from Pacific to Atlantic.
For addresses see 'phone books of principal cities.
Canada: Walkerville, Ont. Foreign Div.: New York



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REFERENCE LIST OF BUSINESS LITERATURE

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This list of the more important business literature of Manufacturers of building material and equipment is published each issue. Any of these publications may be had without charge, unless otherwise noted, by applying to The American Architect and The Architectural Review, 243 West 39th Street, New York, or obtained directly from the manufacturers. Either the titles or the numbers may be used in ordering.

ACOUSTICS

Johns-Manville, Inc., 294 Madison Ave., New York, N. Y.

710. *Architectural Acoustics.* A treatise on the correction of architectural acoustics in churches, schools, hospitals, office buildings and other places. 24 pp. Ill. 6 x 9 in.

AIR CONDITIONING—See also Heating and Ventilation

The Bayley Manufacturing Company, 732-760 Greenbush St., Milwaukee, Wis.

486. *Bulletin No.* 23. This bulletin is descriptive of the Bayley Turbo-Atomizer, the Bayley Turbo Air-Washer and Air Conditioner, for cleaning, cooling, tempering, humidifying and dehumidifying air. It contains an interesting treatise on air conditioning methods together with useful tables and a set of specifications. 32 pp. Ill. 7¾ x 10½ in.

ANCHORAGE EQUIPMENT

Midwest Steel & Supply Co., Inc., 100 East 45th St., New York City

643. *Data Book for Architects & Engineers.* A well illustrated data book showing methods of using Midwest Box Rails, L Rails, Stringers and Inserts in the solution of anchorage problems for transmission, electrical, mechanical, material handling equipment, piping, trackage, cables, etc. Practical working data for the architect is plentifully supplied. 54 pp. Ill. 8½ x 11 in.

ARCHITECTURAL IRON WORK—See also Ornamental Metal Work

ASBESTOS—See also Lumber, Roofing

Johns-Manville, Inc., 294 Madison Ave., New York, N. Y.

709. *Johns-Manville Service to Power Users.* A catalog containing valuable data on all forms of asbestos insulation, asbestos packings, steam traps, high temperature cements, asbestos brake blocks and linings, asbestos building materials and general technical data. 260 pp. Ill. 8½ x 11 in.

ASBESTOS ROOFING—See also Roofing

The Philip Carey Co., Lockland, Cincinnati, Ohio.

380. *Asbestos versus Fire.* Booklet in colors. Contains information about asbestos; data on Carey Prepared and Built-up Asbestos Roofing; picture of buildings on which they have been used. 15 pp. Ill. 6 x 9 in.

ASH HOISTS—See also Hoists

Gillis & Geoghegan, 545 West Broadway, New York, N. Y.

329. *General Catalogue.* Contains specifications in two forms, (1) using manufacturer's name, and (2) without using manufacturer's name. Detail in ¼ in. scale for each telescopic model and special material handling section. Fully illustrated with photographs of actual installations and descriptive matter of same. 20 pp. 2 colors. 8½ x 11 in.

BANK VAULTS

The Concrete Reinforcing and Engineering Co., 2735 Prospect Ave., Cleveland, Ohio.

730. *Vault Security.* A booklet treating of the fundamentals of vault masonry design and illustrating the application of the rivet-grip system of reinforcement in concrete vault walls. Typical layouts, details and specifications. 22 pp. Ill. 8½ x 11 in.

BATHROOM EQUIPMENT

A.P.W. Paper Co., Albany, N. Y.

740. *The Onliwon Hygiene.* A file card for reference in specifying cabinets of different kinds to contain toilet papers and paper towels. 2 pp. Ill. 8½ x 11 in.

BRICK

American Face Brick Association, 1754 People's Life Bldg., Chicago, Ill.

103. *The Story of Brick.* Contains the history of, and basic requirements of building brick, artistic, sanitary and economic reasons, comparative costs, and fire safety with photographs and drawings, and illustrates ancient and modern architectural works of note in brick. Size 7 x 9¼ in. 56 pp.

137. *A Manual of Face Brick Construction.* The history of brick making, types of face brick, showing details of construction for walls, chimneys and arches. Details of use of tile and brick construction and different types of bonds are given. A series of plans and elevations of small brick houses, descriptions, useful tables and suggestions are illustrated and described. Size 8½ x 11 in. 116 pp. Price $1.00.

155. *The Home of Beauty.* A booklet containing fifty prize designs for small brick houses submitted in national competition by architects. Texts by Aymar Embury II, Architect. Size 8 x 10 in. 72 pp. Price 50 cents.

371. *Architectural Details in Brickwork. Series One, Two and Three.* Each series consists of an indexed folder case to fit standard vertical letter fire, containing between 30 and 40 half-tones in brown ink on fine quality paper. These collections are inspiring aids to all designers. Sent free to architects who apply on their office stationery; to others, 50 cents for each series.

American Face Brick Association, 1754 People's Life Bldg., Chicago, Ill.

454. *Bungalow and Small House Plans.* Four booklets containing plans for attractive small brick houses, containing 3-4, 5, 6, and 7-8 rooms. 50 pp. Ill. 8½ x 11 in. 25 cents each, $1.00 for the set.

BRICK AND TILE—See also Brick

BUILDING CONSTRUCTION

Cement-Gun Company, Allentown, Pa.

563. *Report on Gunite Walls.* A report of fire tests made by Underwriters' Laboratories on Gunite walls, resulting in giving them a three-hour fire resistance classification. 90 pp. Ill. 6 x 9 in.

Concrete Engineering Co., Omaha, Neb.

347. *Handbook of Fireproof Construction.* An illustrated treatise on the design and construction of reinforced concrete floors with and without suspended ceilings. The Meyer Steel-form Construction is emphasized and tables are given of safe loads for ribbed concrete floors. 40 pp. Ill. 8½ x 11 in.

Curtis Companies Service Bureau, Clinton, Iowa.

662. *Better Built Houses.* Vol. XIII. This volume contains floor plans and perspectives of 21 two family houses. The designs were made by Trowbridge & Ackerman, Architects, New York, and illustrations rendered by Schell Lewis. Printed in sepia on heavy cream paper. Sent free to architects, east of the Rockies, requesting it on business stationery, otherwise price $1.00. 24 pp. Ill. 9 x 12 in.

Johns-Manville, Inc., New York City.

752. *Johns-Manville Service to Industry.* A complete catalog of Asbestos Roofings, Heat and Electric Insulations, Waterproofing, Industrial Flooring, etc. Complete details and specifications. Valuable reference book for architects. 260 pp. Ill. 8½ x 11 in.

McKeown Bros. Co., 21 East 40th St., New York, N. Y.

434. *Clear Floor Space.* A folder showing uses and advantages of McKeown "Lattis" and "Bowstring" long span wood roof trusses. 4 pp. Ill. 8½ x 11 in.

Portland Cement Association, 347 Madison Ave., New York City.

595. *Concrete Floors.—Proposed Standard Specifications of the American Concrete Institute.* Specifications with explanatory notes covering materials, proportions, mixing and curing. Plain and reinforced slabs are covered as well as one and two course floors and wearing courses. 18 pp. 6 x 9 in.

Truscon Steel Company, Youngstown, Ohio.

317. *Truscon Floortyle Construction. Form D-352.* Contains complete data and illustrations of Floortyle installations. 16 pp. Ill. 8½ x 11 in.

318. *Truscon Standard Buildings. Form D-398.* Describes Truscon Standard Steel Buildings, with diagrams, illustrations of installations, descriptive matter and list of users. 48 pp. Ill. 8½ x 11 in.

319. *Truscon Building Products. Form D-376.* Contains a brief description of each of the Truscon Products. 112 pp. Ill. 8½ x 11 in.

320. *Modern School Construction. Form* D-396. Contains illustrations of schools, with typical elevations, showing advantages of Truscon Products for this construction. 16 pp. Ill. 8½ x 11 in.

BUILDING DIRECTORIES

The Tablet & Ticket Co., 1015 West Adams St., Chicago, Ill.

517. *Office Building Directory.* Bulletin illustrating and describing directories made by this company providing for any required number of names. Frames of wood or metal with glass cover or doors. Name strips with one-quarter inch white letters furnished. Size 7 x 10 in. 4 pp.

BUILDING HARDWARE—See Hardware

BULLETIN BOARDS

R. W. Clark Mfg. Co., 1774 Wilson Ave., Chicago, Ill.

588. *Clark Directories and Clark Changeable Bulletin Boards.* Two pamphlets describing the Clark Changeable Bulletin Board and Directories for Office Buildings, Hotels, Business Buildings, etc. 8 pp. and 4 pp. Ill. 6¼ x 9 in.

The Tablet & Ticket Co., 1015-1021 West Adams Street, Chicago, Ill.

516. *T. & T. Changeable Bulletin Display Boards.* Describes Bulletin Boards with changeable type which has a self-spacing device so the lettering always looks neat and regular. 24 pp. Ill. 6 x 9 in.

Nave and Apse of St. Joseph's, Babylon, Long Island. Reiley and Steinbeck, Architects

THE fitness of face brick for this spacious church interior, serving at once the demands of structural durability and adornment, is here admirably shown. Brick lends itself here to the construction of arch and dome and at the same time affords a material suited to the finest interior decorative effects. In "Architectural Details in Brickwork," you will find many other examples of artistic brickwork. The halftone plates, issued in three series, each in an enclosed folder ready for filing, will be sent to any architect requesting them on his office stationery. Address, American Face Brick Association, 1754 Peoples Life Building, Chicago, Illinois.

REFERENCE LIST OF BUSINESS LITERATURE—Continued

CABINETS

Hess Warming & Ventilating Co., 1204-7 Tacoma Building, Chicago, Ill.

386. *The Hess Sanitary Medicine Cabinet Lockers and Mirrors.* Description with details of an enamelled steel medicine cabinet for bathrooms. 20 pp. Ill. 4 x 6.

CASEMENTS—See Doors and Windows

CEDAR LINING—See Lumber

CELLAR SASH—See Doors and Windows

CEMENT

The Carney Co., Mankato, Minn.

448. *The Bond That Guarantees the Wall.* Attractive catalog for architects, engineers, contractors, and dealers. Describes fully the characteristics, durability and economy of this nature-mixed cement that requires no lime. Contains simple formula for mixing and illustrations of Carney-laid buildings. 24 pp. Ill. 8½ x 11 in.

711. *A Perfected Cement.* An attractive circular describing late improvements in manufacturing Carney, cost comparisons, physical tests, specifications and testimonials. List of Carney-built buildings with architect's and contractor's names. 8 pp. Ill. 8½ x 11 in.

Louisville Cement Co., Inc., Louisville, Ky.

694. *Brixment for Perfect Mortar.* A description of the chemical and physical properties of Brixment, advantages of its use in mortars for brick and stone masonry, tests of strength and directions for use. In cover for filing. 16 pp. Ill. 8½ x 11 in.

Portland Cement Association, 111 West Washington St., Chicago, Ill.

636. *Concrete Data for Engineers and Architects.* A valuable booklet containing the reports of the Structural Materials Research Laboratories at Lewis Institute, Chicago, in abbreviated form. It is of great value to writers of specifications. 18 pp. Ill. 8½ x 11 in.

CHAIRS—See Furniture

The B. L. Marble Chair Co., Bedford, Ohio.

587. *Office Chairs, Catalog No.* 31. Describes a complete line of seating fixtures, for offices, directors' rooms and other places consisting of stationary and swivel chairs, settees and couches, both plain and leather upholstered. Also stenographer's chairs, stools, waste baskets, coat trees and accessories. 75 pp. Ill. 9 x 12 in.

CHUTES—See also Laundry Equipment

Edwin A. Jackson & Bro., Inc., 50 Beekman St., New York.

171. Booklet showing general construction and size of chutes to receive coal. Two types are built into the foundation wall with glass panel in place of cellar window; another type is placed flush with the ground, and is placed adjacent to wall, or can be placed near the street curb. Size 3½ x 6¼ in. 16 pp.

CLOCKS

Landis Engineering and Manufacturing Co., Waynesboro, Penna.

469. *Landis Electric Time and Program System.* A collection of bulletins No. 100, 110, 120, 130, 150, and 160, dealing with master and secondary clocks, equipment, time stamps, etc. Bound in expansible filing cover of tough paper. 48 pp. Ill. 8½ x 11 in.

COLUMNS

Lally Column Co. of New York, 334 Calyer Street, Brooklyn, N. Y.

122. *Lally Columns. Handbook.* Detailed construction diagrams for various types of steel construction. The text describes advantages of endurance and economy of the column. Various tests, tables of sizes, dimensions, weight, carrying capacities, and data on other structural materials are given. Size 4⅝ x 6⅜ in. 81 pages.

CONCRETE, REINFORCED—See also Reinforcing Steel

CONDUITS—See Pipe

Enameled Metals Co., Pittsburgh, Pa.

584. *Pittsburgh Standard Rigid Conduit.* A catalog describing patented thread protected enameled conduit and galvanized conduit with specifications and useful wiring data. 31 pp. Ill. 6¼ x 9¼ in.

DAMPPROOFING—See also Waterproofing

DOORS AND WINDOWS

Andersen Lumber Company, Bayport, Minn. (formerly South Stillwater).

559. *Complete Catalog for Architects and Builders.* Describes Andersen Standard Window Frames and Cellar Sash Frames, which are in 7 units instead of 57 and may be assembled and nailed in 10 minutes. Shows uses in special construction for it comes in 121 sizes and styles. 24 pp. Ill. 7¾ x 10¾ in.

Crittall Casement Window Co., Detroit, Mich.

672. *Crittall Universal Casement, Catalog No.* 22. Contains complete description, photographs, specifications and details of steel casement windows for banks, schools, residences, churches, hospitals, set directly into masonry and with auxiliary frames. 76 pp. Ill. 9 x 12 in.

695. *Crittall Solid Steel Reversible Windows, Catalog No.* 1-24. A catalog explaining the advantages of reversible metal windows for office buildings, schools, hospitals and other substantial buildings. Details of construction and specifications. 20 pp. Ill. 8½ x 11½ in.

Dahlstrom Metallic Door Co., Jamestown, N. Y.

674. *Architectural Catalog.* Illustrated catalog showing styles and types of Dahlstrom Standard Construction Hollow Metal Doors and Trim, Conduo-Base, etc. Also various types of frames, jamb construction and architectural shapes. 178 pp. Ill. 8½ x 11 in.. in loose leaf.

Irving Hamlin, 716 University Place, Evanston, Ill.

735. *The Evanston Sound-Proof Door.* A circular explaining the construction of a sound-proof door hermetically sealed against odors, dust, light, weather and air, especially adapted to music schools, hospitals, etc. 4 pp. 8½ x 11 in.

Henry Hope & Sons, 103 Park Ave., New York.

65. *Hope's Casements and Leaded Glass.* Portfolio. Gives specifications, description and photo-engraving, of Hope Casements in English and American Architecture, full size details of outward and inward opening and pivoted casements, of residential and office types. Size 12¼ x 18½ in. 32 pp.

S. H. Pomeroy Company, 282 East 134th St., New York, N. Y.

614. *Solid Metal Double Hung Window. Type "A". Bulletin A.* Complete specifications and details of sash, frame, stools and stool and apron. 4 pp. Ill. 8½ x 11 in.

Truscon Steel Co., Youngstown, Ohio.

315. *Truscon Steel Sash.* A catalog containing designing data, tables and views of Stock Sash installations. 6 pp. Ill. 8½ x 11 in.

348. *Truscon Steel Sash.* This handbook has been prepared for detailers and specification writers. The descriptions are clear and the details are complete. 80 pp. Ill. 8½ x 11 in.

638. *Daylighting Schools.* A treatise on the daylighting and window ventilation of school buildings quoting eminent authorities, illustrated with diagrams of lighting data and details of suitable windows. 28 pp. Ill. 8½ x 11 in.

Van Zile Ventilating Corporation, 280 Madison Ave., New York City.

697. *The Ventadoor.* A catalog describing a metal ventilating panel installed in wood and metal doors, always sight-proof and can be closed sound-proof and serves the purposes of a transom. 14 pp. Ill. 3½ x 6 in.

The Wheeler Osgood Co., Tacoma, Wash.

713. *Laminex Doors, Catalog No.* 31. Doors made of Douglas Fir employing a special laminated and doweled construction. Twenty designs in vertical and flat grain veneers. Sizes and details. 44 pp. Ill. 3⅞ x 9¼ in.

714. *Laminex Doors, A Book for Architects and the Building Trade.* This book fully describes the special features of Douglas Fir Laminex and Woco Doors; strength, water and heat tests; properties of Fir; Woco garage doors and window sash. 24 pp. Ill. 8 x 11 in.

DRAFTING MATERIALS

American Lead Pencil Co., 220 Fifth Ave., New York, N. Y.

268. *Booklet C-20. Venus Pencil in Mechanical Drafting.* An interesting illustrated booklet showing the possibilities of the Venus Drawing Pencil for drafting. 6 x 9 in.

Joseph Dixon Crucible Company, Pencil Department, Jersey City, N. J.

325. *Finding Your Pencil.* A book explaining the various degrees of hardness of the Eldorado pencil and the grade most suitable for every man who uses a pencil be he business or professional man, clerk or draftsman. Accompanied by a color chart of Dixon colored crayons. 16 pp. and 4 pp. in color chart. Ill. in colors. 3¼ x 6 in.

Ruud Manufacturing Co., Pittsburgh, Pa.

732. *Ruud Delineator and Specification Card.* A diagram of vanishing lines over which perspective sketches can be readily and correctly made. 8½ x 11 in.

DRAINS—See also Plumbing Equipment

Crampton Farley Brass Co., 221 Main St., Kansas City, Mo.

194. Several pamphlets describing various types of floor and area-way drains. 3½ x 6¼ in.

DUMB-WAITERS—See also Elevators

Kaestner & Hecht Co., 1500 No. Branch St., Chicago, Ill.

598. *Electric Dumb-waiters. Bulletin No.* 520. Illustrated catalog, 8 pp. 8½ x 11 in.

Sedgwick Machine Works, 144 West 15th Street, New York.

60. *Hand Power Elevator and Dumb-waiters in Modern Architectural Construction.* Illustrated catalogue. 4¼ x 8¼ in. 80 pp.

REFERENCE LIST OF BUSINESS LITERATURE—Continued

ELECTRICAL EQUIPMENT

Frank Adam Electric Co., St. Louis, Mo.

741. *Panel Board Catalog No. 32.* A complete catalog of standard panel boards, steel cabinets, switches and accessories. 48 pp. Ill. 7¾ x 10¾ in.

Burke Electric Company, Erie, Pa.

562. *Bulletin 120, Direct Current Motors and Generators.* A bulletin describing motors and generators developed especially to meet the most severe requirements and conditions encountered in mills, factories, small power plants, office buildings, etc. 8 pp. Ill. 8 x 10½ in.

The Hart & Hegeman Mfg. Co., 342 Capitol Avenue, Hartford, Conn.

699. *H. & H. Electrical Wiring Devices, Catalog "R."* Catalog of a complete line of switches, sockets, plugs, receptacles, plates, rosettes, cut-outs, elexits and accessories. Two identical catalogs in two sizes. 152 pp. Ill. 5 x 6¼ and 8 x 10½ in.

700. *Gold and Silver Star Switches.* A new type of switch with composition base having a gold star or a silver luminous star in on the button. 4 pp. Ill. 3½ x 6 in.

Harvey Hubbell, Inc., Bridgeport, Conn.

297. *Electrical Specialties. Catalog No. 17, 1921.* This catalog contains descriptions with prices of the thousand and one items connected with electric light, electric alarm and small electric appliance installations in modern buildings. 104 pp. Ill. 8 x 10½ in.

Kohler Co., Kohler, Wis.

756. *Kohler Automatic Power and Light.* A catalog illustrating a complete line of isolated automatic electric plants of 800 to 2500 watts capacity operated by gas or gasolene. Specifications. 48 pp. Ill. 6 x 8½ in.

Minneapolis Heat Regulator Co., Minneapolis, Minn.

570. *The Minneapolis Thermostatic Relay Switch.* Used in connection with any Minneapolis Thermostat, provides a means of temperature control for automatic oil burners, electric refrigerating apparatus, electric heating units and any similar equipment where it is necessary to operate an electric switch in accordance with temperature changes. 4 pp. Ill. 8½ x 11 in.

National Metal Molding Co., Pittsburgh, Pa.

481. *Liberty Rubber Insulated Wires, Cables and Cords.* A descriptive catalog of insulated wires, cables and cords for electric wiring. Contains much special information together with useful tables. 20 pp. Ill. 6 x 9 in.

ELEVATORS—See also Dumb-waiters and Hoists

A. B. See Electric Elevator Co., 52 Vesey St., New York.

169. Photographs and description in detail of elevator equipment manufactured by the A. B. See Electric Elevator Co. Size 6 x 8 in.

American Elevator & Machine Co., Louisville, Ky.

196. *Illustrated Catalogue* showing elevator equipment for various uses. 32 pp. 2½ x 9½ in.

Kaestner & Hecht Co., 1500 No. Branch St., Chicago, Ill.

597. *Electric Traction Elevators, Bulletin No. 500.* Illustrated catalog describing gearless traction elevators and worm-geared traction elevators. 31 pp. 8¼ x 11 in.

Kimball Bros., Co., Council Bluffs, Iowa.

742. *Kimball Straight Line Drive Elevators.* A complete catalog of passenger, freight and garage traction elevators, push button elevators, dumbwaiters, sidewalk and ash hoist elevators. 36 pp. Ill. 8½ x 11 in.

Otis Elevator Co., 260 Eleventh Ave., New York City.

651. *Otis Geared and Gearless Traction Elevators.* Leaflets describing all types of geared and gearless traction elevators with details of machines, motors and controllers for these types. Illustrated. 8½ x 11 in.

Richards-Wilcox Mfg. Co., Aurora, Ill.

335. *"Ideal" Elevator Door Equipment.* Catalog showing elevator door hangers for one, two and three speed doors, also doors in pairs and combination swing and slide doors. Door closers and checks. 24 pp. Ill. 8½ x 11 in.

ESCALATORS

Otis Elevator Co., 260 Eleventh Ave., New York City.

652. *Elevators and Inclined Elevators.* A comprehensive catalog illustrating the use of escalators for transporting people in stores, subways, railroad stations, theatres and mills; also inclined freight elevators for stores, factories, warehouses and docks adjustable to tide levels. 22 pp. Ill. 8½ in.

FILTERS—See Air Filters

FINANCING OF ENTERPRISES

S. W. Straus & Co., 565 Fifth Ave., New York, N. Y.

183R. *The Straus Plan of Finance.* A book describing the methods of S. W. Straus & Co., in helping to finance the erection of the larger class of properties such as office and apartment buildings, hotels, loft buildings and similar structures. A book valuable to the architect who desires to study the business side of the profession. 24 pp. Ill. 7¼ x 10½ in.

753. *What Forty-two Years Without Loss to Any Investor Means to You.* A booklet recording the record of S. W. Straus & Co., explaining the Straus Plan and reasons for its success. 16 pp. 4 x 6½ in.

FIRE DOORS AND SHUTTERS—See Doors and Windows

FIREPLACES AND MANTELS

Colonial Fireplace Co., 4619 Roosevelt Road, Chicago, Ill.

676. *Blue Print Details.* A valuable set of scale details of correct fireplace construction and examples of details to avoid. Instructions for setting the Colonial head throat and damper. Explanations of necessity for summer use of damper. Folder equivalent to 8 pp. Ill. 8¼ x 10½ in.

H. W. Covert Co., 137 East 46th St., New York.

79. *Hints on Fireplace Construction.* Diagrams of construction and installation of Covert "Improved" and "Old Style" dampers and smoke-chambers, and other fireplace accessories. Size 5⅝ x 8½ in. 12 pp.

Edwin A. Jackson & Bro., Inc., 50 Beekman St., New York.

92. *Dampers, Chutes, Doors and Dumps.* Illustrated catalog. Equipment and appurtenances of various types, construction and installation, data, dimensions and prices.

Peerless Manufacturing Company, Inc., Louisville, Ky.

513. *The Lure of the Fireplace.* This booklet contains information and diagrams for the design and building of fireplaces, together with descriptions of modern domes and dampers so that a fireplace will work effectively at all times. Contains many illustrations of tasteful mantel designs. 24 pp. Ill. 5 x 7 in.

FLOOR COVERING—See Flooring

FLOORING, SUB—See also Stucco Base

FLOORING

Armstrong Cork Co., Linoleum Department, Lancaster, Pa.

222. *Business Floors.* A handy reference on floors for public and semi-public buildings, containing specimen specifications, directions for laying and other helpful data. Illustrated in color. 6 x 9 in.

223. *Armstrong's Linoleum Floors.* A handbook for architects, published in the file form (8½ x 11 in.) recommended by the American Institute of Architects. A technical treatise on Linoleum containing general information, tables of grades, gauges and weight, specimen specifications, and detailed directions for laying linoleum. Profusely illustrated in colors.

The Barber Asphalt Co., Philadelphia, Pa.

659. *Genasco Trinidad Lake Asphalt Mastic.* A book describing its manufacture, uses and methods of application, including application over old floors. Separate specifications for flooring, waterproofing and roofing uses. 34 pp. Ill. 6 x 9 in.

Bonded Floors Co., Inc., 1421 Chestnut St., Philadelphia, Pa.

717. *Hospital Floors.* Descriptions and advantages of using Gold-Seal Battleship Linoleum, Gold-Seal Treadlite Tile and Gold-Seal Rubber Tile in hospital construction, insuring durable, noiseless, sanitary and attractive floors. Illustrated part in color. 8 pp. Ill. 8 x 10¾ in.

719. *Linoleum.* A standard specification of the material, workmanship and guarantee, with valuable comments and suggestions. Also additional clauses for insertion in specifications for Masonry, Heating, etc., Navy Department specification for battleship linoleum and details of installation. 8 pp. Ill. 8½ x 11 in.

The Long-Bell Lumber Co., R. A. Long Building, Kansas City, Mo.

204. *The Perfect Floor.* Tells how to lay finish and care for Oak Flooring. 16 pp. 14 illus. 5⅛ x 7⅝ in.

The Marbleloid Co., 461 Eighth Ave., New York.

61. *The Universal Flooring for Modern Buildings.* Illustrated booklet. Describes uses and contains specifications for Marbleloid flooring, base, wainscoting, etc. Size 6¾ x 9¾ in. 32 pp.

Franklyn R. Muller, Inc., Waukegan, Ill.

242. *Asbestone Flooring Composition.* A book describing uses of and giving specifications and directions for Composition Flooring. Base. Wainscoting, etc. 8½ x 11 in. Ill.

The Rodd Co., Century Bldg., Pittsburgh, Pa.

688. *Redwood Block Floor Booklet.* A treatise on the advantages of Redwood Block Floors in factories, warehouses, hotels, office buildings, department stores, hospitals, etc. Details, dimensions and specifications for installing. 14 pp. Ill. 4 x 9 in.

Stedman Products Co., South Braintree, Mass.

585. *Stedman Naturized Reinforced Flooring.* A circular describing a product formulated from rubber reinforced with cotton fibre, made in various colors and used for floors, wainscoting, sanitary base, stair treads, interior decorative units, wall coverings, table and desk tops and drain mats. 6 pp. Ill. 8½ x 11 in.

FLOORS—See Building Construction

FRAMES—See Doors and Windows

FURNACES—See Heating

FURNITURE—See Chairs

REFERENCE LIST OF BUSINESS LITERATURE—Continued

GARAGE CONSTRUCTION—See also Building Construction

GARBAGE DESTROYERS

Kerner Incinerator Company, 1029 Chestnut St., Milwaukee, Wis.

384. *The Sanitary Elimination of Household Waste, M-3 Folder.* Description of construction, installation and operation of the Kernerator for residences. Illustrated by views of residences in which the Kernerator is installed, with cuts showing all details. 15 pp. Ill. 4 x 9 in.

Kewanee Boiler Co., Kewanee, Ill.

573. *Water Heating Garbage Burners, Tabasco Water Heaters and Tanks, Catalog No. 75.* A descriptive catalog of steel water heating garbage burners, water heaters, hot water storage tanks, pneumatic tanks, gravel basins, blow-off receivers and air receivers. Tables of sizes, dimensions, capacities and pressures. 30 pp. Ill. 6 x 9 in.

GARBAGE RECEIVERS

Edwin A. Jackson & Bro., Inc., 50 Beekman St., New York.

170. Booklet showing general construction and sizes of garbage receivers to be placed underground for suburban use; also types to be built into the wall of city homes and apartments; also types for suburban wall with opening on inside for the maid and outside for the garbage man. Size 3½ x 6¼ in. 16 pp.

GARDENS

Julius Roehrs Company, Rutherford, N. J.

406. The Ten-Ten books issued three times a year—covering nursery stock in general, such things as fruit trees, roses and perennials. Also one general greenhouse catalog, listing orchids and greenhouse plants.

GAS MACHINES

Tirrill Gas Machine Lighting Co., 50 Church St., New York City.

FS34. *Tirrill "Equalizing" Gas Machines.* A circular describing independent gas plants for dwellings and institutions. 6 pp. Ill. 8½ x 11 in.

GLASS

Plate Glass Manufacturers of America, First National Bank Bldg., Pittsburgh, Pa.

484. *The Part that Plate Glass Plays in the Life of Every Man.* An illustrated folder describing the many uses of plate glass. Ask also for special circular for work in hand. 6 pp. Ill. in color. 3½ x 6¼ in.

GRANITE—See Stone

GUNITE

Cement Gun Company, Allentown, Pa.

564. *The Cement Gun, Its Application and Uses.* Reprint of a paper by Byron C. Collier, C. Am. Soc. C. E. A description of what the cement gun is and how it works, together with reports on tests. 21 pp. Ill. 6 x 9 in. Ask also for companion pamphlet "Gunite Slabs" containing working tablets for designers and reports on slab tests. 30 pp. Ill. 6 x 9 in.

GUTTERS AND DOWNSPOUTS—See also Roofing

The New Jersey Zinc Co., 160 Front Street, New York, N. Y.

226. *Zinc Spouting.* Describes leaders, gutters, etc. "Made from Horse Head Zinc," giving information concerning their economy and durability. 8 pp. Ill. 6 x 9 in.

HARDWARE

Allith-Prouty Co., Danville, Illinois.

596. *General Catalog No. 90.* This catalog embraces a description of a complete line of door hangers and tracks, garage door hardware, spring hinges, rolling ladders, fire door hardware, overhead carriers, light hardware and hardware specialties. 144 pp. Ill. 7¾ x 10½ in.

The T. J. Callahan Co., Dayton, Ohio.

751. *Callahan Mechanical Sash Operators.* A catalog of sash operators for side wall or saw tooth windows in industrial establishments embodying new principles. Complete details and specifications. 22 pp. Ill. 7½ x 10½ in.

The Casement Hardware Co., 227 Pelouze Bldg., Chicago, Ill.

627. *Win-Dor Casement Hardware.* A booklet describing the general use of casement windows and description, specifications and details of the casement window and the operating devices suitable for all uses. 22 pp. Ill. 5½ x 8½ in.

P. & F. Corbin, New Britain, Conn.

540. *Automatic Exit Fixtures.* A catalog of fixtures that provide a ready exit at all times, as a child can operate them with ease. Doors to which they are applied can always be opened from the inside, even when locked against entrance. 4 pp. Ill. 8¾ x 11¾ in.

547. *Locks and Builders' Hardware, Catalog No. 26.* A complete descriptive catalog of all kinds of builders' hardware. 483 pp. Ill. 9¼ x 12½ in. Cloth bound.

Monarch Metal Products Co., 5060 Penrose St., St. Louis, Mo.

438. *Monarch Casement Hardware.* A book describing hardware for casement windows. This Manual and folder comply with all suggestions made by the Structural Service Committee of the A. I. A. 18 pp. Ill. 7½ x 10½ in., in heavy folder for vertical file properly indexed.

Richards-Wilcox Mfg. Co., Aurora, Ill.

336. *Modern Hardware for Your Home.* Catalog of hangers for vanishing French doors; "Air-Way" multifold hardware for sun parlors and sleeping porches; "Slidtite" garage door hardware. 24 pp. Ill. 8½ x 11 in.

435. *Distinctive Garage Door Hardware. Catalog No. A-22.* This is more than a catalog. It is a treatise for architects and builders on the door equipment of garages, covering sliding, folding and combination sliding and folding doors, with their hardware. 94 pp. Ill. 8½ x 11 in.

632. *Distinctive Garage Door Hardware. Catalog A No. 29.* A complete treatise on garage doors of every kind both hand and mechanically operated with description of standard and special hardware and accessories. 66 pp. Ill. 8½ x 11 in.

Russell & Erwin Mfg. Co., New Britain, Conn.

609. *Russwin Period Hardware.* A brochure illustrating hardware trim in twelve architectural styles or periods. 71 pp. Ill. 5 x 8 in.

610. *Catalog of Hardware, Volume Fourteen.* A complete catalog of building hardware, trim, locks, butts and accessories. 359 pp. Ill. 8 x 11 in.

Sargent & Company, New Haven, Conn.

560. *Sargent Locks and Hardware for Architects.* The latest complete catalog of locks and hardware. 762 pp. Ill. 9 x 12 in.

The Stanley Works, New Britain, Conn.

11. *Wrought Hardware.* This catalog describes additions to the Stanley line of Wrought Hardware, as well as the older well known specialties and various styles of butts, hinges, bolts, etc. 376 pp. Ill. 6½ x 9½ in.

12. *Garage Hardware, Booklet, illustrated.* Garages and their equipment, such as hinges, hasps, door holders, latch sets, chain and hand bolts, showing illustrations and text with dimensions of garages, describing the Stanley Works product. Size 6 x 9 in. 24 pp.

127. *The Stanley Works Ball Bearing Butts.* Booklet, illustrated. Description with full size illustrations of many typed butts and their parts, dimensions and finish. Size 5 x 7½ in. 32 pp.

495. *Stanley Detail Manual.* A catalog in loose leaf binder, consisting of five sections on Butts, Bolts, Blinds and Shutter Hardware, Stanley Garage Hardware, Screen and Sash Hardware. Detail drawings are given, showing clearances and other data needed by detailers. 116 pp. Ill. 7½ x 10½ in.

Vonnegut Hardware Co., Indianapolis, Ind.

310. *Prince Self-Releasing Fire Exit Devices. Supplement to Von Duprin Catalog No. 12.* Contains valuable information for architects on the selection, detailing, etc., of Prince devices for doors and windows to insure safety against fire panic. 32 pp. Ill. 8 x 11 in.

747. *Von Duprin Self-Releasing Fire Exit Latches. Reference Book—No. 240.* A complete catalog with details of the working parts of these latches, handle bars, butts, door holders and accessories. Dimensions and installation directions. 96 pp. Ill. 8½ x 11 in.

HEATERS—See Water Heaters

HEATING

American Radiator Company, 104-108 W. 42nd St., New York, N. Y.

427. *Ideal-Arcola Heating Outfit.* A book describing a system of hot water heating for small and medium size houses. The boiler is placed in a room and resembles a stove. No cellar required. The ash carrying reduced to a minimum. 24 pp. Ill. 6 x 8½ in.

Crane Company, 836 So. Michigan Ave., Chicago, Ill.

211. *Steam Catalogue.* A book containing full descriptions of the complete line of Crane valves, fittings, etc. 800 pp. Ill. 6 x 9 in.

The Duriron Co., Inc., Dayton, Ohio.

720. *Acid Fume Exhaust Fans.* A specification for exhaust fans where corrosive fumes or vapors are to be removed from chemical hoods, laboratories, etc. 4 pp. Ill. 8½ x 11 in.

C. A. Dunham Co., 230 East Ohio St., Chicago, Ill.

755. *The Dunham Heating Service Bulletins.* Bulletin No. 101, Radiator Traps; 103, Medium Pressure Traps; 104, Packless Radiator Valves; 105, Oil Separators and Suction Strainers; 106, Reducing Pressure Valves and Vacuum Pump Governors; 107, Air Line Valves; 108, Home Heating System; 110, Vacuum Heating System; 111, Installing Home Heating System. Ill. 8 x 11 in.

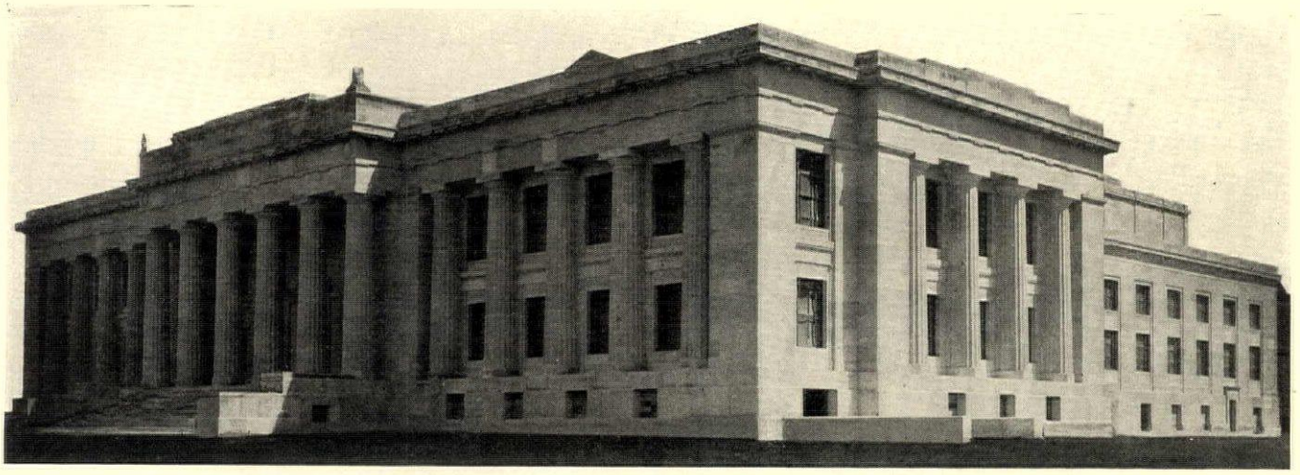
The Farquhar Furnace Company, Wilmington, Ohio.

355. *Healthful Helpful Hints.* A discussion of furnace and chimney design and capacity for hot air heating and ventilation. 16 pp. Ill. 4¾ x 9¼ in.

356. *A Plain Presentation to Dealers.* A book of selling talk for dealers in Farquhar Furnaces. Four model heating layouts are shown and there is a page of useful "Do and Don't" advice. 24 pp. Ill. 8½ x 11 in.

General Boilers Company, Waukegan, Ill.

444. *Catalog No. 7* A catalog completely describing the construction and operation of Pacific Steel Boilers. Contains also specifications and price lists. 32 pp. Ill. 6 x 9 in.



New Scottish Rite Temple, Guthrie, Okla., Onliwon Equipped

The Time To Buy Toilet Paper Fixtures Is Before the Building Is Finished

By *specifying* Onliwon toilet paper and paper towel cabinets for the new $3,000,000 Scottish Rite Temple of Guthrie, Okla., the architects rendered their client a real service on an item of equipment that is often either neglected until the building is finished or left to the discretion of a sub-contractor.

Consider just a few concrete points of Onliwon superiority:

—Onliwon cabinets are strong, contain no working parts to get out of order and will give years of service with minimum attention.

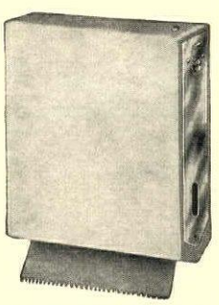
—There is an Onliwon cabinet to fit any interior, in a variety of styles and finishes.

—Actual competitive tests have showed a saving of from 15 to 50 per cent in favor of Onliwon.

—A supply of the fine, clean, absorbent Onliwon toilet tissue and Onliwon paper towels may be procured anywhere in the United States out of jobbers' stock.

Therefore, the service you render your clients by specifying Onliwon consists in a marked saving during the entire life of the building and freedom from the petty annoyance of fixtures that are continually getting out of order, or paper that clogs drains and litters toilet floors.

No obligation is involved by asking our salesman to call to explain in full the Onliwon service—or write for Architects' File Card and descriptive literature.



Onliwon White Porcelain Toilet Paper Cabinet

A.P.W. Quality Toilet Paper Products
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A.P.W. PAPER CO. ALBANY N.Y.

Specifications of most products advertised in THE AMERICAN ARCHITECT appear in the Specification Manual

REFERENCE LIST OF BUSINESS LITERATURE—Continued

HEATING

The Hart & Cooley Co., New Britain, Conn.

712. *Wrought Steel Registers and Grilles, Catalog No.* 24. A catalog of wrought steel floor, baseboard and wall registers, cold air intakes, lock registers, ventilators, furnace regulators and accessories. Dimensions, details and price lists. 80 pp. Ill. 7¾ x 10 in.

Hess Warming and Ventilating Co., 1209 Tacoma Bldg., Chicago, Ill.

178. *Modern Furnace Heating.* An illustrated book on the Hess Welded Steel Furnaces. Pipe and Pipeless, notes for installation, sectional views, showing parts and operation, dimensions, register designs, pipes and fittings. Size 6 x 9½ in. 48 pp.

Hoffman Specialty Co., Inc., Waterbury, Conn.

745. *The Heat Thief.* A booklet describing the economic advantages of the Hoffman No. 2 Vacuum Valves applied to a one-pipe steam heating system. 16 pp. Ill. 5½ x 7½ in.

746. *Controlled Heat.* A booklet describing the advantages of controlled heat effected by the use of Hoffman Modulating Inlet Valves, Hoffman Return Line Valves and the Hoffman Differential Loop. 28 pp. Ill. 5½ x 7½ in.

Illinois Engineering Co., Racine Ave., at 21st St., Chicago, Ill.

501. *Illinois Heating Systems. Vapor Details Bulletin* 20. This bulletin contains typical plans and elevations of heating systems, with description of details and "Standards for Comp'' ing Radiation and Boiler Sizes" of the Chicago Master Steam Fitters' Association. 18 pp. Ill. 8 x 10¾ in.

502. *Illinois Bulletins.* No. 102 contains detailed description with capacities and dimensions of Eclipse Pressure Reducing Valves. 20 pp. Ill. Nos. 202, 302, 452, 502 and 703 describe, with illustrations, Steam Specialties, Back Pressure Valves, Stop and Check Valves, Exhaust Heads, Balanced Valves, Separators, Steam Traps.

Jenkins Bros., 30 White St., New York, N. Y.

235. *Catalog No.* 12. This catalog contains descriptions of all the valves, packing, etc., manufactured by Jenkins Bros. Includes also dimensions and price lists of valves and parts. 271 pp. Ill. 4 x 6¾ in. Stiff paper cover.

Johnson Service Company, 149 Michigan St., Milwaukee, Wis.

391. *The Regulation of Temperature and Humidity.* A description of the Johnson System of temperature regulation and humidity control for buildings; showing many kinds of thermostatic appliances for automatically maintaining uniform temperatures. 63 pp. Ill. ¼ x 11 in.

392. *Johnson Electric Thermostat, Valves and Controllers.* A catalog of devices mentioned in the title. 24 pp. Ill. 3½ x 6 in.

Kewanee Boiler Co., Kewanee, Ill.

572. *Kewanee Radiators, Catalog No. 72.* A descriptive catalog of the standard types of cast iron radiation including wall radiation, wall boxes, radiator brackets and accessories. Tables of capacities, roughing in dimensions and other data. 23 pp. and supplement. Ill. 6 x 9 in.

Minneapolis Heat Regulator Co., Minneapolis, Minn.

660. *Minneapolis Dual Control.* This circular describes in detail the No. 65 Hydrostat and No. 70 Pressurestat and their application for the automatic heat control of hot water, steam or vapor systems. 12 pp. Ill. 3¼ x 6 in.

The Powers Regulator Co., 2720 Greenview Ave., Chicago, Ill.

722. *Powers Temperature Regulation.* A catalog explaining the principles of thermostatic control of temperature and its application to heating plants. Details of apparatus and applications, installations in important buildings and engineering data. 40 pp. Ill. 8 x 11 in.

723. *Thermosttic Water Controller, Bulletin No.* 124. Describing water temperature control apparatus adapted to shower and tub baths, lavatories and other places where predetermined water temperature is desired. Details of installation, capacities, dimensions and prices. 4 pp. Ill. 6⅜ x 9¼ in.

724. *The No.* 11 *Regulator, Bulletin No.* 129. Describing a self contained, accurate regulator of liquid temperature in hot water service tanks, steam cookers, pasteurizers, etc. Details, dimensions and prices. 2 pp. Ill. 6¾ x 9¼ in.

Richardson & Boynton Co., New York, N. Y., Chicago, Ill., Philadelphia, Pa., Providence, R. I., Boston, Mass.

290. *The Richardson Vapor Vacuum-Pressure Heating System.* An interesting book which presents in clear non-technical language the principles of Vapor-Vacuum-Pressure heating; the economy over ordinary steam heating, steam and hot-water systems may be altered to use this principle with views of buildings where the V-V-P system is installed. 14 pp. Ill. 8 x 11 in.

291. *Perfect Warm Air Furnaces.* No. 203. Contains a full description of various types of warm air furnaces and parts, with dimensions and necessary data. 24 pp. Ill. 8 x 10½ in.

292. *Perfect Cooking Ranges.* Description and dimensions of the complete line of the new high enamel finish Richardson Perfect ranges, with charts and information regarding combination coal and gas cooking ranges. 40 pp. Ill. 8½ x 11 in.

Thatcher Furnace Co., 131-135 West 35th St., New York City.

748. *Thatcher Boilers and Thatcher Furnaces.* Catalog describing a series of cast iron steam and hot water heating boilers and also one describing a series of cast iron warm air heaters. Accessories, details and dimensions. 80 pp. and 24 pp. Ill. 4½ x 7½ and 8½ x 11 in.

Tuttle & Bailey Mfg. Co., 2 West 45th St., New York, N. Y.

396. *Special Designs. Catalog* 66A. A book of designs for grilles, screens, registers and ventilators to be used in connection with heating installations. Made of bronze, brass, iron and steel. 40 pp. Ill. 6¾ x 9¾ in.

Utica Heater Company, Utica, N. Y.

557. *Utica Imperial Super-Smokeless Boilers.* These boilers burn all fuels and consume soft coal without smoke. The illustrated catalog contains complete technical data with lists of illustrations. 76 pp. Ill. 8½ x 11 in. (Separate bulletins may be had featuring the following buildings: Schools, Churches, Public Buildings, Apartments, Hotels, Residences, Industrial Buildings, Offices and Theatres.)

558. *Warm Air Heating.* A folder featuring warm air heating equipment including *New Idea* pipeless furnaces. Superior pipe furnaces and *Super-Smokeless* furnaces for burning soft coal.

HEATING AND VENTILATION

American Blower Co., Detroit, Mich.

361.—*Sirocco Service.* A quarterly publication containing descriptions of heating and ventilating systems installed by the American Blower Company, together with useful data for architects and engineers. 16 pp. Ill. 8½ x 11 in.

362. *General Catalog "ABC" Products.* A book full of useful data for all men who have to deal with heating and ventilating problems. 132 pp. Ill. 8½ x 11 in.

Buffalo Forge Co., 490 Broadway, Buffalo, N. Y.

215. *Buffalo Fan System of Heating, Ventilating and Humidifying.* Catalog 700. This contains a general discussion of heating and ventilating under four heads. Part 1, Public Buildings. Part 2, Industrial Plants. Part 3, Buffalo Apparatus. Part 4, Fan Engineering.

Garden City Fan Co., McCormick Bldg., Chicago, Ill.

673. *New Sectional Catalog No.* 200. Describing the latest improved cycloidal multivane fans for heating, ventilating and drying, also standard steel plate fans and pipe coil heaters. Details, capacity tables and specifications. 24 pp. Ill. 7½ x 10½ in.

The H. W. Nelson Corporation (formerly Moline Heat), Moline, Ill.

411. *Univent Ventilation. Architects' and Engineers' Edition.* A scientific treatise on ventilation for schools, offices and similar buildings; with 40 pages of engineering data on ventilation for architects and engineers. 72 pp. Also "Supplement A" on Air Conditioning. 12 pp. Ill. with half-tones, line drawings and designing charts. 8½ x 11 in.

HOISTS—See Elevators and Ash Hoists

INCINERATORS—See Garbage Destroyers

INSULATION—See also Stucco Base

The Celotex Co., 111 W. Washington St., Chicago, Ill.

701. *Celotex Insulating Lumber.* An insulating material made from cane fibre in form of board of various lengths and thicknesses. Specifications, physical properties and tests. Several catalogs, booklets and leaflets.

Insulite Co., 1100 Builders Exchange Bldg., Minneapolis, Minn.

487. *Universal Insulite in Building Construction.* Describes a clean, sanitary, odorless and vermin proof board made from selected waterproofed wood fibres, felted into light, strong, uniform sheets. Examples are given for use indoors and outdoors together with details and useful data. 37 pp. Ill. 8½ x 11 in.

United States Mineral Wool Co., 280 Madison Ave., New York.

83. *The Uses of Mineral Wool in Architecture.* Illustrated booklet. Properties of insulation against heat, frost, sound, and as a fireproofing, with section drawings and specifications for use. It gives rule for estimate and cost. Size 5¼ x 6⅝ in. 24 pp.

IRON AND STEEL—See also Metals

The American Rolling Mill Co., Middletown, Ohio.

658. *The Story of Commercially Pure Iron.* A most interesting booklet recounting the historical development of iron and its present day manufacture in commercially pure, durable form. 48 pp. Ill. 6 x 9 in.

682. *What's Under the Galvanized Coating?* A booklet describing the process of galvanizing, its protective service and also the necessity for pure iron as a basis for galvanizing. 16 pp. Ill. 3¼ x 6¼ in.

Mitchell-Tappen Company, 15 John St., New York, N. Y.

257. *Booklet* 14 *on Standardized Metal Caging.* Description of various ways of reinforcing the concrete fireproofing on structural steel work, with particular reference to Standardized Metal Caging.

REFERENCE LIST OF BUSINESS LITERATURE—Continued

KITCHEN EQUIPMENT—See also Stoves

Bramhall, Deane Co., 261-A West 36th St., New York.

59. *The Heart of the Home.* Booklet, illustrated. Deane's French Ranges (all fuels), cook's tables and plate warmers. Size 6 x 9 in. 32 pp.

The Prometheus Electric Co., 352 West 13th St., New York.

145. *Prometheus Electric Plate Warmers.* Leaflets illustrating the plate warmer, describing its construction, utility and types, adaptable for residences and hotels, according to specifications. Sizes and dimensions. Size 5⅝ x 9 in.

LATH, METAL

American Steel & Wire Co., Chicago, Ill.

228. *Stucco Houses Reinforced With Triangle Mesh Fabric.* A pamphlet containing valuable data on stucco work with tables of qualities of material and many illustrations of houses covered with stucco applied on Triangle Mesh Fabric. 24 pp. Ill. 6 x 9 in.

Concrete Engineering Co., Omaha, Neb.

346. *How to Use Ceco Lathing Materials.* An illustrated treatise on the use of expanded metal lath. Contains construction details and complete specifications, with sample piece of lath in pocket on cover of book. 16 pp. Ill. 8½ x 11 in.

Truscon Steel Company, Youngstown, Ohio.

316. *Hy-Rib and Metal Lath.* Tables, general data and illustrations of Hy-rib and metal lath construction. 6 pp. Ill. 8½ x 11 in.

LAUNDRY EQUIPMENT

Chicago Dryer Co., 2210 No. Crawford Ave., Chicago, Ill.

66. *Laundry Appliances.* Illustrated catalog. Descriptions of Laundry Dryers, Electric Washing Machines and Ironing Machines, especially adapted for use in residences, apartment buildings and small institutions. Size 8½ x 11 in. 48 pp.

The Pfaudler Company, Rochester, N. Y.

581. *Glass Lined Steel Laundry Chute.* Catalog describing a glass lined steel laundry chute with flushing ring at top and drain connection at bottom, specifications, dimensions and details adapted to hospitals and hotels. 14 pp. Ill. 5⅛ x 7⅜ in.

LIGHTING—See also Electrical Equipment

Frank Adam Electric Co., 3649 Belll Ave., St. Louis, Mo.

629. *The Control of Lighting in Theatres.* A book describing means for complete control of lighting the stage, auditorium, and other parts of the theatres with distribution schedules and specifications. Also applications of control to Masonic buildings, schools and colleges. 32 pp. Ill. 8 x 11 in.

E. Erikson Electric Co., 6 Portland St., Boston, Mass.

613. *Erikson Reflectors, Catalog No. 90.* Description of and details of installing reflectors in show windows, display cases, art galleries, rug racks, banks, churches, and other buildings. 32 pp. Ill. 6¼ x 9½ in.

I. P. Frink, Inc., 24th St. and 10th Ave., New York.

150. *Light Service for Hospitals. Catalogue 421.* A booklet illustrated with photographs and drawings, showing the types of light for use in hospitals, as operating table reflectors, linolite and multilite concentrators, ward reflectors, bed lights and microscopic reflectors, giving sizes and dimensions, explaining their particular fitness for special uses. Size 7 x 10 in. 12 pp.

218. *Picture Lighting. Booklet 422.* A pamphlet describing Frink Reflectors for lighting pictures, art galleries, decorated ceilings, cove lighting, the lighting of stained glass, etc., and containing a list of private and public galleries using Frink Reflectors. 24 pp. Ill. 5¼ x 7 in.

219. *Frink Reflectors and Lighting Specialties for Stores. Catalog No. 424.* A catalog containing a description of the Frink Lighting System for Stores; the Synthetic System of Window Illumination; and a number of appliances to produce the most effective lighting of displayed objects. 20 pp. Ill. 8 x 11 in.

220. *Frink Lighting Service for Banks and Insurance Companies. Reflectors. Catalog No. 425.* A very interesting treatise on the lighting of offices; with details of illustrations and description of lamps and reflectors. Contains a list, covering several pages of banks using Frink Desk and Screen Fixtures. 36 pp. Ill. 8¼ x 11 in.

Harvey Hubbell, Inc., Bridgeport, Conn.

401. *Hubbell Flush Door Receptacles.* Description of a safe, convenient and practical wall outlet de luxe for fine residences, clubs, hotels, public buildings and offices. 4 pp. Ill. 8 x 10 in.

LIME

The Ohio Hydrate & Supply Co., Woodville, Ohio.

494. *A Job That Took a Million Years.* A description of how limestone is formed and how it is later converted into lime. All the processes are shown in detail and the uses of lime are illustrated. 16 pp. Ill. 8½ x 11 in.

LINCRUSTA-WALTON—See also Wall Covering

The Lincrusta-Walton Company, Hackensack, N. J.

519. *Lincrusta-Walton.* This book gives directions for buying caring for and applying Lincrusta-Walton; together with color chart and many pages showing patterns. 67 pp. 8½ x 11 in. Ill. Bound in boards.

LOCKERS, STEEL—See Factory Equipment

LUMBER

E. L. Bruce Co., Memphis, Tenn.

533. *Now the Cedar Clothes Closet.* A book illustrated in colors describing "Bruce Cedaline" for lining clothes closets as a complete protection against moths. 12 pp. Ill. 4¼ x 6 in.

The Long-Bell Lumber Co., R. A. Long Building, Kansas City, Mo.

203. *From Tree to Trade.* This book tells the story of the manufacture of lumber. Gives an idea of the scope of the business and the care and attention given to the manufacture and grading of Long-Bell trade-marked products. 100 illustrations. 48 pp. 8½ x 11 in.

The Pacific Lumber Company of Illinois, 2060 McCormick Bldg., Chicago, Ill.

363. *Construction Digest*—The use of California Redwood in residential and industrial construction. Contains illustrations, grading rules, specifications and other technical data for architects and builders. 16 pp. Ill. 8½ x 11 in.

364. *Engineering Digest*—The use of California Redwood in industrial construction and equipment for factories, railroads, mines and engineering projects. 16 pp. Ill. 8½ x 11 in.

MANTELS

Edwin A. Jackson & Bro., Inc., 50 Beekman St., New York.

90. *Wood Mantels. Portfolio.* Wood mantel designs of various types and openings, giving dimensions, projections and showing fireplace grate designs. Size 9 x 6¼ in. 32 pp.

MARBLE—See Stone

Appalachian Marble Co., Knoxville, Tenn.

715. *Appalachian Tennessee Marble.* A series of six colored plates, description of physical properties, standard sizes of floor tile, specifications for laying floor tiles and for erecting base, wainscoting, bank screens and other standing work. Standard filing folder. 23 pp. Ill. 8½ x 11¼ in.

The Georgia Marble Co., Tate, Pickens Co., Ga., New York Office, 1328 Broadway.

634. *Why Georgia Marble is Better.* Booklet 3⅜ x 6 in. Gives analysis, physical qualities, comparison of absorption with granites, opinions of authorities, etc.

METAL MOLDINGS

National Metal Molding Co., Pittsburgh, Pa.

152. *Handbook for the Man on the Job.* An illustrated book of fittings and methods with description and instructions for installing National Metal Molding under all conditions; a book meant to be conveniently carried and used on the job. Size 4⅜ x 6 in. 102 pp.

METALS—See also Iron and Steel—Roofing

American Brass Co., Main Office, Waterbury, Conn.

138. *Price List and Data Book.* Illustrated. Looseleaf Catalog. Covers entire line of Sheets, Wire Rods, Tubes, etc., in various metals. Useful tables. Size 3⅞ x 7 in. 168 pp.

American Sheet & Tin Plate Co., Frick Building, Pittsburgh, Pa.

452. *Reference Book. Pocket Edition.* Covers the complete line of Sheet and Tin Mill Products. 168 pp. Ill. 2½ x 4½ in.

Bridgeport Brass Co., Bridgeport, Conn.

483. *Seven Centuries of Brass Making.* A brief history of the ancient art of brass making and its early (and even recent) method of production—contrasted with that of the Electric Furnace Process—covering tubular, rod and ornamental shapes. 80 pp. Ill. 8 x 10½ in.

Rome Brass & Copper Company, Rome, N. Y.

473. *Price List No. 70.* A loose-leaf binder containing full price list of Rome Quality products, together with useful tables. 5⅛ x 7¼ in.

MILLWORK—See also Lumber—Building Construction—Doors and Windows

MORTAR—See also Cement

Louisville Cement Company, Inc., Louisville, Ky.

311. *Brixment, the Perfect Mortar.* The reading of this little book gives one a feeling that definite valuable information has been acquired about one of the oldest building materials. Modern science has given the mason a strong water-resisting mortar with the desirable "feel" of the best rich lime mortar. 16 pp. Ill. in colors. 5½ x 7¾ in.

ORNAMENTAL IRON AND BRASS

The American Brass Co., Waterbury, Conn.

139. *Illustrated Pamphlets.* Describes the use and adaptability of Extruded Architectural Shapes, Benedict Nickel, Brass and Copper Pipe in Iron Pipe sizes for plumbing installations. 8½ x 11 in.

PAINTS, STAINS, VARNISHES—See also Waterproofing

Carter White Lead Co., 12042 South Peoria St., Chicago, Ill.

270. *The Carter Paint Calculator.* A valuable book containing answers and solutions to common paint problems; gives sample estimates; data useful to both architect and master painter. Black fabricoid cover. Vest pocket size 2½ x 4½ in. 70 pp. Sent postpaid anywhere on request.

REFERENCE LIST OF BUSINESS LITERATURE—Continued

PAINTS, STAINS AND VARNISHES

Joseph Dixon Crucible Co., Jersey City, N. J.

324. *Dixon's Silica-Graphite Paint.* A pamphlet describing the physical properties of silica-graphite paint and especially the wide difference between it and other protective paints. Contains also sample color card with specifications. 20 pp. and 6 pp. in color card. Ill. 3¼ x 6¼ in.

Samuel H. French & Co., Philadelphia, Pa.

312. *French's Paints and Varnishes.* A catalog and price list of paints, stains, varnishe , mortar, mortar colors, cement colors and materials for plasterers, with instructions for selection of colors, etc. 44 pp Ill. 4 x 8 in.

National Lead Company, 111 Broadway, New York, N. Y.

389. *Color Harmony.* Color card for glass finish and flat finish together with useful notes on painting and a collection of approximate formulas for obtaining the colors shown on the color card. 8 pp. Ill. 3⅜ x 8½ in.

708. *Early American Architecture.* An attractive portfolio of selected sketches and measured drawings showing Colonial and Georgian design containing 34 plates, 8¼ x 10¾ in. Suggested color schemes are included.

The New Jersey Zinc Co., 160 Front St., New York, N. Y.

227. *Painting Specifications.* A booklet full of useful information concerning paint mixtures for application on various surfaces.

Ripolin Co., The, Cleveland, Ohio.

419. *Ripolin Specification Book.* 8 x 10¼ in., 12 pp. Complete architectural specifications and general instructions for the application of Ripolin, the original Holland Enamel Paint. Directions for the proper finishing of wood, metal, plaster, concrete, brick and other surfaces, both interior and exterior, are included in this Specification Book.

Parker, Preston & Co., Inc., Norwich, Conn.

357. *Art in Shingle Stains.* Description of waterproof, odorless shingle stains and waterproof coating for walls and floors with covering capacities and directions for use. 27 pp. 3 x 4½ in.

Pratt & Lambert, Inc., Buffalo, N. Y.

759. *Specification Manual for Painting, Varnishing and Enameling.* Complete specifications for painting, varnishing and enameling interior and exterior wood, plaster and metal work. 38 pp. 8½ x 11 in.

Standard Varnish Works, 443 Fourth Ave., New York, N. Y.

566. *Architectural Reference Book, Third Edition.* A readily accessible and concise compilation of practical finishing information from which specifications readily can be written on varnishes, stains, fillers and enamels. 24 pp. Ill. in colors with samples on wood, etc. 8½ x 11 in.

PARTITIONS

J. G. Wilson Corp., 11 East 36th St., New York City.

760. *Sectionfold and Rolling Partitions, Hygienic School Wardrobes, Catalog 37.* This catalog illustrates the construction and details of the partitions and wardrobes with plans for and photographs of installations. 40 pp. Ill. 8½ x 11 in.

PILES, CONCRETE

Raymond Concrete Pile Co., 140 Cedar St., New York.

156. *Raymond Concrete Piles—Special Concrete Work.* A booklet with data concerning the scope of the Raymond Concrete Pile Co., for special concrete work. It classifies piles, showing by illustration, text and drawings, the relative value of special shape and manufacture of piles. It gives formulæ for working loads, and relative economy. Size 8½ x 11⅛ in. 60 pp.

PIPE—See also Metals

Bridgeport Brass Company, Bridgeport, Conn.

556. *Brass Pipe and Piping; When and How it Should be Used. Bulletin No. 15.* This book contains valuable tables, charts and examples for the design of hot water installations, with illustrations of details and connections. It also discusses the use of pipe of different materials; various processes for preventing rust and corrosion in iron and steel pipes. It is a valuable treatise for all architects and engineers. 47 pp. Ill. 8 x 10½ in.

A. M. Byers Company, Pittsburgh, Pa.

679. *What is Wrought Iron?* Bulletin 26-A. Contains the definition of wrought iron, methods of manufacture, chemical and physical characteristics; advantages of wrought iron as a pipe material; service records from old buildings equipped with Byers Genuine Wrought Iron Pipe. How to tell the difference between iron and steel pipe. 40 pp. Ill. 8 x 10¾ in.

680. *The Installation Cost of Pipe,* Bulletin 38. Contains cost analysis of a variety of plumbing, heating, power and industrial systems, with notes on corrosive effects in different kinds of service. 32 pp. Ill. 8 x 10¾ in.

The Duriron Co., Dayton, Ohio.

758. *Duriron Acid-Proof Building Equipment, Bulletin No. 134.* An architect's handbook describing the advantages of Duriron material in contact with corrosive liquids and fumes. Details and dimensions of drainage pipes and fittings and acid-proof exhaust fans and ducts. 24 pp. Ill. 8½ x 11 in.

National Tube Co., Frick Bldg., Pittsburgh, Pa.

670. *National Bulletin No. 25B. Third Edition.* Devoted to the installation of steel pipe in large buildings, architectural anti-corrosion engineering, gas piping, specificatons, and tables of strength and properties. 74 pp. Ill. 8½ x 10¾ in.

Rome Brass and Copper Company, Rome, N. Y.

509. *Bulletin No. 1. Seamless Brass Pipe.* This bulletin illustrates in colors nine installations of hot water heaters between range boiler, basement furnace, tank and instantaneous heaters for one and two-family houses and larger buildings. Contains also a number of estimating and designing tables, rules and formulas. 22 pp. Ill. 7½ x 11¾ in.

A. Wyckoff & Sons Co., Elmira, N. Y.

397. *Wyckoff Wood Pipe. Catalog No. 42.* A description of machine-made woodstave pipe and Wyckoff's express steam pipe casing. Contains also a number of pages of useful formulas and tables for hydraulic computation. 92 pp. Ill. 6 x 9 in.

PIPE COVERING

The Philip Carey Co., Lockland, Cincinnati, Ohio

379. *Pipe and Boiler Coverings. Catalog* 1362. A catalog and manual pipe and boiler coverings, cements, etc. Contains a number of valuable diagrams and tables. 71 pp. Ill. 6 x 9 in.

PLUMBING EQUIPMENT—See also Drains

Bridgeport Brass Co., Bridgeport, Conn.

461. *Plumbing Supplies.* Catalog of adjustable swivel traps; basin and bath supplies and waste; basin and sink plugs; low tank bends; iron pipe sizes of brass pipe. 20 pp. Ill. 8 x 10½ in.

Crane Company, 836 So. Michigan Ave., Chicago, Ill.

240. *General Plumbing Catalogue.* A very complete and well illustrated booklet describing the complete line of Crane plumbing goods. 80 pp. 8½ x 11 in.

Philip Haas Co., Dayton, Ohio.

750. *Haas Universal Flush Valve.* Insert for Catalog "B." A catalog explaining the operation of this flush valve, details, roughing-in dimensions and application to various types of closets. 20 pp. Ill. 6 x 9 in.

Jenkins Bros., 80 White St., New York, N. Y.

236. *Jenkins Valves for Plumbing Service.* This booklet contains all necessary information about Jenkins Valves commonly used in plumbing work. 16 pp. Ill. 4¼ x 7¼ in. Stiff paper cover.

Kohler Company, Kohler, Wisconsin.

209. *"Kohler of Kohler."* A booklet on enameled plumbing ware describing processes of manufacture and cataloging staple baths, lavatories, kitchen sinks, slop sinks, laundry trays, closet combinations. 48 pp. Ill. 5⅛ x 8 in. Roughing-in Measurement Sheets 5 x 8 in.

531. *Catalog F.* This is a complete catalog of Kohler enamelled ware for plumbing installations, together with high grade fittings. There is also a brief and interesting description of the manufacture of high grade enamelled ware and a statement of the facts about Kohler village, one of the discussed experiments in modern industrial town building. 215 pp. Cloth bound. Ill. 7½ x 10⅜ in.

Thomas Maddock's Sons Company, Trenton, N. J.

696. *Vitreous China Plumbing Fixtures.* A valuable and complete catalog of vitreous china lavatories, drinking fountains, and laundry trays, also seats, faucets, bathroom fixtures and bidets, water closets, urinals, slop sinks, bathtubs, kitchen sinks accessories. Completely illustrated with roughing in diagrams. 242 pp. Ill. 8 x 11 in.

259. *General Catalog.* Contains complete description of the full line of fixtures styled the "Highest Grade Standardized Plumbing Fixtures for Every Need." 94 pp. Ill. 5 x 7½ in.

260. *Specifications for Plumbing Fixtures.* Contains tables of specifications for industrial buildings, schools, apartments, hotels, etc. 8 pp. Ill. 9 x 12 in.

PLUMBING—See also Drains

Speakman Company, Wilmington, Del.

691. *Speakman Showers and Fixtures, Catalog H.* A complete catalog treating of everything pertaining to the mixing and control of water used in all kinds of shower and tub baths, lavatories and sinks, also strainers, drains and traps. Complete roughing-in measurements are included. A valuable catalog. 20 pp. Ill. 4½ x 7¼ in.

The Powers Regulator Co., 2720 Greenview Ave., Chicago, Ill.

725. *The Powers Shower Mixer, Bulletin No. 154.* Description and details of a shower bath mixer that insures uniform water temperature regardless of disturbance of initial water pressure. 4 pp. Ill. 6⅜ x 9¼ in.

The Vulcan Brass Manufacturing Co., Cleveland, Ohio.

678. *Paragon Brass Goods, Catalog C.* New catalog showing sectional drawings, illustrations and text describing exclusive feature of "Paragon" self closing basin and sink faucets and stops; high pressure ball cocks, vitreous china bubblers, compression and quick-compression work. 60 pp. Ill. 7½ x 10½ in.

PUMPS

The Dayton Pump and Manufacturing Company, Dayton, Ohio.

475. *Electric House Pumps and Water Supply Systems.* A heavy paper binder containing illustrated bulletins 8½ x 11 in. These bulletins describe pumps as well as complete automatic electric and gasoline water supply systems and all accessories, together with specifications, detail drawings and tables of dimensions. 48 pp.

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REFRIGERATION

The Automatic Refrigerating Co., Hartford, Conn.

298. *The Mechanics of Automatic Refrigeration and Automatic Refrigeration for Hospitals and Sanatoriums.* Two essential booklets for the library of designers and specification writers. 24 and 28 pp. Ill. 8½ x 11 in.

370. *Automatic Refrigeration for Retail Markets.* A valuable treatise on the subject matter mentioned in the title. 30 pp. Ill. 8½ x 11 in.

Baker Ice Machine Co., Inc., Omaha, Nebraska.

661. *Baker System Refrigeration.* A catalog explaining the application of refrigeration for hotels, hospitals, institutions and restaurants requiring up to 50 tons daily capacity including mechanical details and specifications. 20 pp. Ill. 9 x 12 in.

Jamison Cold Storage Door Co., Hagerstown, Md.

569. *Heavy Duty Cold Storage Doors. Catalog No.* 10. Complete description of both hinged and sliding cold storage doors for every equipment. Also description of cold storage windows and ice chutes. 79 pp. Ill. 5¾ x 9 in.

REFRIGERATORS

Delco-Light Company, Division of General Motors Corp., Dayton, Ohio.

510. *Frigidaire. Important Facts for Architects and Builders.* Frigidaire is an electric refrigerator for houses and apartments. This book describes the construction, installation and operation of this convenient refrigerator. 16 pp. Ill. 8 x 11 in.

The Jewett Refrigerator Company, 27 Chandler Street, Buffalo, N. Y.

655. *Manual of Refrigerators.* This manual completely describes the construction of refrigerators for use in hotels, clubs, hospitals, institutions and residences, with specifications. Numerous plans showing size and arrangement of refrigerators in kitchens, service and lunch rooms are included. 30 pp. Ill. 8½ x 11 in.

698. *Jewett Solid Porcelain Refrigerators.* This improved refrigerator has an interior finish of one-piece solid porcelain ware for both food and ice compartments. Complete line with dimensions, types and prices. 22 pp. Ill. 8¼ x 11 in.

McCray Refrigerator Co., Kendallville, Ind.

472. *Refrigerators and Cooling Rooms. Cat.* 53. A catalog of cooling equipment for hotels, restaurants, hospitals, institutions, colleges and clubs. Catalog No. 96 deals with refrigerators for residences. 52 pp. each. Ill. in colors. 7½ x 10 in.

REINFORCING STEEL—See also Concrete, Reinforced

Rail Steel Products Association, Reinforcing Bar Division, Arcade Bldg., St. Louis, Mo.

582. *Rail Steel for Concrete Reinforcing.* A book describing the manufacturing, fabrication and physical properties of re-rolled billet and rail steel bars with specifications for their use. 84 pp. Ill. 8½ x 11 in.

RESTAURANT EQUIPMENT—See Kitchen Equipment

ROOFING—See also Slate—Metals—Shingles

American Brass Company, Main Office, Waterbury, Conn.

515. *Copper Roofing. Service Sheet.* This service sheet contains details for laying copper roofing together with standard specifications. 17 x 22 in. folding to 8½ x 11 in., printed both sides.

American Sheet & Tin Plate Co., Frick Building, Pittsburgh, Pa.

463. *Copper—its Effect Upon Steel for Roofing Tin.* Describes the merits of high grade roofing tin plates and the advantages of the copper-steel alloy. 28 pp. Ill. 8½ x 11 in.

The Barber Asphalt Company, Land Title Bldg., Philadelphia, Pa.

422. *Standard Trinidad Built-up Roofing Specifications.* Contains two specifications for applying a built-up roof over boards and two for applying over concrete. Gives quantities of materials and useful data. 8 pp. 8 x 10½ in. Ask at same time for Good Roof Guide Book. 32 pp. Ill. 6 x 9 in.

702. *Specifications.* A pamphlet containing standard specifications for Genasco Standard Trinidad Lake Asphalt Built-up Roofing, Genasco Economy Trinidad Lake Asphalt Built-up Roofing, Genasco Membrane Waterproofing and Genasco Asphalt Flooring. Illustrated with sketches showing construction. 16 pp. Ill. 8 x 11½ in.

John Boyle & Co., Inc., 112-114 Duane St., New York, N. Y.

212. *Boyle's Bayonne Roof and Deck Cloth.* List B 93. A prepared roofing canvas guaranteed waterproof for decks and the roofs and floors of piazzas, sun-parlors, sleeping porches, etc.

The Philip Carey Co., Lockland, Cincinnati, Ohio.

378. *Architects' Specification Book on Built-up Roofing.* A manual for detailers and specification writers. Contains complete details and specifications for each type of Carey Asphalt Built-up Roof. 20 pp. Ill. 8½ x 11 in.

The Edwards Manufacturing Company, Cincinnati, Ohio.

535. *Shingles and Spanish Tile of Copper.* This book, illustrated in colors, describes the forms, sizes, weights and methods of application of roof coverings, gutters, downspouts, etc., of copper. 16 pp. Ill. in special indexed folder for letter size vertical files.

Ludowici-Celadon Co., Chicago, Ill.

120. *Roofing Tile.* A detailed Reference for Architects' Use. Sheets of detailed construction drawings to scale of tile sections of various types and dimensions, giving notes of their uses and positions for various conditions of architectural necessity. Size 9½ x 13½ in. 106 plates.

154. *The Roof Beautiful.* Booklet. Well illustrated with photographs and drawings, giving history and origin of roofing tile, and advantages over other forms of roofing. Types shown by detailed illustrations. Size 8 x 10¼ in. 32 pp.

The Richardson Company, Lockland, Cincinnati, Ohio.

492. *Viskalt Membrane Roofs.* Contains specifications for applying Membrane roof over boards and also for applying over concrete. Illustrated with line drawings of several approved methods of flashings. 3 pp. 8½ x 11 in.

Rising and Nelson Slate Company, 101 Park Ave., New York, N. Y.

496. *Tudor Stone Roofs.* This leaflet discusses colors and sizes of Tudor hand-wrought slates; deals with the service given to architects and tells how the material is quarried for each product after careful drawings and specifications are prepared in co-operation with architects. Special grades are described in detail and illustrations are given of buildings with Tudor slate roofs. Contains also specifications of laying slate. 4 pp. Ill. 8½ x 11 in.

571. *Tudor Stone Roofs.* A brochure describing the 7 special grades of Tudor Stone and the 7 grades of commercial slate produced by this company with illustrations of many structures on which it has been used. 28 pp. Ill. 6 x 9½ in.

Vendor Slate Co., Easton, Pa.

333. Occasional brochures on architecturally pertinent phases of roofing slate sent on request. See also listing under Slate.

ROOF-LIGHTS—See Glass Construction

ROLLING PARTITIONS

J. G. Wilson Corporation, 11 East 37th St., New York City.

738. *Sectionfold and Rolling Partitions and Hygienic School Wardrobes, Catalog* 37. A catalog explaining the use, construction and installation of sectionfold and rolling partitions also school wardrobes. Details, dimensions and specifications. 40 pp. Ill. 8½ x 11 in.

SAFETY TREADS

American Abrasive Metals Co., 50 Church St., New York City.

736. *Feralun Anti-Slip Treads.* Six plates of details of anti-slip stair treads, door saddles, elevator door sills, floor plates, trench covers and garage ramps. Plates can be traced or blue printed. Also data sheet of sizes, thickness and specifications. 7 pp. Ill. 8½ x 11 in.

SANDSTONE—See Stone

SASH—See Doors and Windows

SCREENS

American Wire Fabrics Company, 208 So. La Salle St., Chicago, Illinois.

305. *Catalog of Screen Wire Cloth.* A catalog and price list of screen wire cloth, black enamelled, galvanized, aluminoid, copper, bronze. 30 pp. Ill. 3½ x 6¼ in.

The Higgin Manufacturing Co., 5th and Washington Ave., Newport, Ky.

353. *Screen your Home in the Higgin Way.* A description of Higgin door and window screens with practical data. 16 pp. Ill. 8½ x 11½ in.

New Jersey Wire Cloth Company, 614 South Broad St., Trenton, N. J.

409. *A Matter of Health and Comfort. Booklet No.* 2331. *A* booklet telling all about screens, the durability of copper and its superiority over all other metals for screen purposes. 16 pp. Ill. 5 x 7¾ in.

SHINGLES—See also Roofing

The Philip Carey Co., Lockland, Cincinnati, Ohio.

381. *Carey Asfaltslate Shingles.* Folder containing illustrations of attractive buildings and residences on which Carey Asfaltslate Shingles have been used. Describes this type of shingle, showing its special claims and advantages.

SIDEWALK LIGHTS—See also Vault Lights

SLATE—See also Roofing

Vendor Slate Co., Inc., Easton, Pa.

332. *The Vendor Book of Roofing Slate for Architects.* Contains original information on slate in various architectural uses; history, geology, sundry practical matters; complete descriptive classification; extended treatise on architectural roof design and specifications. 24 pp. Ill. 8½ x 11 in.

STAINS—See also Paints, Stains, Varnishes

STEEL JOIST CONSTRUCTION

Truscon Steel Co., Youngstown, Ohio.

641. *Truscon Steel Joist Data Book.* Complete data of steel joists giving properties, dimensions, safe loads, coefficients of deflection, details of connections, specifications, directions for installations. 32 pp. Ill. 8½ x 11 in.

REFERENCE LIST OF BUSINESS LITERATURE—Continued

STONE

The Appalachian Marble Company, Knoxville, Tenn.

503. *Appalachian Tennessee Marble.* A new booklet on the qualities to be demanded in marble and a treatise on Tennessee marble by T. Nelson Dale (Retired Geologist, U.S.G.S.). Contains also illustrations of the plant of the company, buildings in which Appalachian Tennessee Marble has been used and four-color process plates of the six major Appalachian marbles. In tough paper indexed cover. 12 pp. Ill. 8½ x 11 in.

Indiana Limestone Quarrymen's Assn., P. O. Box 503, Bedford, Ind.

265. *Folders, Series D.* Structural detail and data sheets showing methods of detailing cut stone work in connection with modern building construction. 4 pp. each. 8½ x 11 in.

366. *Standard Specifications for Cut Stone Work.* This is Vol. III, Series "A-3," Service publications on Indiana Limestone, containing Specifications and Supplementary Data, relating to best methods of specifying and using this stone for all building purposes. This valuable work is not for general distribution. It can be obtained only from a Field Representative of the Association or through direct request from architect written on his letterhead. 56 pp. Ill. 8½ x 11 in.

693. *Indiana Limestone Homes, Series B, Vol.* 5. A portfolio containing sixteen designs for small and moderate-sized dwellings of different styles of architecture and sizes of lots. Plot plan, floor plans, perspective and description. Free to architects and draftsmen requesting same on employer's business stationery. 84 pp. Ill. 8½ x 11 in.

National Building Granite Quarries Assn., Inc., 31 State Street, Boston, Mass.

416. *Architectural Granite No.* 1 *of the Granite Series.* This booklet contains descriptions of various granites used for building purposes; surface finishes and how obtained; profiles of moldings and how to estimate cost, typical details; complete specifications and 19 plates in colors of granite from various quarries. 16 pp. Ill. 8½ x 11 in.

STORE FRONTS

Brasco Mfg. Co., Chicago, Ill.

56. *Brasco System of Hollow Metal Store Front Design.* Folio of Detail Sheets. Full size detail sheets 1, 2, 3 and 4. Corner bar, division bar, reverse bar and three-way bar, head transom sill and jamb sections. Sheets 18 x 22½ in.

57. *Hester System Store Front Construction and Design.* Folio of Detail Sheets. Full size detail sheets, a, b, c and d, of hollow metal store front construction, giving full size sections of head transoms, sill and jamb with moulding profiles and bar cover to house awning construction. Sheets 18 x 22½ in.

Detroit Show Case Co., Detroit, Mich.

77. *Designs.* A booklet. Store fronts and display window designs, giving plans and elevations, and descriptions. Size 9¼ x 12 in. 16 pp.

78. *Details.* Sheets of full size details of "Desco" awning transom bar covers, sill covers, side, head and jamb covers, ventilated hollow metal sash and profile of members. Size 16 x 21½ in. 3 sheets.

STOVES

National Stove Co., Division of American Stove Co., Lorain, Ohio.

506. *Catalog No.* 94. *Second Edition.* A catalog of Direct Action Gas Ranges equipped with Lorain Oven Heat Regulator; also cookers, laundry stoves, hot plates, kitchen heaters and waste burners, automatic water heaters, coil heaters, ovens, etc.

Quick Meal Stove Co., Division of American Stove Co., St. Louis, Mo.

505. *Catalog No.* 131. A catalog of gas (also combination coal and gas) cook stoves; gas boilers, soldering furnaces, cake bakers, hot plates, water heaters, gas heaters for rooms. Lorain Oven Heat Regulations, etc. 56 pp. 6 x 9 in.

STUCCO—See also Cement

Portland Cement Association, 347 Madison Ave., N. Y. C.

594. *Portland Cement Stucco.* Illustrated leaflet of recommended practice for Portland Cement Stucco. Contains data on materials, proportions, application and curing. Table of colors for various tints, photographs of surface textures and drawings of construction details also given. 15 pp. Ill. 8½ x 11 in.

STUCCO BASE

The Bishopric Manufacturing Company, Cincinnati, Ohio.

451. *Bishopric for All Time and Clime.* A booklet describing Bishopric materials; giving building data, detailed drawings and specifications. Illustrated with half tones from photographs of houses built of Bishopric materials. 52 pp. Ill. 8 x 10½ in.

TELEPHONES

Automatic Electric Co., 945 W. Van Buren St., Chicago, Ill.

683. *Architect's Specifications for Interior Telephone System.* A complete and short specification for the installation of interior telephone systems adapted to all kinds of buildings and uses. 4 pp. 8½ x 11 in.

684. *The Straight Line.* A booklet devoted to interior communication by use of private automatic exchanges and the P-A-X Code Calls. Description of switchboards, instruments and accessories. 38 pp. Ill. 5 x 8 in.

Stromberg-Carlson Telephone Mfg. Co., Rochester, New York.

304. *Inter-Communicating Telephone Systems. Bulletin No.* 1017. A pamphlet giving just the information required for the installation of intercommunicating systems from 2 to 32 stations capacity. 15 pp. Ill. 7¾ x 10 in.

TERRA COTTA

Atlantic Terra Cotta Company, 350 Madison Avenue, New York, N. Y.

425. *Questions Answered.* A brief but full description of Atlantic Terra Cotta and its use in buildings. 32 pp. Ill. 5¼ x 7 in.

551. *Monthly Magazine, Atlantic Terra Cotta.* The April issue contains illustrations of English Terra Cotta, 16th Century and construction details for rusticated ashlar. 16 pp. Ill. 8½ x 11 in.

National Terra Cotta Society, 19 West 44th St., New York City.

664. *Standard Specifications.* Contains complete detailed specifications for the manufacture, furnishing and setting of terra cotta, a glossary of terms relating to terra cotta and a short form specification for incorporating in architect's specification. 12 pp. 8½ x 11 in.

666. *Color in Architecture.* An illustrated treatise upon the principles of color design and appropriate technique. 38 pages. Ill. 8½ x 11 in.

667. *Present Day Schools.* Illustrating 42 examples of school building architecture with an article on school house design by James O. Betelle, A. I. A. 32 pp. Ill. 8½ x 11 in.

668. *Better Banks.* Illustrating many banking buildings in terra cotta with an article on its use in bank design by Alfred C. Bossom, architect. 32 pp. Ill. 8½ x 11 in.

The Northwestern Terra Cotta Co., 2525 Clybourn Ave., Chicago, Ill.

96. *Architectural Terra Cotta.* A collected set of advertisements in a book, giving examples of architectural terra cotta, ornamental designs and illustratons of examples of façades of moving-picture houses, office buildings, shops, vestibules and corridors in which Northwestern Terra Cotta was used. Size 8½ x 11 in. 78 pp.

TILE—ORNAMENTAL

The Associated Tile Manufacturers, Beaver Falls, Pa.

374. *Basic Specifications for Tilework and Related Documents. No. K-300.* This specification is prepared in a very systematic manner for the use of architects and builders. It is printed on one side of a sheet with facing page blank to receive memoranda. Various colored sheets make reference easy and simplify greatly the work of a specification writer in specifying tilework. 38 pp. 7½ x 10⅝ in.

375. *"Work Sheets" for Specification Writers.* To be used in connection with "Basic Specification for Tilework and Related Documents." 16 sheets 7½ x 10⅝ in.

TIME CLOCKS—See Clocks

TOILET PARTITIONS—See Wainscoting

TRIM—See Doors and Windows

TRUSSES—See Building Construction

VARNISH—SEE PAINTS

VAULT LIGHTS

American Three Way Luxfer Prism Co., 13th Street and 55th Court, Chicago, Ill.

424. *Daylighting. Catalog* 21. A complete catalog on glass prisms for use in transoms, sidewalk and floor lights, skylights, etc., for lighting places inaccessible to direct daylight. Contains also measurements, specifications and other data required by designers. 42 pp. Ill. 8½ x 11 in.

VENTILATION—See Heating and Ventilation

VENTILATORS

The Burt Manufacturing Co., Akron, Ohio.

207. *General Catalogue* covering entire line of Ventilators, Exhaust Heads and Filters. Separate leaflets on each type of ventilator, vent and damper.

WAINSCOTING

The Vitrolite Company, Chamber of Commerce Building, Chicago, Ill.

648. *Toilet Partitions and Wainscoting. Architects' Tile Bulletin No.* 7. Describing the uses of Vitrolite, its physical properties, details of installation and specifications. 32 pp. Ill. 8½ x 11 in.

WALL BOARD

The Compo Board Co., Minneapolis, Minn.

733. *Compo Board.* A booklet describing the combination of heavy paper, wooden core and cement in a five ply wall board, its qualities and uses. 16 pp. Ill. 5 x 7½ in.

734. *Instruction Sheets.* Instructions for correct application of Compo Board and the proper places for its use. 4 pp. and 8 pp. Ill. 3 x 6 in.

WALL COVERING—See also Linerusta-Walton

Standard Textile Products Co., 320 Broadway, New York, N. Y.

111. *Sanitas, Modern Wall Covering.* Folio. Plates of color renderings of various interiors, with suggestions for the library, living room, dining room, boudoir, kitchen and church wall covering, using Sanitas. Size 11½ x 6 in. 15 plates.

City Hall
Winter Haven,
Fla.

Protected by a Genasco Standard Trinidad Built-up Roof

The "safety-first" roofing

No bonds or roof-guarantee will prevent a leak—if the roofing is not leak proof. Nor will they repair the damage inside the building.

The only safe roofing is one that water can't get through—that can't be weakened or damaged by weather, gases or fumes from industrial processes.

Genasco Standard Trinidad Built-up Roofing is made exclusively of the world-famed Trinidad Lake Asphalt—one of the most element resisting materials known to science.

It is reinforced with layers of all-rag felt, selected because of its great tensile strength and power of absorbing and holding the water-proofing saturant.

That's why a Genasco Standard Trinidad Built-up roof stays weather-safe for years with little or no attention.

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Write at once for complete specifications for laying Genasco Standard Trinidad. Free to architects and builders.

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New York Pittsburgh Kansas City
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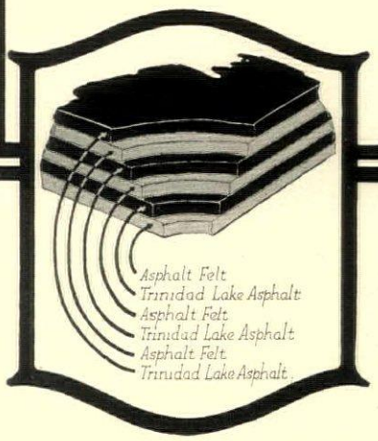

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STANDARD TRINIDAD Built-up Roofing

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REFERENCE LIST OF BUSINESS LITERATURE—Continued

WALL COVERING—See also Lincrusta-Walton

Standard Textile Products Co., 320 Broadway, New York, N. Y.

112. *Sanitas, and Its Uses.* Booklet. Text and color illustrations of Sanitas as a wall covering, with tables for wall and ceiling measurements. Notes on sanitary character, cleanliness and durability of Sanitas. Size 5 x 7 in. 28 pp. 6 color plates and 2 sample sheets.

WATER HEATERS

Ruud Manufacturing Co., Pittsburgh, Pa.

567. *Ruud Gas Water Heaters.* Bulletins in filing folder describing instantaneous automatic water heaters for small homes and special uses, multi-coil automatic storage systems, automatic storage systems and tank water heaters. Details for connections, hot water service and specifications. 19 pp. Ill. 8½ x 11 in.

590. *Ruud Multi-Copper-Coil Automatic Storage Systems.* Catalog describing automatic hot water storage systems of large capacity for large residences, apartment buildings, hotels, hospitals, gymnasiums and factories. Details, capacities and dimensions for complete line. 32 pp. Ill. 6 x 9 in.

WATERPROOFING—See also Dampproofing

Samuel Cabot, Inc., 141 Milk St., Boston, Mass.

340. *Cabot's Waterproofing Specialties.* Describes Dampproofing, Clear Brick Waterproofing and Clear Cement Waterproofing with specifications and covering data. 12 pp. Ill. 4 x 9 in.

Security Cement and Lime Co., Hagerstown, Md.

743. *Waterproofing with CAL.* A portfolio of miscellaneous information treating of the integral method of waterproofing concrete, specifications and tests. 24 pp. Ill. 8½ x 11 in.

WATER SOFTENERS

The Permutit Company, 440 Fourth Ave., New York

105. *Permutit (Water Rectification Systems.)* Illustrated booklet. Describes all methods of softening water, including the original Zeolite process. For homes, hotels, apartment houses, swimming pools, laundries and industrial plants. Size 8½ x 11 in. 32 pp.

482. *Bulletin No.* 1600. This bulletin treats of the value of soft water in the house and describes the Wayne Domestic Water Softening Systems. 6 pp. Ill. 8¼ x 10½ in.

Wayne Tank and Pump Co., Fort Wayne, Ind.

687. *Water Softening and Filtration.* A valuable treatise on the subject of slow-acting and quick-acting types of water softeners and their application to commercial, industrial and domestic uses. The construction of and uses for Wayne Pressure Filters are also adequately described. 32 pp. Ill. 8¼ x 10½ in.

WATER SUPPLY—See Pumps

WEATHER STRIPS

The Diamond Metal Weather Strip Co., Columbus, Ohio.

616. *The Diamond Way.* A catalog of full size details showing the application of Diamond metal weather strips to double hung and casement windows and doors with complete specifications. 34 pp. Ill. 8½ x 11 in.

The Higgin Manufacturing Co., 5th and Washington Ave., Newport, Ky.

354. *Higgin Metal Weather Strips.* A booklet of considerable value to architects and builders on the use of weather strips. Ask also for the companion book on "The Reason Why." Each booklet 12 pp. Ill. 6 x 9 in.

Monarch Metal Products Co., 5020 Penrose Street, St. Louis, Mo.

512. *Monarch Metal Weather Strips.* The publication embodies all the suggestions for advertising literature made by the Committee on Structural Service of the American Institute of Architects. It contains a treatise on inleakage around windows together with description of Monarch Metal Weather Strips. Contains many detail working drawings. 48 pp. Ill. 7½ x 10½ in.

WINDOWS—See Doors and Windows

WIRE AND CABLE—See Electric Wire and Cable

WOODWORK—See also doors and Windows—Lumber

Curtis Companies Service Bureau, Clinton, Iowa.

663. *Keeping Down the Cost of Your Woodwork.* A book illustrating Curtis interior woodwork and built-in cabinets and fixtures designed by Trowbridge and Ackerman, Architects, New York. Colored illustrations and details. 16 pp. Ill. 7 x 9¼ in.

Hartmann—Sanders Company, 6 East 39th St., New York, N. Y.

334. *Catalog No.* 47. Illustrating Kell's Patent Lock Joint wood stave columns for exterior and interior use. 48 pp. Ill. 7½ x 10 in.

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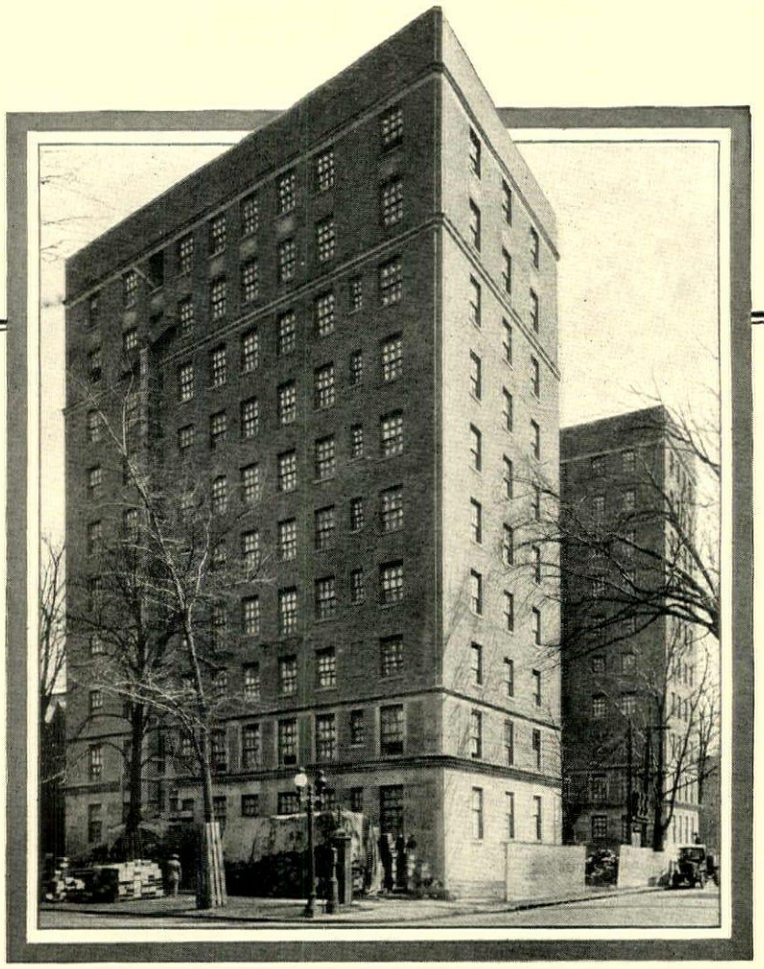

Westbrook Apartments, Buffalo, New York. North, Shelgren & Swift, Architects, Buffalo, N. Y.; Dwight P. Robinson Co., Contractors, New York City; BRIXMENT used for mortar.

Buffalo Apartment Building Laid in BRIXMENT Mortar

The triple alliance of strength, architectural adaptability and economy found in BRIXMENT mortar has been called upon again in the erection of the Westbrook Apartments in Buffalo.

This 10-story, 90-apartment building is one of Buffalo's most modern and important structures and is typical of those in which architects and engineers demand materials capable of thoroughly fulfilling the manufacturer's claims. *It will pay you to investigate the manifold advantages of BRIXMENT for mortar.*

LOUISVILLE CEMENT CO., *Incorporated*, LOUISVILLE, KY.

Send today for this descriptive handbook on BRIXMENT, 8½ by 11 inches, with handy tab for filing

For Better Masonry

BRIXMENT

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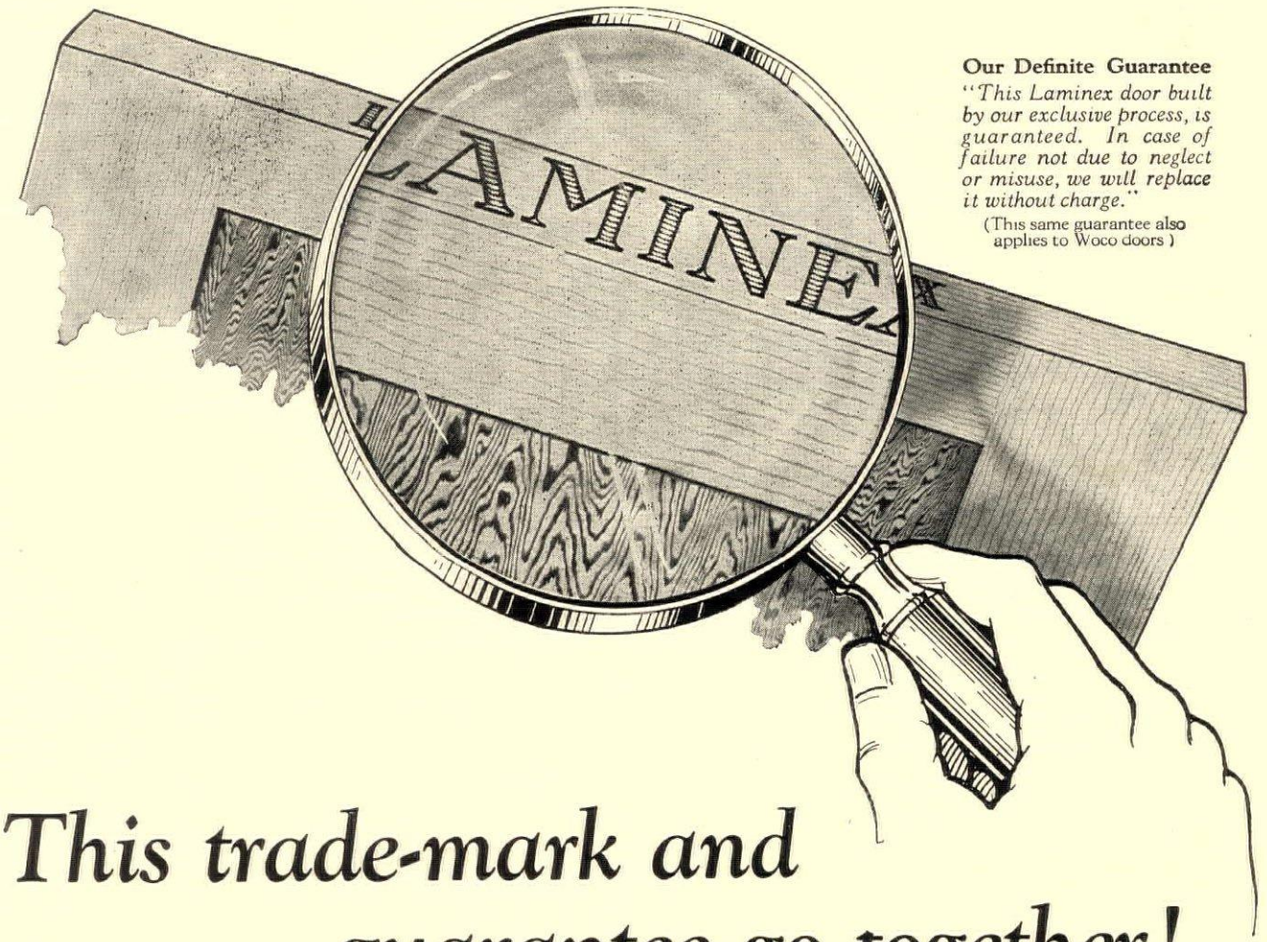
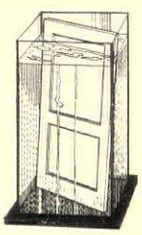


Our Definite Guarantee

"This Laminex door built by our exclusive process, is guaranteed. In case of failure not due to neglect or misuse, we will replace it without charge."

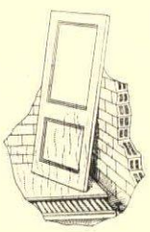
(This same guarantee also applies to Woco doors)

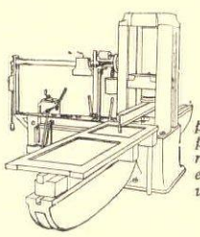
This trade-mark and guarantee go together!



Water test—24 hours' soaking showed complete absence of warping in Laminex doors. All parts of the doors remained rigid and strong. Tests made by the Forest Products Laboratories, University of Washington, School of Forestry.

Heat test—in commercial dry kiln—24 hours in heat of 185° F. with humidity of 30% Moisture extracted, 1 lb. 2 oz. No shrinking, warping or checking.





Strength test–Laminex panels in a 200,000 pound Olsen testing machine, stood an average load of 912 pounds without rupturing.

In Laminex and Woco doors—products of The Wheeler, Osgood Company—we not only offer you *better doors*, but we back them with our trade-mark and replacement *guarantee* label.

That Laminex is the last word in built-up door construction, is proven by practical and scientific tests throughout the country. This process *overcomes the common faults in doors.*

These are due to the *tracheids* or cells of wood as it grows, which cause shrinking, swelling and warping. In Laminex doors we build up the parts using a special Laminex water-proof cement and squeezing the whole together by tremendous hydraulic pressure in one solid piece.

Scientific tests of Laminex doors were made by the Forest Products Laboratories, University of Washington. They were soaked in water for 24 hours; subjected to a heat of 185° Fahr. for 24 hours. *Not a Laminex door warped!* There was almost a total absence of shrinking or swelling.

As a final step we perfected machinery to build Laminex with vertical grain Douglas fir stiles and rails as well as the all-flat grain.

Ask your mill-work dealer for Laminex built-up doors and Woco solid stile and rail doors. Each is trade-marked and bears our definite replacement guarantee label.

Write for special Laminex monograph!

The Wheeler, Osgood Company

Tacoma, Washington, *"The Lumber Capital of America"*

Sales Offices: Chicago, Memphis, Los Angeles, San Francisco, Spokane

A WOCO PRODUCT

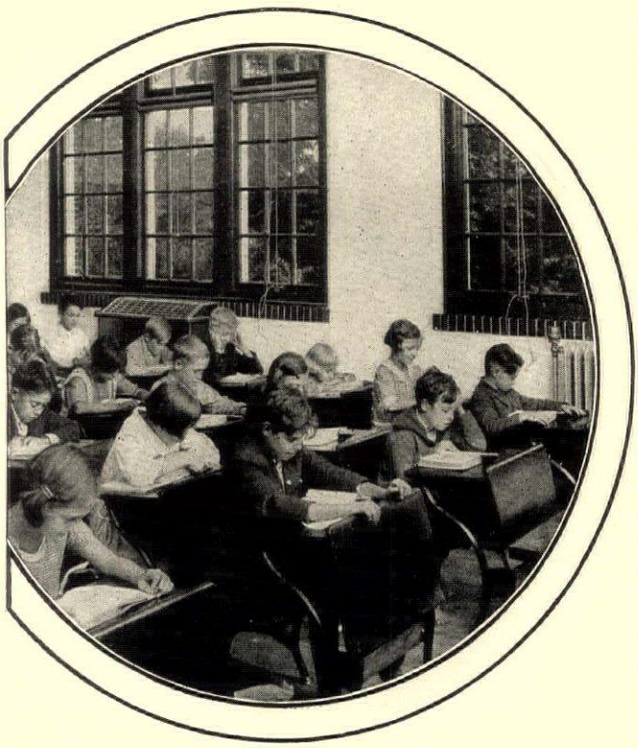
Manufacturers of "Woco" Douglas Fir Doors and Fir Sash

LAMINEX DOORS

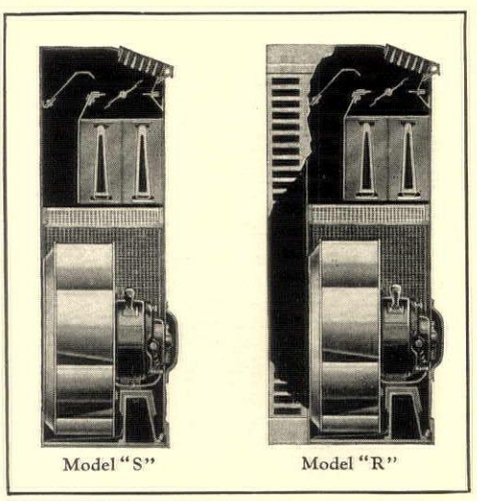
WILL NOT SHRINK, SWELL OR WARP

Specifications of most products advertised in THE AMERICAN ARCHITECT appear in the Specification Manual

and Ventilating Plant space than a radiator



Make School Days Happier with the Univent



Model "S" Model "R"

Side Views of the New Univent

degrees when the Univent is in operation as compared to 210 to 220 degrees with the ordinary steam radiator. This is accomplished by the fact that a very large amount of so-called indirect surface is used.

This radiator is constructed with a hollow streamline core section cast of aluminum and copper mixture and of the same thickness as the ordinary cast iron radiator.

Copper plates extending laterally from this core are pressed to the core by a special process to form a perfectly tight contact.

The heat from the steam in the core passes through the extended plates by conduction.

The Univent takes the fresh air through the wall. It is unnecessary to cut or alter the windows.

It has a filter for taking out the dust, dirt, soot or sand when schools are located where the atmosphere is loaded with these particles. The filter is of the adhesive impingement type.

The cleaning of this filter is a simple matter requiring only a few minutes time to replace the dirt-laden steel wool blankets with clean ones.

Dirt-laden blankets can be washed in three or four minutes time and are ready for replacement.

The building of a small, compact, high capacity Univent has been made possible by the use of the specially constructed copper radiator and partially recessing the motor in the fan; distinct Univent features.

Send for Catalog

The catalog gives a complete description of the new Univent. It contains many illustrations to show how it operates.

This catalog will be mailed to you upon request.

Please sign the coupon below and mail it.

Date.....

The Herman Nelson Corporation
1932 Third Avenue, Moline, Ill.

Gentlemen: Please send me without obligation, the catalog of the new Univent.

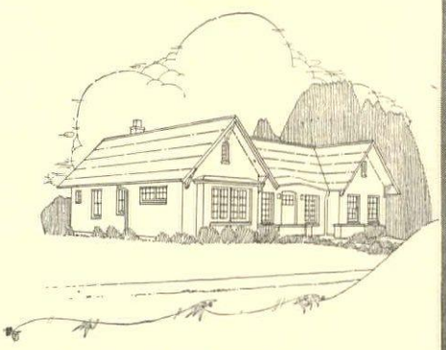
Name.....

Position.....

Street Address.....

Town..... State.....

1932 Third Avenue, Moline, Illinois



Kernerator-equipped home of Architect Martin Tullgren, of Milwaukee. Located at Wauwatosa, Wis.

Drop all waste here— then FORGET IT!

Kernerator-equipped 6-apartment building at 333 South Taylor Street, Oak Park, Ill.; Mr. J. R. Maas, owner; Mr. E. N. Brancher, Chicago, architect.

You Can't Measure its Convenience

—but You do Know it More than Saves its Cost!

WEIGH the cost of any other method of waste disposal against the Kernerator! Disregard, if you wish, the question of convenience to tenants—*and still the Kernerator is the soundest kind of business investment.*

To know this is true, simply itemize the cost of a new battery of garbage cans every two or three years. Consider the time required in carrying them to the basement, cleaning and returning them, and then re-handling their contents in the basement, when general collection is made. Include vermin extermination and frequent painting necessary around the places where cans are kept. Then charge against good-will the many disputes between janitor and tenant that grow out of irregular waste collection.

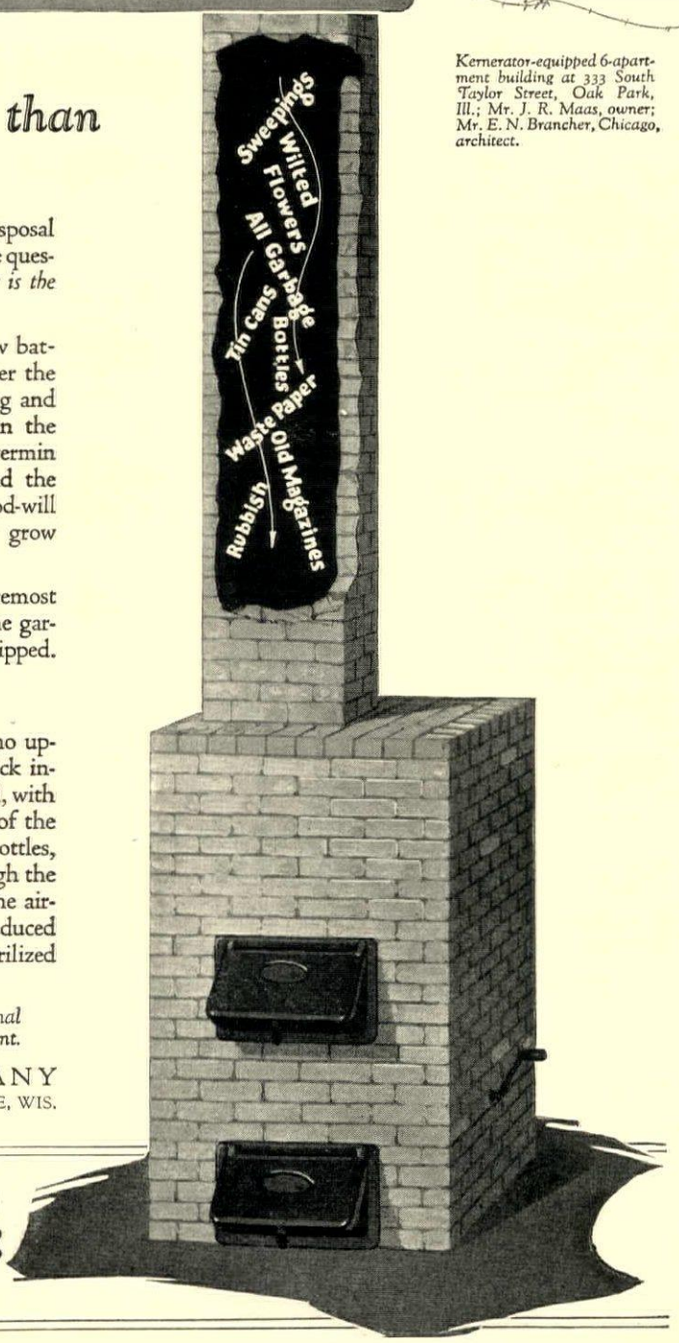
Your own figures will tell you why many of the nation's foremost architects, builders, realtors—and their clients—outlaw the garbage can and insist that *all* their buildings be Kernerator-equipped.

Costs Nothing to Operate

Since the waste itself is all the fuel required, there is no upkeep cost to the KERNERATOR. It consists of a brick incinerator chamber, built-in when building is being erected, with handy hopper doors opening into the flue from each of the floors above. *All* waste—garbage sweepings, tin cans, bottles, broken china, rubbish of all sorts—when dropped through the hopper doors, falls to the combustion chamber. Here the air-dried waste matter is easily consumed. Everything is reduced to ashes but metallic objects and the like. These are sterilized by the flame and later removed with the ashes.

Full details appear on pages 2340-41, Sweet's 1923. Additional information, such as references of near-by installations gladly sent.

KERNER INCINERATOR COMPANY
1019 CHESTNUT STREET MILWAUKEE, WIS.



KERNERATOR
Built-in-the-Chimney
Reg. U. S. Patent Office

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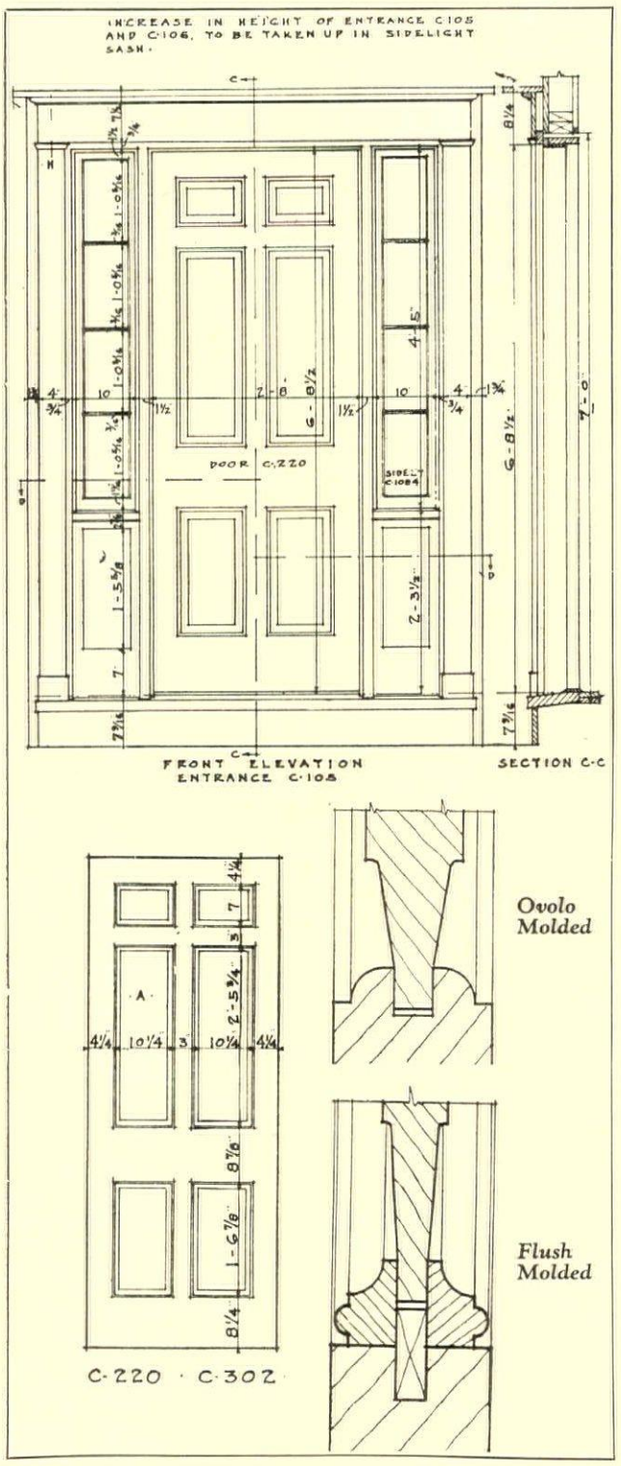
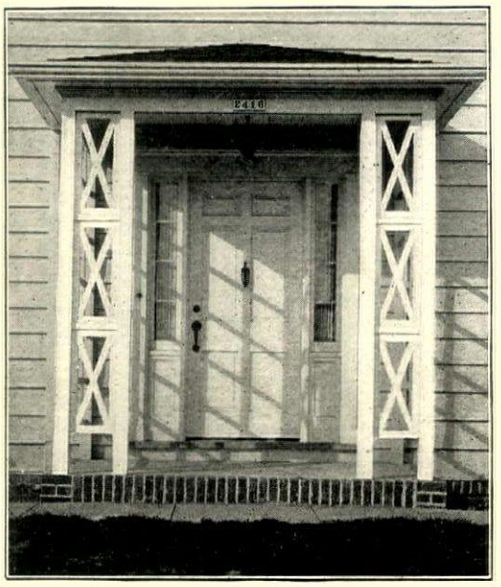
CURTIS WOODWORK



Entrance C-105

This is but one of 31 standard Entrances, each of which is made in several sizes. Designs include Colonial, English and Western types. Porch posts and hood not included.



How standardization of woodwork saves your time

YOU'VE taken care of a lot of work in your drafting room when you specify Curtis Woodwork.

And you have made sure of good lumber, good construction and good workmanship.

Standardization is the reason.

Standard designs by prominent architects in such variety that you can follow out your own ideas.

Standard quality maintained by rigid rules of selection and rejection by the workmen at every operation.

Standard sizes to meet every requirement of proportion.

Trace the detail sheets, a section from one of which is shown here, and incorporate them in your plans.

Curtis Woodwork includes all interior woodwork requirements, doors, windows, molding, trim, cabinets, stair parts, etc.

The Curtis dealer in your vicinity will gladly show you the comprehensive service he can render you.

We will furnish the name of the dealer best situated to supply your Curtis requirements.

Curtis Woodwork is sold by retail lumbermen east of the Rockies. Make sure the woodwork you buy bears this trademark—

1866 CURTIS

The makers of Curtis Woodwork are proud to identify their products by this mark.

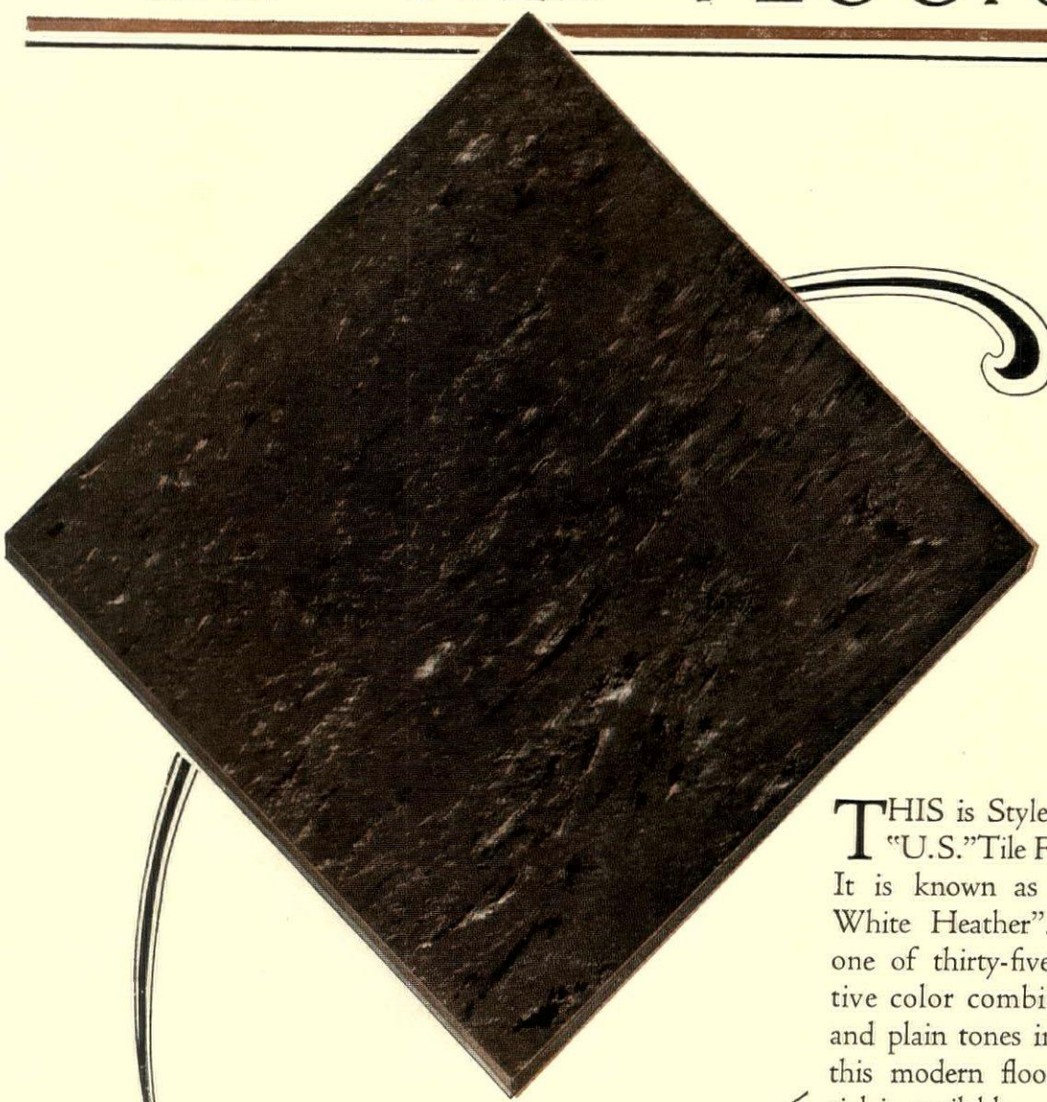
The Curtis Companies Service Bureau
146 Curtis Building, Clinton, Iowa

Curtis Companies, Inc., Clinton, Iowa

Curtis Detroit Co., Detroit, Mich.
Curtis Bros. & Co., Clinton, Iowa
Curtis & Yale Co., Wausau, Wis.
Curtis Sash & Door Co., Sioux City, Iowa
Curtis, Towle & Paine Co., Lincoln, Nebr.
Curtis, Towle & Paine Co., Topeka, Kans.
Curtis-Yale-Holland Co., Minneapolis, Minn.
Curtis Door & Sash Co., Chicago, Ill.

Sales Offices in: Pittsburgh - New York - Baltimore

"U.S." TILE FLOORING



THIS is Style T-3 of "U.S."Tile Flooring. It is known as "Black-White Heather". It is one of thirty-five attractive color combinations and plain tones in which this modern floor material is available.

You assure your client durability, quietness, beauty of decoration, and sanitation when you include "U. S." Tile in your plans.

United States Rubber Company
1790 Broadway, New York City

Manufacturers of Rubber Flooring since 1897

Trade Mark

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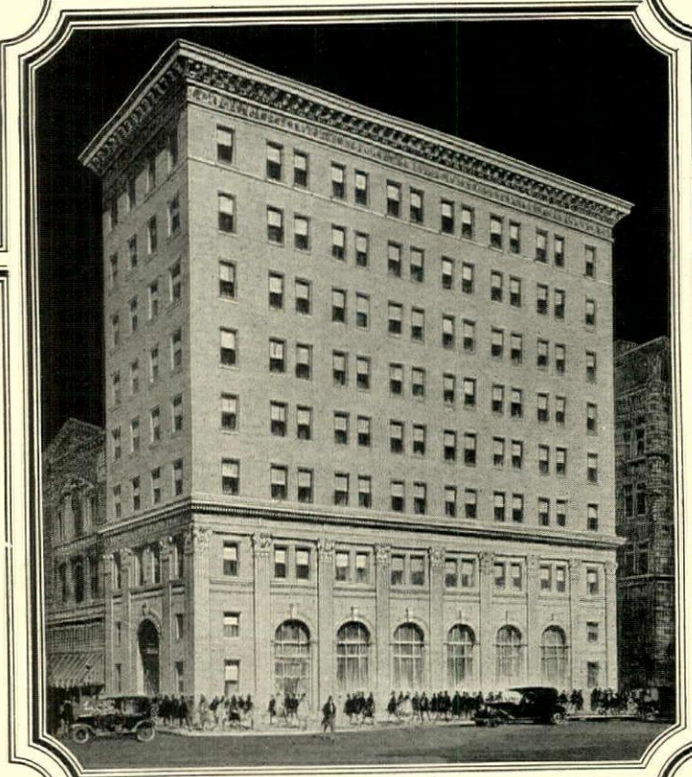

CALDWELL
BUILDING
Nashville, Tenn.

Standard Engineering
Company, Htg. Contrs.

SUPER-SMOKELESS
HEATED

McKim, Meade
& White,
Architects

Marr & Holman,
Associate Architects

Tenney & Ohmes,
Heating Engineers

UTICA-IMPERIAL

SUPER-SMOKELESS BOILERS

for Smokeless Heating of Fine Buildings

FOREMOST Architects and Heating Engineers specify Utica-Imperial SUPER-SMOKELESS Boilers because they burn soft coal smokelessly and with exceptional efficiency.

Smoke and soot are utilized as valuable fuel. This is accomplished by admitting highly heated air at the very heart of the fire, on the Bunsen Burner principle, attaining practically smokeless combustion.

The complete consumption of fuel and ability to burn cheap grades of soft coal makes it possible to reduce heating costs. SUPER-SMOKELESS Boilers have proved unusually successful for oil-burning.

Utica-Imperial SUPER-SMOKELESS Boilers are already installed in thousands of large buildings. Send for our interesting catalog and the special Timmis Report.

UTICA HEATER COMPANY, Utica, N. Y.

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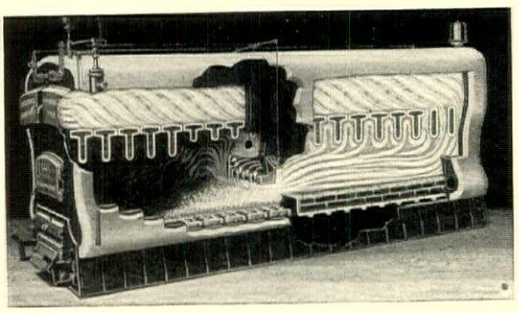
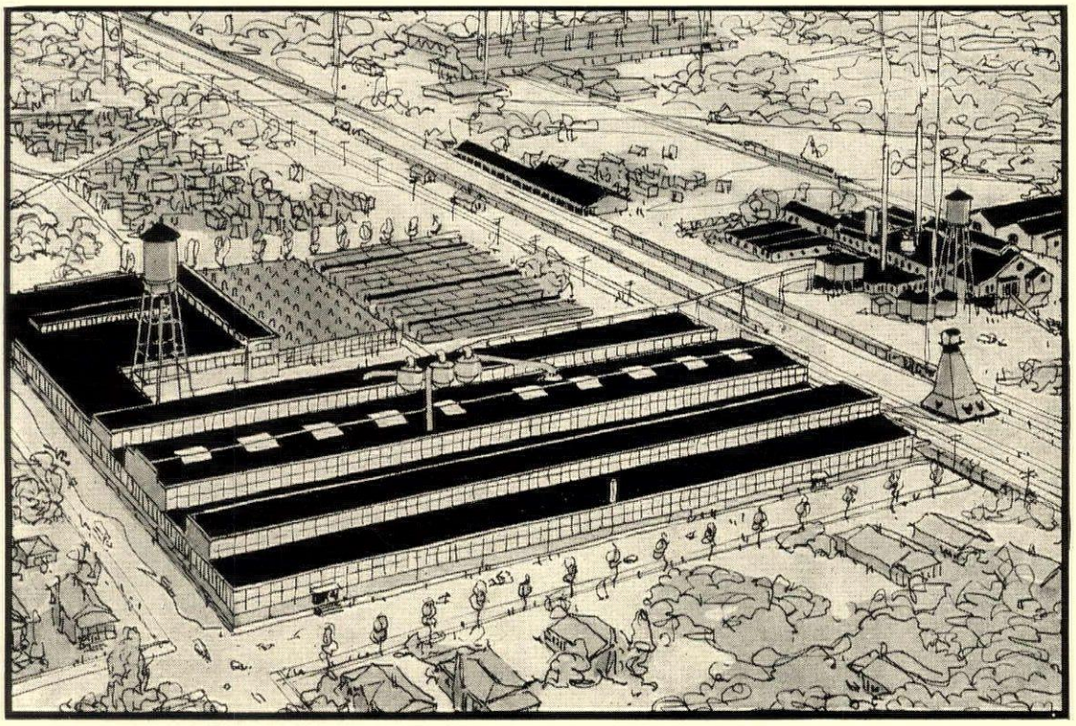
Atlanta	Cleveland
Birmingham	Columbus
Boston	Dayton
Buffalo	Detroit
Cedar Rapids	Denver
Charlotte, N. C.	Fort Wayne
Chicago	Grand Rapids
Cincinnati	Harrisburg



Indianapolis	Omaha
Louisville	Philadelphia
Memphis	Pittsburgh
Milwaukee	Saint Louis
Minneapolis	Salt Lake City
Nashville	San Angelo
New Haven	Toledo
New York	Washington



A roof of proved endurance for this new Louisville plant

When they built their big new plant at Louisville, the Mengel Body Company realized the importance of protecting it with a roof which would keep out the weather for years to come, and do it without expensive repairs. Therefore, a Viskalt Membrane Roof was specified—a roof that lasts longer because of exceptional strength in its inner materials.

How long an applied roofing will last depends, of course, upon the quality of its felt base and that of the waterproofing used on it.

The inner foundation of Viskalt Membrane Roofs is Richardson felt, which has excelled for more than half a century. Maximum absorptive capacity, great tensile strength, unusual pliancy and certain uniformity—these qualities make of it the ideal long-wearing waterproofing base.

And the waterproofing for this sturdy foundation is Viskalt—a 99.8% pure bitumen, especially vacuum-processed to give a degree of permanence hitherto unknown. Exacting tests show that under every strain of temperature, weathering, tension and pressure this remarkable waterproofing remains pliant, adhesive and impervious to water.

These factors which combine to insure years of care-free endurance, plus moderate cost of application, make a Viskalt Membrane Roof doubly economical and satisfactory. Fifty-five years of manufacturing experience are back of the materials it contains.

Let us send you an interesting pamphlet containing valuable roofing information and complete specifications. Just use the coupon below.

The RICHARDSON COMPANY
Lockland (Cincinnati) Ohio
Chicago New Orleans New York City
Atlanta Dallas

The Mengel Body Company, Louisville, Kentucky, are large producers of automobile bodies. Their new plant has a capacity of 25,000 commercial bodies a year, with an additional output of machined woodwork for 200 closed bodies and 400 touring car bodies per day.

This plant was designed after the consulting engineers had inspected the largest and most up-to-date body plants in the country. That this roof was specified here is significant of a general acceptance among engineers and architects of Viskalt Membrane Roofs as the most satisfactory for industrial buildings.

RICHARDSON
Viskalt Membrane ROOFS

PLIANT UNDER STRESS

The Richardson Company
Construction Materials Division
Dept. 30-F, 1008 Fisk Bldg.,
New York City
Gentlemen : Please send me your pamphlet of specifications for Viskalt Membrane Roofs.
Name.....
Address.....
.....

"The whole 12th floor, part of the 6th floor, and part of the basement of this building are Chemical Laboratories."

W. Leigh Carneal
O. Pendleton Wright
J. Ambler Johnston

CARNEAL & JOHNSTON
ARCHITECTS AND CONSULTING ENGINEERS
VIRGINIA RAILWAY AND POWER BUILDING

RICHMOND VA May 2, 1924.

The Duriron Co., Inc.,
Dayton, Ohio.

Re: State Office Building

Dear Sirs:-

The whole 12th floor, part of the 6th floor, and part of the basement of this building are Chemical Laboratories. All the drainage from all chemical apparatus is collected by a separate system of plumbing and carried to the street sewer independently of other drainage. Our consulting engineer, Mr. James Posey of Baltimore, advised us that your material was the best that could be procured for laboratory work, and he had no hesitancy in specifying it for this undertaking.

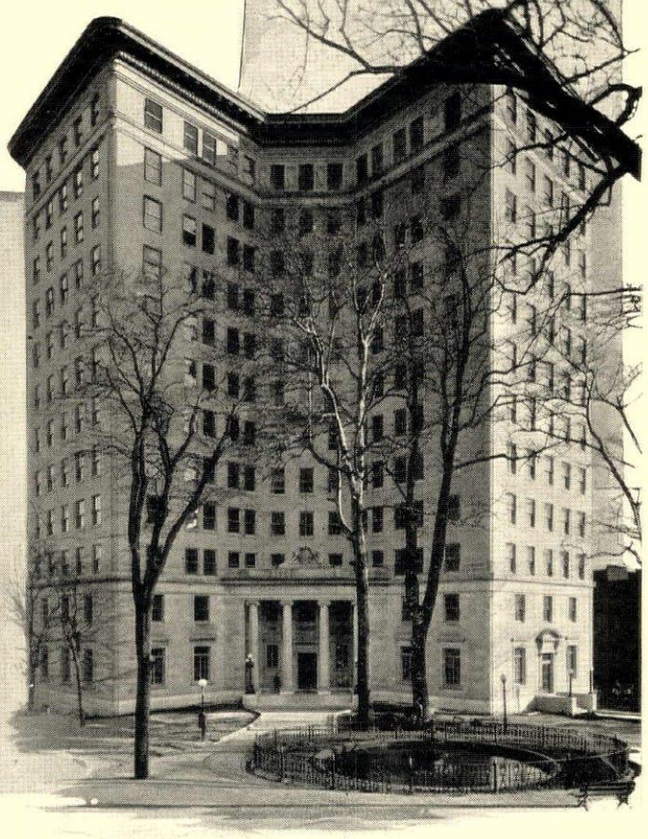
The building has now been completed and we found that the installation of your pipe was easily done by the plumbing contractor. Your conformity to cast iron standard for sizes enabled us to get this acid proof pipe with very little, if any, additional labor charge on account of its character.

The consulting engineer, the plumbing contractor, and this office, are all very well pleased with the results of the use of your material.

Yours very truly,

Carneal & Johnston

JAJp



Virginia State Office Building

Carneal & Johnston	Architects
James Posey	Consulting Engineer
J. R. Rose & Company	Plumbing Contractors

This building nicely illustrates the fact that the laboratory may be located anywhere in a structure, without fear of damage from leaking acids, when DURIRON acid-proof pipe is used.

While the initial cost of DURIRON is greater than other materials, the cost is equalized after the first replacement.

For handling acids or acid wastes there is no other pipe comparable to DURIRON, universally acid-proof.

The DURIRON COMPANY
DAYTON · OHIO

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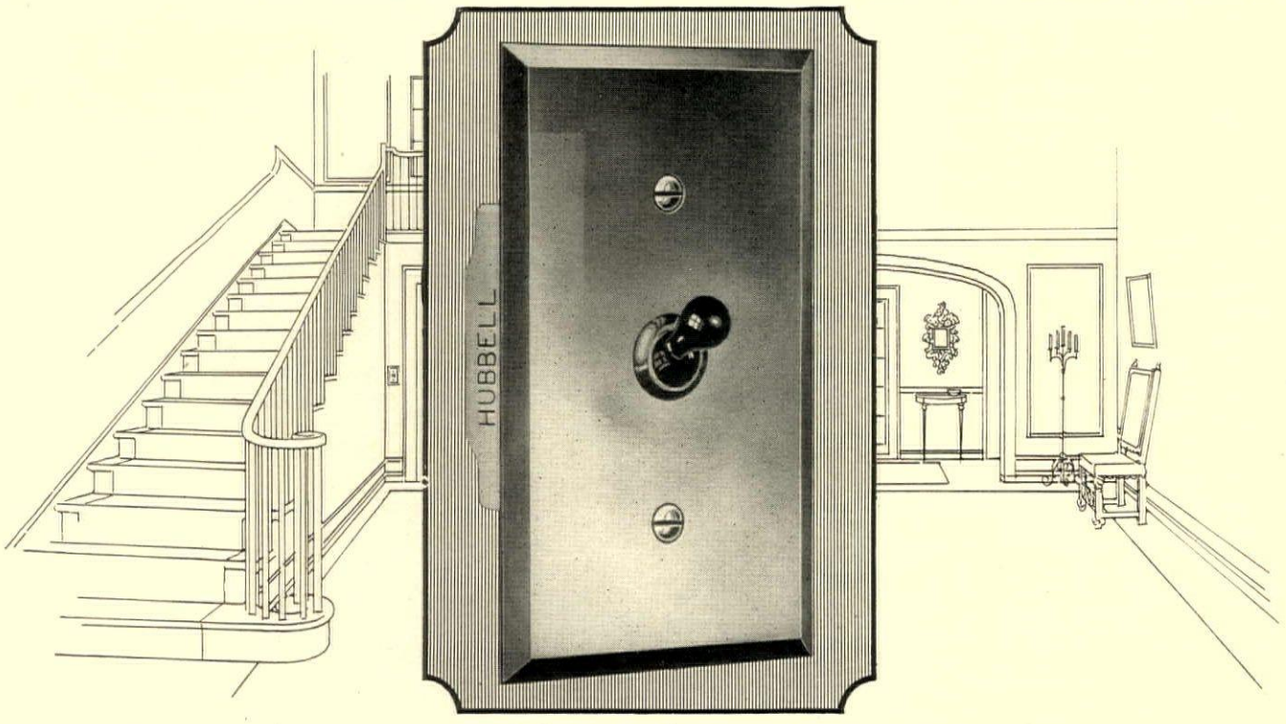
Specifications of most products advertised in THE AMERICAN ARCHITECT appear in the Specification Manual

HUBBELL

NEW STANDARD TOGGLE SWITCHES



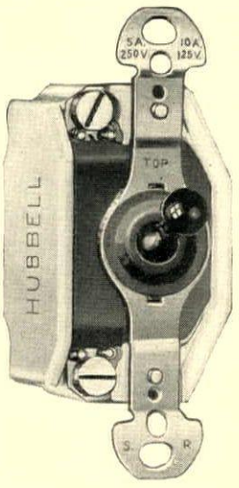
Body No. 8641; Plate No. 8291

EQUIPPED with improved mechanism—quick-acting, easily-operated.

Toggle arm of black "Bakelite".

Made in single pole, double pole, three-way and four-way types.

HARVEY HUBBELL INC
ELECTRICAL WIRING DEVICES
BRIDGEPORT CONN. U.S.A.



SHALLOW BODY
Only 1 1/16 inches deep; suitable for thin partitions.

ELECTRICAL WIRING DEVICES

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JOHNSON

Probably you would wish to have someone with whom to discuss the advisability of installing The Johnson Pneumatic System of Temperature Regulation, someone who has actually experienced the remarkable fuel economy and the physical comforts and conveniences provided by the Johnson System, home and building owners who have The Johnson installed. No doubt there is someone in your city, or close by. Johnson perfection, services, results and refinements deserve thorough consideration as essential today. Write immediately for a list of homes or business structures Johnson equipped: most respectfully furnished upon request.

JOHNSON SERVICE COMPANY, MILWAUKEE

AUTOMATIC TEMPERATURE REGULATION FOR 38 YEARS

TWENTY-EIGHT BRANCHES UNITED STATES AND CANADA

JOHNSON

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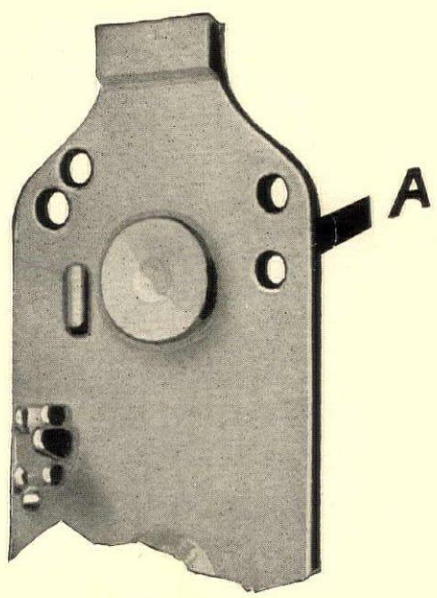
Von Duprin

TRADE MARK REG. U.S. PATENT OFFICE

Self-Releasing Fire Exit Latches



See Page 28
In the New Catalog

For Correct Application

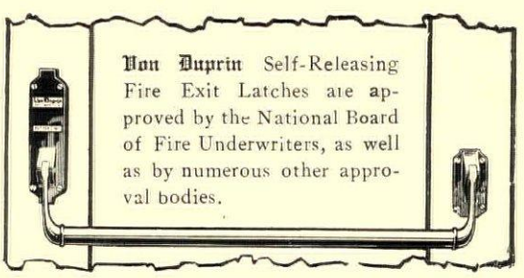
A frequent source of trouble in the older types of panic bolts was the incorrect application of the devices, interfering with the quick and complete withdrawal of the latch bolt.

In the new model **Von Duprin** latches, this trouble is entirely eliminated by the template on the back of the mechanism case cap. ("A" in the illustration.)

This template insures the correct position of the cap, and as a consequence, the correct operation of the mechanism and the latch bolts.

Every detail of the improved new model **Von Duprin** latches is designed with the idea of correct application, easy operation and long life.

This is the first of a series of announcements showing recent improvements in **Von Duprin** *devices.*



Von Duprin Self-Releasing Fire Exit Latches are approved by the National Board of Fire Underwriters, as well as by numerous other approval bodies.

VONNEGUT HARDWARE CO.

Indianapolis, Indiana.

Manufacturers

Von Duprin devices are made better than is necessary for every day service: they are made to work perfectly under emergency demands—to save lives!

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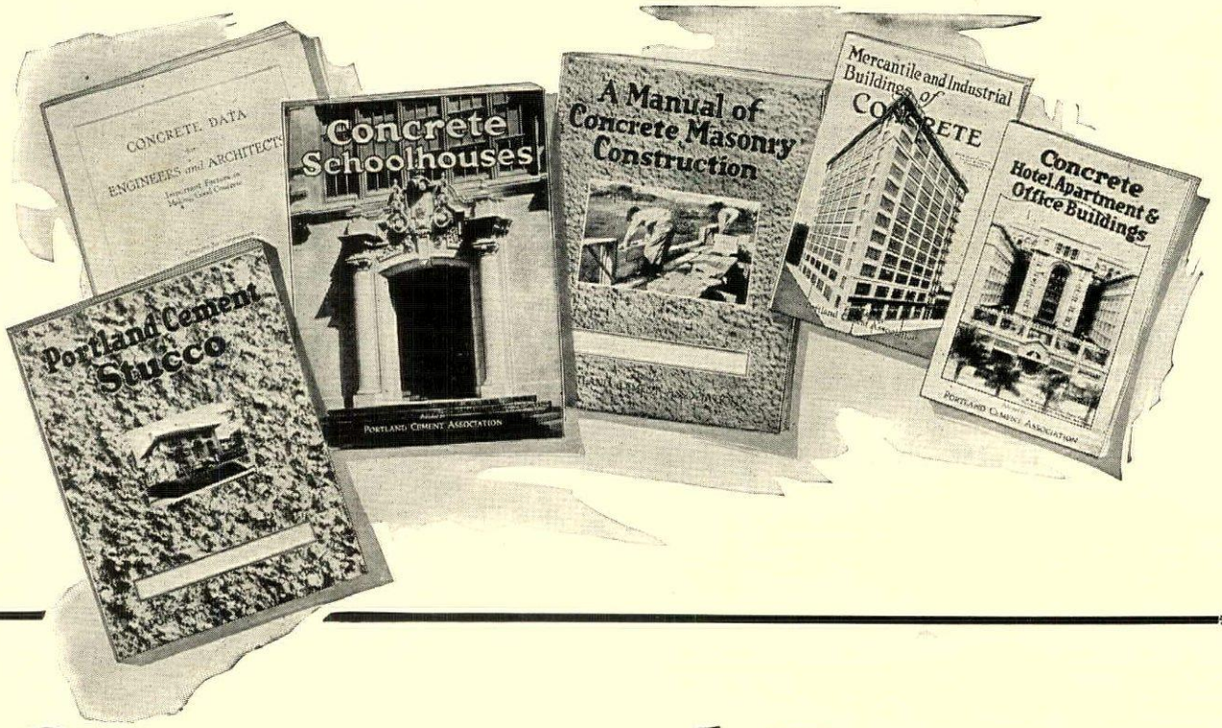

Concrete *and* Progress

Not only in the shifting skylines of New York and San Francisco, but throughout all this broad land of ours, we see in the making a new and greater American Architecture.

In the development and steady advancement of modern architecture, concrete is naturally playing a conspicuous part.

Concrete meets the economic and structural requirements of the twentieth century, and its wide range of adaptability in form and color gives the architect and the sculptor practically unlimited opportunity to express their ideals of beauty.

The booklets, shown above, contain a wealth of practical information on concrete. The list is as follows: "Concrete Data for Architects and Engineers," "Portland Cement Stucco," "A Manual of Concrete Masonry Construction," "Concrete School Houses," "Concrete Hotel, Apartment and Office Buildings," "Mercantile and Industrial Buildings of Concrete."

Let the nearest office listed below know which booklets you want. They will be sent without obligation

PORTLAND CEMENT ASSOCIATION

A National Organization
to Improve and Extend the Uses of Concrete

Atlanta	Dallas	Indianapolis	Milwaukee	Parkersburg	San Francisco
Birmingham	Denver	Jacksonville	Minneapolis	Philadelphia	Seattle
Boston	Des Moines	Kansas City	New Orleans	Pittsburgh	St. Louis
Charlotte, N.C.	Detroit	Los Angeles	New York	Portland, Oreg.	Vancouver, B. C.
Chicago	Helena	Memphis	Oklahoma City	Salt Lake City	Washington, D. C.

ONE HUNDRED YEARS 1824 1924 OF PORTLAND CEMENT

Our Booklets are sent free only in the United States, Canada and Cuba

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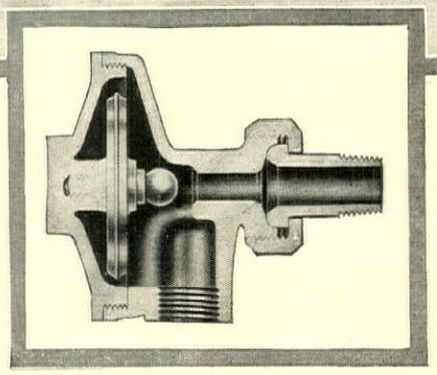
Entrance to Schulze Baking Co., Chicago — John Ahlschlager Son & Co., Architects

Terra Cotta is versatile. Whether elegant in its simplicity or of most elaborate design Terra Cotta gives a building personality and removes it from the commonplace.

Midland Terra Cotta Company

105 West Monroe Street, Chicago, Illinois



ARROWHEAD INN, ARROWHEAD LAKE Swasey & McAfee, Architects

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OUTCLASS and OUTLAST

as proven by 13 years of operation

OF ABOVE DESIGN

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ILLINOIS VAPOR SYSTEMS COMBINE

ADVANCED ENGINEERING	SUPERIOR SPECIALTIES	RESPONSIBLE GUARANTEES

Illinois Heating Specialties

are the results of 24 years of specialized work on the engineering of Steam Heating, and these products have been developed and improved through the accumulated experience of these years.

We are recognized as pioneers and originators of many important improvements in the practice of Steam Heating.

We maintain an able Engineering Department to assist Architects and Engineers with engineering details in connection with the proper design and installation of **Illinois Systems.**

We guarantee operative results and stand back of our Systems and Apparatus, so that specifying Illinois Systems insures satisfactory results.

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RAIL STEEL
REAL STRENGTH

Rail Steel and Building Authorities

THE BROWN HOTEL, LOUISVILLE, KY.

W. J. Knight & Co., *Engineers* — Preston J. Bradshaw, *Architect*

McCormack-Combs Const. Co., *Contractors*

MUNICIPAL building codes have been devised solely for the purpose of public safety. Their specifications define the best accepted economic practice based on years of experience in the use of building materials.

Our principal cities where the largest buildings are being erected and where the utmost care must consequently be exercised have shown their confidence and taken the lead in including Rail Steel Bars in their specifications.

The following is a partial list of these cities, which gives conclusive proof of the dependability of Rail Steel Bars, rolled by mills of the Rail Steel Products Association.

Send for this Valuable Book—

FREE

The first and only authoritative and comprehensive treatise on concrete Reinforcing Bars and containing most important information on the manufacture, qualities, and use of Rail Steel Bars. The cost of this booklet makes it necessary for us to control its distribution and we ask that your request for a copy be sent us on the letterhead of an architectural or engineering firm.

Address the nearest office, Dept. D.

LIST OF PRINCIPAL CITIES

Akron, O.	Fort Worth, Tex.	Milwaukee, Wis.	Scranton, Pa.
Atlanta, Ga.	Grand Rapids, Mich.	Mobile, Ala.	Spokane, Wash.
Boston, Mass.	Hartford, Conn.	Montreal, Canada	Springfield, O.
Cambridge, Mass.	Hamilton, Canada	Newark, N. J.	St. Louis, Mo.
Chicago, Ill.	Indianapolis, Ind	New York, N. Y.	St. Paul, Minn.
Charleston, S. C.	Jacksonville, Fla.	Orange, N. J.	Syracuse, N. Y.
Cincinnati, O.	Kansas City, Mo.	Pittsburgh, Pa.	Toronto, Canada
Cleveland, O.	Kitchner, Canada	Portland, Me.	Utica, N. Y.
Columbus, O.	Los Angeles, Cal.	Portland, Ore.	Winnipeg, Canada
Dallas, Tex.	Louisville, Ky.	Providence, R. I.	Windsor, Canada
Denver, Colo.	Lowell, Mass.	San Francisco, Cal.	Worcester, Mass.
Des Moines, Ia.	Memphis, Tenn.	Schenectady, N. Y.	

The Rail Steel Products Association was organized to continue and further promote the high quality standard of Rail Steel, established after many years of co-operative research work by the metallurgists of the individual rolling mills who are now members of this Association.

Specify your reinforcing steel to meet A. S. T. M. Specification A-16-14 or equal.

RAIL STEEL PRODUCTS ASSOCIATION

(Reinforcing Bar Division)

BUFFALO STEEL CO. Tonawanda, N. Y.	CALUMET STEEL CO. Chicago, Ill.	LACLEDE STEEL CO. St. Louis, Mo.
BURLINGTON STEEL CO. Hamilton, Can.	FRANKLIN STEEL WORKS Franklin, Pa.	THE POLLAK STEEL CO. Cincinnati, O.

RAIL STEEL *for* REINFORCING

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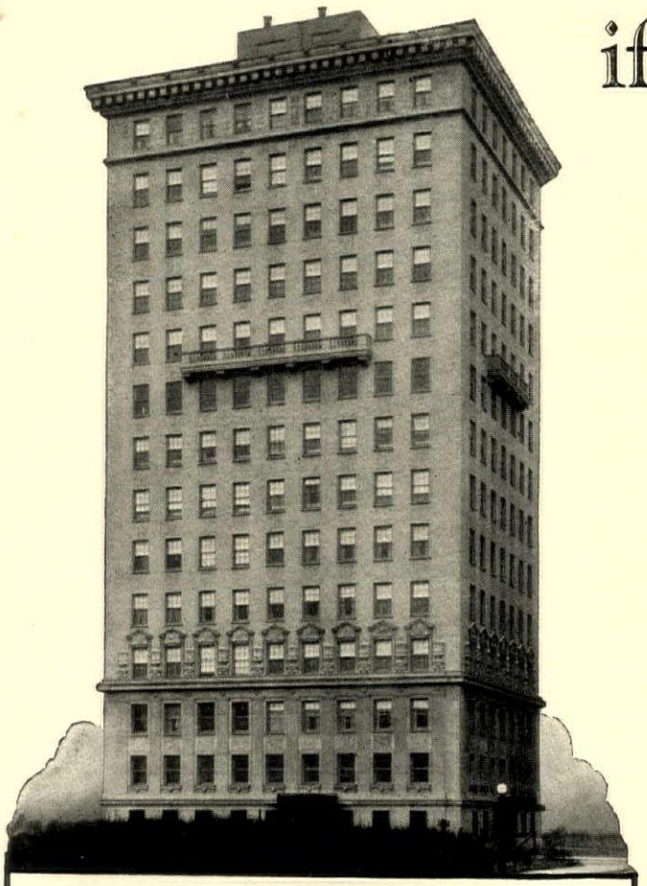
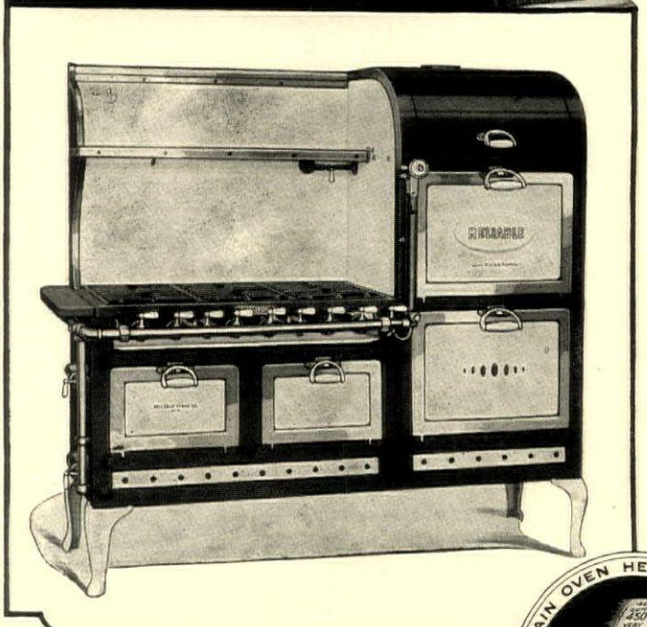
The Kitchen Isn't Modern if It Lacks Lorain





Upper view shows apartment building at 233 East Walton Place, Chicago, Ill. 233 E. Walton Place Building Corporation, Owners; C. Howard Crane and Kenneth Franzheim, Architects, Chicago; McLennan Construction Co., Builders, Chicago. Kitchens throughout are equipped with Reliable Angliron Gas Ranges with Lorain Oven Heat Regulators. The model installed is shown above.

DUE to the extensive national advertising and to the advice of neighbors and friends, American housewives generally are thoroughly convinced of the big advantages of gas ranges equipped with the famous Lorain Oven Heat Regulator.

In the face of this universal confidence, no builder can justly claim to a prospective tenant that his kitchen is modern, *unless it has a Lorain-equipped Gas Range.* This fact is becoming more apparent all the time.

Satisfied tenants are the greatest asset the builder of places to rent or sell can have, and no equipment placed in his houses or apartments will go further to bring about "tenant-satisfaction" than the installation of a Lorain-equipped Gas Range.

The advantages of Lorain over and above non-Lorain equipment are most pronounced in: (1), its efficiency of operation; (2), uniformity of baking results; (3), relieving the housewife for other duties while the cooking automatically takes care of itself; (4), the cooking of a Whole Meal in the oven unwatched; (5), Oven Canning with perfect results.

Over one thousand of the finest schools and universities of America use Lorain-equipped Gas Ranges in their domestic science departments for cookery instruction purposes. These wonderful stoves are used in thousands upon thousands of homes, apartments, churches, hospitals, fraternal organization buildings and other types of structures.

For specific data as to sizes, styles, etc., see 18th Edition Sweet's Architectural Catalog, pages 2315-24 inclusive. Catalogs, prices and other information on request.

One easy turn of the Lorain Red Wheel gives the housewife a choice of 44 measured and controlled oven heats for any kind of oven cooking or baking.

These famous gas stoves are equipped with the Lorain Oven Heat Regulator: Reliable, Clark Jewel, Dangler, Direct Action, New Process, Quick Meal.

AMERICAN STOVE COMPANY, 333 Chouteau Ave., St. Louis, Mo.
Largest Makers of Gas Ranges in the World

LORAIN OVEN HEAT REGULATOR

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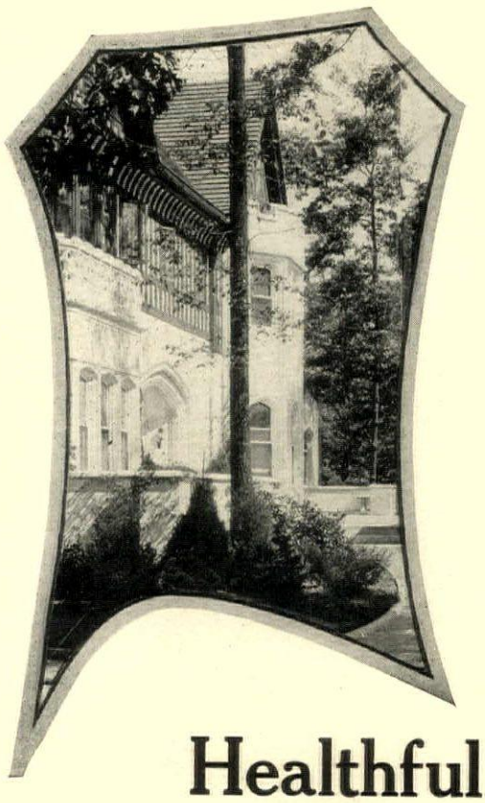
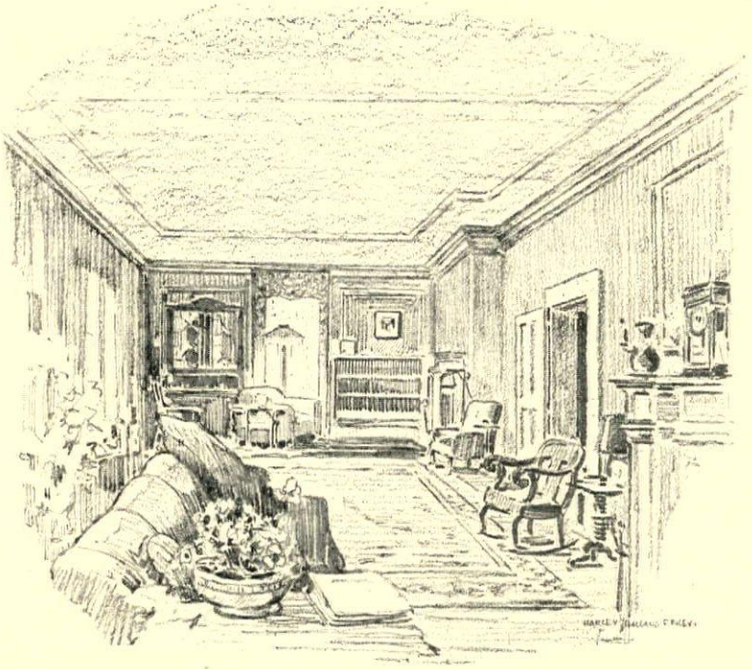




Healthful Heat in the Home

With No Dust, Dirt, or Poisonous Gases

FEW people realize how the ordinary furnace contaminates the atmosphere they have to breathe. Look at the wall paper and draperies in many homes heated with the common type of furnace and you will find them covered with a fine dust and soot. Think of having to breathe that dust- and dirt-laden air all winter!—to say nothing of the fire poisons which leak out through the seams of the average furnace.

These Exclusive FarQuar Features

prevent the deplorable condition described above and make it possible to heat a home with pure, fresh air.

—One piece, electrically welded, steel fire-box prevents escape of dust, dirt, gases and fire poisons.

—Large grate area with complete down draft insures slow combustion and economy of fuel.

—Automatic control actuated by firebox keeps fire under perfect control, maintains an even temperature throughout the house in any weather, and makes firing necessary only once a day.

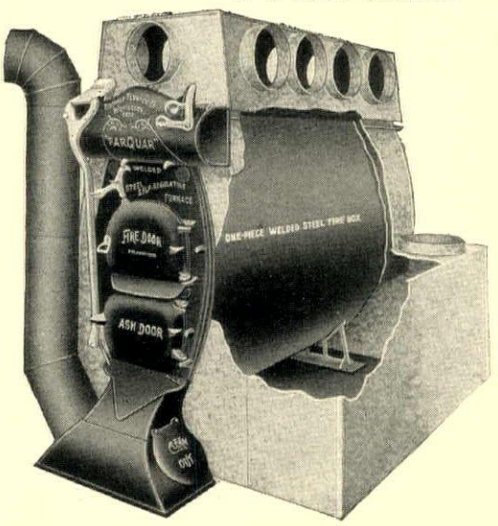
—Vent and Return System removes all stale, devitalized air, floods the rooms with pure, fresh air, gently warmed, and insures a uniform distribution of heat to all rooms.

Architects are invited to write for interesting booklet. Also see detailed information in Sweet's Catalog and American Architect Specification Manual.

Now read this letter from a FarQuar user.

"The FarQuar Heating and Ventilating System installed in my home two years ago, has proven satisfactory. It has kept my house at an even temperature of 70 to 75 degrees both night and day. The air is always fresh and pure; no dirt, dust, smoke or dangerous gases, thanks to the air tight drum. It has done everything promised for it. It regulates itself and ventilates automatically and requires attention only once every 24 hours. It is very economical; have only used seven tons of soft coal to date. (Mar. 20.)"

C. G. SMITH (*Missouri*).



The FARQUHAR FURNACE COMPANY
106 FarQuar Building **Wilmington, Ohio**

It Heats with Fresh Air

THE FARQUAR SANITARY

It Breathes! As It Heats It Ventilates

Heating and Ventilating System

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92 Years Ago and Today!

The Temple Building, Chicago
Holabird & Roche, Architects

NINETY-TWO years ago a church built of logs was erected at North Water and Clark Streets, Chicago. Eight years later it was placed on a scow, towed across the river and set up at Clark and Washington Streets. For years it served as the central home of the Methodist following. The power and strength of this Faith is now strikingly symbolized in the magnificent new twenty-two-story Temple built on the site of its primitive home.

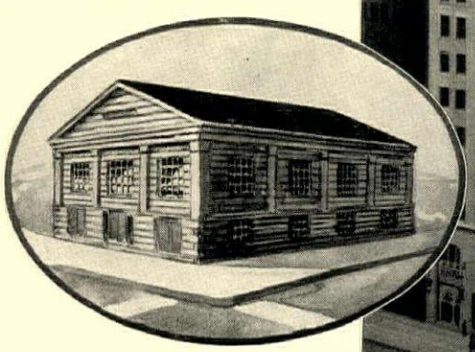
Rising in the heart of a great city, the Temple Building, according to the plans and desires of its builders, should last and be beautiful for generations, both as the fitting climax to a long period of growth and an inspiration for the present and future.

Indiana Limestone was chosen for its exterior as the material which would make possible in the most effective way, the realization of such vision on the part of builders and architects. For Indiana Limestone is a natural stone that will last for generations without deterioration. And in addition, it is extremely beautiful both in unbroken wall surfaces and in detail work, where it has proven readily adaptable to the most graceful and delicate carving.

The Pyramids remain today as permanent evidence that limestone is the world's most enduring building material.

Our handsomely illustrated booklets on Indiana Limestone will be sent free upon request.

INDIANA LIMESTONE QUARRYMEN'S ASSOCIATION
Box 765, Bedford, Indiana
Service Bureaus in New York and Chicago



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INDIANA LIMESTONE

The NATION'S BUILDING STONE

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243 West 39th Street, New York

$2 for 25 words or less per insertion and 6 cents for each additional word. Where the answers are to be addressed in care of The American Architect seven (7) words should be allowed for the box number. All advertisements must be accompanied by full remittance. Copy received until 12 m. Friday preceding publication date.

HELP WANTED

WANTED—Experienced Architectural Draftsmen competent to prepare working drawings; also Designer for preliminary work. Work involves Hotels, Apartments, Residences and Commercial Buildings. Reply to Mills, Rhines, Bellman & Nordhoff, Architects, Ohio Building, Toledo, Ohio, with full information as to experience. (2447)

WANTED—Two first class senior draftsmen, one for general work and another accustomed to Church work in Gothic design; both capable of preparing general working drawings, large scale and full size details from sketches prepared by the Head Designer. State age, experience and training, references, married or single, and salary desired in first letter. Ritcher & Eiler, Architects, 147 N. 5th St., Reading, Pa. (2447-48)

WANTED—Experienced draftsman capable of taking charge of preparation of complete working drawings of commercial and institutional work. Must know good design. Fullest particulars in first letter. Permanent position for right man. David H. Morgan, Architect, Scranton, Pa. (2447)

POSITIONS WANTED

JUNIOR draftsman desires position with architect for the summer, either in New York State, Connecticut, or western Massachusetts. Available about June 23rd. Address Charles E. Coles, 321 Lafayette Ave., Brooklyn, N. Y. (2447)

SPECIAL NOTICE

NEW YORK DRAFTSMAN, Hotel Expert, will collaborate with out of town architects. Hotels, apartments, etc. Address 146-A, care The American Architect. (2446-47)

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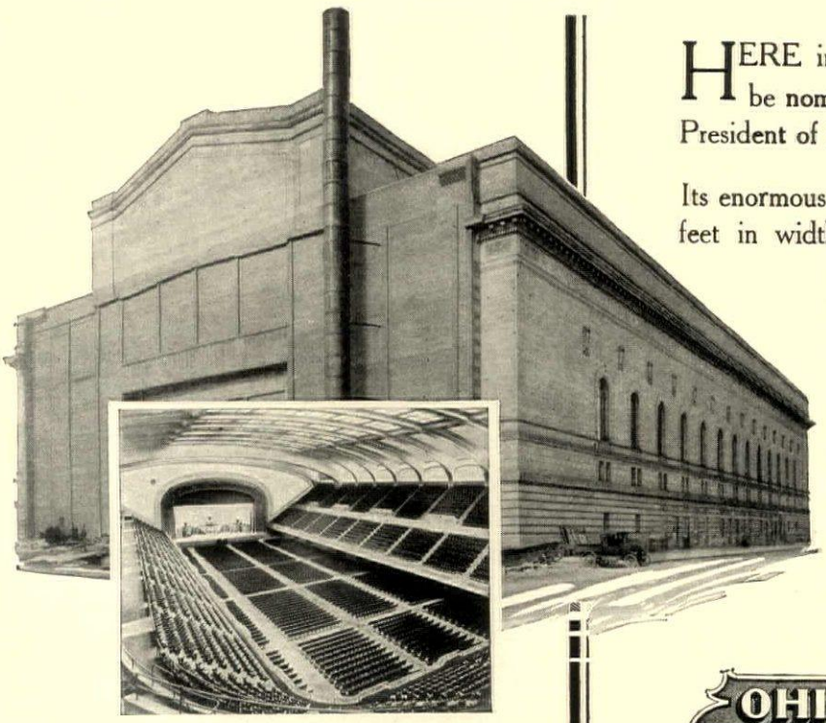
The Eyes of the World are on this Building!



THE CLEVELAND CITY AUDITORIUM
cost $6,500,000

Architect
J. H. McDowell, Cleveland

Plaster Contractors
The Smallwood Plastering Co., Cleveland

OHIO WHITE FINISHING LIME
used throughout and furnished by
Builders' Supply & Fuel Co., Cleveland

OHIO WHITE FINISH
BUCKEYE WHITE FINISH
WOODVILLE WHITE FINISH
HAWK SPREAD WHITE FINISH

Four Brands

One Result

HERE in the Cleveland Public Hall will be nominated a Republican candidate for President of the United States.

Its enormous auditorium, 257 feet in length, 120 feet in width and 80 feet in height. seating 13,000, will resound to the cheers and the assenting and dissenting votes of thousands of delegates.

No matter how widely these delegates may differ in their opinions of this or that candidate, they will unanimously approve the beauty and extraordinary acoustics of the Cleveland Auditorium.

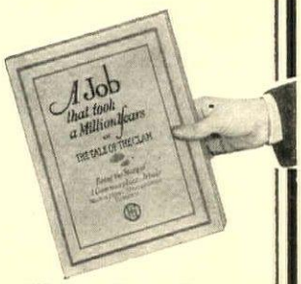
OHIO WHITE FINISHING LIME it spreads so easy

—being 99½% pure dolomitic in chemical content and possessing a peculiar natural composition, has given this building its permanent walls,—hard, snow-white, fire-resisting, acoustics-improving and metal-preserving.

And in buildings, public and private, the country over, Ohio White Finishing Lime is insuring the same superior results as it has in the Cleveland Auditorium.

Exceedingly "fat" or plastic, it provides maximum coverage with a minimum of labor and material.

More facts about this better-than-ordinary lime are interestingly told in our booklet, "The Tale of the Clam." Any Architect will find this a valuable addition to his library. Your copy awaits your request.

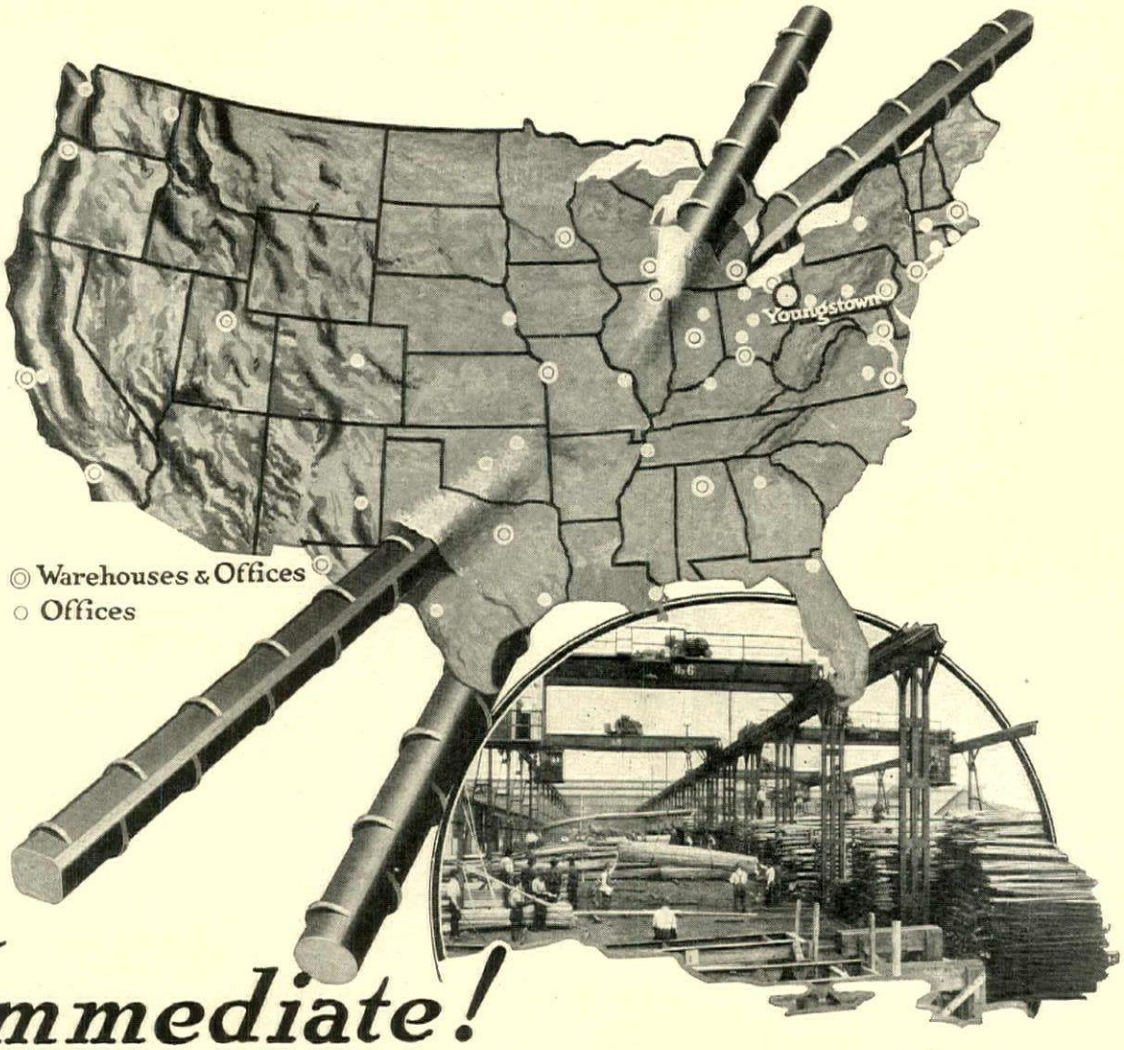


The Ohio Hydrate & Supply Co.

WOODVILLE, OHIO

"The Lime Center of the World"

Specifications of most products advertised in THE AMERICAN ARCHITECT appear in the Specification Manual



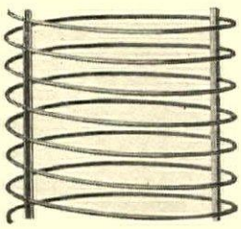
Immediate! Truscon's Service to *You*

RIGHT at hand when you need it with warehouses located at strategic points, your specifications for Truscon Reinforcing Steel and Truscon Products will be filled right on the dot. No expensive delays. We are as near to you as your telephone.

The many Truscon Products including Kahn Trussed Bars, Rib Bars, Steel Floretyles, etc. have been used in numberless industrial and public buildings, and are constantly specified by architects for dependable, long lasting structures. All Truscon reinforcing is made from new billet steel.

The high quality of Truscon products and the wide experience of our engineering force, together with immediate deliveries, are reasons for specifying and using Truscon Products.

Let us show you what Truscon Service means on that next job.



Column Hooping for reinforcing concrete columns

TRUSCON STEEL CO., Youngstown, Ohio

TRUSCON WAREHOUSES :

Birmingham	Cleveland	Indianapolis	New York	Portland
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Chicago	Detroit	Los Angeles	Philadelphia	Twin City
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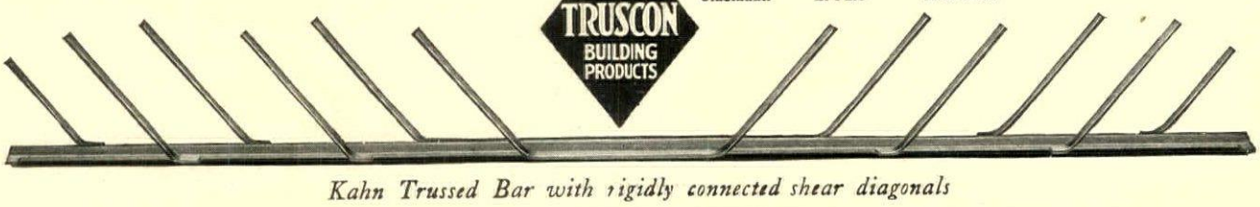
TRUSCON STEEL CO. TRUSCON BUILDING PRODUCTS



Kahn Trussed Bar with rigidly connected shear diagonals

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