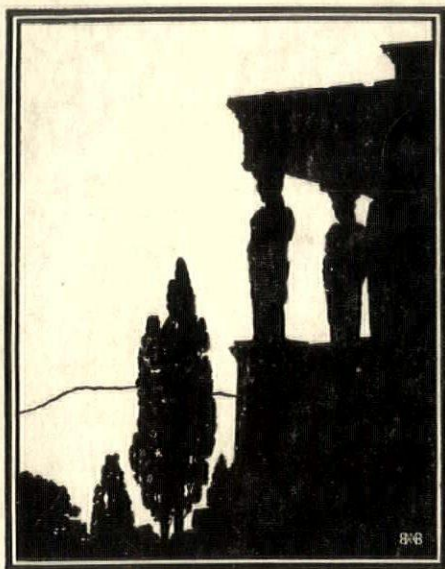


ARCHITECTURE

OCTOBER 1933



The City of Washington Today

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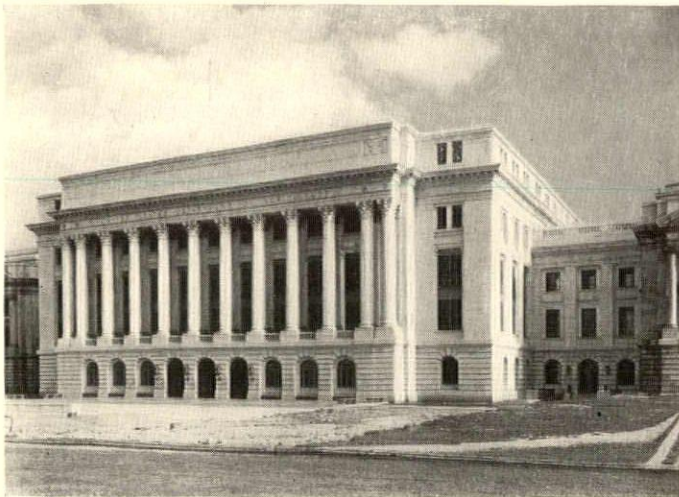
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THE NATIONAL ASSOCIATION
FOR BETTER HOUSING

TWENTY-SEVEN men, meeting in Chicago in July, organized the National Association for Better Housing. The Association's annual conference is to be held at the Union League Club, Chicago, some time this Fall. The problem of the Association, as stated by J. Soule Warterfield, is, "to bring together for conference, study and common action, all those persons, businesses, trades and professions interested in bringing about better housing, sounder community planning and more extensive home ownership.

Herbert U. Nelson, Executive Secretary of the National Association of Real Estate Boards, Chicago, is treasurer, and Henry A. Guthrie, for many years identified with associations in the building field, and who has been active in the better homes movement, is secretary, with offices at 59 East Van Buren Street, Chicago.

CONSTRUCTION PRICE MANUAL

THE Construction Survey Company, 101 Park Avenue, New York City, has in preparation a three-hundred-page manual containing data needed in everyday estimating. Mr. G. Szmak, managing engineer of the company, says that the manual will provide the construction buyer and seller with urgently needed up-to-date cost and price information on all kinds of structures and construction, gathered during more than twenty years of scientific research and appraisal experience.



THE PRODUCERS' COUNCIL

THE proceedings of the tenth annual meeting of The Producers' Council have been mimeographed and issued in bound form. This record of achievement contains many matters of interest to the profession including, among others, the adoption of a method of bidding procedure designed to eliminate bid peddling and, second, the adoption of a new membership campaign, to start in September, based upon a drastic reduction in annual dues.

DETROIT'S BIDDING PLAN

THROUGH a joint committee of the architectural contractors of Detroit, under the chairmanship of Herman Banbrook and the vice-chairmanship of Henry F. Stanton, the committee presents to the building industry of the State of Michigan a system of taking bids designed to eliminate bid peddling and to provide fair competition. The committee acknowledges its debt to the authors of the Huddleston Plan, many features of which are incorporated in the Detroit Plan.

WOOD SHINGLES

THROUGH the Bureau of Standards, Department of Commerce, Washington, D. C., the revised Commercial Standard for Wood Shingles, hereafter identified as CS31-33, has been accepted by a satisfactory majority of shingle

mills, distributors, and users. Accordingly, it may be considered effective beginning September 15, 1933.

ARTHUR T. NORTH
1864-1933

ARTHUR TAPPAN NORTH, architect, engineer, and writer, died at his home in New York City August 16. Mr. North was struck by an automobile last January and suffered a broken leg. The shock to the whole physical system, however, was by no means limited to this fracture, and though the break healed and he had again appeared active, his complete recovery was never achieved.

Arthur North is known to the profession chiefly as an outspoken writer who held strong convictions and never hesitated to express them. He had been at various times on the editorial staff of *The Western Architect*, *The Architectural Forum*, *The American Architect*, and acted as American contributor of several foreign journals. For several years Mr. North was director of industrial relations for the American Institute of Steel Construction. He became a member of the American Institute of Architects in 1923.

PERSONAL

CARLTON BRUSH, architect, announces that he has closed his office in Nashville, Tenn., having accepted the position of maintenance engineer in the Birmingham Branch Office, Service Division, Mortgage Loan Department, of The Prudential Insurance Company of America, with offices in the Jackson Building, Birmingham, Ala.

The Housing Study Guild: Its Program of Studies

By *Albert Mayer*

IN last month's issue we described the organization of the Housing Study Guild. We are setting forth here certain problems, and our method of attacking them, as typical of the work which the Guild is undertaking or will undertake. Space limitations prevent our discussing in any detail, or even listing, the many problems we have set up; we have therefore selected a single major problem from several of the principal divisions of our work, and are presenting this in some detail to illustrate our method of approach. We are also listing,

by title only, a few other typical studies.

It is important to bear in mind that our purpose is to delve thoroughly into any question which we study, rather than to do something superficially about every unanswered question in our field. Probably we shall omit several primary classes of problems, relating to governmental policies and legislation, techniques of financing, etc. We do not overlook the fundamental bearing of these on our field

of interest, but while the training and outlook of our group equip us to cope in a first-rate way with certain types of problems, essays by us into these other fields would necessarily be half-baked, and in these fields we must follow the lead of the best contemporary thought and practice.

Our procedure in study is this: after the preliminary formulation of a problem, it will be discussed and further particularized at a meeting of the younger men who are to carry out the study and of the older men who are guiding it. A

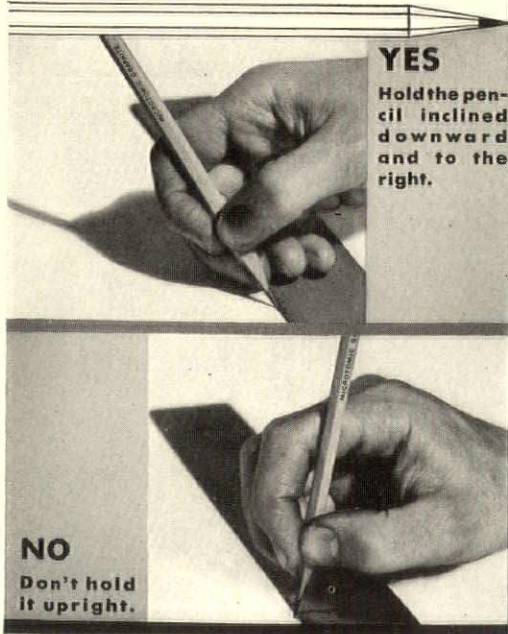
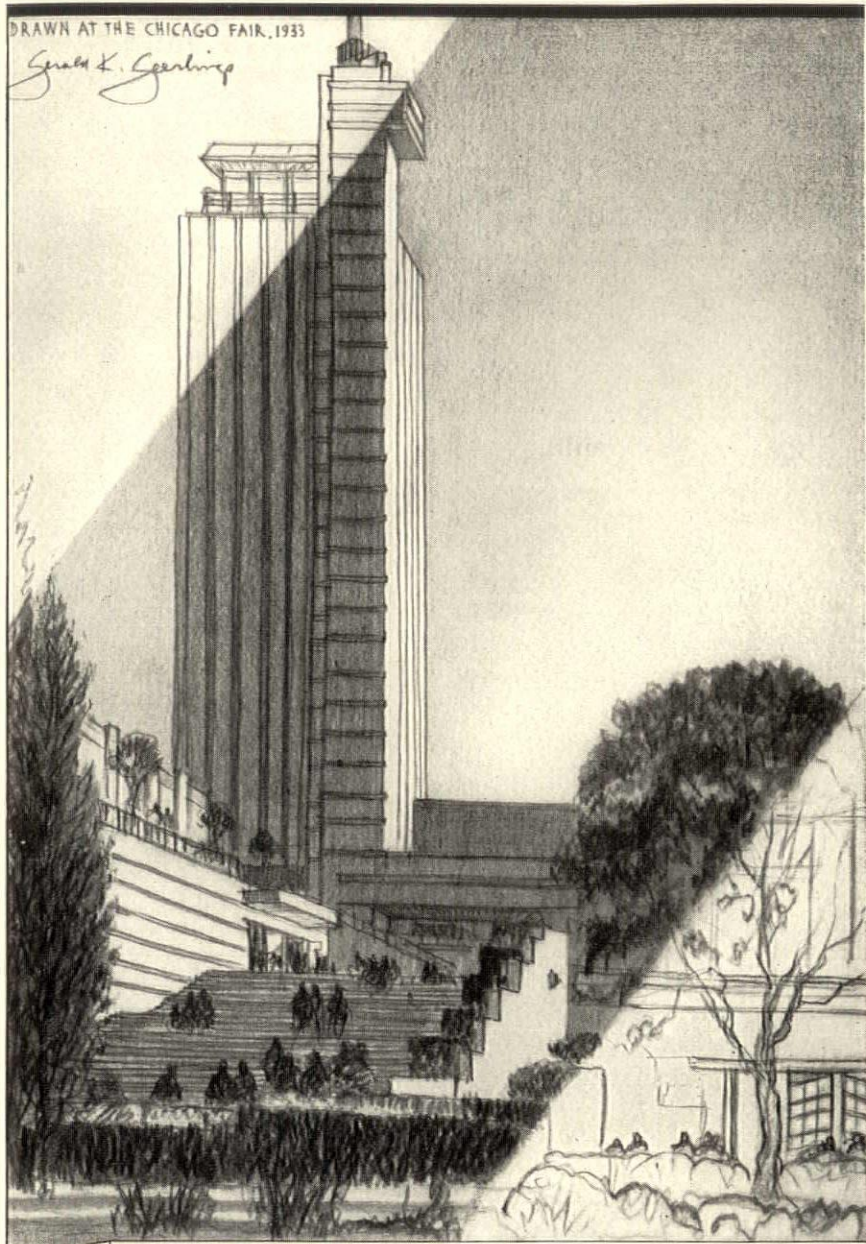
(Continued on page 8)

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TWO CORNERS BEG your help. Fill them in with a 5B or 6B Microtomic Van Dyke Pencil, and you will be pleasantly surprised how the drawing has been improved, and how easily smooth, wash-like tones can be obtained. The original was drawn by Gerald K. Geerlings at the Chicago Fair, exactly this size on white Bristol board, entirely with a B grade Microtomic Pencil. Mr. Geerlings says:

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LONG LIVE THE POINT

What the youngest draftsman usually knows and the oldest draftsman usually forgets, is shown by the two photographs to the left. When the pencil is being guided along any straight edge, and is held as in the upper illustration, being turned as it goes, the point will last remark-

ably longer than when held as shown below. Some draftsmen unconsciously spend as much time running their pencils over sandpaper blocks, as they do in making the pencil draw useful lines. How do you habitually hold your pencil?

—Gerald K. Geerlings

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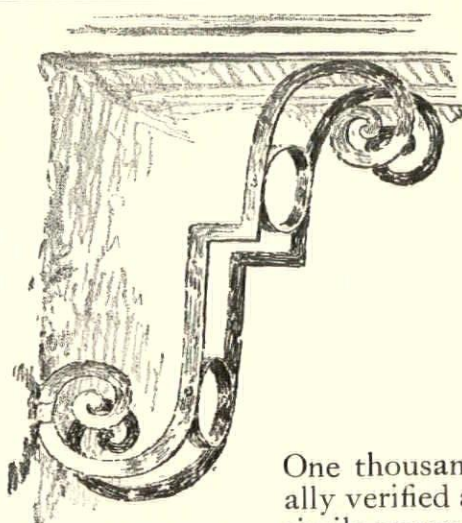
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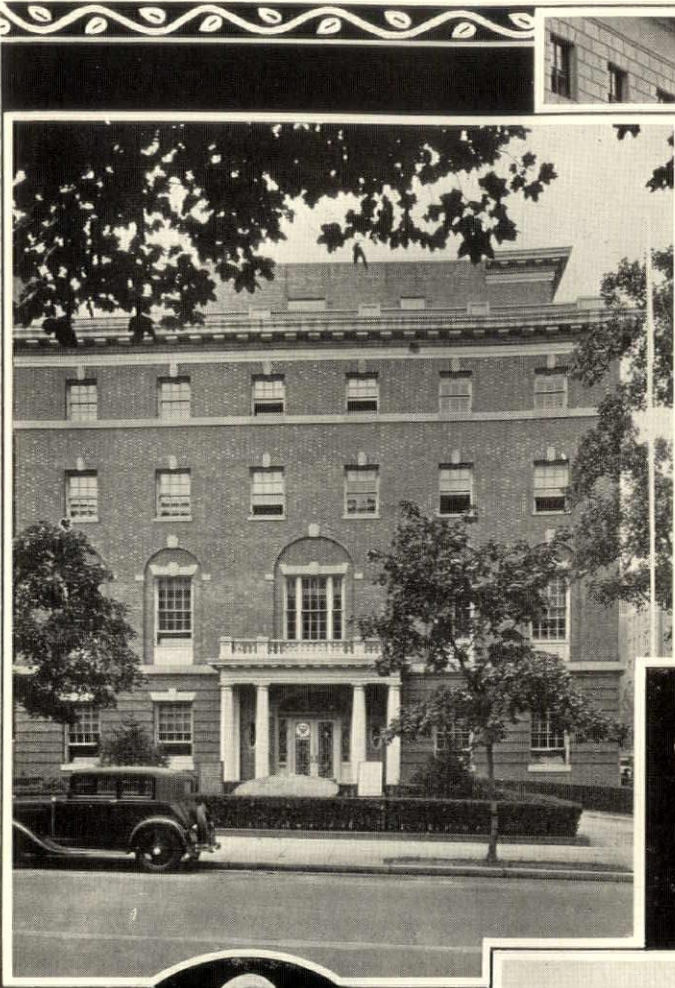
By ALBERT H. SONN

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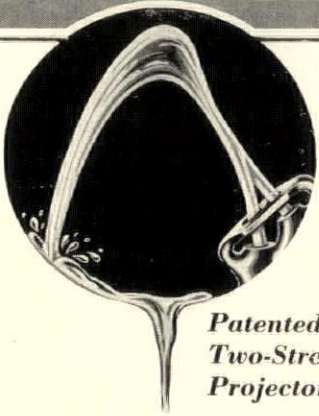
Rare originals in public and private collections, examples in farm-houses and old dwellings throughout New England, Pennsylvania, and the Southern States, have been judiciously selected. Measurements are given where feasible and in making the drawings proper proportions have been considered. This book is essentially practical, furnishing the collector, architect, iron-worker, designer, and interior decorator valuable information and material suggesting a multitude of ideas relating to the design of iron-work. Three volumes (10 x 12 $\frac{7}{8}$ inches).

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Right, Department of Commerce Bldg.

Below, Roosevelt High School

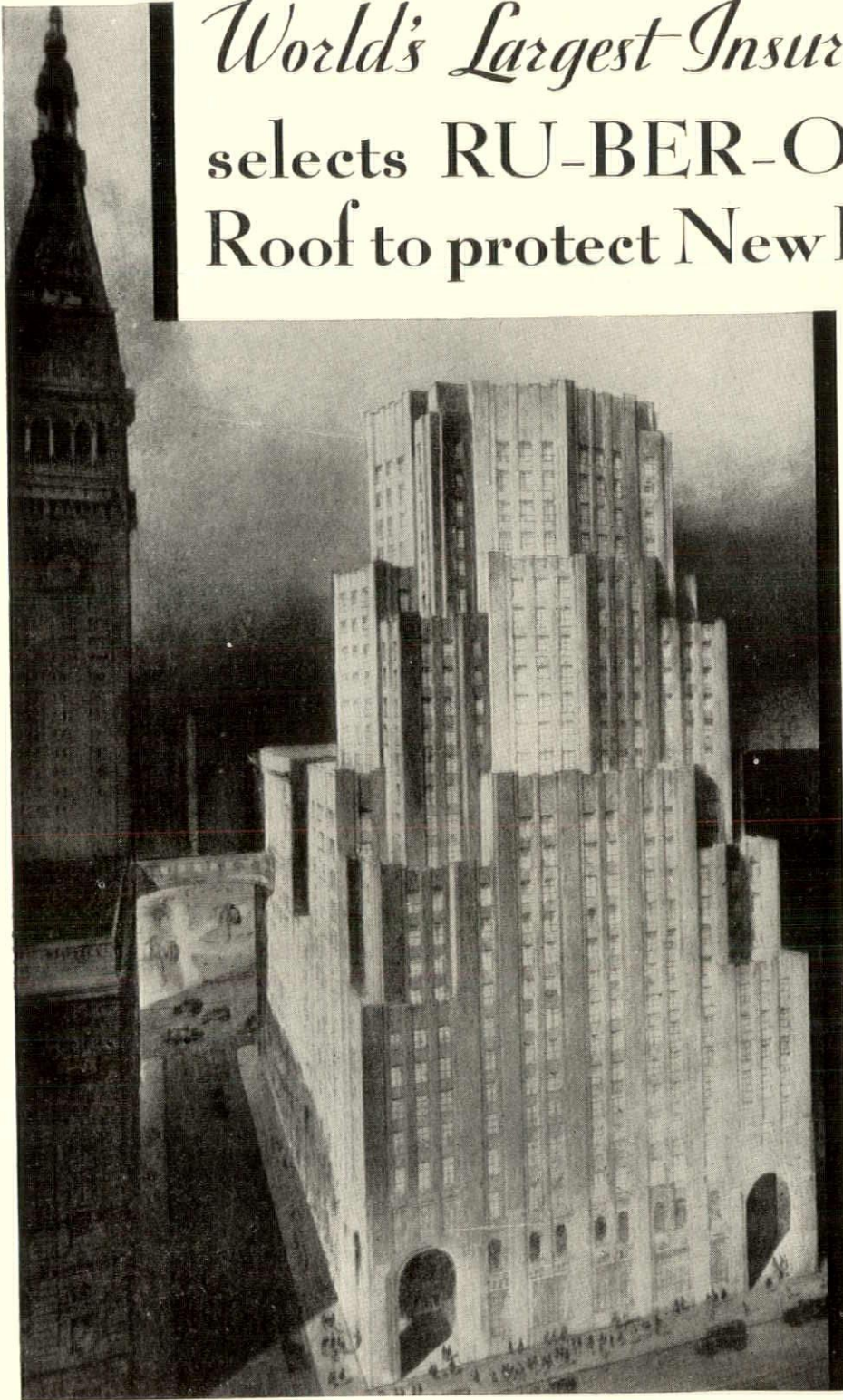


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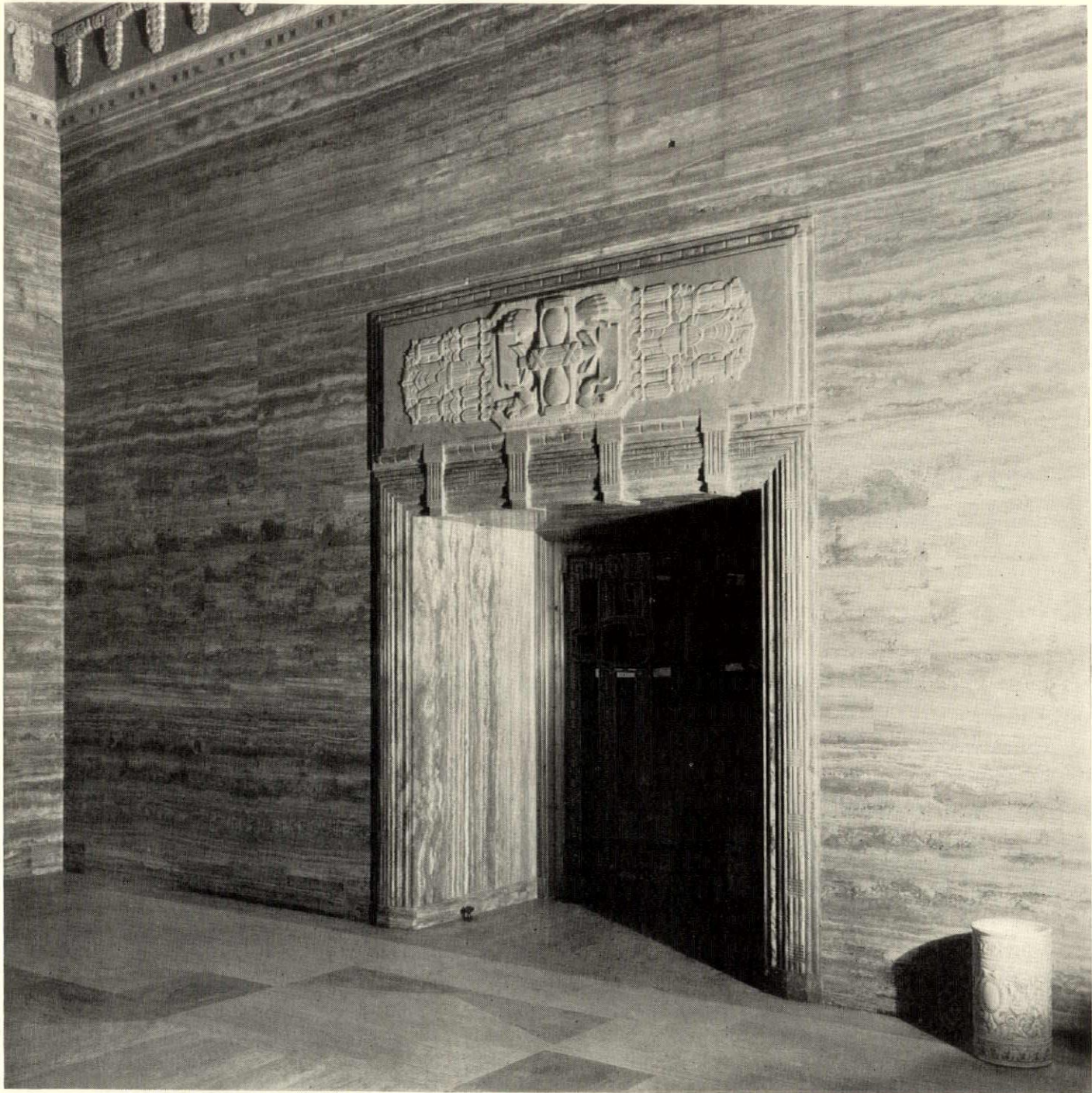
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THE BULLETIN-BOARD *Continued*

group of younger men will then begin work under one or more of the senior associates. A final check will be made of existing information on the problem, which step will be simplified by the sources in our library, and our contacts as a clearing-house.* In any case where it appears that existing but scattered studies are adequate, their results will be abstracted and made available in concise form; otherwise our group will carry out its own study. When this is completed, the findings will be reported at a meeting of the entire Guild, for criticism. A final report will then be submitted and published.

It will be noted that we have excluded esthetic problems as such. It seems necessary and urgent to bend our efforts at the outset to a clearing up of factual underbrush. As this is accomplished, a serener atmosphere will be achieved in which the esthetic implications can develop in harmony with the new planning and housing concepts. We expect that esthetic content must become an integral part of the Guild's contribution, for that is the implication and consummation of the work it is planning to do.

General Problems. Typical of the studies in this category will be the establishment of forms for the initial set-up and for experience set-ups of housing projects, for uniform methods of reporting data, so as to make projects and experience actually comparable. Such simple and generally accepted terms as rental per room, cubic foot content, net area, gross area, plan efficiency, are so differently used by almost every one in the field that they afford no basis of comparison. In addition to these essential inaccuracies, there is no agreement as to what information is important, so that the maximum of useful information and experience is not available for comparison. We shall investigate existing data and procedures of bodies such as public housing boards, operators of existing projects, etc., and a standard or uniform terminology will be sought. This study is under way.

* However, as it is practically impossible, with the amount of work now going on in the field, to keep abreast of all that is being done, it is hoped that any one who is working along the lines indicated in this program of study will apprise us of his work or of data in his possession. With this type of contact in mind, we shall publish each month in the bulletin columns of this magazine a brief statement of the problems we are currently studying.

Cost Studies. Among the studies proposed in this field is an analysis of first cost as affected by building heights, using buildings of from two to twelve stories, on land of various costs, with various building materials and wage units. Results will be got up in tabular and graph form. A selected typical plan, of perhaps four stories, will be used as a point of departure, and other plans made by us for the other heights and conditions, as nearly similar as possible, except for the necessary variations due to height, elevators, extra stairs, etc. This should avoid any concealed errors due to differences in plan.

As a parallel to this study, but for other applications as well, a study is to be made of basic operating costs for various types of housing units, building them up from zero. This will boil out the fancy operating costs now current, which are fallacious because they are really imitations of Park Avenue services somewhat reduced for lower cost housing. Results of this study will be incorporated with the findings of the analysis listed in the preceding paragraph.

Other studies in this general category will be: analysis of the first cost and operating costs of central heating plants vs. new types of unit heaters; the possibilities and problems of flexible internal layouts with movable or semi-permanent partitions; the allocation of original and operating costs to each type of room in dwelling-suites, and the determination of reasonable occupancies per room with various plan layouts, with a view to finding the costs-per-person, rather than costs-per-room, which concept we regard as nearly valueless. (This last study is well under way.)

Fact-Finding for Planning. Our planning—in the sense of actual plans of buildings and of social and community planning—is based too largely on assumptions, with often almost no knowledge of the interior life of the people we are planning for. We work on the basis of what we think their requirements are, when many of us have never been inside the homes of any of the people we are designing for.

We propose studies of the manner of life led in two kinds of dwellings: (a) Present-day tenements, not the people who are down and out, but the normal life of low wage-earners; (b) present model housing develop-

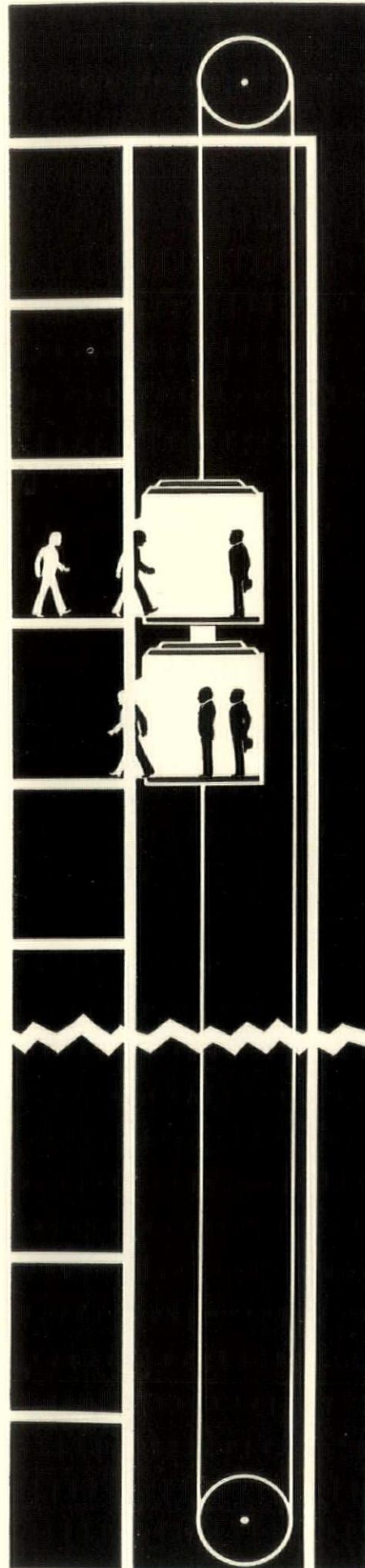
ments. Nothing we can find out will *tell* us what to plan, because we hope that by our creative imagination we can plan better things, but factual analyses will give us a realistic basis to jump off from. A point to be borne sharply in mind is not only to observe how people live, but how they *want* to live—they may be living in the best quarters they can afford or find, and may have twisted their desired method of life in a physical layout which distorts their habits and activities. In other words, the usefulness of our findings will depend on the degree of imagination and discrimination which we bring to bear on our work.

A few random items to be looked into, in this connection, are: How many families would be suitable for subsistence farming? What trades and activities do people have, aside from their means of livelihood? In roughly the same kind of dwelling, are cleanliness and sanitation less developed where sanitary facilities are shared? In what circumstances is the centre of family life the kitchen rather than the living-room: when is it desirable to have large living-room and compact kitchen, smaller living-room and large living-dining kitchen, or very large living-room with kitchen at one end? Similar questions are raised as to distributing space between living-rooms and bedrooms. What are actual closet requirements among various economic groups? What furniture is actually used—under what circumstances might furniture be built into the apartment?

We may find that some of these latter questions lead to a maze from which no real conclusions can be drawn. If that is so, we can withdraw from them with but little loss of time and at least the gain of having posed the questions and of a greater contact with actual living conditions. Many of the problems which have been excluded from this statement are more easily defined and organized than this last group, but we have desired to present at least a few of these less tangible questions as indicating one phase of our approach which we consider basic. These and other problems, as they are formulated and undertaken for study by the Guild, will be announced in the bulletin column of this magazine, as noted above, and we invite every one interested to follow these notices and to keep in touch with us.

PROBLEM:

WHEN plans were under consideration for a new building for the Cities Service Company, New York City, known as Sixty Wall Tower, there was one very obvious drawback. The plot of ground was small. The zoning law limited the height of the main part of the building to thirty stories. A monumental tower was desirable. If this tower was built higher than forty-eight stories, the number of elevators required for efficient service would occupy an uneconomic proportion of floor space.

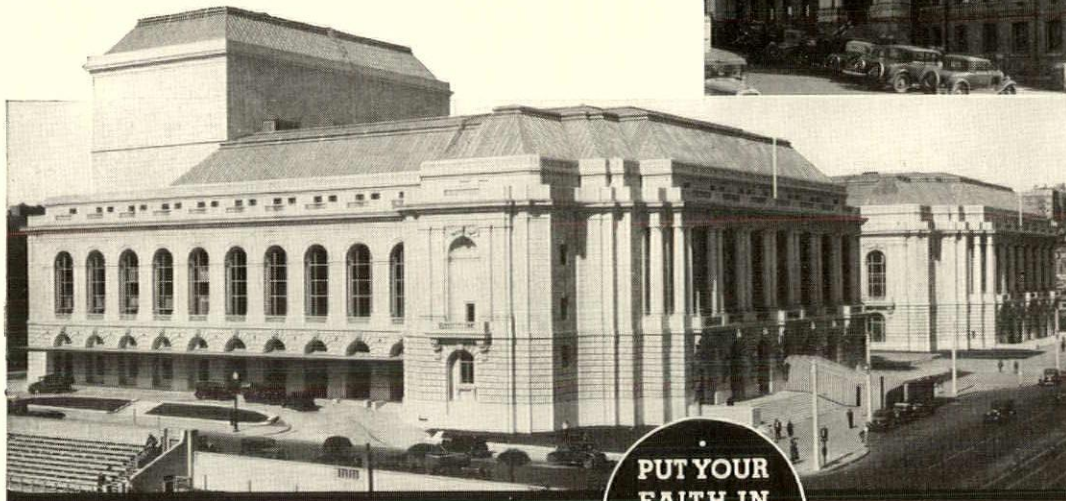


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THE PROFESSIONAL ARCHITECTURAL MONTHLY

VOL. LXVIII, NO. 4

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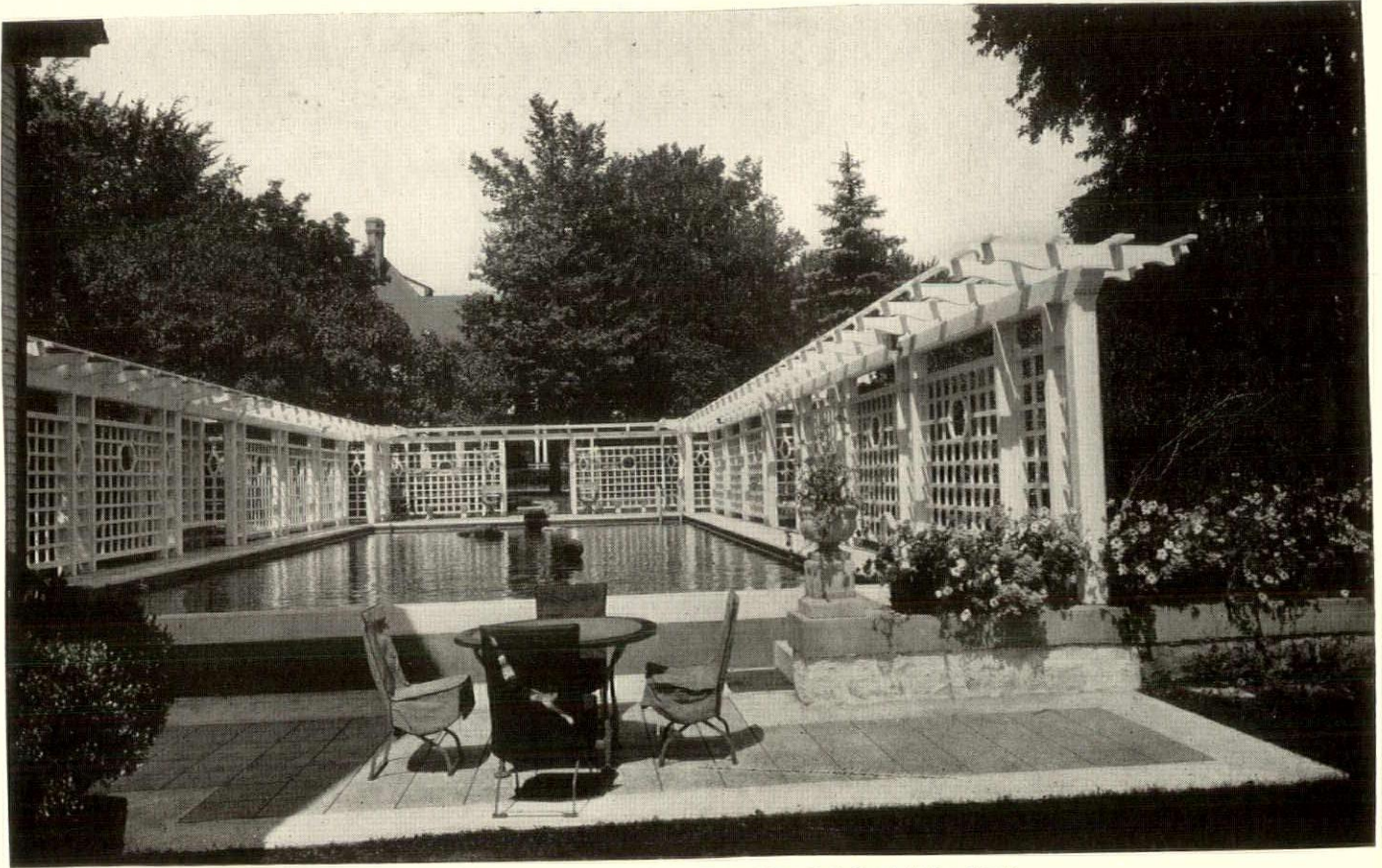
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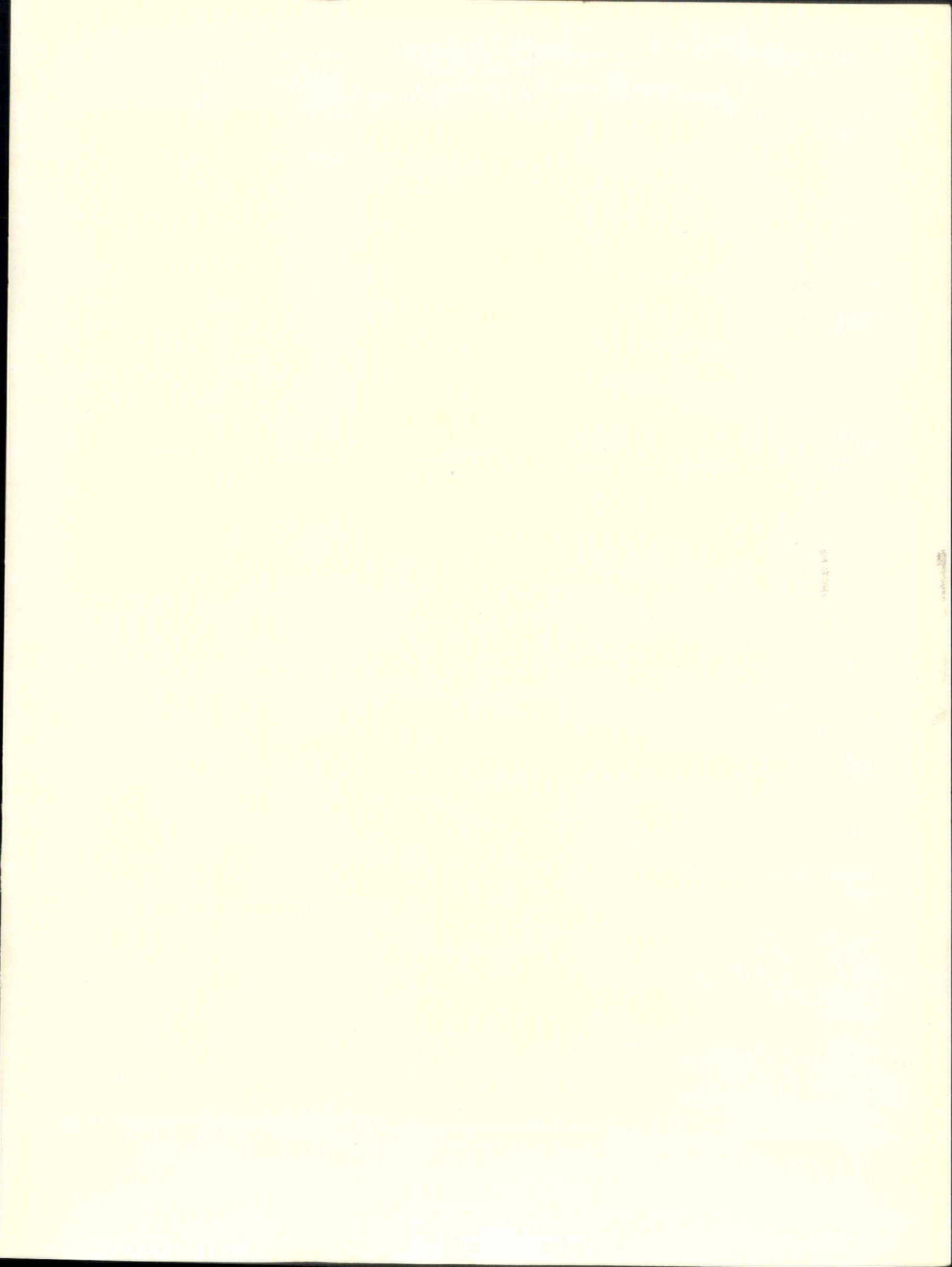
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MIDDAY IN A CALIFORNIA VALLEY
From the study in sanguine Conté crayon by Carl W. Heilborn

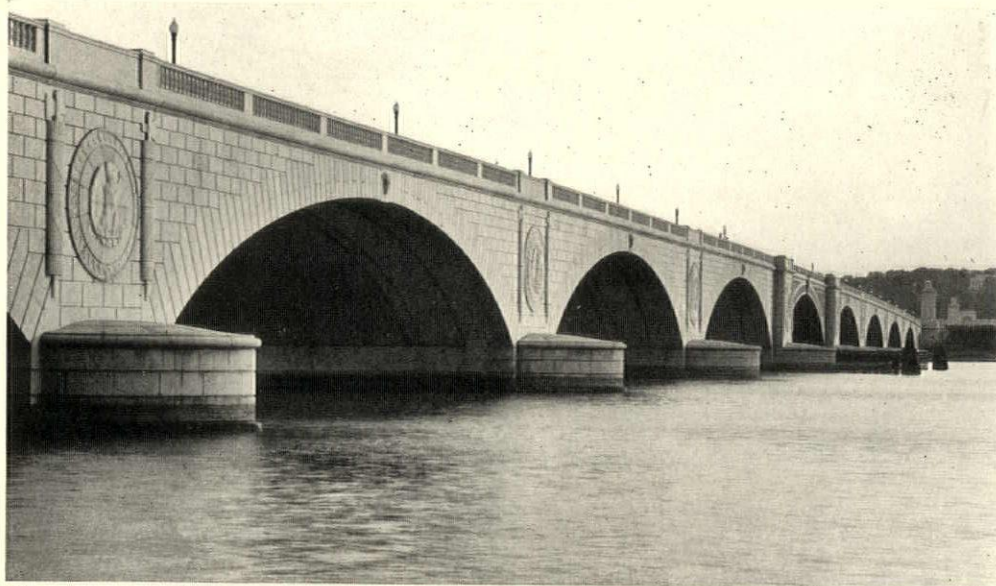
Carl W. Heilborn (1871)

ARCHITECTURE

❖ VOLUME LXVIII

OCTOBER 1933

NUMBER 4 ❖



Richard Averill Smith

Arlington Memorial Bridge. McKim, Mead & White, architects

The City of Washington Today

By Edwin Bateman Morris

SINCE the time when the site of Washington was first selected as a good geographical location wherein the capital city of a nation of the first magnitude might grow and unfold, there has been without doubt ample thought expended upon the method and plan under which this growth and unfolding might take place.

The brilliant L'Enfant gazing at a bare and unpopulated plain projected himself far into the future, seeing, what was then concealed to the world, that the thirteen struggling states would one day expand into a great power and that the desert acreage upon which he stood would eventually be the foremost city of the world. His imagination saw a metropolis of beautiful vistas, down avenues of splendid architecture yet to be built, but in his mind certain to be built.

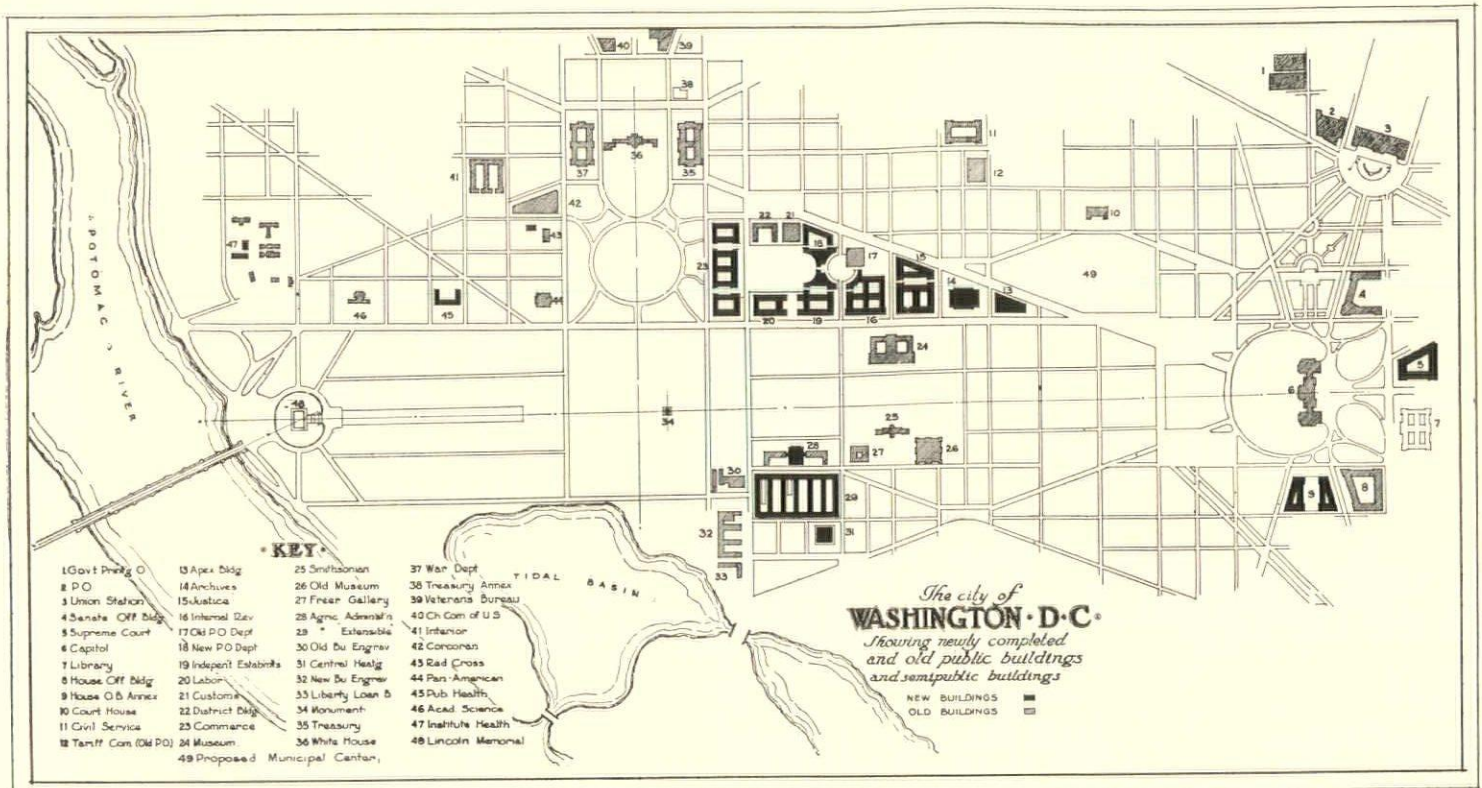
Through the years the L'Enfant plan became almost a constitutional requirement. The circles and wide streets and centre planting and sidewalk trees were placed and kept with an almost religious fervor. We have Thomas Jef-

erson's suggestion, so inept to meet modern conditions, that trees be planted in the street gutters so that the automatic irrigation thus provided would cause them to grow to the tall and stately proportions befitting the metropolis they would adorn.

It was all looking toward the future, planning and preparing for an imaginative architectural city. The generations, through a century and a quarter, did little to provide such a city, but they were meticulous to rule out any act or construction or plan which would prevent any future generation from providing it.

McKim spent untold energy and thought on a great city to come. The McMillan plan for Washington represented energy and thought and unstinted patient toil. Studies for the miraculous beautification of Pennsylvania Avenue, bristling with colonnades and pediments and domes, were prepared and exhibited and presented to Congress.

In 1910, the first Fine Arts Commission was appointed, whose most important duty was to



protect and nurture the unborn city, to see that nothing arose to cripple the building of the beautiful and compelling architecture of the future.

But the architecture did not come. Every generation had a dogged faith that a forthcoming generation would miraculously build it, and tirelessly and energetically prepared the ground in the same manner that it had been tirelessly and energetically prepared since 1800. But the building generation did not arrive.

For years the unfulfilled sumptuousness of the L'Enfant dream and the later corollaries to it were a matter of ironic comment. The "city of magnificent distances" became, as time went on, just a city of distances.

The cluster of important buildings around the Capitol was linked to the cluster of important buildings around the White House by the shabby, dingy length of Pennsylvania Avenue, which was a thing to apologize for.

It was said that Woodrow Wilson, riding up this dreary thoroughfare after his inauguration and looking out at the Greek lunchrooms, the German delicatessen, the Chinese laundries, and the Jap bazaars, received his first inspiration as to Internationalism.

People thought of Pennsylvania Avenue as the place where Harvey's none-too-beautiful restaurant served steamed oysters, or where Maid's, beside a frog-inhabited pool, provided

inner nourishment in a melancholy outdoor setting, or where Shoomaker's, purposely shabby and untidy, furnished statesmen with juleps and straight whiskey whose flavor was presumed to be enhanced by the packing-boxes and litter round about.

The untidiness of Shoomaker's might have been the theme for Pennsylvania Avenue. It was a packing-box sort of street. Perhaps old residents and legislators of long tenure of office had grown to have for it, as many did for Shoomaker's, an affection based upon its familiar dirty façades which, like one's old pipe and old slippers, were a great comfort to the person grown used to them, but a source of sharp pain to the newcomer and the casual visitor.

Many great minds, through the years, looking with concern at the Pennsylvania Avenue buildings and knowing what an unfortunate impression these shacks made upon visitors and especially upon foreign visitors, said: "Something must be done about it." But time rolled on and nothing was done. Like Mark Twain's weather, everybody discussed it but nobody did anything about it. The problem was too large. The nation, the Congress, the purse-bearers said: "It will cost too much."

And then one day almost casually the whole thing was settled and the dream, long cherished, became a tangible project.

« ARCHITECTURE »

The Great War was over. The smoke and stir and haste and confusion of the conflict began to clear away. The nation and the Congress and the purse-bearers, deflating activities to a peace-time basis and intent upon reducing the nation's expenditures to a state of normalcy, got out Uncle Sam's rent list for the dozens of office buildings occupied by government agencies in Washington—and received a shock.

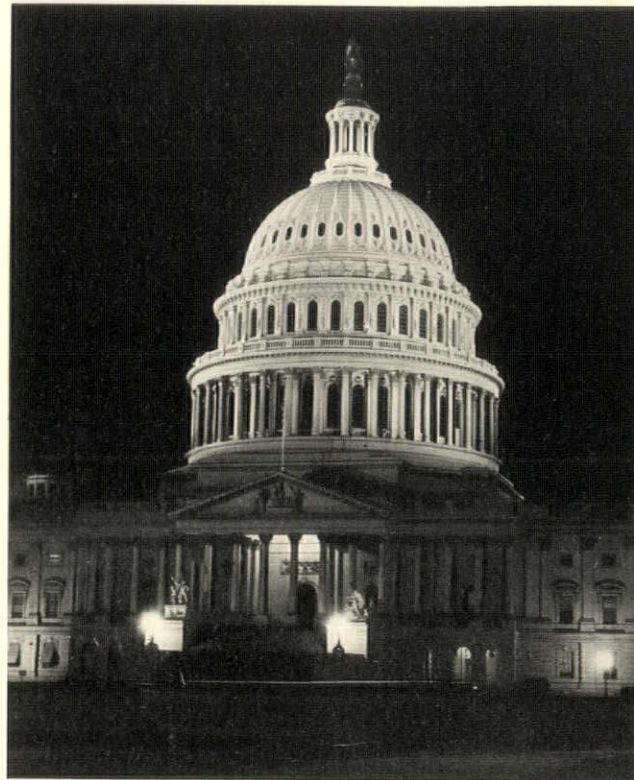
The war-time agencies had been abolished or contracted and removed from scores of rented edifices. But there still remained the Department of Commerce, the Labor Department, the Department of Justice, the Interstate Commerce Commission, the Bureau of Chemistry, the Bureau of Public Roads, the Bureau of Agricultural Economics, the Civil Service Commission, and numerous other activities which were housed in high office buildings and other structures all especially constructed by private interests to rent to the government, and financed generally upon the premise that the rents over the period of a ten-year lease would pay for the construction cost of the building.

This made a very heavy rent list to be met by the Treasury. When the purse-bearers, adding this up, recovered from the shock caused by its total, they fell into a very serious line of thought which resulted in the final conclusion that it would be cheaper for Uncle Sam to be his own landlord. And thus a great group of government-owned buildings—long a much-cherished pipe dream, became almost in a moment an actual certainty.

Congress, long sympathetic to the idea of city development, and especially to Pennsylvania Avenue development, fell into line. The money was at once authorized, with a restriction against placing any of the new buildings north of Pennsylvania Avenue.

That definitely made certain that the avenue connecting Capitol to White House would become an architectural street instead of a virtual slum. Added to this was the project that got under way to perfect a wide swath of open landscaping between Union Station and the Capitol.

These two architectural and landscaping projects, the one beginning where the other left off, promised an astounding transformation of the city. The development of Pennsylvania Avenue, at first considered as a housing project, flowed naturally into the Botanical Gardens of the Mall, into the Capitol grounds, into the Capitol-Union Station esplanade, and right to the door of the station. There was thus put



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The dome of the Capitol as seen from the south front at night

under construction a broad ribbon of landscaped architecture from the city gateway.

All this is now sufficiently completed for it to be certain that one can proceed from the station to the White House, to the Lincoln Memorial, along stately and studied paths, beside which actual stonework and actual planting is coming into being where formerly there was but theory.

Architecture will now escort the visitor all the way. And from the Memorial he goes across the imposing Bridge to the Virginia shore, the axis of which leads directly to Arlington House, standing high and commanding on its hill. Also from the Virginia shore starts the charming new roadway to Mount Vernon. Thus, one will go to nearly all the major points of interest of the capital over well-considered and well-planned and beautifully picturesque pathways. The dream of a century is realized.

The thought that cannot but occur to one is: If L'Enfant and McKim could have lived to see the day!

So great was the importance of the architectural development of Pennsylvania Avenue and so laden was it with the dramatic possibility of success or failure that the government recruited, from among the best minds of the pro-



Fairchild Aerial
Surveys, Inc.

The official part of Washington as it appeared from the air in the summer of 1923: note the temporary war-time structures between the Union Station and the Capitol, and between the Capitol and the Washington Monument

fession, a group of advisers who are usually spoken of as the Architectural Consultants. The list of names of those invited to serve upon this board has never been made public, but it is said that so great was the surprise at the possibility of there being an actual architectural development in Washington, that many well-equipped architects incredulously declined positions in this very responsible group.

These consultants shouldered many obligations, and not the least of those was the one concerned with the architectural style to be followed in the design of this epochal group of buildings.

As is known, the style at length decided upon was following the Classic theme, varying it in the different buildings, according to the touch of the individual architect, from a severe Italian interpretation of that theme to the freer and lighter French one.

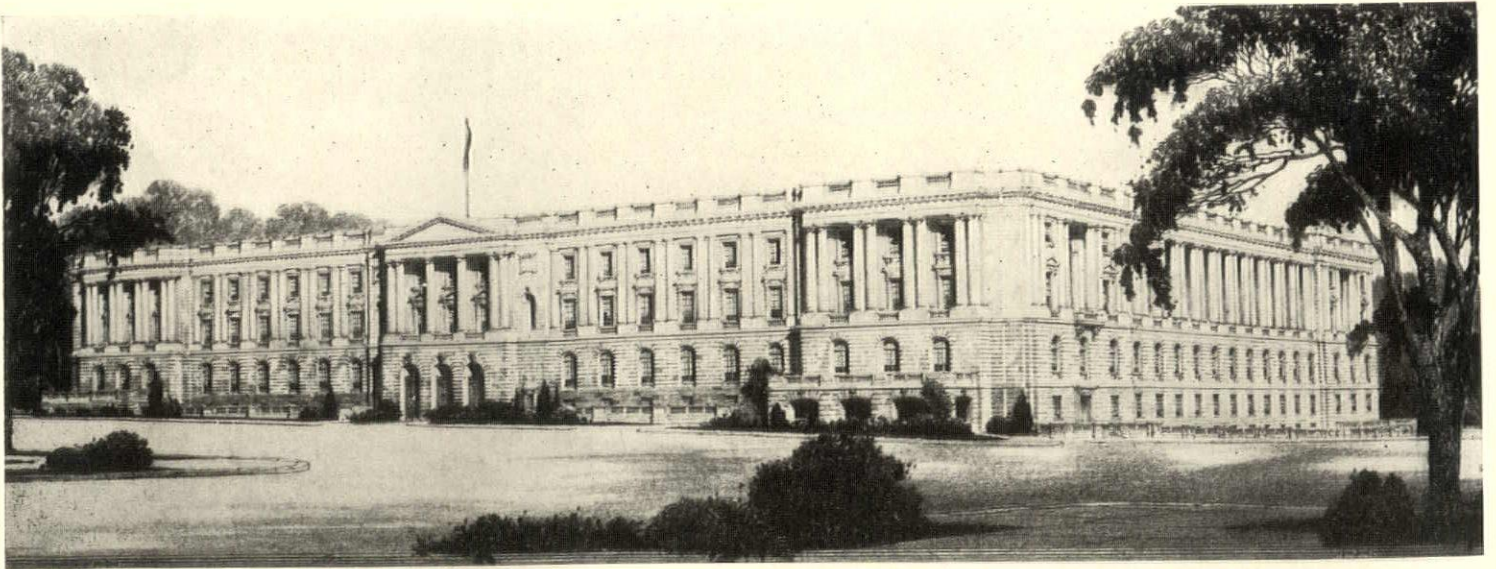
It was seemingly the part of wisdom for the consultants to decide upon the motif or module that they did decide upon. The city and the

visitors to the city were ill to the point of nausea from the heterogeneous mess of the city. People who thought about it, even the lay observers, said: "Give us conformity and continuity."

The sense of restfulness and calmness provided by the use, in the Treasury Annex and the building for the Chamber of Commerce of the United States, of the same order that appears in the old Treasury Building, was so valued and so well approved that the consultants felt that this module must carry through on the new group. Architecturally and sentimentally it was a compelling idea.

Criticism of this decision and generally of the architectural style adopted arose from many quarters. The strongest criticism came naturally from those who felt that in the face of the virile Modernic trend of this age, it showed a lack of understanding to cast this great—if not this greatest—architectural venture in a traditional style.

This is a matter that can be readily and accurately decided upon a hundred and fifty years



Completion of the U. S. Senate Office Building, showing the C Street colonnade and the First Street wing. David Lynn, architect of the Capitol; Wyeth & Sullivan, consulting architects

from now. But not now. In that distant future it will without doubt be apparent either, (1) that Moderne has been established as the great American style, or (2) that architecture as a whole has immersed and dissolved Moderne, appearing with a new and pleasant flavor as a result, but that it is still the same old architecture, free to pick its motifs from any age its inspiration prompts. At that point one will

know whether the Classic touch in the Triangle was in error or not.

At the present time, however, one must admit wisdom if not certainty for the Classic selection. The Classic style for public buildings to date has stood the test of time better than any other. And the Washington buildings were to be built to last a long while.

While the amount of money expended has



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The new House Office Building. Designed by Allied Architects of Washington

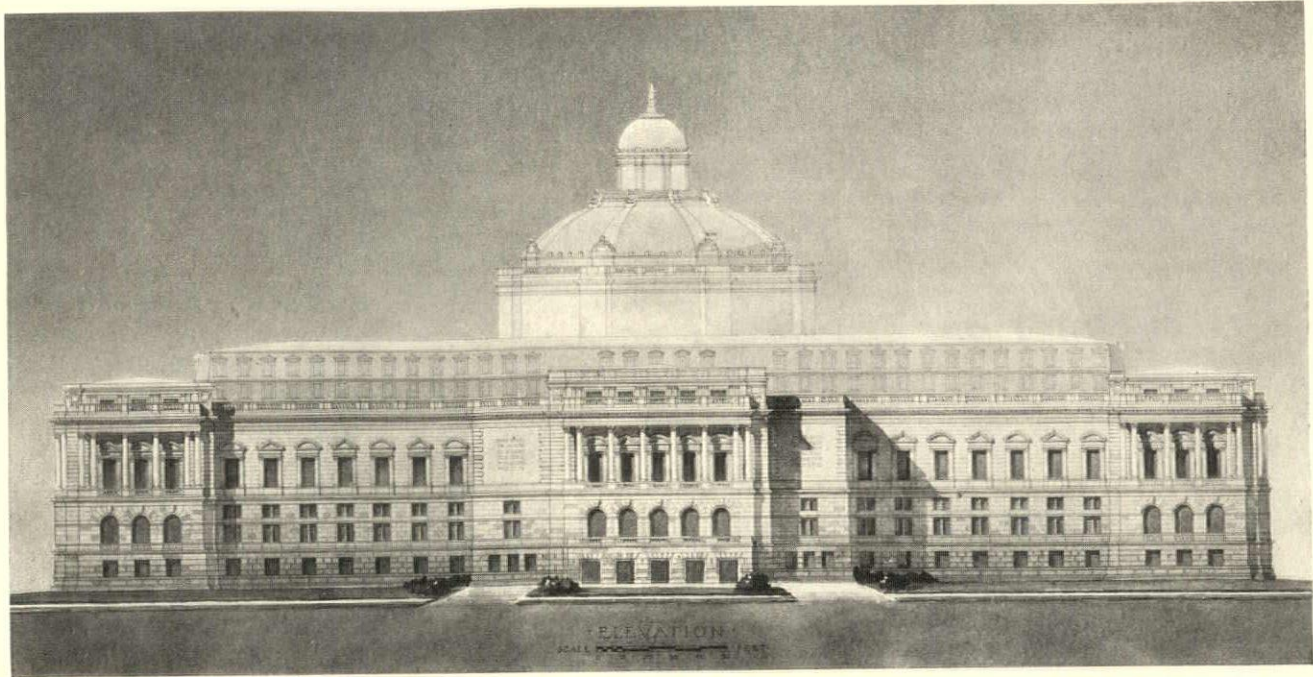
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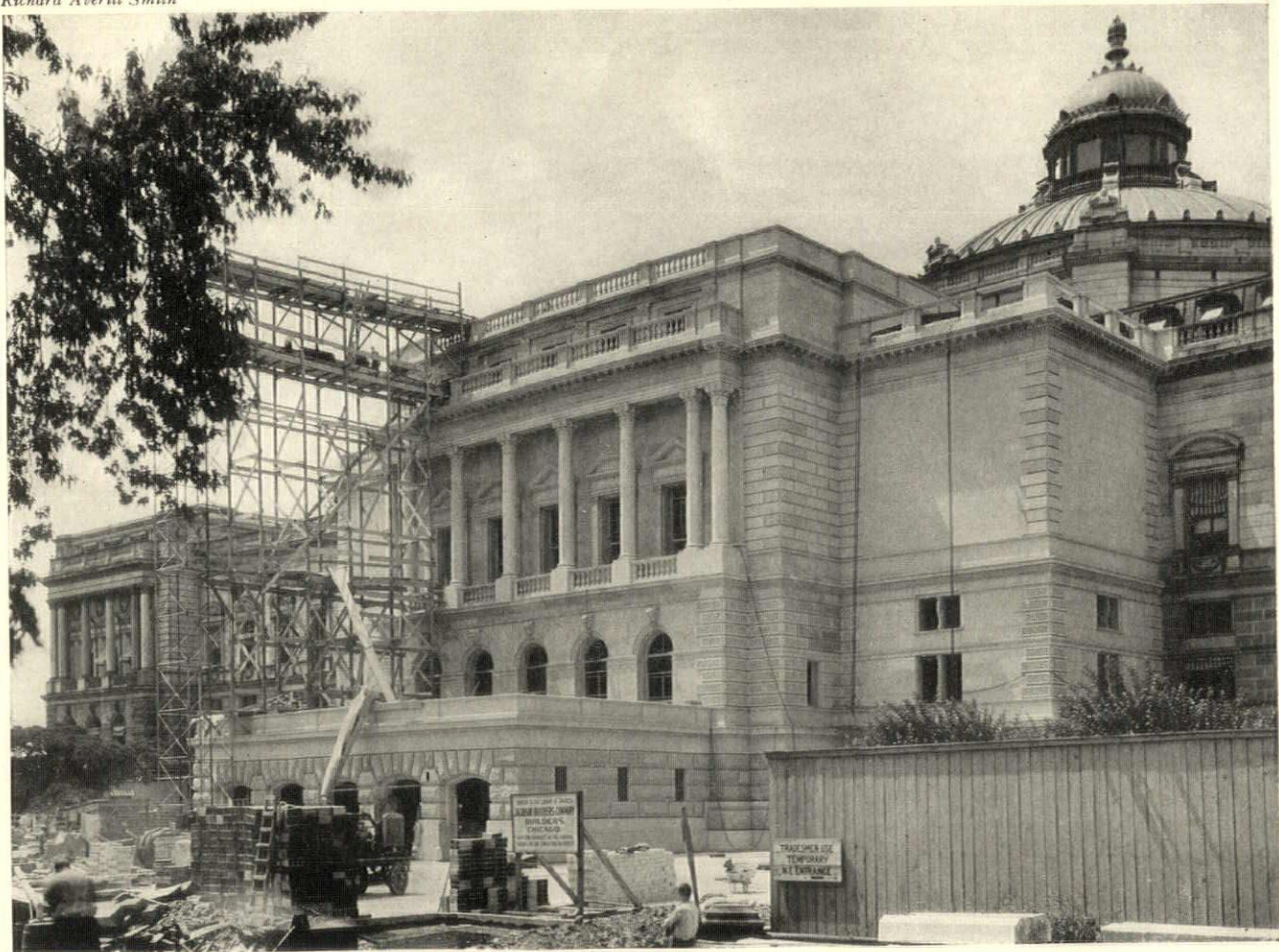
*The interior court of the new House Office Building, in the centre of which is a fountain.
Designed by Allied Architects of Washington*

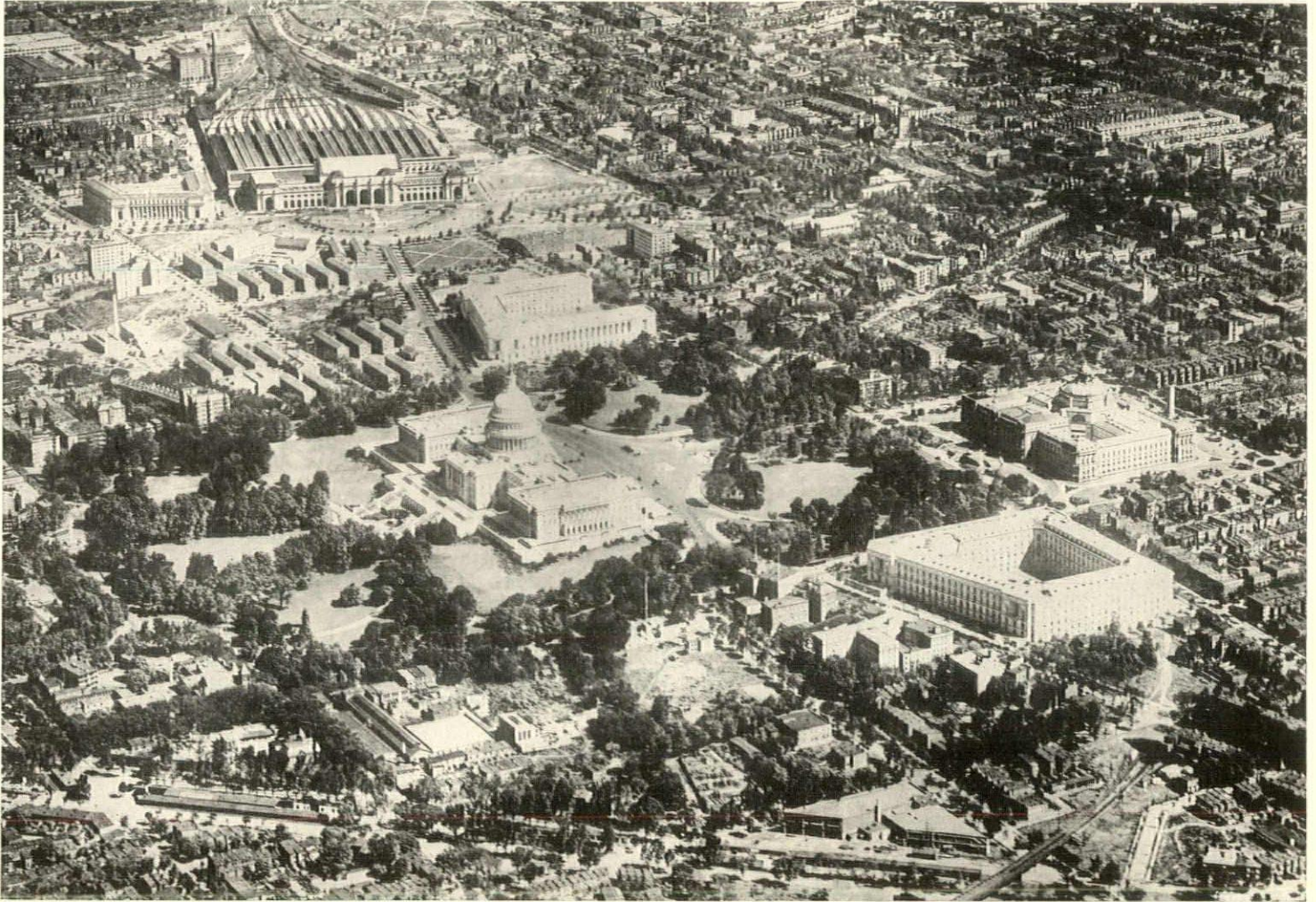
« ARCHITECTURE »



Addition to the Library of Congress, with one of the architectural elevations above, and a recent progress photograph of the work below. David Lynn, architect of the Capitol; Pierson & Wilson, consulting architects; Alexander B. Trowbridge, consultant

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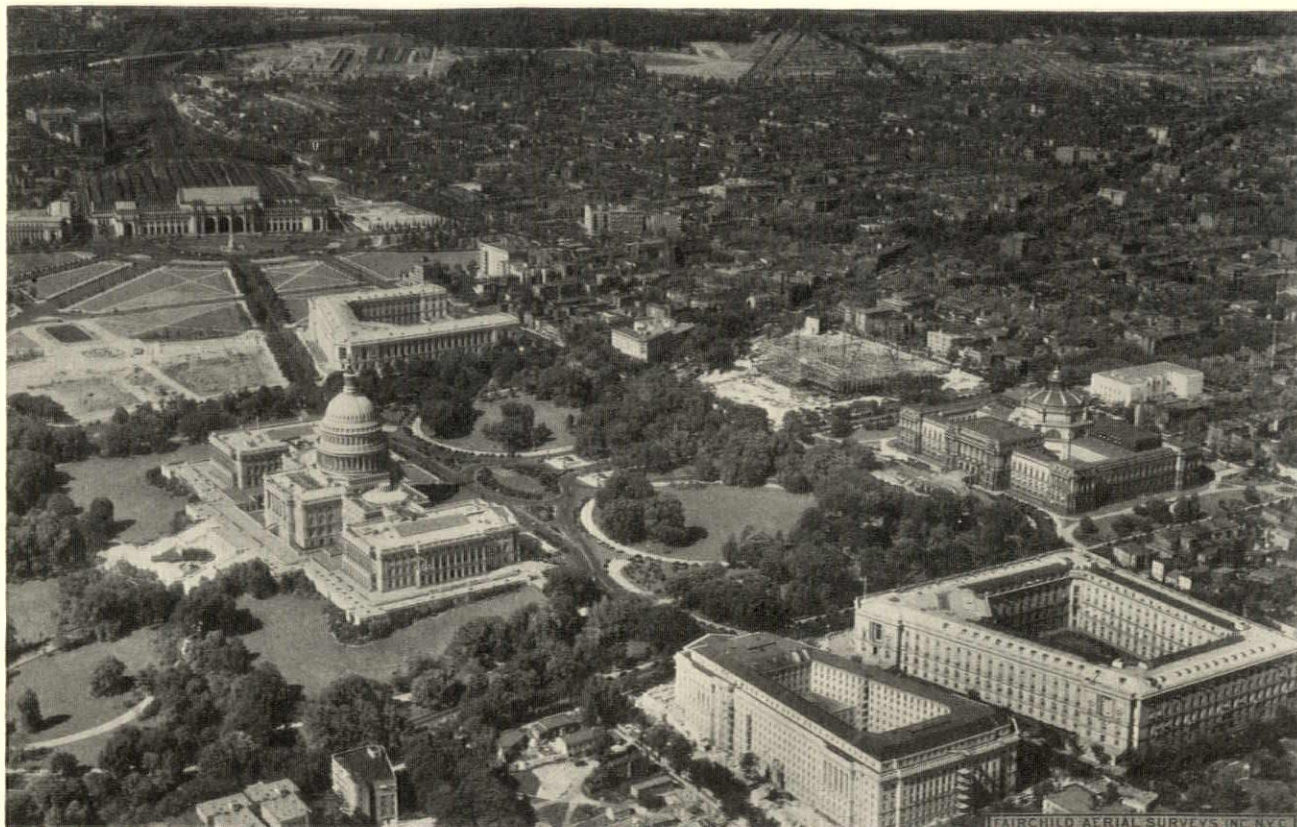


Fairchild Aerial Surveys, Inc.

Air view of the Capitol and its immediate surroundings taken in 1922. The plaza between Union Station and the Capitol is encumbered with temporary structures. Below, the architects' drawing of the Capitol as seen across this plaza from Union Station. David Lynn, architect of the Capitol; Bennett, Parsons & Frost, architects



« ARCHITECTURE »



Fairchild Aerial Surveys, Inc.

A view from the air almost similar to the one shown on the page facing, taken in May, 1932. The plaza between Union Station and the Capitol has been cleared. In the foreground is the new House Office Building close by the original House Office Building. The Library of Congress is easily recognized, with the Folger Shakespeare Memorial Library just above it, and to the left, the site of the Supreme Court now in course of construction

Below, the plaza as it now appears from Union Station looking toward the Capitol, with the Senate Office Building at the left. There is a parking space for automobiles under the level of the fountain. David Lynn, architect of the Capitol; Bennett, Parsons & Frost, architects

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little to do with the matter of architecture, it is interesting, as a yardstick by which to judge the magnitude of the project, to give consideration to the cost of the buildings completed and under contract which go to make up the Triangle. This totals upwards of \$53,000,000, of which sum the largest contract is represented by the Commerce Building, approximating fifteen millions, and the smallest, Archives, approximating six millions.

The Commerce and the Internal Revenue buildings, the first of the Triangle group to be completed, are impressive and seem fittingly to denote government occupancy. The Commerce Building, especially, in its splendid setting, grows upon one as it ages and mellows and settles into the scene.

In the morning, with the sun on its high forehead and its colonnade sparkling against dark shadows, it prophesies the future impressiveness of the great plaza upon which it will face. In the evening, the light from the west falls

across the ancient trees of the Ellipse and glows faintly pink upon its sturdy entablature and pediments.

If we can cast ourselves a few months into the future we can picture the group almost completed, smiling down upon the Mall, a lovely and impressive thing, awe-inspiring in its magnitude. There will naturally be unfavorable comments against it, for all great projects invite such comment, but certain it is that the extending dignity of it cannot be criticized. Its commanding composition will never fail in emotional appeal.

One of the most interesting things about the group is its speed of growth. In the past, projects of such magnitude—and there have been but few of them—have slowly and deliberately crept toward a far-distant day of completion. Generations pass, centuries pass, before there has even been the hope that the last stone will ever be laid.

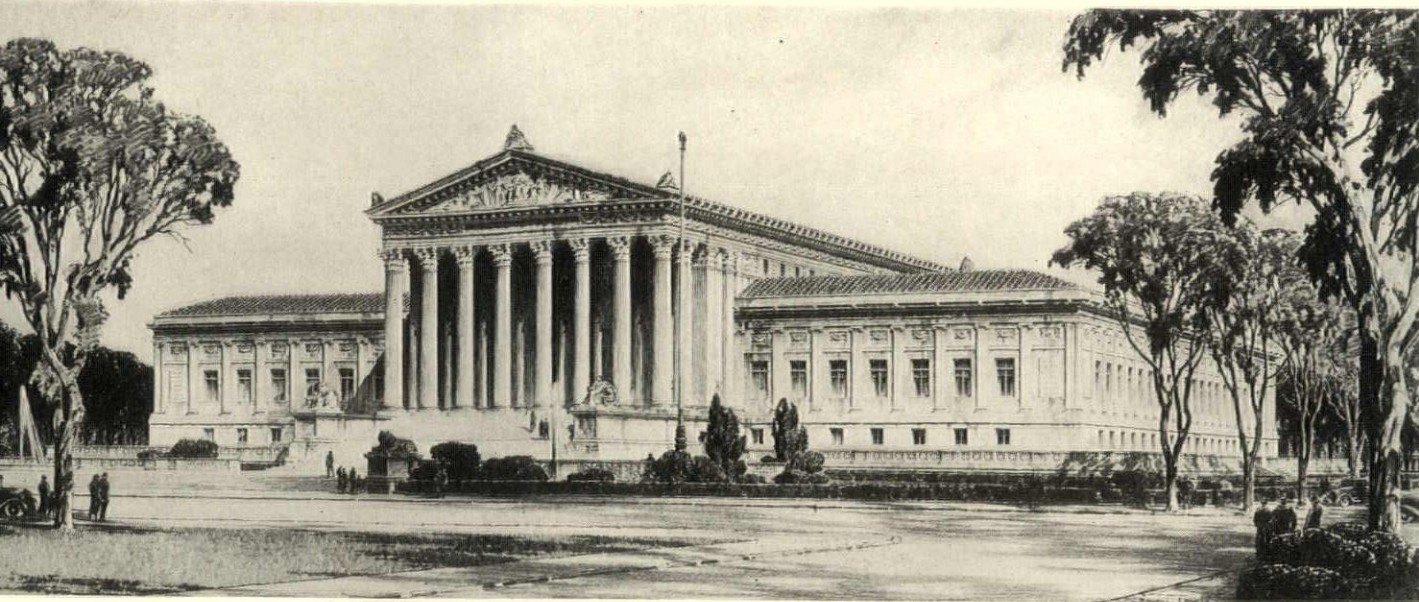
Whereas in the case of the Triangle, our own



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Detail of the United States Supreme Court Building. Cass Gilbert, architect

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Above, the west façade of the Supreme Court, as shown by the architect's preliminary perspective (drawn by Schell Lewis). Cass Gilbert, architect

Detail of the east front of the Supreme Court as recently photographed



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generation saw it started and our own generation will see it well on the way to completion. A miracle in itself!

As has been said, we could wish for an architectural old home week in which it might be possible to call back L'Enfant, Bulfinch, Walter, Thornton, Strickland, Hoban, Mills, McKim, and the man who first uttered the crack about "magnificent distances," and let them see the new city.



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Air view of the Triangle as it appeared June, 1931, the Department of Commerce practically completed at the right. The old Treasury Building is in the central foreground. Below, Building for the Department of Commerce, the west front. York & Sawyer, architects



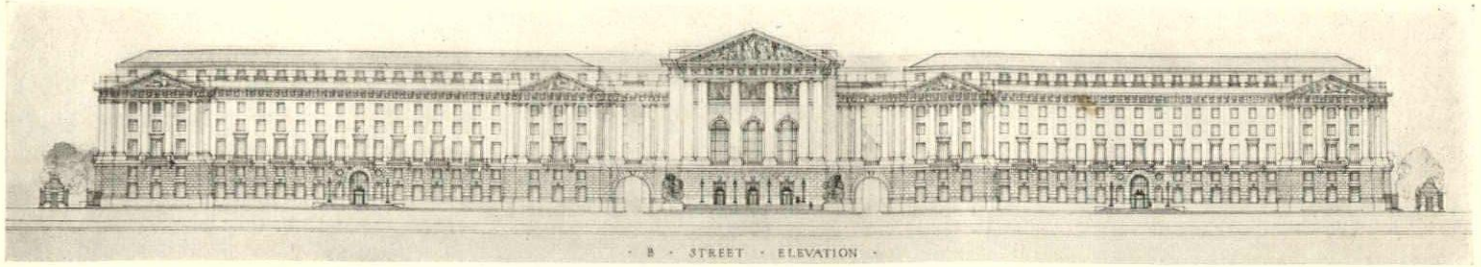
Sigurd Fischer



Sigurd Fischer

Department of Commerce Building, the east front which will face, in due time, a large open space at the end of the Triangle. See plan on page 190. York & Sawyer, architects

« ARCHITECTURE »



B Street elevation of the group building for the Department of Labor and Independent Establishments. Arthur Brown, Jr., architect; Supervising Architect of the Treasury



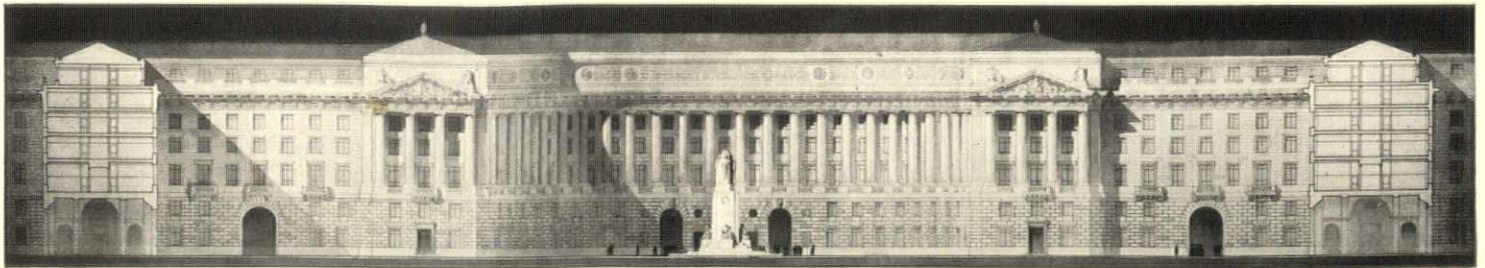
A recent progress photograph of the central portion of the above

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Below, the same building looking north along B Street, or as it is now called, Constitution Avenue. Just beyond the building shown in elevation above may be seen the building for the Bureau of Internal Revenue, and, beyond that, the building for the Department of Justice

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West elevation of the Post Office. This is the façade that will face the east side of the Department of Commerce at the end of the Triangle. Delano & Aldrich, architects



A recent progress photograph showing the central curved wall on the east elevation of the Post Office Building

H. H. S.

Below, a recent photograph of the west front of the Post Office Building. Delano & Aldrich, architects

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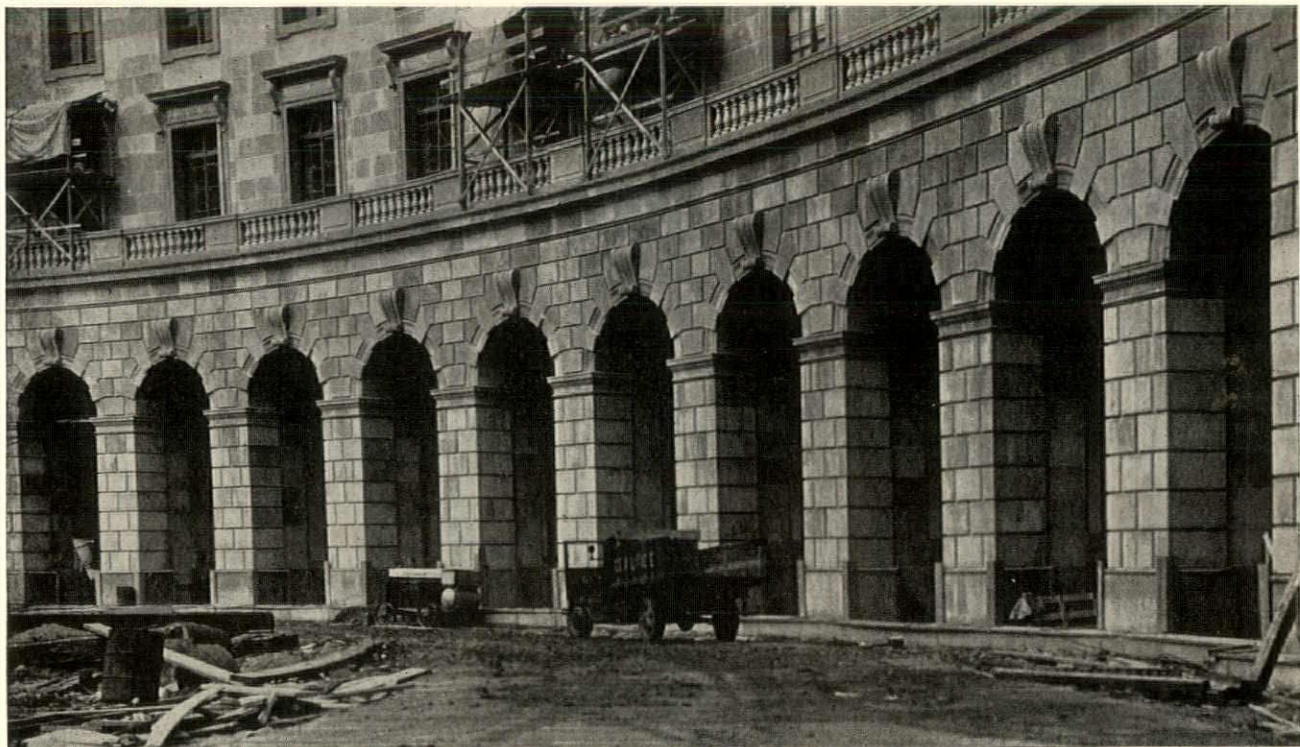
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H. H. S.

Three views of the Post Office Building in course of construction. Above, at left, northeast wing; above at right, the east front, with a corner of the Internal Revenue Building at right. Below, the ground-story arcade on the east curved front. Delano & Aldrich, architects

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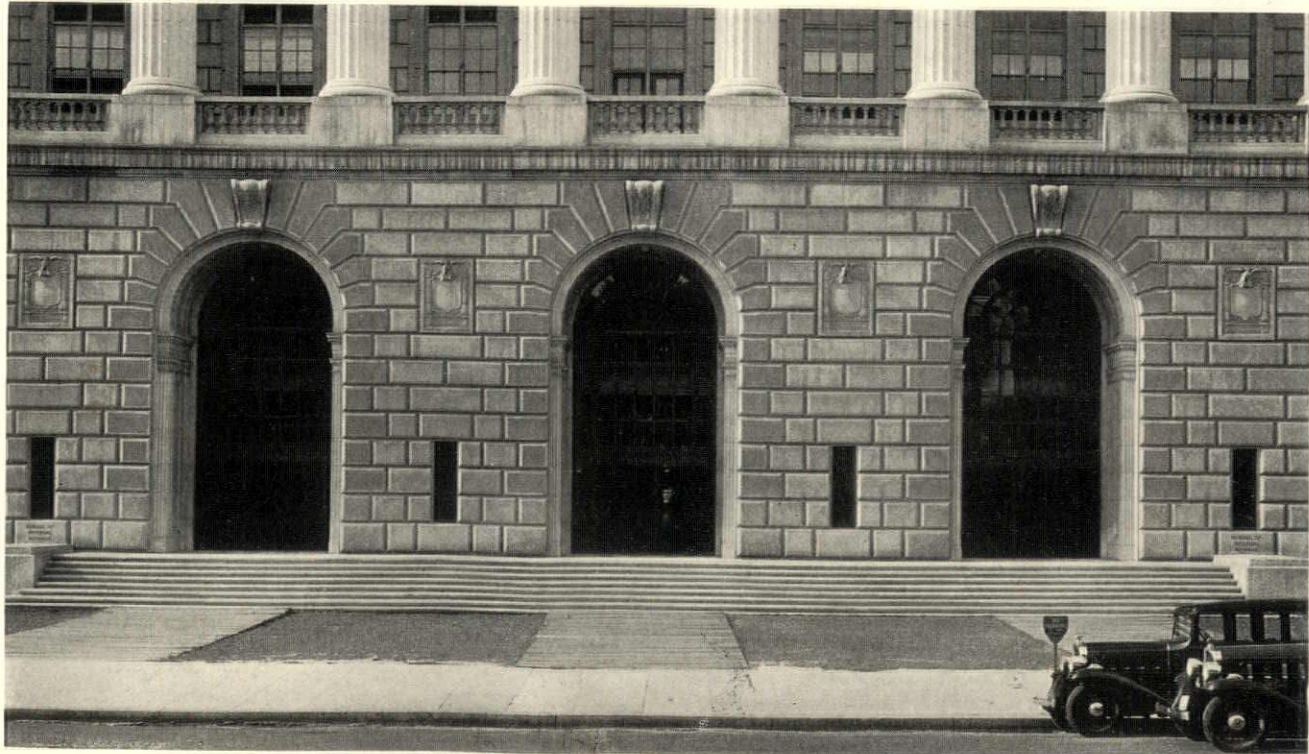
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Bureau of Internal Revenue, as it appears on the Constitution Avenue front. Designed by the Supervising Architect's Office. Below, a detail of the main entrance on Constitution Avenue

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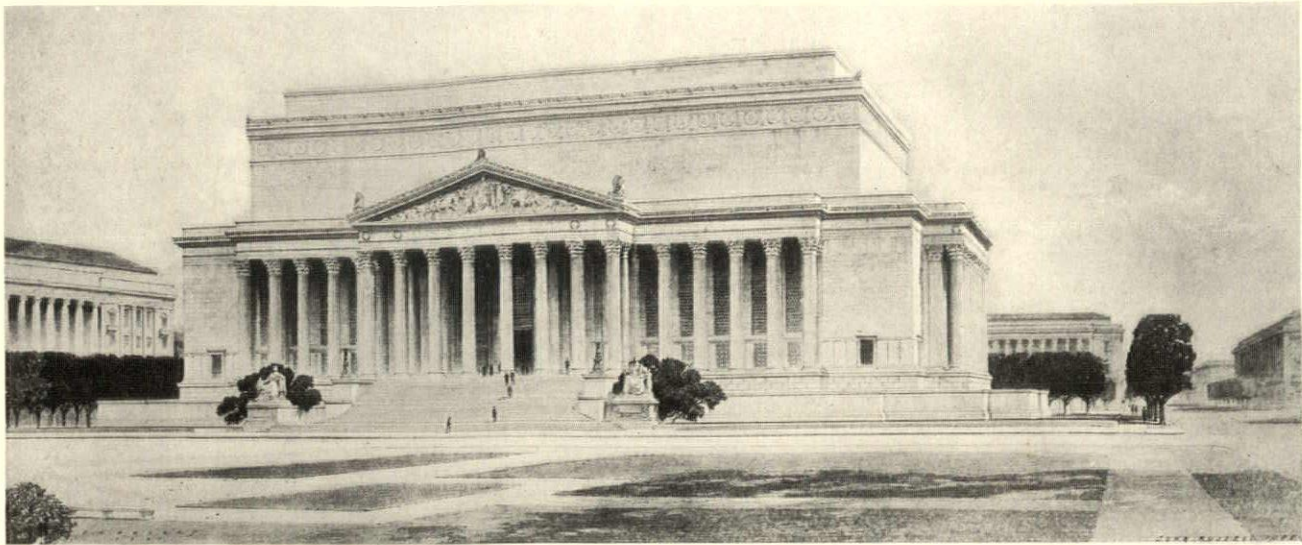


*The Department of Justice: above, as shown by the architects' preliminary perspective;
below, a recent progress photograph. Zantzinger, Borie & Medary, architects*

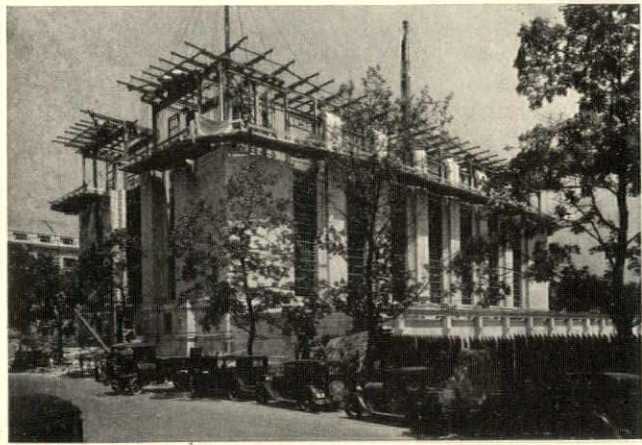
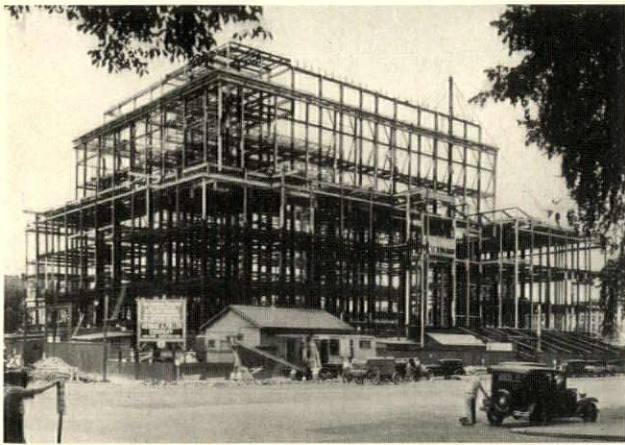
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« ARCHITECTURE »



Preliminary perspective of the National Archives Building. Office of John Russell Pope, architect. The drawing is by Otto R. Eggers

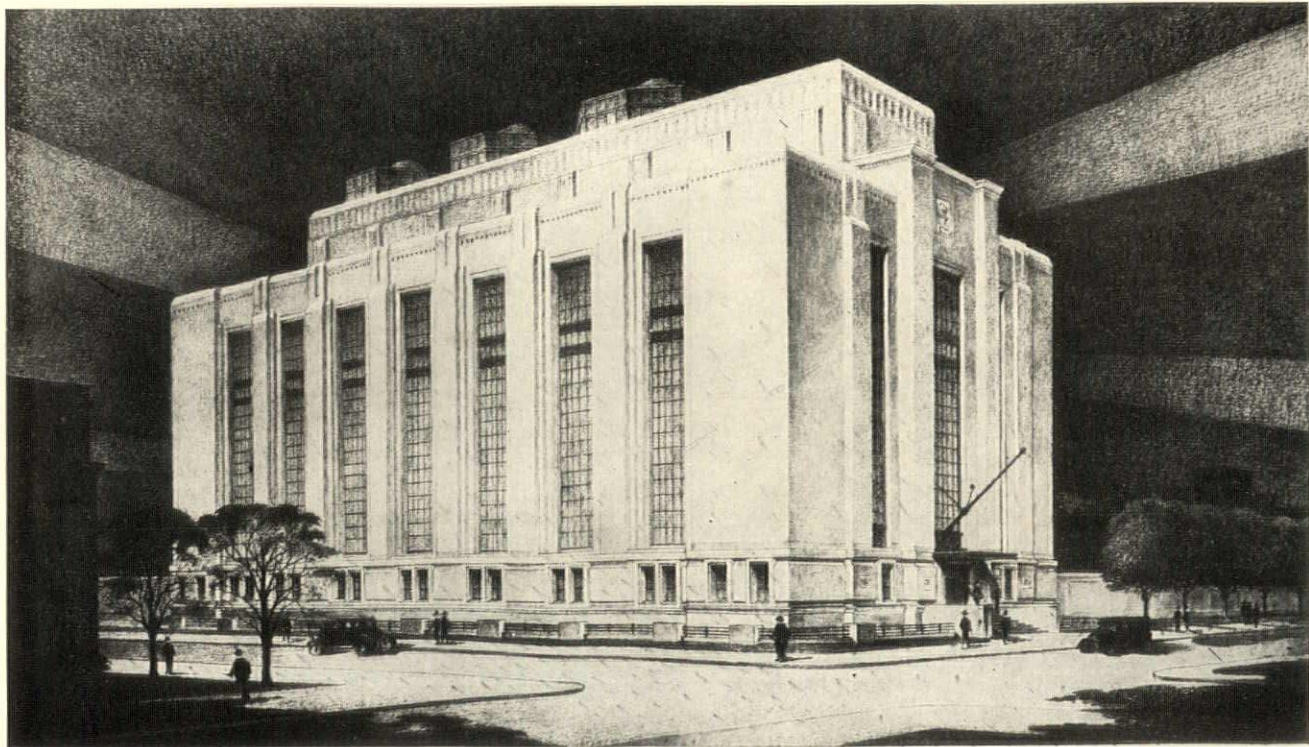


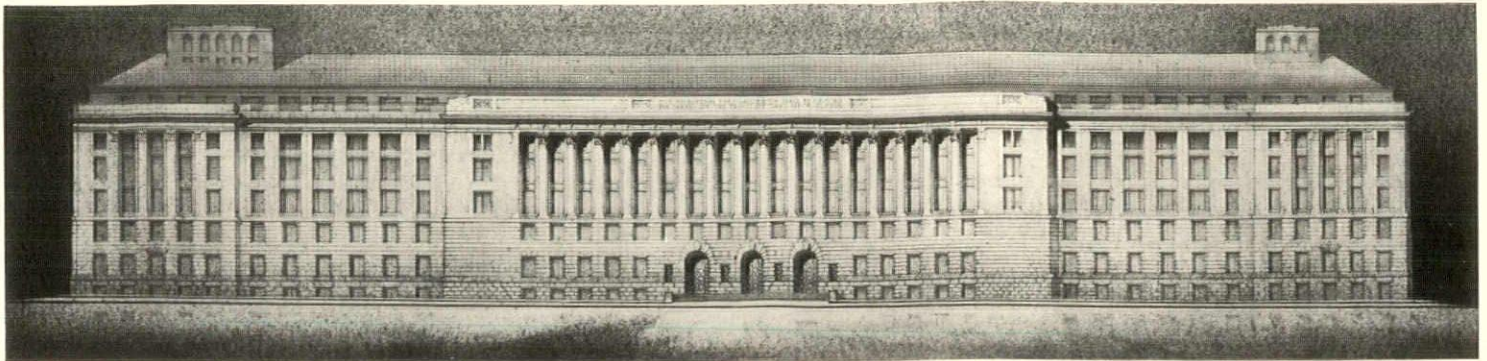
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The present status of the National Archives Building

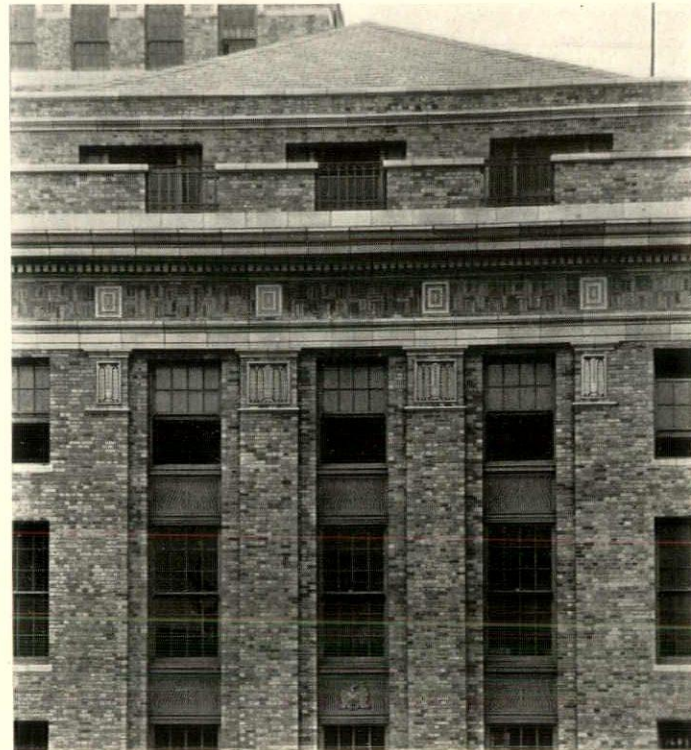
The present status of the Central Heating Station

Below, preliminary perspective of the Central Heating Station. Paul P. Cret, architect; United Engineers & Contractors, Inc.





Above, Department of Agriculture Extensible Building—the 14th Street elevation. Office of the Supervising Architect, Treasury Department



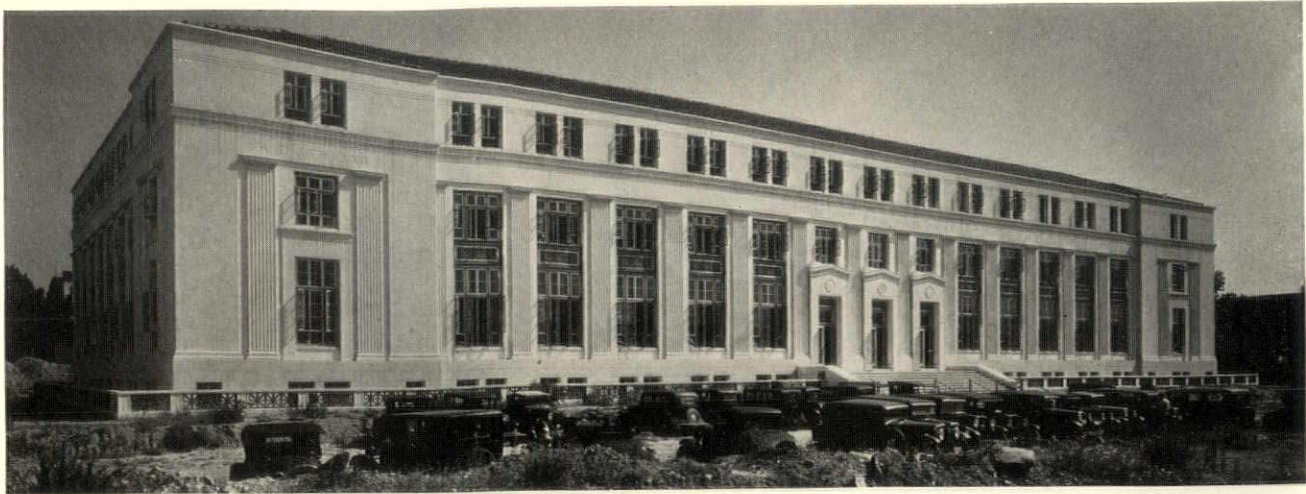
A detail of the above building on one of the long sides. The ends only are of stone, most of the work being of a warm gray brick

Rideout

Below, the 14th Street end of the Department of Agriculture Extensible Building. The structure covers three full city blocks, the interior of the rectangle providing six parallel courts as shown by the plan on page 190

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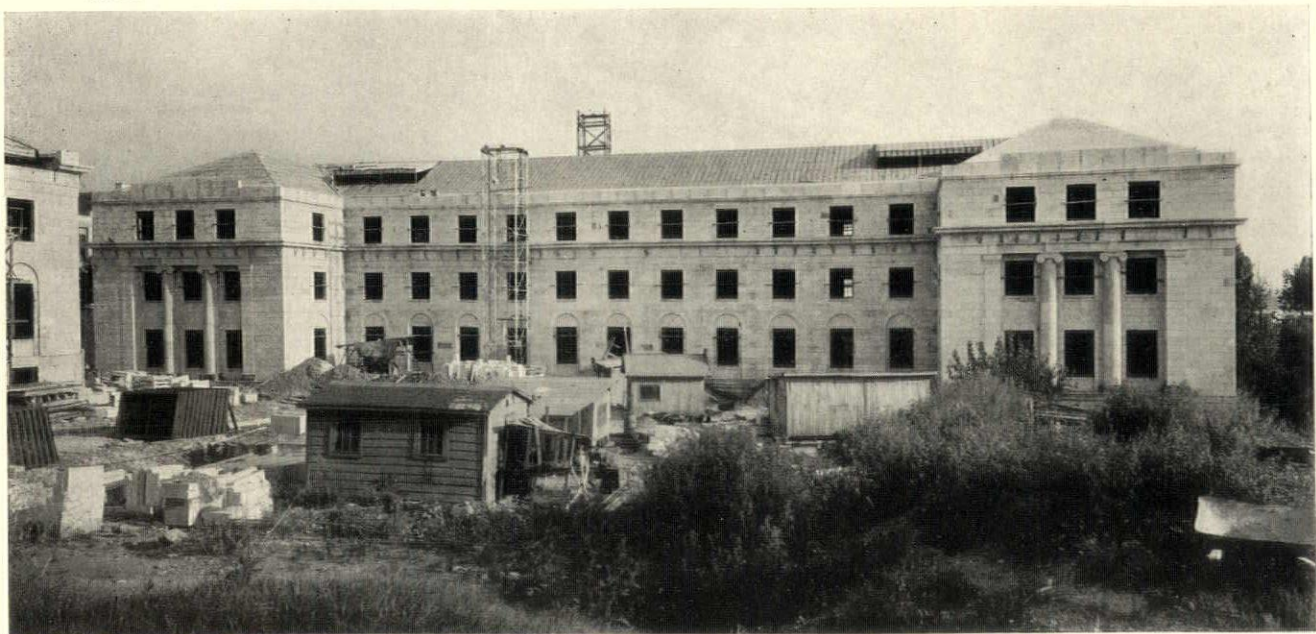


A recent progress photograph of the U. S. Public Health Service Building, which is not far from Mr. Goodhue's National Academy of Sciences. J. H. de Sibour, architect. At the right is a detail of the main entrance



*Photographs by
Richard Averill Smith*

Below, building for the Institute of Health, which is in the group along the Potomac north of the Lincoln Memorial. Office of the Supervising Architect, Treasury Department





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Reading Room in the Folger Shakespeare Library. Paul P. Cret, architect; Alexander B. Trowbridge, consulting architect

« ARCHITECTURE »



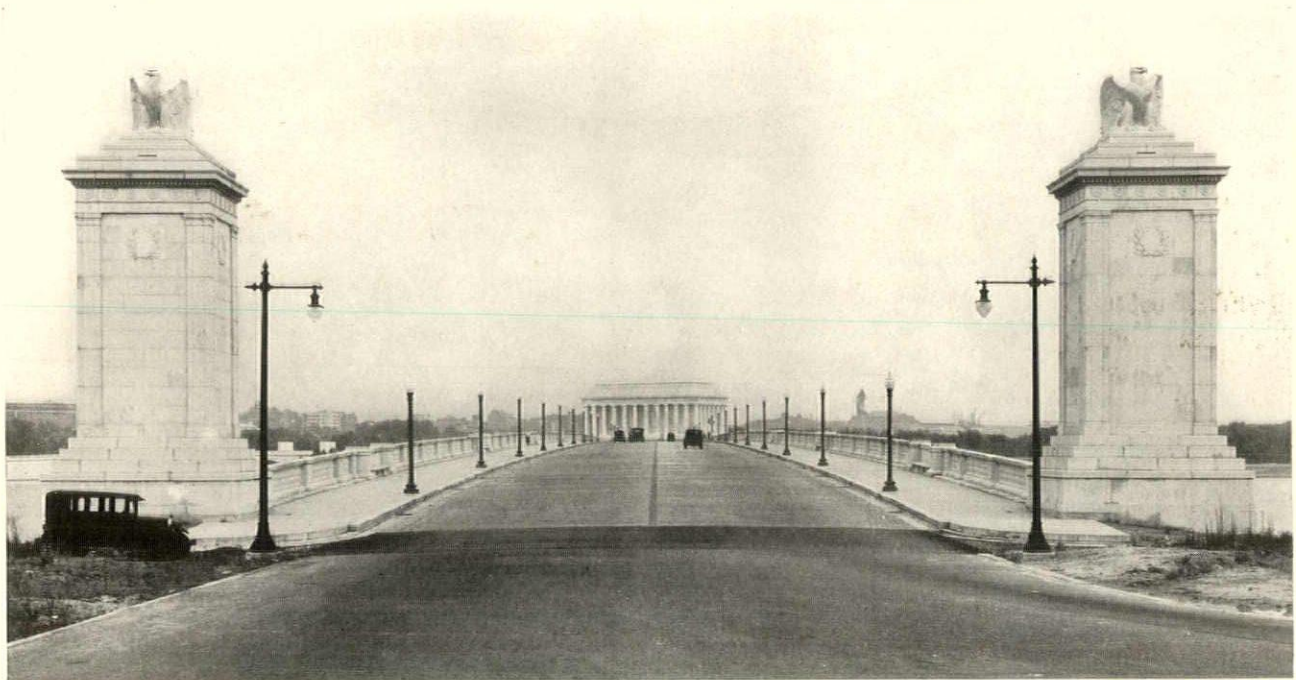
Horydczak

The Folger Shakespeare Library: above, the main front, on which the sculptured groups below the windows represent characters from Shakespeare's plays, by John Gregory, sculptor. Below, the Fountain of Pan on the west end of the Library; Brenda Putnam, sculptor. Paul P. Cret, architect; Alexander B. Trowbridge, consulting architect

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Photographs by Richard Averill Smith

Arlington Memorial Bridge: above, from the Arlington side looking toward the Lincoln Memorial. McKim, Mead & White, architects. Below, a detail of one of the piers on the Arlington side; C. Paul Jennewein, sculptor



« ARCHITECTURE »

These Houses We Live In

An Anonymous Lament

PROFESSIONALLY my life is divided into three parts as was Cæsar's Gaul—the design, construction, and decoration of better-class residences. As a life for me it has its definite merits: it demands most of my energies and absorbs most of my interests. And that is no real hardship, for in return it yields me the pleasure of creating, with my bare wit and will, objects that possess color, form, and texture—reality, in short. And, more satisfying yet, a sense of having created, by mastery of technical processes, order out of chaos, something where nothing was before. However, it has its flaws. My path, philosophically, is not an easy one, my destination not at all apparent. Daily I meet question after question that I simply cannot answer to my own satisfaction. The thing that assails me is doubt—doubt as to the end, the worth, the final appropriateness of all my devoted labors.

Here in the South—perhaps more than in any other section of the country—the residence remains traditional and conservative, determinedly an affair of “style” and “period.” And the more of these houses I design and build, or have a hand in designing and building, the less able I am to avoid the conviction that they are increasingly at variance with the world around them. Although the suburban home is a modern institution—that is to say, a product of this day and age, inconceivable without the telephone, the motor-car, and the power line—nevertheless it is not really modern in conception, construction, or function; or at least not nearly as modern in any of these particulars as it should be. It becomes more and more of an anachronism, in spite of the host of splendid machines that it has absorbed in an effort to keep abreast of the times. I often hear architects referring (a little smugly) to the great progress made in residence construction. I myself see no such progress; or I see it only in detail, not in general outline, and certainly not commensurate with progress in other lines of human endeavor.

The plain truth seems this to me: The “style” house of today is hopelessly antiquated, a deceitful and patched-up old wench dressed in the trappings of another day and looking always to the past for more tricks of allure. How I can believe this, on the one hand, and conscien-

tiously continue on the other to design “style” houses, may best be explained by following the “style” house step by step from inception to completion; and by opposing it, step by step, to its antithesis and would-be successor, the “modern” house. And you will understand that this combat is purely one of rhetoric. I cannot abandon architecture, regardless of its inconsistencies; I have to eat.

The most important thing in any architect's life is a client. And by means more involved and less businesslike than in any other profession I stalk and bag this desirable bird. By “pull,” by “contact,” less often by sheer prestige, I land him—producing the papers before he can change either his mind or his architect. Once signed up, his problems are my problems—as Ruth once said to Naomi—and they lose no time in arriving. Among the first, naturally, is that of location. Generally the client will have solved that for me by acquiring a plot of ground on his own initiative. At any rate, his or my selection will lie along that road most desirable at the moment, near the smartest country club and each year further from the downtown district.



Here I meet the first of a long line of ugly spectres—that of the instability of the land upon which we have to build. This state of flux is no new thing to the American community, as the rings of growth in any city will testify; but of late years this tendency toward swift, ruthless, and unpredictable change has accelerated itself until it has become the dominant characteristic of the community. A chain store, an airport, or a filling station can start a desirable neighborhood into a decline. Yet these are only externals of changes far less ponderable and against which, as an individual, I feel more or less powerless, for it seems beyond the power of any one to improve the loosely woven and poorly designed fabric of the Southern city. The individual is not interested in the question (How could he be?) beyond his own especial desires; and the solutions that present themselves to me—either to check this flux permanently and continue the “style” house, or to design a house perfectly amenable to change however swift—are so ab-

stract as to have no meaning to the average client intent upon keeping up with the Joneses. It were the better part of wisdom to let them lie unmentioned. Suffice it to say, each house gets by this stage of its development without any intelligent provisions being made for its future in a fluid and ever changing community. The spectre stalks the world unlaid.

Having gotten by that bogey as any child would—by closing my eyes—I open them upon the stern reality of sketches. Questions of style and plan are coincident but the former usually comes first. I have five main styles to show him—French, Colonial, Italian, English, and Spanish, and all the infinite variations between—and my course of action is hopelessly predetermined. The client has only to indicate his choice, press a button as it were, and the machinery of design begins to function along the lines of that particular style. Any of an hundred factors, however, may influence this choice. It may be that he comes to me with no convictions, and I am forced to make his selection for him. Or again he will study plates, home and garden magazines, the published work of famous firms, and the houses of friends—and like as not decide upon the one style that I cannot see as a proper setting for him and his family. At any rate, whatever his choice, it will lie within the narrow bounds of tradition, and only within these bounds may I exercise my intellect.



The one obvious escape from this bondage is the “modern” house: yet in the South of today this is no real escape at all, for the simple reason that its existence is not seriously considered, either by the architect or his client. All too often the architect is perfectly content with his “style” house; and even if he has advanced ideas, he runs the literal risk of raised eyebrows and questioning glances from the client to whom he is rash enough to broach such a subject. This prejudice is so complete, so deep-seated, that it almost defies explanation; and it lies as deep in me as in my clients. That, next to his instinctive distrust of it, is the reason I can offer no convincing argument for it—I am far from convinced myself. Intellectually, I think I can see the light; but emotionally I am hopelessly prejudiced in favor of tradition. It is in the hope of seeing the anatomy of this prejudice that I offer this comparison.

Indecision generally disappears when it comes to plan. The client comes to me with a list of his requirements in his hand and it is al-

most comic to see how much more positive he is about creature comforts than about artistic surroundings. He wants a drawing-room, a dining-room, and a library: and these readily accessible to their respective appendages—the stair hall, the butlery and the kitchen, the lavatories and powder room. There must be an ever-increasing number of baths and dressing-rooms, and these in close proximity to the sleeping-rooms. These are fundamentals, and no consideration of “style” or “period” can outweigh them in my client’s eye. It is here of course that the scales are reversed in favor of modernism—for its first corollary is that form follows function, and that is the essence of plan. Pure plan is in reality modern, an honest expression of contemporary requirements. And only as far as it becomes looped and tangled in the architectural coquetry of the exterior—only that far does it approach deceit. As a matter of fact (my clients remember this) most “modern” houses will show a deliberate affectation of spectacular shapes and arrangement, of odd-shaped rooms and unfinished partitions that have no basis of fact in contemporary life as we know it in the South. This is unfortunate and must disappear in its evolution, for utter honesty is modernism’s biggest asset.

It is of course impossible to draw a sharp line between pure plan and pure design; and, past my resentment at having no choice but to employ one of the styles as a medium of expression, when I have again reconciled myself to the inconsistencies and absurdities of period design, then I can begin to think in terms of the selected style and enjoy it immensely. For there is a certain devilish delight in pitting one’s focused wits against the exigencies of budget, contour, and climate. This applies equally to either the “style” or the “modern” house, of course; but from an accumulation of experiences I have come to the conclusion that the former gives me the more lasting satisfaction. Since the one appeals to the senses, the other to the intellect, I suppose this statement explains itself. At any rate, you will not think it odd if I solve difficulties in the classic manner: for in college I cut my teeth on the Orders, memorized Vignola and the height of the Butter Tower, garbled vast quantities of precedent, and was taught to keep my eyes always on what had gone before. And this, I think, was as it should be, as one cannot face the future without a knowledge of the past. But it is only natural that I dabble in it freely, selecting such details from it as I care to use or can afford.

« ARCHITECTURE »

There is by now a definite goal toward which I am working—a chosen land and era to be re-created here in Tennessee. It must be a perfect picture, whether of Elizabeth's England, Josephine's France, or the Italy of the Medici. To this end I have a list of devices limited only by my ingenuity and taste. I can pitch a roof to any angle that the style demands. I can thicken walls to the point of extravagance to gain the deep reveals that certain types require. I can hold fenestration to a minimum (at least on the entrance front), and build great useless chimneys wherever I think the mass requires them. I bend everything to one end; nothing escapes my passion for a perfect picture. And I can very conceivably give my client a better country seat than any Elizabeth possessed; or a *manoir* more perfect than La Lanterne, complete to the last detail. But any and all of these houses will be based upon the premises of a permanence that simply is no more. They will cling to the shifting earth, defy progress, oppose themselves aggressively to change. They are doomed to tragedy before the blue-printer gets them.



On the other hand, if I am genuinely modern and not modernistic (we deal now with ambiguous terms), my house will be honest, exactly what it seems to be. The roof will be of a nature to suit the climate and the family, the windows will have for reveal only what the minimum in wall allows, the chimney will locate the heating plant and not the entrance door. Everything not essential will be discarded, including any hint of permanence, and frivolities will be conspicuous for their absence. The fabric will be concise, simple, fluid, and cheap. The only drawback is that, so far, the modern house is none of these. Its technological processes are as expensive as those of the traditional house, and its thesis of permanence is almost the same; it is neither concise nor (as yet) simple. But granting that it will achieve all of this, what have we? The expression of a mode of living distasteful to most Americans and perhaps already as dead as the phase through which we have just passed.

After an agonizing period of corrections, changes, indecisions, and shrinkages, the sketches stand accepted and the first installment of my fee is payable. Working drawings are begun, partly the most exhilarating work, partly the most excruciating drudgery. But being in a more or less executive position, I can delegate the latter part to the draftsman. There

is now no longer any question, even in my heart of hearts, that this will be a Colonial (or Spanish or French) house, like the last one, only better. The client satisfied, I suppose I should be—at any rate it is too late to equivocate. I now sweat over details like the best of them—leaded fanlights, columned porticoes, oriel windows. I lose myself in sheer detail, molds that have been used two thousand years and still intrigue the designer, proportions that one cannot beat. I here approach the very kernel of architecture, catch my breath at the sheer loveliness of some old example, bite my tongue and hold my breath while I try to grasp and—inevitably—to improve it.

This is the sweet hell-fire of creation that keeps me an architect—these inspired flashes of the whole theory of design, this glimpse of the panorama behind me—the breadth of what has gone before me, the incredible variety of what men have made of wood and stone. I perceive in a flash what they were after, and strive to do as well. There seems to be nothing they haven't done or tried to do, and I never cease to marvel at how successful they were, at how little design has ever or will ever deviate from certain set theorems. In trying to grasp and master these theorems I fume and sweat, make many nervous trips to the ice-water cooler, stand finally in trembling delight before, let us say, this doorway I have made. Here is good mass, suave adroit line, purposeful molds, intelligent use of light and shade. Superb. But when the heat of creation has cooled, I look at it again, squinting. Beautiful, yes; but what business has it got in a steam-heated house? How meaningless all this ornament when a Cadillac stops before it.



The pleasure I derive from making a house a well-designed and smooth-running machine—technically as well as esthetically satisfying—is great. Obviously here modernism would be my best medium—for in the period house I have to be as clever in dissimulation as in invention when I handle the machine. Indeed, the possibilities of modernism in this respect are limited only by the danger of making the machine too evident, obtruding the steam pipe and the conduit more into the scheme than is necessary. This form of aggression is most evident in contemporary European design; and it is this very tendency which makes me shy away from modernism. A balance must be struck between the

intellect and the senses. We cannot live in houses that require deliberate intellection to appreciate them. Thus the modernist labors under the almost insuperable difficulty of disassociating the humanities from established forms of design. We cannot be happy in a house that appeals only to the brain—we have not that much brain. We are too fecund, too earthy, loving the rounded corner and the devious way; we are still more human than not, despite all the talk of the mechanization of man.



Alongside the working drawings inevitably grow the landscape plans; and here my work is sheer delight, clouded with no misgivings, unless it be a scanty budget. This may be partly due to my deep affection for growing things. But deeper than that, I insist, is the pleasant sense of freedom I experience the moment I get from under the “period” roof. Of course there is still style to consider—three main ones to be exact: the lovely English garden, sumptuous without being forced, formal and informal at once, fertile in interest—human; Spanish-Italian gardens, highly stylized yet escaping rigidity by their flair for spectacle and their breath-taking ingenuity with water; and French gardens, magnificent, flat, sombre, and mostly sullen. Of modernism here there is scarcely any need to speak, as attempts at it have been few and unhappy. Indeed, given simplicity and intelligence, any garden will be modern because it will be timeless; and foolish is the man who tightly labels a garden “Smith fecit: 1933” and smugly thinks he has started a “modern” style.

Yet style in the landscape is neither so rigid nor so autocratic as in the house. I can take a few liberties without presenting photographs of my precedent. I can elide and combine and invent. I may err, of course; but a garden, like a lovely woman, may be allowed a little leeway in matters of good taste. For any garden that has its quota of sheep manure and water can never be wholly bad, however faulty its design. It will carry in its heart at least a clue to immortality.

At long last the working drawings are completed and, as a rule, I am glad of it. Three months' close application sees about the limit of my interest in any mere drawing of a house. But when operations start, when the house begins to assume the aspect of reality, then my interest knows a rebirth. I experience once again the pleasures of design; it is difficult to wait until the different parts take form. The place be-

gins to look weirdly unlike any prints or models I have seen of it—longer here, taller there, generally surprising yet supremely familiar withal. Details that left my hands weeks ago as blueprints come back into my sight in beautiful reality. And I never fail to know a mild amaze at this transmutation, the mysterious processes by which a flat and unintelligible drawing has become a lovely pine room or pedimented doorway. I have a delight in these details that surpasses that of mere possession. I like to sit and feast my eyes on them; or move about, seeing how they stand the test of perspective. I like their feel, their round, their luscious reality.

And yet I eye these details critically, believe me; they will never bear a gaze more conscious of their faults. I like to study them carefully, weighing them, discovering where I have done well, where failed, and why. I am proud of this critical ability, and nothing dismays me as much as studying something and being able to reach no conclusion about it—having it elude me, poise grinning just beyond my grasp. It is a splendid, ruthless power, and the penalty of possessing it is this: a widening sense of the futility of all this clever and laborious use of archaic detail. For the periods—the reputable ones at least—seemed to have ceased with the advent of the machine.



The whole conception of the “style” house is the very ancient one of building with the human hand—and building to stay. Thus its disadvantage is inherent, as to build either by hand or to stay is economically unsound today. Blithely I ignore that fact: I want a house with a “hand-craft feel,” and I’m going to get it. I demand hand-made brick, hand-modelled tile, hand-wrought iron. I chip the slate, stagger the shingles, adze the wood, model the plaster. I sand-blast the stone, whitewash the brick, rust the iron, tarnish the copper. I abhor the garishly new, seek a deliberate atmosphere of age and soft decay. To that end I will hang pseudo batten doors from pseudo strap hinges and fasten them with pseudo box locks. I will glaze steel sash with ancient bottle glass; by fair means or foul, the steps shall be worn, the cypress filled with worm holes and the pine with knots.

I list these instruments of atmosphere not in sarcasm but in statement of fact. This is a bare fraction of the deceits, the tricks and dishonesties to which I stoop in my simulation of usage and slow time. Philosophically, they put me on the

rack. I am emotionally satisfied by the delightful textures and surfaces these various mediums afford; yet I am intellectually convinced of their absurdity, their almost criminal waste. Nevertheless, how do I fare with the "modern" house? I deal no longer with elevations but with three-dimensional masses; and they are never as attractive in stern reality as in a perspective sketch. I like the idea of big windows to admit the light, and curved corners to keep out the dirt, but I shiver in the chilling, antiseptic light that falls about me. I admire the honest masses of the different parts but shudder at their lack of kinship with the landscape; the way they patronize the soil, ignore the trees, make few concessions to either man or God. I admire washable surfaces but am never easy in an operating-room.



There is one point upon which I am crisply positive, however: and that is the cost of suburban America—"style" or "modern." There is nothing in America as lavish of money and perverted ingenuity and human labor as the great house of today. It is a strange fact that, as the size of the house increases, expense per cubic foot doubles and quadruples itself. If the home attains anywhere a semblance of the order and economy found in the factory world, it is in its lowliest form—the mill village bungalow. And this fact disturbs me most of all. I am well aware that the average house of \$75,000 gives employment to a whole colony of artisans—bricklayers, carpenters, electricians, etc. But the fact that they build a unit so ponderous, so unsusceptible to change and antagonistic to growth, and so useless to any one but my client, makes me feel that, in the last analysis their labor will be wasted. I can easily excuse the vanity of it—great houses have always been an expression of vanity—but I cannot ignore the futility of it. For twenty years is a too generous allowance for the fashionable life of any such house, anywhere. Defenseless and builded upon sand, it will transform itself into a girls' school or an undertaking establishment as the chain stores creep nearer.

Contemporary or traditional, the technological processes are approximately the same; the cost in terms of dollars or energy will be parallel, with (at present) a shade in favor of the "period." We struggle—and so unintelligently—against forces of inertia so great that they frighten me. Our construction methods are almost ante-

diluvian. It may be true that the excavation is now by steam-shovel instead of hand; it is equally true that the walls are built, as in the Middle Ages, of the smallest possible units. It may be true that we have scores of splendid roofing materials, but the rafters are raised, one by one, along the casual lines of trial and error, and roofs are still known to leak. I am never sure of a dry basement, regardless of waterproofing, until after the first hard rain. The heating system must be fired to see if it acts as the engineer figured and as the steamfitter installed it; just as the plumbing system must be filled with water and peppermint to see if it either leaks or smells. To one who demands action of a motor-car and music of the radio, there is far too large a factor of human fallibility in residence construction. Such instances of outworn technique are so numerous that it must seem malicious to list more; suffice it to say that before modernism can enjoy any wide degree of success, it must embody in construction as much advance as in design.



When the contractor has flown, leaving behind him that wan-eyed group whose duty it is to patch plaster, wash windows, and clean up litter, the house approaches that last and in many respects most fascinating phase—decoration. Here I am as far from reality as I shall ever be. There are so many periods to choose from that I am nonplussed. As a matter of fact, I have all along had a definite idea of what characteristics certain rooms would take, but it is not too late to change and certainly not too late to elaborate. For if I am clever enough I can do what was not largely possible on the exterior—blend four or five "periods" into one adroit whole.

The walls are my first consideration, and these I either canvas and paint or hang with old wall papers or fabrics. If I cannot afford an old paper or fabric I antique a reproduction; or I antique the paint; or stipple the canvas, or any of a hundred things to attain the effect of age. For by some strange contagion I revere the old, revile the new. From abroad I import mantels, reckless of time and expense. The pine room comes either from Charleston or England, and the chandeliers from New Orleans. And here, let me say, I have no scruples against torturing electricity into wax candles and making it to burn as tallow; for mine is that ancient conception of the light's source being more important

than the light itself. Any scruples I might have are stillborn; the "period" admits of no other treatment of kindly light.



The furnishings are either antiques or reproductions of antiques, or a suave blending of both. Their style will be a question of preference—my own or my client's. In 1918 it was eighteenth-century French, last year Early Americana, this year Directoire and Empire. Each style has its own personality, its fascinating possibilities, its most obvious characteristics; yet there is a point in any one of them where accurate distinction is lost, where that style merges gracefully into its next of kin. They are thus all the more intoxicating to work with because—like some liquors—they mix so well. In fact, one achieves such a sense of absolute mastery over color and form and balance in using these ancient doctrines of design that it is difficult not to become intoxicated. Ethical perspective is lost, one does to the room whatever the exigencies of the "period" demands. No small point of honor can keep one from a room that "clicks."



Fleeing all this, you see me running straight into the arms of contemporary design; yet here I pause again. For, recoiling from too much deceit, I run the risk of being too honest for mere man to endure. I must not make the background too austere, too confidently "modern" for good Hepplewhite and Chippendale. I must not make the criminal error of slaughtering one period of proven worth to make way for a new vogue—as happens so often—as happened in the ante-bellum South when good eighteenth-century English stuff gave way to the rosewood atrocities of Mallard. I must tread lightly, walking the narrow line of taste.

Beneath all my elegant labor, my striving for effect, a masquerade of the most diabolical cleverness is going on. Heating units lurk in panelled reveals, the thermostat (keeping the room at 72° Fahrenheit) hides in that old barometer case. The radio and the talking-machine—both of which the manufacturers have succeeded in making hideous—crouch behind yon painted screen, and the piano looks anything but mechanical in its period case. I have gilded the telephone in the French manner, built in the mechanical refrigerator, recessed the bathroom fittings to disguise, in so far as possible, the fact

that the room contains its three essentials—water-closet, lavatory, and tub. Two things alone have got me beat—the telephone jack and the light switch. There is simply no period treatment for them, and they must, from their very nature, be visible. I therefore either gold-plate or ignore them.

I have done a house for my clients, and no detail was too small for my closest attention, my most devilish ingenuity. To the best of my ability I have given them a picture of the age and land they chose to re-create, very possibly a better picture than a genuine one could have been—but alas! not one destined to as long a life. For, clever as I am, I cannot intelligently expect any house of mine to remain smart for more than ten years; after that it needs must be "done" again. And it seems to me that, in the last analysis, this is the case only because the entire house has lacked authenticity from its very inception. It has not the spontaneity, the genuine emotion that makes great works immortal, that makes Mount Vernon as fresh and charming today as it was in 1790. When Washington built Mount Vernon he did not cold-bloodedly select a style that appealed to him; he had no array from which to select. It never occurred to him to build anything other than the Colonial house he did, an intelligent and polished version of what a country gentleman in Virginia needed in the last quarter of the eighteenth century. And it seems to me that we will miss authenticity until we have a style so intimately, so unmistakably ours and none other's, that it will not occur to us to delve in the past.



What this style will be I cannot begin to suggest—I am certain only that it will come. I do not even know of any way in which its arrival may be speeded up, unless it is by the very process of debate and compromise through which I have so tediously dragged you. For reasons which I hope by now are clear to you, I cannot embrace modernism nor yet lie with the traditional; my argument threatens to become unintelligent, I shall not rest easily tonight. I shall be troubled by the wraiths of machines smuggled between floors, concealed in closets, crammed between walls; by the ghosts of those arteries of heat and light and power who work so supremely well that they may be buried alive in stone and mortar, in lightless obloquy. I shan't escape the feeling that I have done them wrong.

◀ ARCHITECTURE ▶



Better Practice

By *W. F. Bartels*



A critical reading of present-day specifications, even those from offices nationally and internationally known, reveals at least two common shortcomings: first, the continuance of outworn provisions; second, the substitution of mere verbosity for explicit direction. The building crafts move on, but too frequently the architect's specifications fail to keep pace; the writer of specifications, in far too many cases, is ignorant of improved technic in the building trades and fondly believes he is hiding this ignorance behind a flow of traditional phrases. The tolerant contempt with which a skilled artisan views these lapses is not a pleasant thing

to witness. Either the architect must set his house in order, as to specifications and detail drawings, or risk discredit, not only for himself but for the profession as a whole.

It has seemed to us that ARCHITECTURE might render a service in seeking out the latest and most fully approved technic from among those most skilled in the various trades, passing along to the profession our findings as weighed and approved by a man of long experience in supervision on the job—W. F. Bartels. This series of monthly articles will not parallel, necessarily, the usual order of building procedure. Next month, more about plumbing.—EDITOR.



PLUMBING: (A) ROUGHING

1—DESCRIPTION OF MATERIAL

THERE is nothing which is more essential in a specification than precision. Particularly is this true for plumbing. But it is worth the extra effort. It works to the advantage of all. The architect saves his own time when the building is in progress, which would later be lost in arguing and explaining; the superintendent in the field is called upon to render fewer "interpretations"; best of all, the owner saves money. This latter is of course effected by lower plumber's prices. In estimating the job he is forced to take chances because of ambiguous specifications, consequently he tacks on enough extra to protect himself. Given definite information, he can cut off this insurance. The chances he takes are necessitated by lack of information. But the architect is prone to think, "I always give the contractors full information." Maybe. But maybe not, as for example, the quality of the fixtures is seldom definitely specified. The plumber knows that a "hard-boiled" superintendent may insist upon first-class fixtures, while similar houses of the same type in that neighborhood are using "seconds"—not as satisfactory—but much cheaper.

2—CAST IRON

Cast-iron pipe should be specified as either "standard" or "extra heavy." The local code must be consulted to ascertain where each may be used. It is probable that all

except those lines above ground, in a private residence, will be required to be "extra heavy." The pipe should be uncoated (so defects are not hidden), free from sand holes, cracks, or other flaws. Sometimes the latter are so small as to be negligible, but this is better left to the superintendent's discretion. If "patent fittings," as they are called, are to be used, they should be mentioned in the specification. An intelligent use of these by the plumber will often save money. The material costs more, but there is a considerable saving in labor.

3—SCREW PIPE

This general heading covers steel or iron pipe that is put together by means of threads rather than by calking. Where a large job is done with cast iron there will be parts, such as the vent branches and some waste lines, which will be screw pipe. These should be specifically denoted.

The pipe should be lap-welded and galvanized. The ends of all pipe should be required to be reamed whether for waste or vent purposes. This takes off the burrs and prevents stoppages. The weight should be "standard" unless exceptional duty is required of it, in which case it should be the type known as "extra heavy."

4—SPECIAL USES

The architect may be called upon in special work to provide waste lines for particular purposes, such as

acid discharges from laboratories, hospitals, commercial plants, etc. These lines should be carefully mentioned in the specification. They entail more expensive materials, and, due to their nature, are more difficult to erect. Whether they be of earthenware or of an acid-resisting metal, the manufacturers should be consulted for special features, such as asbestos joint-calking instead of the usual oakum, the more frequent placing of hangers, and other important data.

5—SIZES

Although tests have been made to prove that 3" soil lines can be satisfactory, in most cases it would seem more practical to make them 4" (as required by most codes). While 2" waste lines are ample in residences, they may be found to be slightly constricted for multi-family dwellings, particularly if the kitchens are back to back. Cumulative grease from the sink of a combination fixture in the 2" line may cause a heavy discharge from the laundry tray to result in a disagreeable "backup" into the adjoining kitchen.

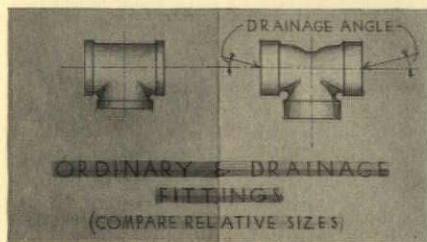
On all work the sizes should be carefully figured out and the results carefully analyzed. The larger the work the more carefully all facts and products should be investigated. A large job may illustrate. When a modern office building was completed and the toilet facilities were in full operation, the discharged water took up so much of the soil line that it formed a piston-like ef-

COMMON MISTAKES & THEIR AVOIDANCE		REMINDERS
<p>GRADE NOT ENOUGH HEAD ROOM NOT ENOUGH PITCH BASEMENT FL.</p>	<p>GRADE MINIMUM OF 7' HEAD ROOM PITCH TO BE AT LEAST 1/4" PER FT. BASEMENT FL.</p>	8-A SOIL LINES PITCH TO BE AT LEAST 1/4" PER FT. MAINTAIN 7 FT HEADROOM UNDER ALL BASEMENT PIPES
<p>CLEANOUT WALL BASEMENT FLOOR CLEANOUT</p> <p>PLANS</p> <p>SECTIONS</p> <p>WALL REMOVABLE IRON COVER CLEANOUT</p>	8-B CLEANOUTS BE SURE THEY ARE EASILY ACCESSIBLE. HAVE AS MUCH SPACE AS POSSIBLE BETWEEN CLEANOUT & WALL	
<p>TUB FLOOR TOILET</p>	<p>TUB FLOOR TOILET</p>	10-A VENTS EACH FIXTURE SHOULD HAVE A SEPARATE VENT
<p>SECTION PERSPECTIVE MEDICINE-CABINET VENT NO ROOM FOR CONVECTOR SPLIT TILE BECOME NECESSARY</p>	<p>SECTION PERSPECTIVE MEDICINE CABINET VENT 19" IN CLEAR FOR CONVECTOR SPLIT TILE ARE UNNECESSARY</p>	10-B ROUGHING THOUGHTLESS PIPE LOCATIONS RESULT IN TROUBLE LATER
<p>LACK OF PITCH SUPPLY PIPES</p>	<p>PITCH PROVIDED SUPPLY PIPES</p>	10-C ROUGHING IT SHOULD BE CENTERED ACCURATELY. OFFSETS SHOULD NOT BE NECESSARY

fect. This in turn causing the water seal of a urinal to jump out on the floor. For the same reason the fresh-air inlet became an outlet for a fine spray of water. While these conditions would not happen on the small house, they do illustrate the necessity for careful consideration so that pipes have an adequate bore.

6—FITTINGS

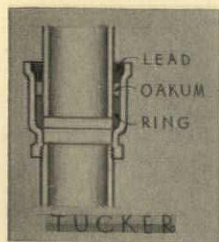
Drainage fittings differ from ordinary fittings in both use and size. Therefore they should be noted in the specification and taken into account on the plan, because they are more bulky than the regular fitting. All drainage fittings are recessed so that there is less danger of a stoppage. Also they are tapped differ-



ently. A length of pipe screwed in them will be found to slope at the rate of $\frac{1}{4}$ " to the foot. This obviously is to provide a pitch to carry the water and waste matter away.

Many times a specification will be found prohibiting the use of "any bushings whatsoever in the system." A valuable clause, this, but one which sometimes works a hardship on the contractor. If it were modified so that with permission they might be used on vent lines, it would be decidedly helpful.

Tuckers are sometimes forbidden also, but this should apply only to horizontal lines and to places where other connections may be used. These handy fittings allow batteries, or groups, to be made up and then have their loose end firmly



connected by means of a calked joint or tucker. The architect should state, however, that where they are used rings must be provided. These rings, around the pipe to be tucked in, prevent the oakum from getting into the pipe when it is calked down.

7—SLEEVES

From the time the piping enters a building through an extra heavy sleeve in the exterior wall, until it passes through the roof as a vent, sleeves are important. They are not only a construction necessity and a maintenance reducer, but essential to a neat finish. Needless to say, they should be specified, be it for a line through a finished brick or plastered wall, or a branch through a concrete slab. It is impossible to make a neat job without them.

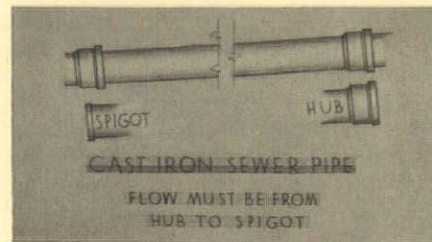


8—INSTALLATION

Inasmuch as the basement contains the vital organs of the plumbing system, it is well for the architect to give this portion of the building serious consideration. The sleeves should be furnished by the plumber and set according to the architect's direction. When coming through exterior walls they will, of course, be made watertight. If there is a septic tank it must be given careful thought and study. There should be a separate line from the kitchen waste, going through a grease trap, before entering the septic tank. This will be well worth while, because otherwise the grease will soon clog the tank and its outlets.

If the leaders are taken to dry-wells, the latter should be a liberal distance away from the house to prevent the cellar from becoming damp from the rain water backing up. Then, if there is a possibility of a sewer in the future, pipes should be run so as to anticipate future cutting and repairing in order to connect them if allowed or desired. However, many towns do not allow rain water to be discharged into the sewers. The plumber should be required to give definite locations on the plans of the dry-well positions.

The architect should determine the elevation of the sewer in the street, and determine the feasibility of plumbing fixtures in the cellar. Often with a high sewer and a low-set house there will not be enough pitch for the house drain. (See drawing 8A, page 220.) This should be at least $\frac{1}{4}$ " to each foot. If the line runs overhead there must be at least 7' headroom. Cast-iron pipe must be laid so that the flow is from hub to spigot.



The base of all stacks should be properly supported, and wherever a change in the direction of the pipe takes place, cleanouts should be provided. If the pipe is under the floor, suitable holes or boxes must be made and covers provided so that the cleanouts may be accessible. (See drawing 8B, page 220.) All cleanout plugs should be of brass. The house trap should be provided with two cleanout plugs.

The house drain, if carried along the ceiling, should be supported by hangers at least every ten feet. This distance should be shortened wherever a branch intersects the line. Hangers of an approved and suitable type should be called for, and the contractor warned that chain or wire will not be accepted. Lines running underground should be supported on piers of masonry, and after they have been inspected, should be back-filled, by flooding with water each shovel of dirt put around them.

Floor drains should be provided, but are advisedly carried to a separate dry-well so that the leader discharge in a heavy storm will not flood the cellar.

9—STACKS, LEADERS, VENTS

Although a stack supported at its base is more than dependable for two stories' height, it is well to specify that it be securely anchored—not merely shimmed tight with a wooden wedge, as is sometimes done. The sleeve through the roof should be given careful consideration, and the exact type desired specified. If the leader be an interior one it will of course be of iron. If on the exterior, it should run into a cast-iron leader projecting above the ground. All vent lines must run above the roof. It is good practice to "wash the heel of the vent." This means nothing more than putting a fixture on the lower end of the vent. The water from this fixture will wash down any dirt or rust collecting there, which otherwise might eventually close the vent.

Many architects object to any

connections made to lead bends, and the plumbing trade admits that these soldered connections will crystallize in about twenty years—due, they say, to acids in the wastes. It is probably well to avoid this practice.

10—BRANCH WASTES AND VENTS

All branches should be dimensioned and given the proper location, attention being called to these locations. The architect should always keep in mind, however, the state of the building when the roughing measurements are given. The points from which the measurements are given should be such that they exist at the time the plumbing roughing is being installed.

Foremost in the architect's mind will be the question of his client's future comfort and satisfaction. It will be necessary to give thought to the proper size of such things—and specify them—as the waste lines from tubs. Too often these lines may be within the minimum code requirements, but take entirely too long to empty the tub. Using 2" is good practice, but if not specifically mentioned, the architect may find them to be 1½" in size instead, which is too small for rapidly draining the tub. This same precaution would of course apply to laundry trays. The waste from the latter should have as little level run as possible, so that the grease and lint from the washing will not have a chance to settle in the pipe. Specify the size of trap for these fixtures.

An architect, visiting a client for whom he had erected a house, was assured that the house was perfect except for a foul odor in the bathroom. The odor seemed to come from the shower stall, yet it disappeared for a while after any one took a shower. The architect investigated. He found that upon flushing the watercloset a gurgling was heard in the shower stall. Not long thereafter the odor again announced itself. A glass of water thrown in the stall stopped the odor. He then remembered that the plumber had prevailed upon him to omit a separate

vent from the shower because there was "already a vent for the bathroom." The price of this omission cost his client the trouble of always throwing a glass of water in the shower drain every time the watercloset was flushed. (See drawing 10A, page 220.)

For the architect to allow the plumber to travel his own way in laying out his vent lines, is to invite trouble. The modern bath has built-in accessories of many kinds. Medicine cabinets, laundry hampers, paper, soap, glass, and toothbrush holders are some of the fixtures taking up a certain depth of the wall thickness. If a vent line so rises that it interferes with any of these built-in features being fully recessed (see drawing 10B, page 220), it means considerable and useless expense to move the vent. The other recourse is to put the fixture in an inconvenient location. (See drawing 10C, page 220.)

The up-to-date house should not have in the bathroom an exposed radiator or steam pipe which might burn any one. One modern solution is to have a convector under the lavatory. To achieve this the architect must specify that no pipes or wastes under lavatories are to emerge from the wall at a distance below 19" from the finished floor level.

11—PIPE CROSSINGS

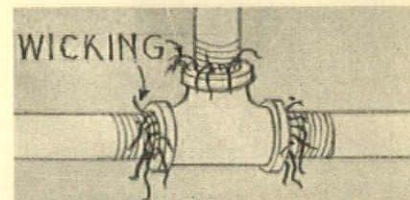
In having pipe work laid out the architect must always keep in mind the difference between the diameter of the pipe and the cross sectional area they will occupy. Particularly is this essential where they cross each other. Pipe sizes are inside diameters, yet too often the architect's office forgets to allow for pipe thickness. Also, if covering is to be used, this must be taken into consideration. A 3" iron pipe with 1" of covering is scheduled to pass over a 2" iron pipe. The measurement given centre to centre at their passage is 3". If the pipes were hung *absolutely accurately* (and what pipe is?) the clearance between the pipes themselves would be .063". The latter figure is that into which the 1" of covering would have to be

squeezed. If one pipe were cast iron they would not pass. These are important items to bear in mind, particularly when the pipes get into a huddle.

12—WORKMANSHIP

The term "roughing" should be considered a misnomer on the job. The roughing of wastes, vents, etc., should be just as carefully done as any finished part of the work on the job. The fittings and connections of steel or iron pipe may be made with red lead and oil.

Wicking consists in wrapping the threads with a cordlike wick to



make sure it does not leak. This is poor practice and is generally done to cover slovenly workmanship. It is better to prohibit wicking entirely. The architect's superintendent may then at his discretion allow a little where he sees fit. Without this prohibition the architect might find great wads of it hanging from every connection like "bearded moss." All threads should be sharp and full. Short threads should not be allowed. The dies should be fully turned onto the pipe. Fittings must be adequately made up on the pipe and those caught by just two or three threads rejected.

The cast-iron roughing should have connections first calked with picked oakum and then with soft pig lead. The amount per joint generally runs upward from 12 ounces per inch of pipe diameter. It should be specified that all is to be run in at one pouring, and no subsequent pouring of a washer of lead on top of cold lead will be allowed. It might be stated that in case of excessive leaking the lead calking must be removed and weighed. Then if found wanting all joints must be proved. This will take the joy out of using much oakum and little lead.

Next month Mr. Bartels continues his new series with another subdivision of Plumbing—Water Supply. The Editor will welcome suggestions relating to this series, particularly those dealing with technic developed and found satisfactory in meeting special geographical conditions

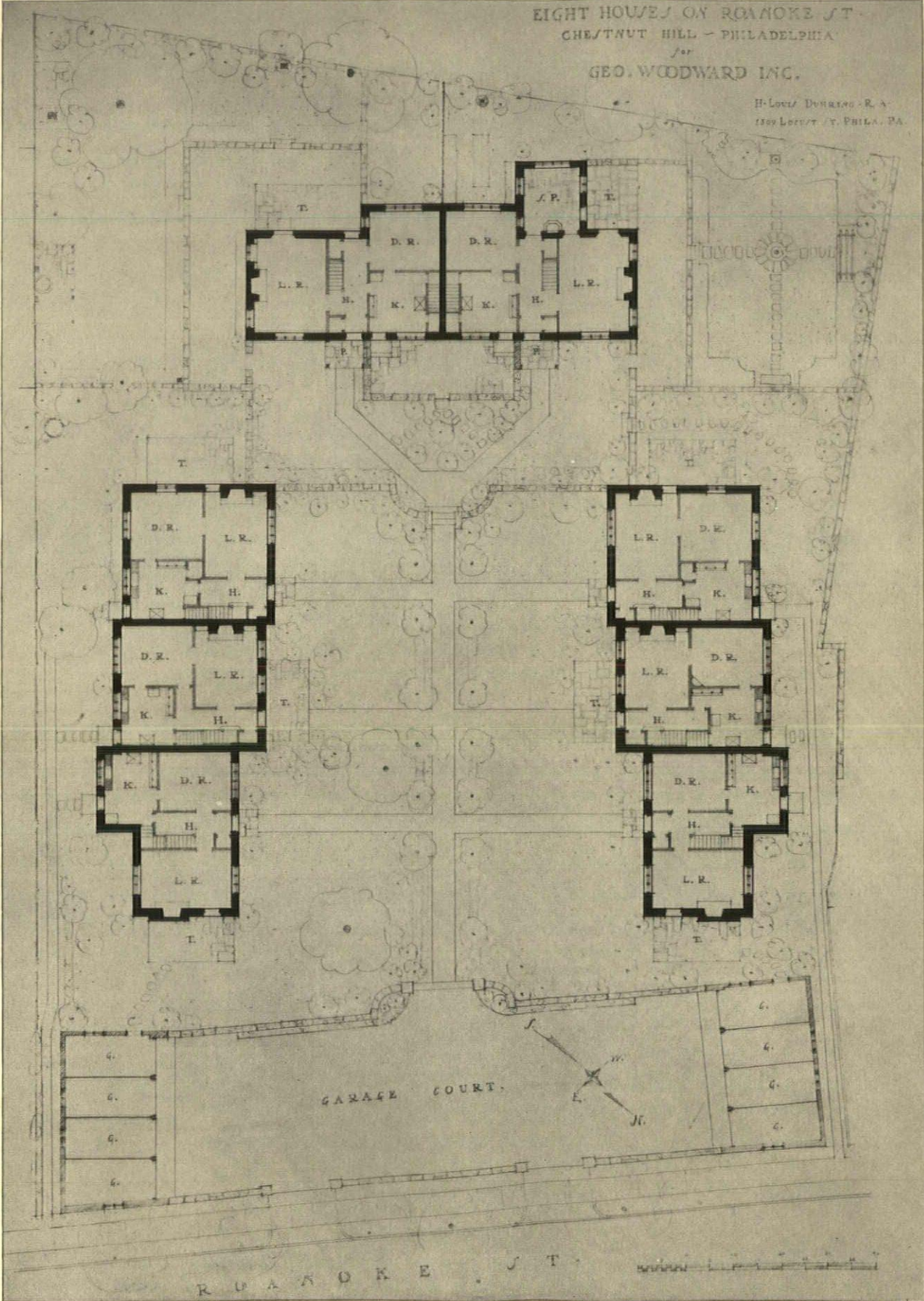


Group Houses, Chestnut Hill, Pa.

Philadelphia has much to answer for in the development of the row house on narrow-front lots. Nevertheless, to her credit must be reckoned a few achievements in present-day housing, such as this group of eight built for Dr. George Woodward at Chestnut Hill, as designed by H. Louis Duhring, architect. The troublesome problem of housing the motor-car has been solved, as the plan on the following page shows, by the incorporation of a garage compound at one end of the property

EIGHT HOUSES ON ROANOKE ST.
CHESTNUT HILL - PHILADELPHIA
for
GEO. WOODWARD INC.

H. Louis Drexler - R. A.
1309 Locust St. PHILA. PA.



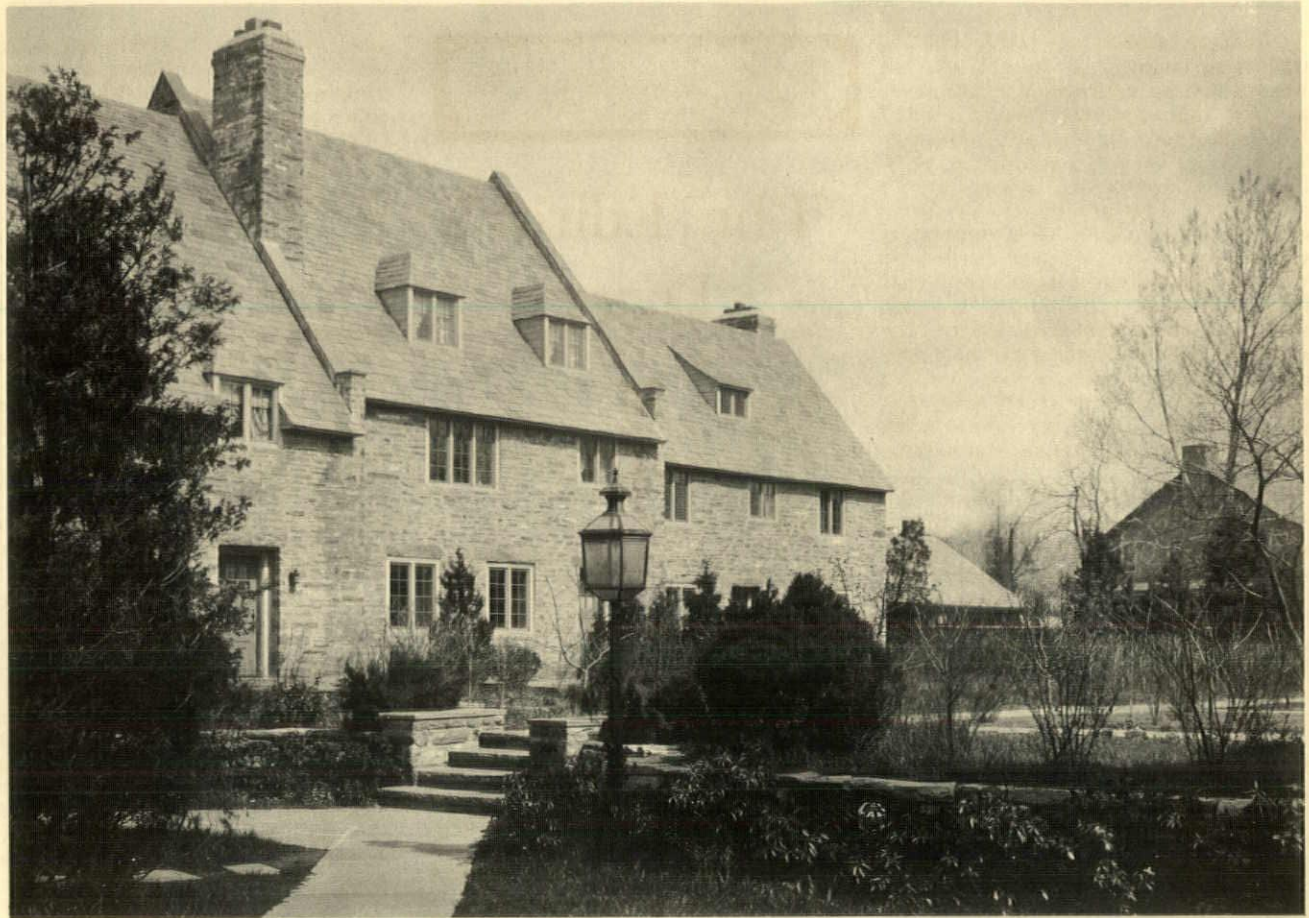
◀ ARCHITECTURE ▶



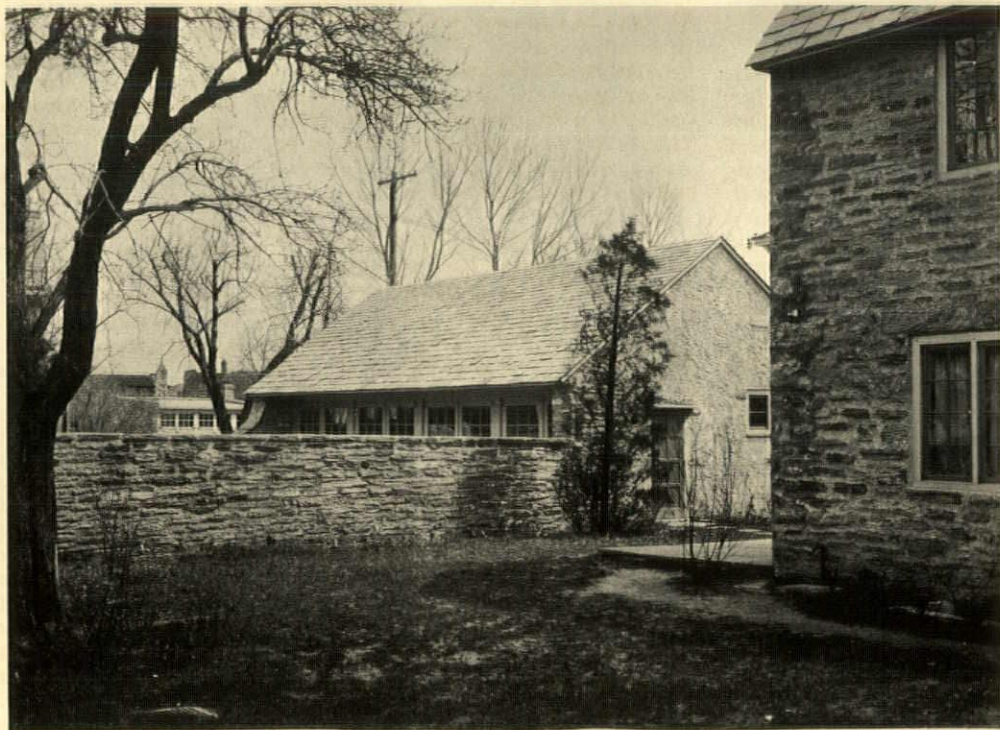
« ARCHITECTURE »

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Mr. Duhring has treated the garage compound as a major element, not as something of which one is ashamed



The possibility of building with the local Chestnut Hill stone means that the battle of exterior appearance is already half won. Gray slate is used on the roofs. Below, one end of the garage court behind its stone wall



« ARCHITECTURE »

Tuesday, August 1.—Jacob Feld, a consulting engineer of New York, has worked out an interesting equation regarding the economic height of tall buildings, based on plot area. His survey includes the 331 buildings in Manhattan that are twenty or more stories in height. The group follows fairly closely the equation: S (number of stories) equals area of plot divided by 700. Incidentally, he discovered that in spite of these 331 buildings that are twenty or more stories in height, the average height of building per unit area of plot in Manhattan is less than six stories. Moreover, the total area that these buildings occupy is only 142 acres of the total 12,000 acres in Manhattan.

Wednesday, August 2.—These are days calling for action in housing. They are also days in which we should be wise to stop, look, and listen before rushing into unconsidered schemes. The National Conference on Slum Clearance, which met in Cleveland early in July, called attention to many danger signals on the road ahead. These were pointed out in a series of resolutions summing up the findings of the Conference. Among the vital considerations are the following:

Every large-scale housing project should be a part of a comprehensive plan of the community.

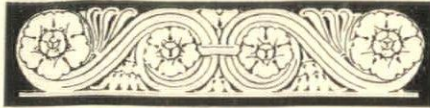
Speculative profit should not be countenanced in any housing project—particularly in the price paid for land.

No slum clearance project should go forward without consideration of the needs of those living in the area to be cleared.



Thursday, August 3.—Flew to Washington on an early morning plane. Had long known the sad story of the Philadelphia row house, but the sadness and futility of it is never realized so fully as when one sees from above those closely packed blocks as a whole, and the pity of it is that this lack of ventilation and sunlight and open space is all so unnecessary.

Called to see Robert D. Kohn, the newly appointed Director of Housing under the N.R.A., and found his office seething with activity and the creation of a working system. Caught a glimpse of N. Max Dunning, and found Mr. Kohn's office in the efficient hands of Jefferson M. Hamilton, Assistant to the Director. I picked up, wet from the press, an official document setting forth the purposes, policies, functioning and organization of the Federal Emergency Administration of Public Works. There are several highly significant provisions in this document under Part III—Housing. Some of these echo the resolutions passed by the Cleveland Conference mentioned above, namely, that any housing should dovetail into a long-



The Editor's Diary



term plan for the economic development of the community; projects involving a low ratio of land cost as compared with labor and material cost will be favored.

The basic provisions of the Federal aid to housing should by this time be well known, yet I find misconceptions and lack of understanding rather general. To States, municipalities, or other public bodies, the Government will make a grant up to thirty per cent of the cost of labor and materials employed in the project. The Administrator will loan money for approved housing either to public bodies or to corporations in amounts not to exceed seventy per cent of the cost of labor and materials employed, provided that these bodies are publicly regulated as to rents, dividends, and interest on securities. Loans are granted for a period not to exceed thirty years at four per cent. The procedure involved in utilizing this Federal aid is to bring a specific project before the Emergency Administration, the project having been carefully worked out in accordance with the policy formulated, and it will be either approved, or rejected with suggestions as to how it might be made to conform.

Friday, August 4.—Lunched with Edwin B. Morris, learning something of the enormous program of public building construction that is being carried out in the city of Washington. The present issue attempts to tell this story more fully—the spending of more money for building in a single community than has ever been done in the history of the world.

I must confess to having had many misgivings as to the final architectural result of the new architecture in Washington, particularly the Triangle. It has seemed almost an impossibility to enclose so much space in this particular area, conforming to the Classic precedent already established in Washington, without achieving mere mass and monotony. The work, however, has gone forward far enough to allay such fears. The buildings individually have distinc-

tion, and are not merely extensions of the same row of columns and windows. However, the progress photographs on other pages of this issue speak for themselves.

With Edwin B. Morris to see the work that John J. Earley and his architectural associate, J. R. Kennedy, are doing for Zantzing, Borie & Medary's Department of Justice Building. Earley's work, while known among a few, has by no means been made familiar to the profession generally. The earlier examples, among which was the Church of the Sacred Heart in Washington, designed by Murphy & Olmstead, established a new form of expression in plastic materials. This latest example, for the main public corridors of the Department of Justice Building, carries this new art a step forward. The story is too long to set down here, but it must be told in these pages before long.

Back to New York on an early evening plane, marvelling chiefly at the number of baseball diamonds this country possesses.

Monday, August 7.—Researches of the Construction League of the United States show that in 1929 every tenth person gainfully employed in the United States depended for his livelihood on construction. The total of construction in that year, incidentally, was eleven billion dollars.



Tuesday, August 8.—Talked with Egerton Swartwout as to when a corbel is not a corbel. The dictionary defines corbel as "one of a series of brackets, often ornamental, projecting from the face, especially the external face, of a wall; used for support." Which definition seems wrong on almost every count. We agreed that if a support were a bracket it would not be called a corbel; that a corbel is no less a corbel because it is on an interior wall. And a corbel surely does not necessarily have to be one of a series. This term, like many others in architecture, will be confused in the student's mind if we do not soon have available a dictionary of architectural terms—a task I have been working on at too distant intervals over the past few years.

Thursday, August 10.—After considerable thought and discussion as to the architectural profession's status with regard to N.R.A. codes, one has been evolved and submitted. The first feeling that prevailed, maintaining that the architects, as professional men, needed no code, has given way to a feeling that much good might be achieved by bringing the whole construction industry, including the architects, under an agreement. The decision is a wise one, for there are several important goals to be achieved, and these can, perhaps, be

achieved readily and quickly in this manner. For one thing, the code establishes more firmly in the public's mind the minimum fee of six per cent, with revisions upward for residential work costing less than twenty thousand dollars, for alterations, decorative and cabinet work, and also justifies a lower fee for operations involving substantial repetition of larger units of design. It tends to eliminate the unfortunate practice of "free sketches," and, not the least important, it establishes immediately a procedure for the selection of a contractor in competitive bidding on a basis other than the old one of price alone, and without bid peddling.

Saturday, August 12.—It is encouraging to see the interior decorators welding more firmly together their American Institute. In the annual conference held at Chicago in June, an imposing array of the best-known figures in what is now coming to be a profession, were assembled to consider relations with the trades, with the architects, and with the client. William R. Moore, first president of the Institute, turned over the gavel to Frank W. Richardson of New York.

Monday, August 14.—Those of us who are interested in housing watch the papers daily for news of the first schemes to be approved by the N.R.A. They seem slow in coming, and I am very much afraid that the reason is that the community groups are not ready with the right kind of schemes. Approvals by the N.R.A. are not going to be made on the basis of "any excuse to spend money, and thereby help employment in the construction industry." That is one of the aims, but paralleling it is the necessity for spending this money in the right way. The men of Cleveland seem to be nearer a real grasp of the situation than other communities, but even they seem not fully armed with all the bulwarks of a sound scheme.

Tuesday, August 15.—In putting into effect his new policy with regard to the architectural design of public buildings, L. W. Robert, Jr., Assistant Secretary of the Treasury in charge of public buildings, asked the A. I. A. to provide him with lists of competent architects in every State. Eager as the Institute has been for such recognition of the profession in the Government's architectural activities, it side-stepped the request very neatly, and for reasons which are not hard to see. Obviously the Institute cannot recommend certain of its members for public work or for any other purpose, to the disadvantage of other members. The procedure it suggested has been followed, namely, the sending out of a prequalification form to all registered and listed architects, putting up to them individually the job of presenting their qualifications for public work.

Thursday, August 17.—When I visited the Century of Progress Exposition in June, the space allotted to architecture was conspicuously vacant. I see that the Annual Architectural Exhibition League of Chicago has now moved its show into this space on the second floor of one of the General Exhibits Buildings, and the work will be on view throughout the rest of the Fair. I understand that there are some drawings of the old World's Fair of 1893 included.

Saturday, August 19.—John H. Millar, who writes *Millar's Housing Letter*, a particularly vigorous publication in behalf of better housing, has a good idea. Why should not the Federal Government use its power to reinforce local planning agencies and particularly by making available the authorized 30 per cent grant for emergency planning activities on the part of municipalities and States. The Government's big housing program will not get as far as it should without good planning, and this planning has not been done to any great extent. It would seem that we shall either lose time in bettering the employment situation or build some ill-considered work—or both—unless we really do some planning at once.

Monday, August 21.—The first projects approved by the Division of Housing, N.R.A., are announced, with loans as follows: \$3,500,000 to Neptune Gardens, Inc., East Boston, providing 700 residential units totalling 3,170 rooms at \$8.50 per room rental (brick two-story row houses, two-family houses, and three-story apartments); \$2,025,000 to Spence Estate Housing Corporation, Brooklyn—a slum clearance project contemplating six-story semi-fireproof elevator buildings—508 apartments, 21,150 rooms, at \$11 per month; \$845,000 for a model housing project of hosiery workers in the Kensington district of Philadelphia—three-story semi-fireproof buildings providing 292 apartments, 1,074 rooms at \$8.40 per month; \$3,210,000 to the Dick-Meyer Corporation for a project at Woodside, Queens Borough, New York, providing ten six-story semi-fireproof elevator apartments with 1,632 units, 5,644 rooms at \$11 per month; and \$40,000 to Suburban Housing Corporation, Hutchinson, Kans., for twenty four- and five-room houses, each on a two-acre plot, to rent at \$30 per month.

Wednesday, August 23.—It would seem to prove something—though I do not know just what—that while Sir Gilbert Scott, the Romanist, is designing the Liverpool Cathedral for the Church of England, Sir Edwin Lutyens, a member of the Church of England, is designing the Roman Catholic Cathedral for Liverpool.

Friday, August 25.—Coleman Woodbury, of the University of Chicago and Secretary of the Illinois Housing Com-

mission, calls attention to the desirability of insulating large-scale housing projects against encroachment of neighboring deteriorated areas by means of parks, boulevards, the railroad right-of-way, or some other such natural bulwark.

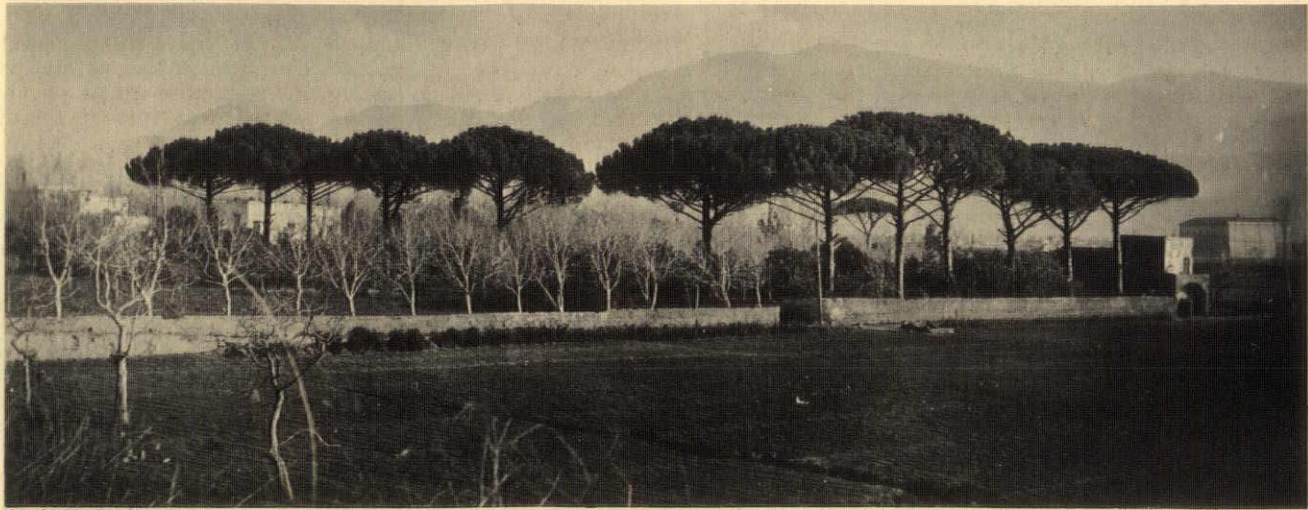
Saturday, August 26.—Down to Princeton to see the new house which Alfred Hopkins has built for his own use—an interesting adventure in the use of stone facing backed by cinder blocks—these latter are used in courses of two depths and are painted with a cold-water paint. The stone itself is the outside cut of limestone—the channel face, mixed with a small percentage of shot-sawn pieces, giving a remarkably pleasing texture and color. In the main rooms, Mr. Hopkins's aim was to secure a feeling of masonry structure as distinguished from the usual plaster skin. For the ceilings, however, of these rooms he has used molded plaster glazed down to an ivory tone against the foil of the plain masonry wall surfaces. Photographs in an early issue will indicate the individuality which has been secured in this house, with its music room and owner's quarters joined to the house by an arcade, and with its garden court already possessing an atmosphere of maturity through Mr. Hopkins's efforts and those of Mrs. Ellen Shipman Andrews, who did the landscape work.

Monday, August 28.—Closely paralleling our amazement and gratification over the launching of a great program of public works runs the realization that we are not ready with our plans. Here is the money with which to build great things and we do not know just what to build or where. Long-range planning has never been one of our strong suits. It is at least somewhat encouraging, however, to note that during the past two years, bills providing for such long-range planning of public works have been introduced in at least eight State legislatures—California, Connecticut, Massachusetts, New Jersey, New York, Pennsylvania, Washington, Wisconsin.

Wednesday, August 30.—Over to Newark, N. J., to see the progress of the Prudential Insurance Company's housing development for negroes. Here is one particularly interesting variation of the housing subsidy. Two city blocks, end to end, were acquired by the Insurance Company, and a strip over one hundred feet wide running through the whole length was sold to the city as a park area. This left the cost of the land chargeable to the development comparatively small and the rentals are about \$9 per room.

Edmund C. Stout is the architect and has designed a six-story walk-up building, fireproof, the reinforced concrete frame being faced with a special large-size hollow brick, 5 by 5 by 8 inches in two colors. Wood sash are used throughout with a type of sash balance which does away with cords and weights.

◀ ARCHITECTURE ▶



Gerald K. Geerlings

The Italian Stone Pine, near Pompeii

When You Draw Trees

These photographs are assembled in the hope that they may be of service when the architect makes his perspective. Too frequently his trees look as if they had started out to be a topographic survey and had ended as a cross-hatched diagram. Trees have a character that is rather easy to catch with the pencil—if one selects his species. Which leads one rather directly into the conclusion that the architect knows very little of plant material or of its proper disposition in relation to his architecture, and the best way out is through collaboration with a landscape architect



Harold Parker

The Valley Live Oak, of California



H. H. S.

Monterey Pines, San Francisco



H. H. S.

Sassafras Tree, Long Island



Scented Gum Tree,

Santa Monica, Calif.
Frederick W. Martin

Colorado Blue Spruces

H. H. S.



H. H. S.

Willow, Long Island



« ARCHITECTURE »



Photographs by H. H. S.

White Birch, Long Island



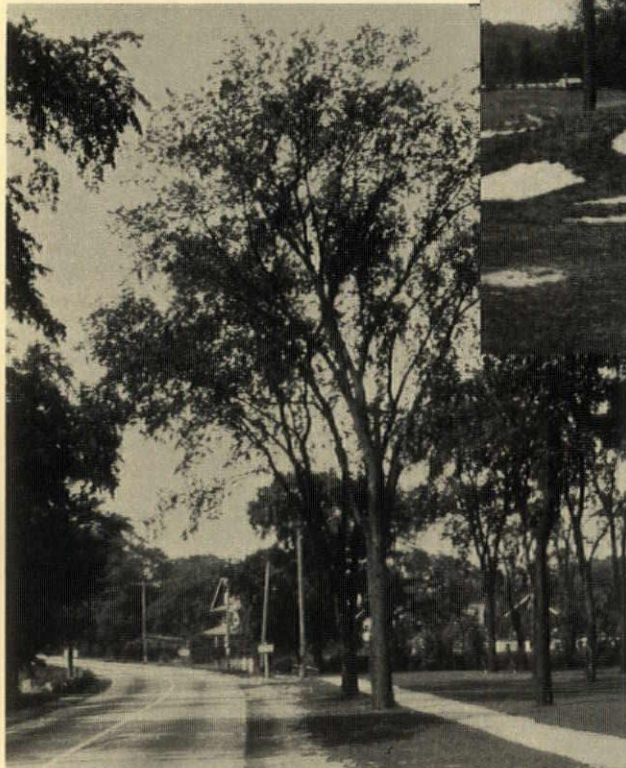
Red Oaks, Long Island



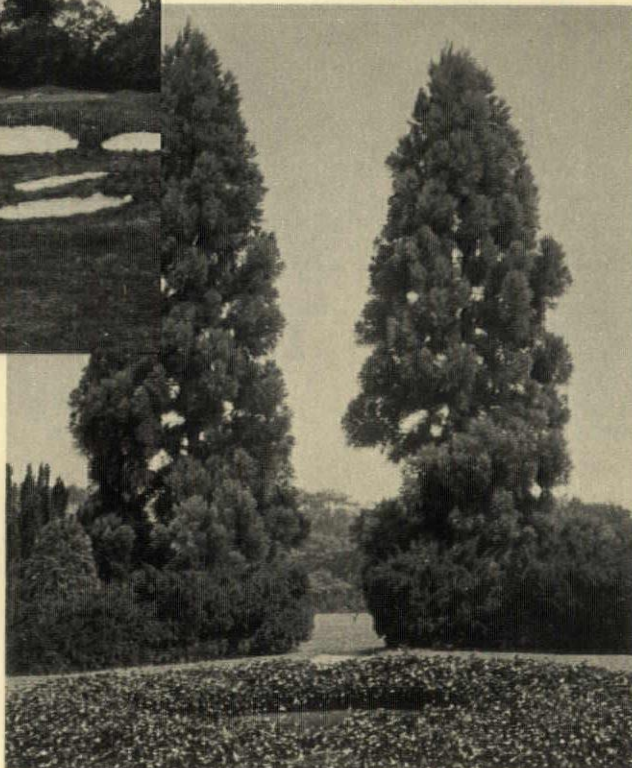
Locusts on a Long

Island golf course

Elms along a New England village street



The Cryptomeria of Japan at home on Long Island



« ARCHITECTURE »



George R. King

Fan Palms in the Pasadena Library patio



H. H. S.

Douglas Firs, along Puget Sound

The Dragon Tree (Dracena australis), Catalina Island



Frederick W. Martin

Date Palm, Santa Barbara



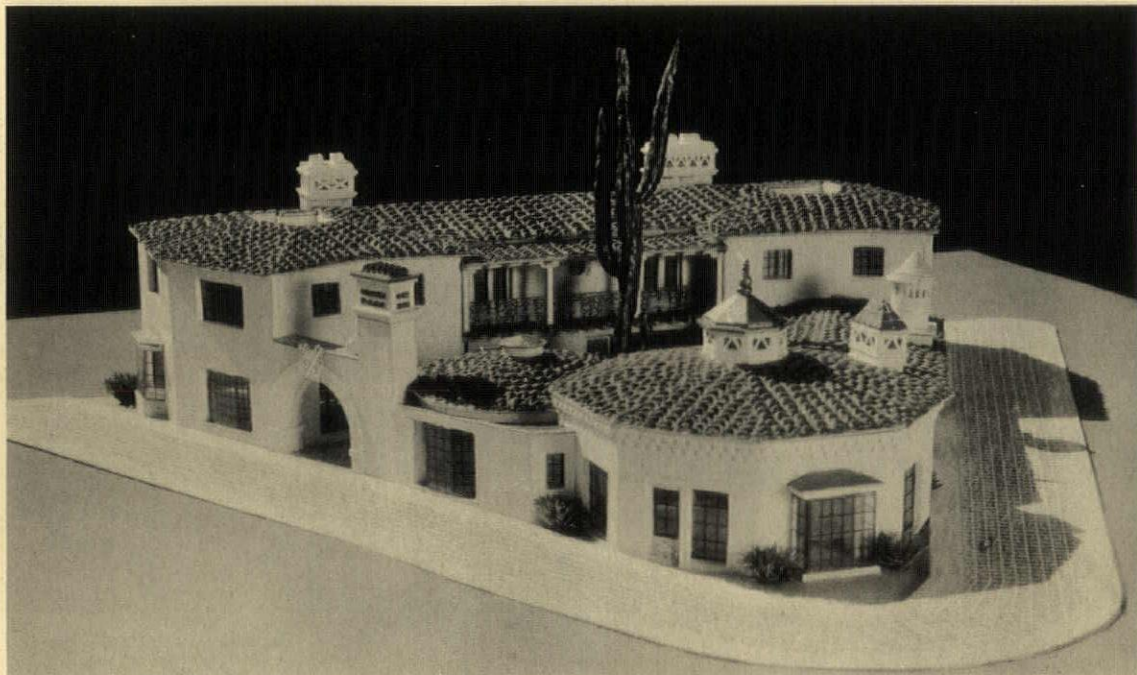
H. H. S.

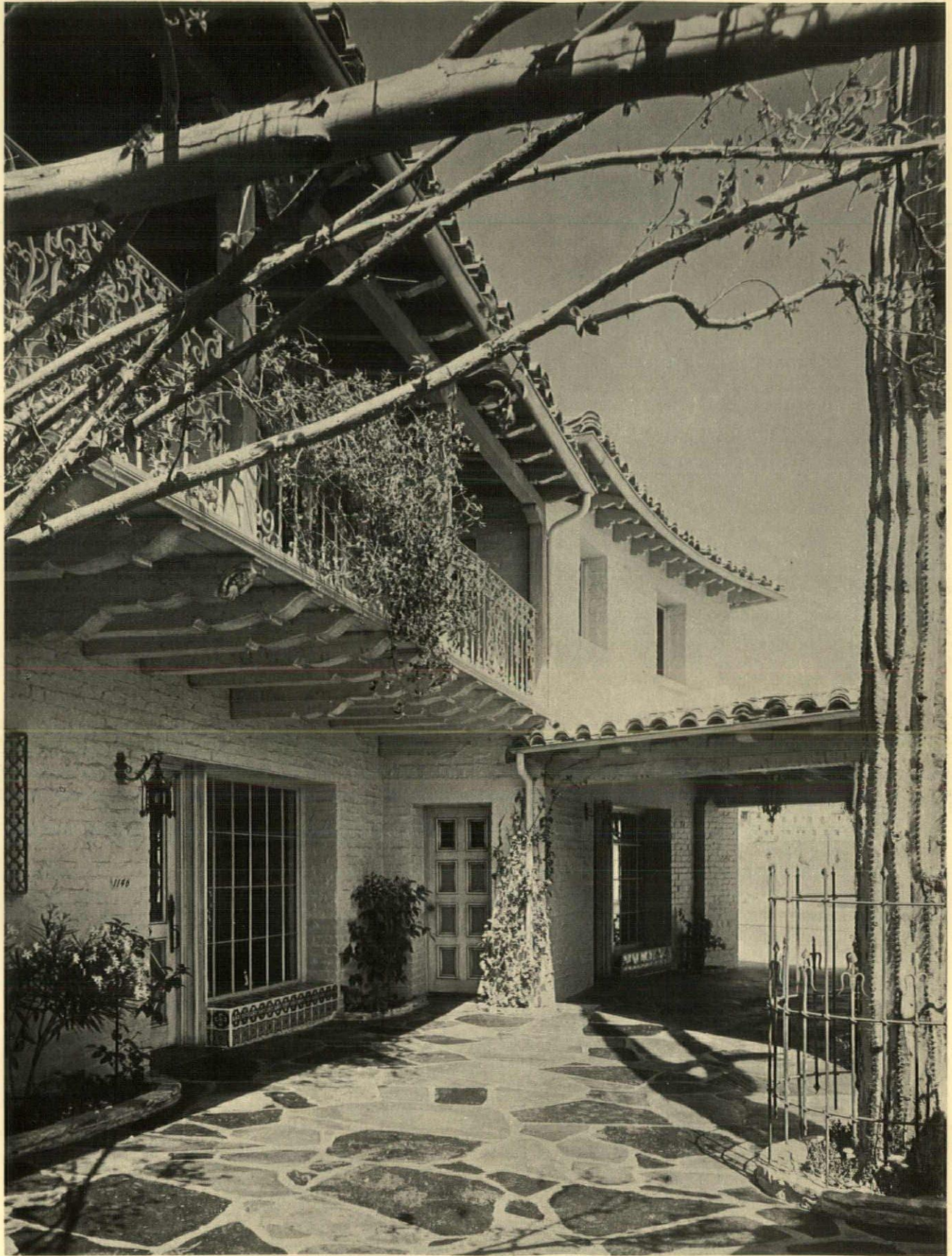
« ARCHITECTURE »



El Saquero

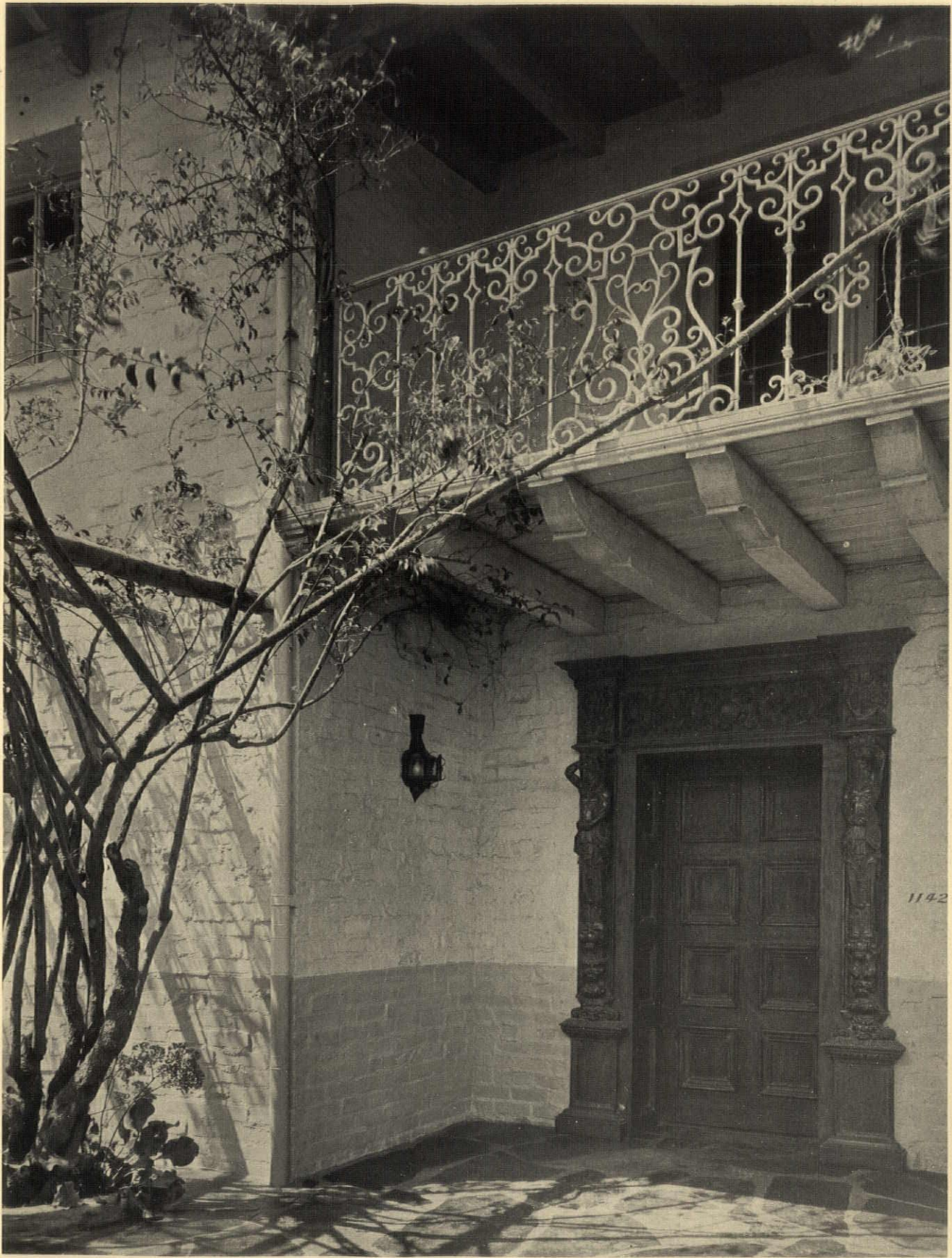
A SHOPPING CENTRE FOR WESTWOOD VILLAGE, LOS ANGELES, CALIFORNIA, AS DESIGNED BY JAMES N. CONWAY AND DRAVER WILSON, ARCHITECTS





*El Saquero, Westwood Village, Calif.
James N. Conway and Draver Wilson, architects*

◀ ARCHITECTURE ▶



« ARCHITECTURE »

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*El Saquero, Westwood Village, Calif.
James N. Conway and Draver Wilson, architects*



*El Saquero, Westwood Village, Calif.
James N. Conway and Draver Wilson, architects*

◀ ARCHITECTURE ▶

THE EIGHTY-FOURTH IN A SERIES OF COLLECTIONS OF PHOTOGRAPHS
ILLUSTRATING VARIOUS MINOR ARCHITECTURAL DETAILS

ARCHITECTURE'S PORTFOLIO OF PEW ENDS

*Subjects of previous portfolios are listed below
at left and right of page*



*Below are the subjects of
forthcoming Portfolios*

Gothic Niches

NOVEMBER

Curtain Treatment at Windows

DECEMBER

Exterior Plasterwork

JANUARY

Church Doors

FEBRUARY

Fountains

MARCH

Modern Ornament

APRIL

*Photographs showing interesting
examples under any of these head-
ings will be welcomed by the Edi-
tor, though it should be noted that
these respective issues are made up
about six weeks in advance of
publication date.*

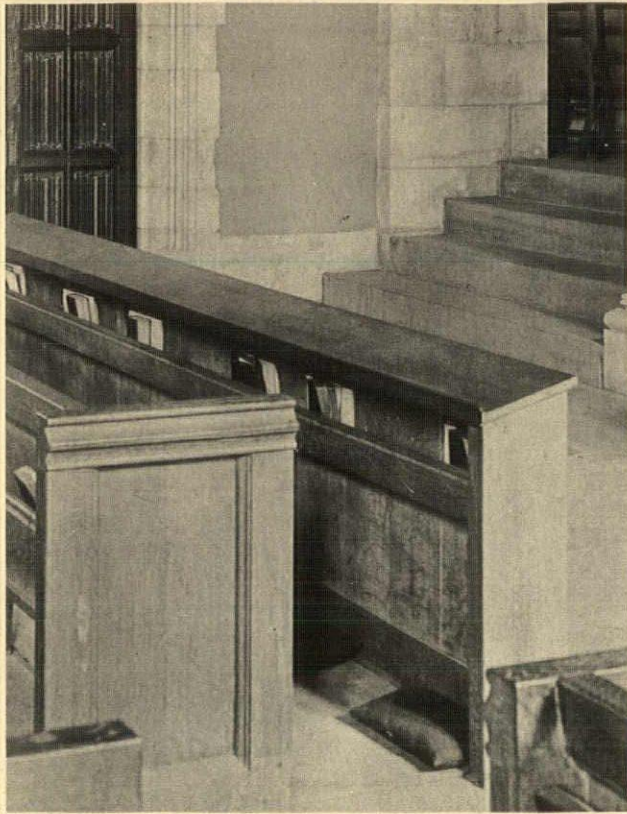
- ❖ 1926
DORMER WINDOWS
SHUTTERS AND BLINDS
- ❖ 1927
ENGLISH PANELLING
GEORGIAN STAIRWAYS
STONE MASONRY TEXTURES
ENGLISH CHIMNEYS
FANLIGHTS AND OVERDOORS
TEXTURES OF BRICKWORK
IRON RAILINGS
DOOR HARDWARE
PALLADIAN MOTIVES
GABLE ENDS
COLONIAL TOP-RAILINGS
CIRCULAR AND OVAL WINDOWS
- ❖ 1928
BUILT-IN BOOKCASES
CHIMNEY TOPS
DOOR HOODS
BAY WINDOWS
CUPOLAS
GARDEN GATES
STAIR ENDS
BALCONIES
GARDEN WALLS
ARCADES
PLASTER CEILINGS
CORNICES OF WOOD
- ❖ 1929
DOORWAY LIGHTING
ENGLISH FIREPLACES
GATE-POST TOPS
GARDEN STEPS
RAIN LEADER HEADS
GARDEN POOLS
QUOINS
INTERIOR PAVING
BELT COURSES
KEYSTONES
AIDS TO FENESTRATION
BALUSTRADES
- ❖ 1930
SPANDRELS
CHANCEL FURNITURE
BUSINESS BUILDING ENTRANCES
GARDEN SHELTERS
ELEVATOR DOORS
ENTRANCE PORCHES

- ❖ 1930
PATIO
TREILLAGE
FLAGPOLE HOLDERS
CASEMENT WINDOWS
FENCES OF WOOD
GOTHIC DOORWAYS

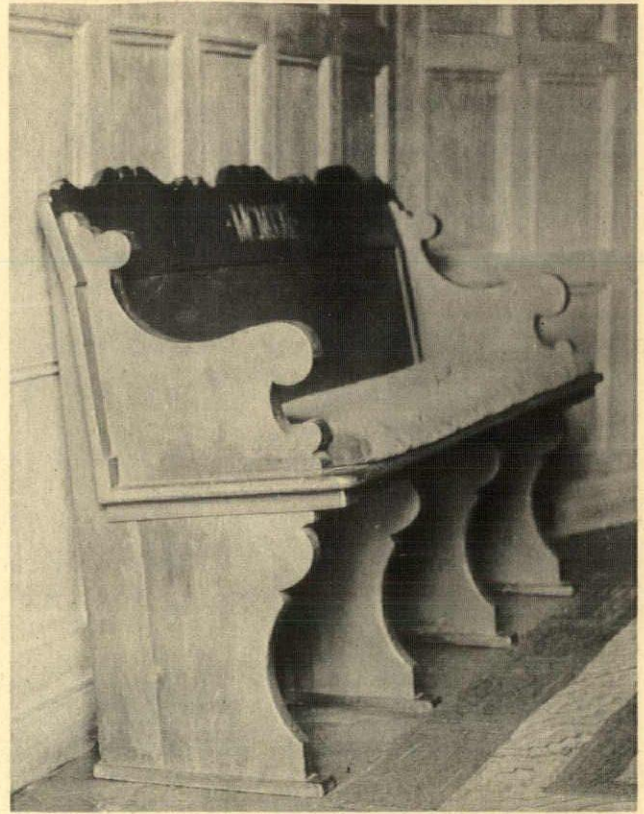
- ❖ 1931
BANKING-ROOM CHECK DESKS
SECOND-STORY PORCHES
TOWER CLOCKS
ALTARS
GARAGE DOORS
MAIL-CHUTE BOXES
WEATHER-VANES
BANK ENTRANCES
URN
WINDOW GRILLES
CHINA CUPBOARDS
PARAPETS

- ❖ 1932
RADIATOR ENCLOSURES
INTERIOR CLOCKS
OUTSIDE STAIRWAYS
LEADED GLASS MEDALLIONS
EXTERIOR DOORS OF WOOD
METAL FENCES
HANGING SIGNS
WOOD CEILINGS
MARQUISES
WALL SHEATHING
FRENCH STONEWORK
OVER-MANTEL TREATMENTS

- ❖ 1933
BANK SCREENS
INTERIOR DOORS
METAL STAIR RAILINGS
VERANDAS
THE EAGLE IN SCULPTURE
EAVES RETURNS ON MASONRY
GABLES
EXTERIOR LETTERING
ENTRANCE DRIVEWAYS
CORBELS



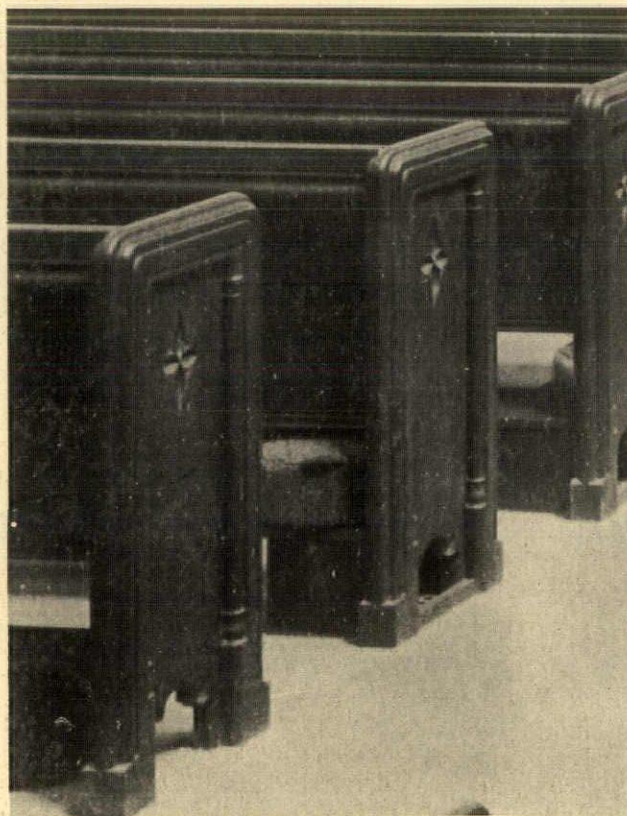
Bertram G. Goodhue

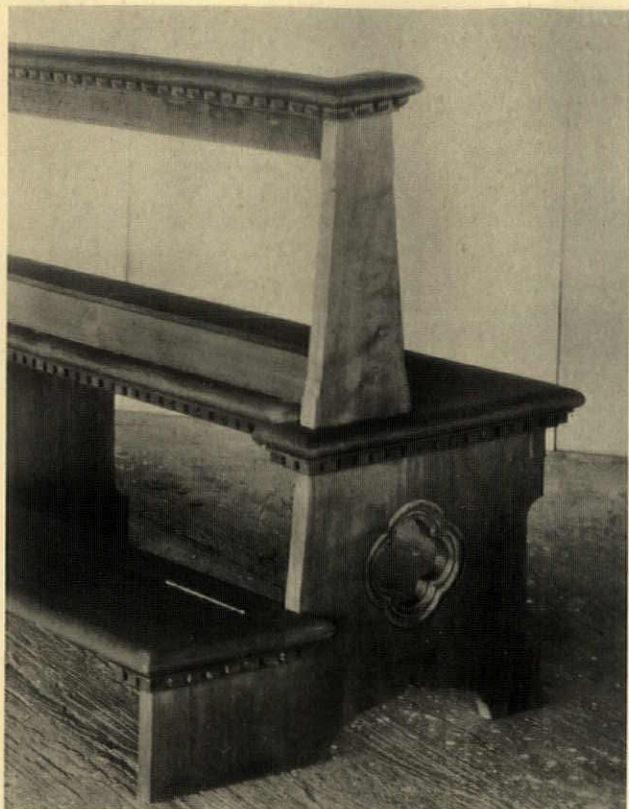


LeRoy P. Burnham

Mayers, Murray & Phillip

Lancelot Sukert





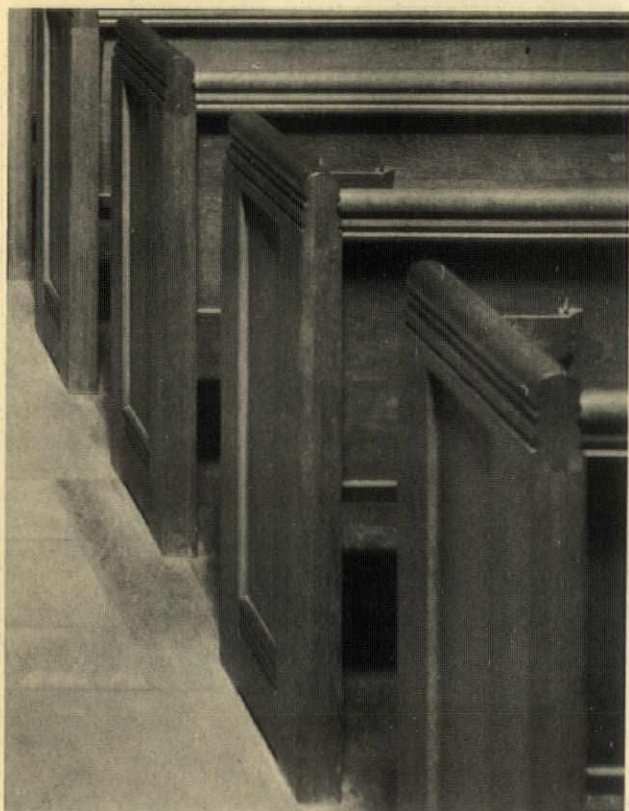
Reproduction, 15th-century pew, Fiesole, Italy

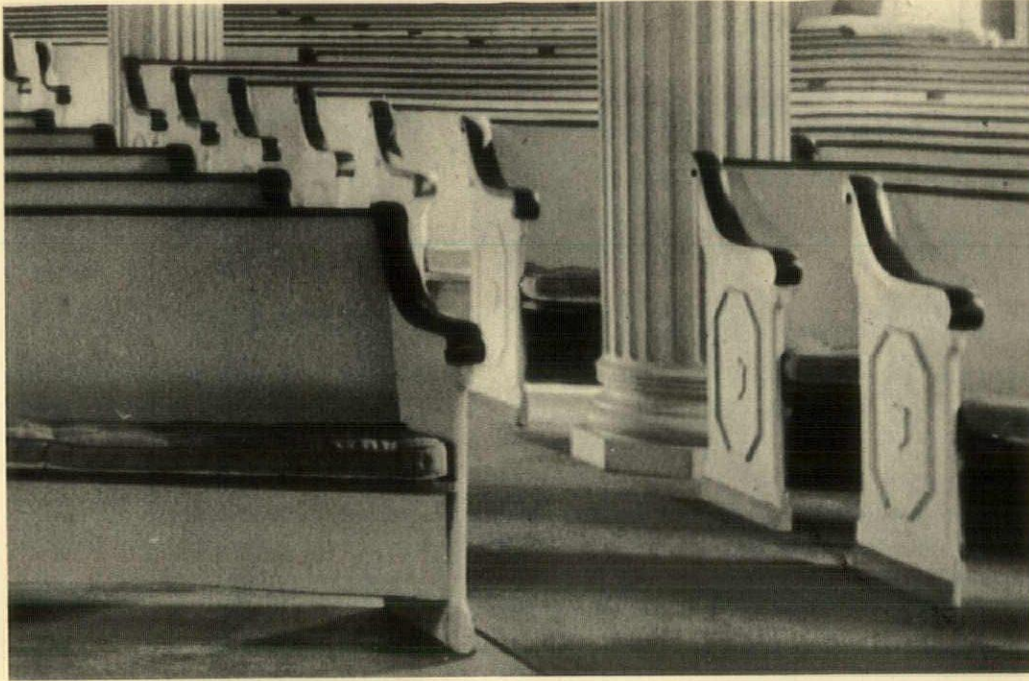


Bertram G. Goodhue

Pfeil & Awsumb

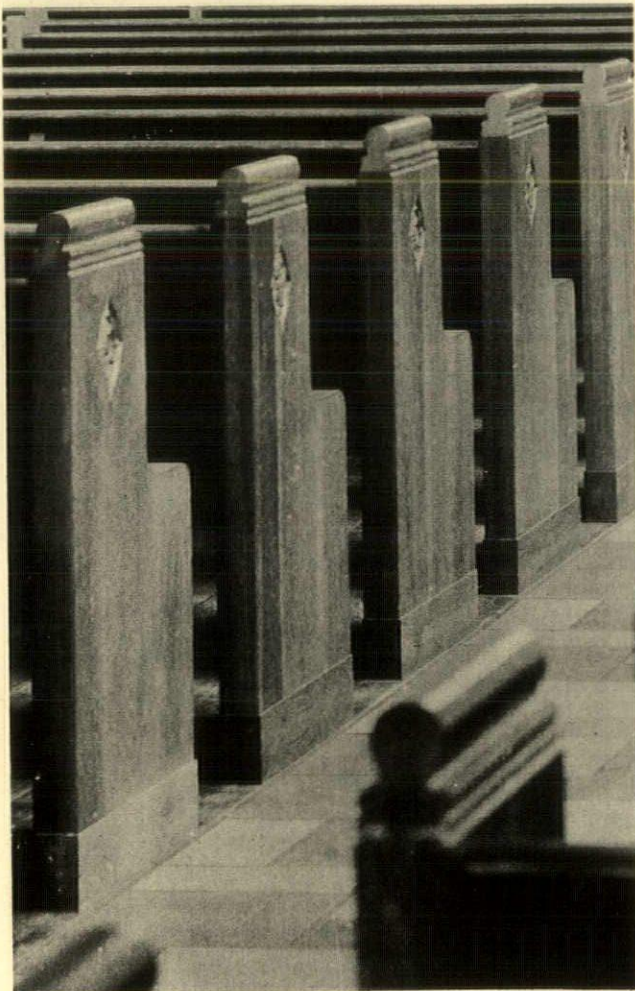
Mayers, Murray & Phillip



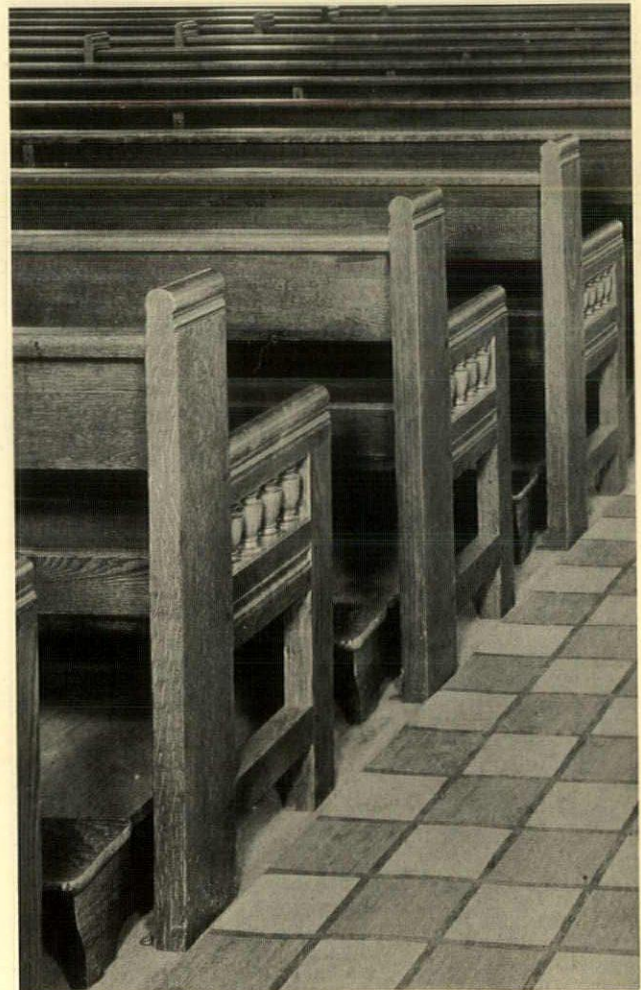


Aymar Embury II

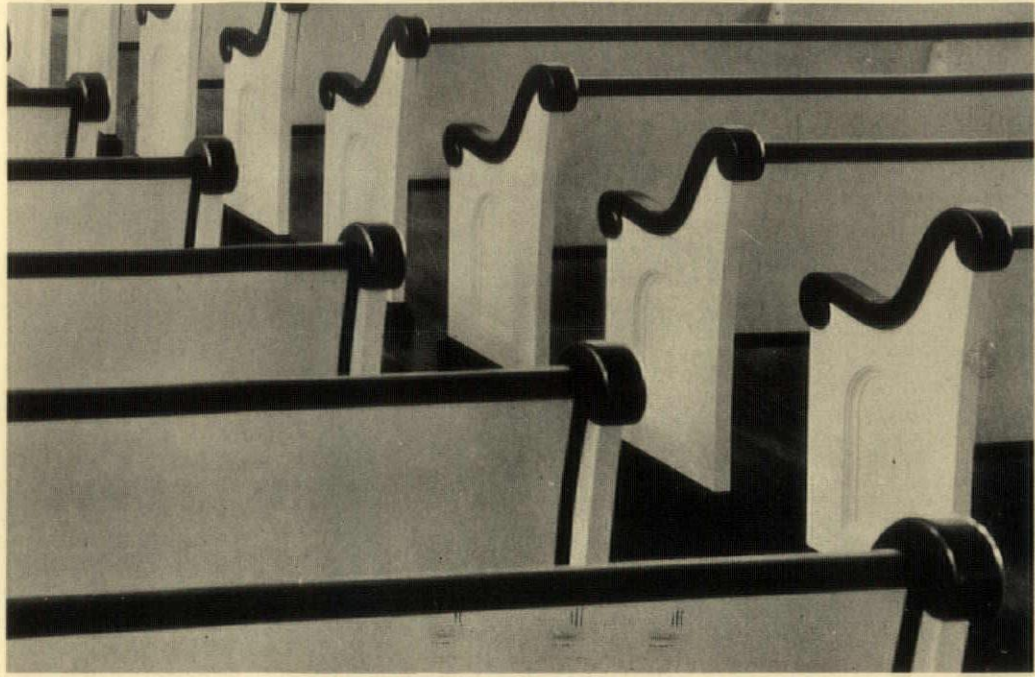
Granger & Bollenbacher



American Seating Company



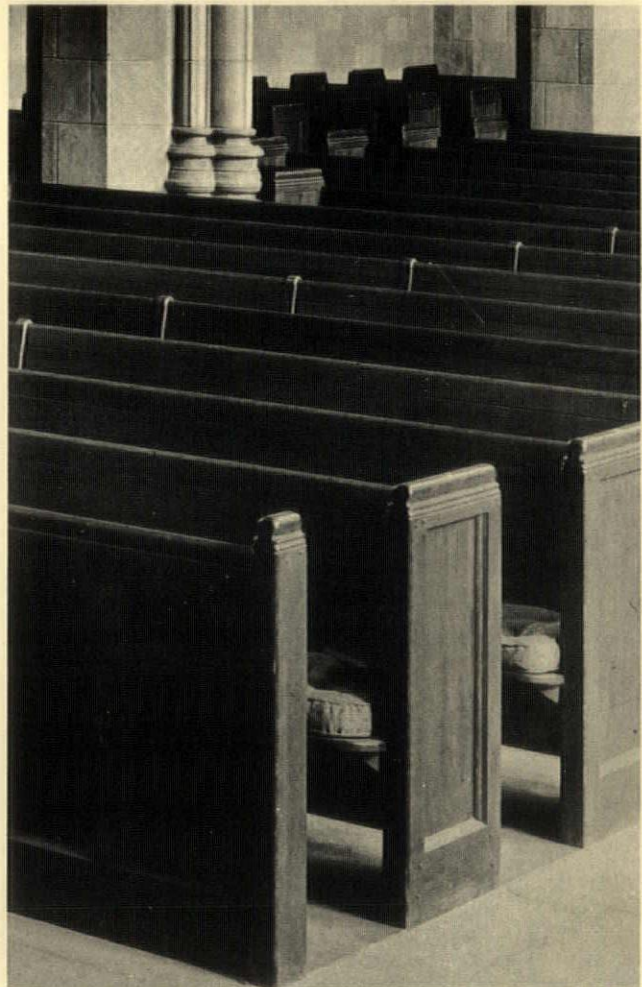
*Hentz, Adler
& Schutze*

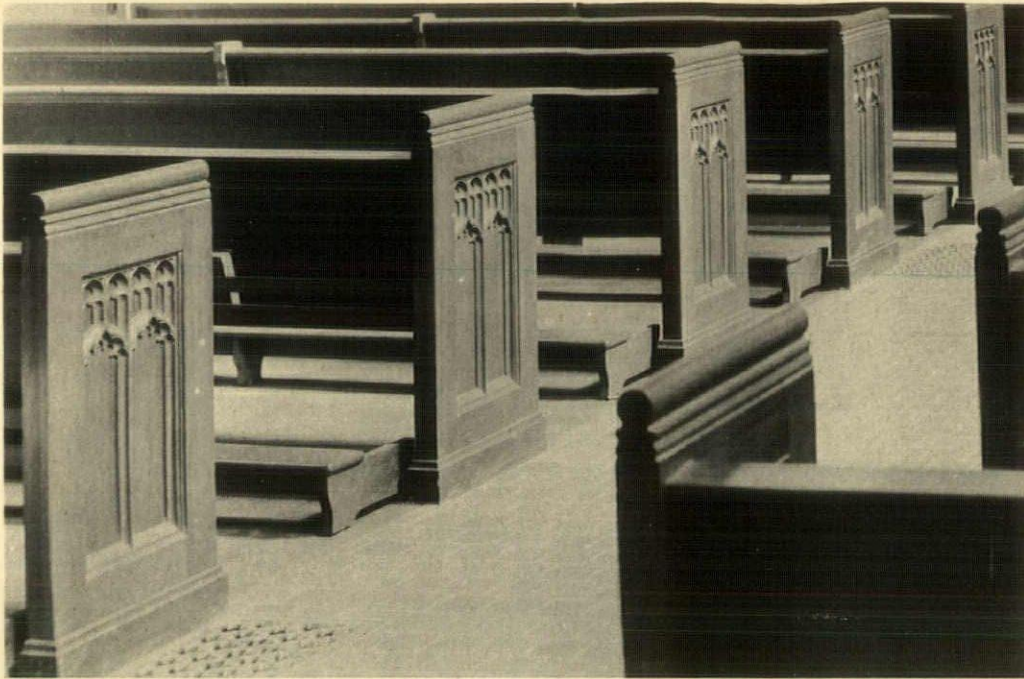


Mayers, Murray & Phillip



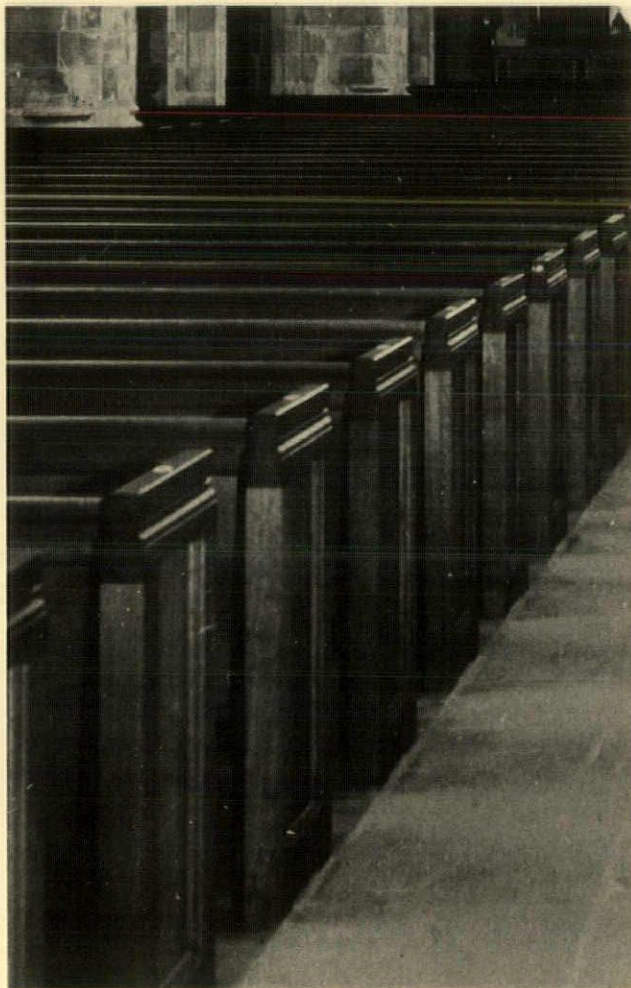
Henry C. Pelton; Allen & Collins





Donaldson & Meier

Bertram G. Goodhue ; B. G. Goodhue Associates



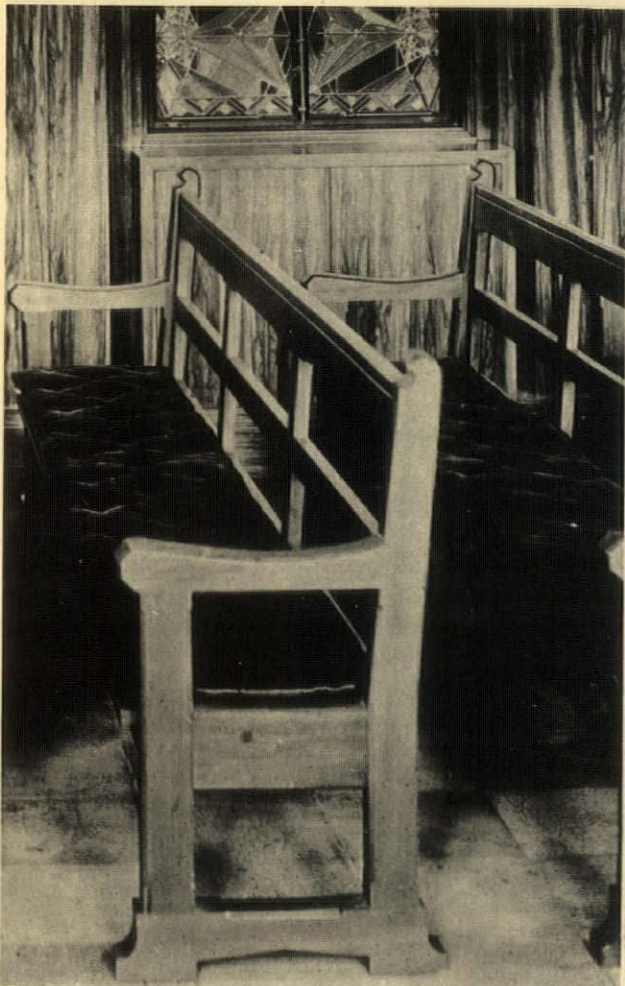
Davis, Dunlap & Barney



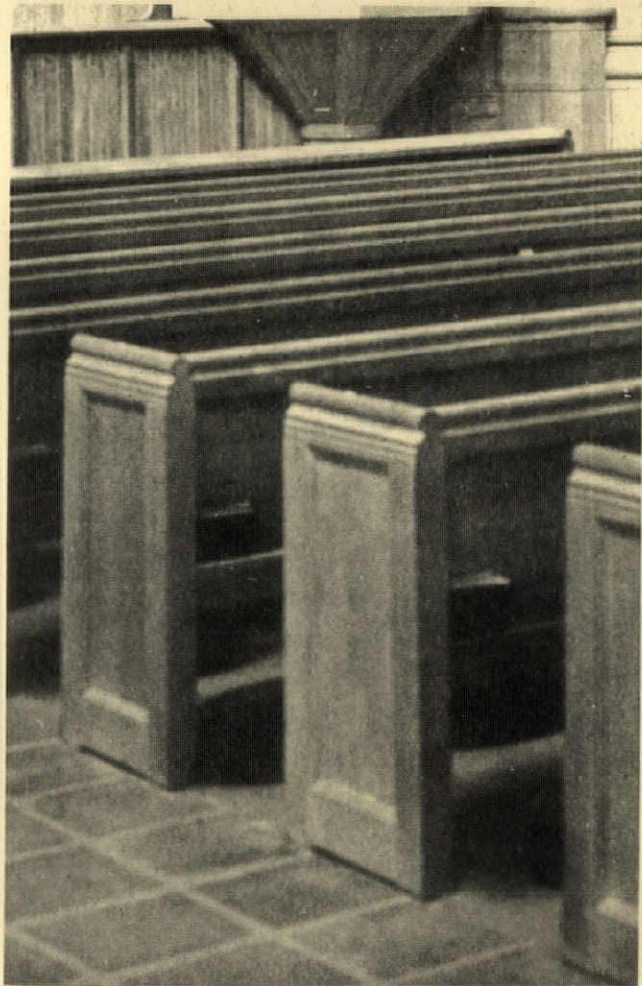
*Delbert K. Perry &
Earle K. Bishop*



Rush, Endacott & Goff



Cram, Goodhue & Ferguson



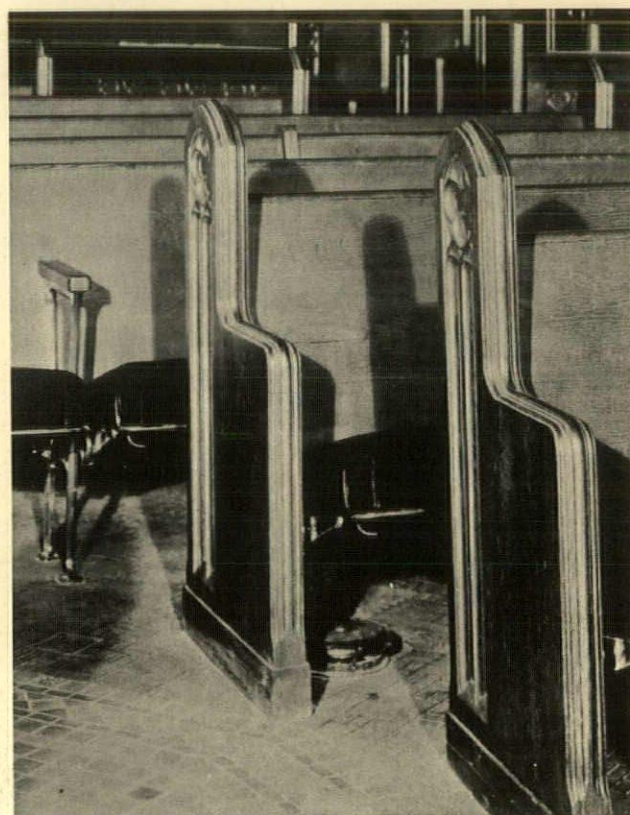
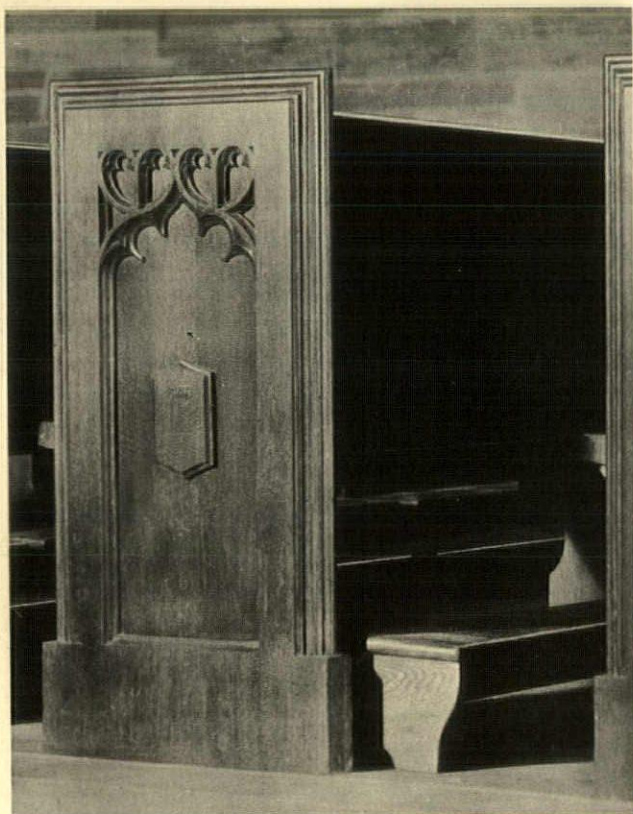


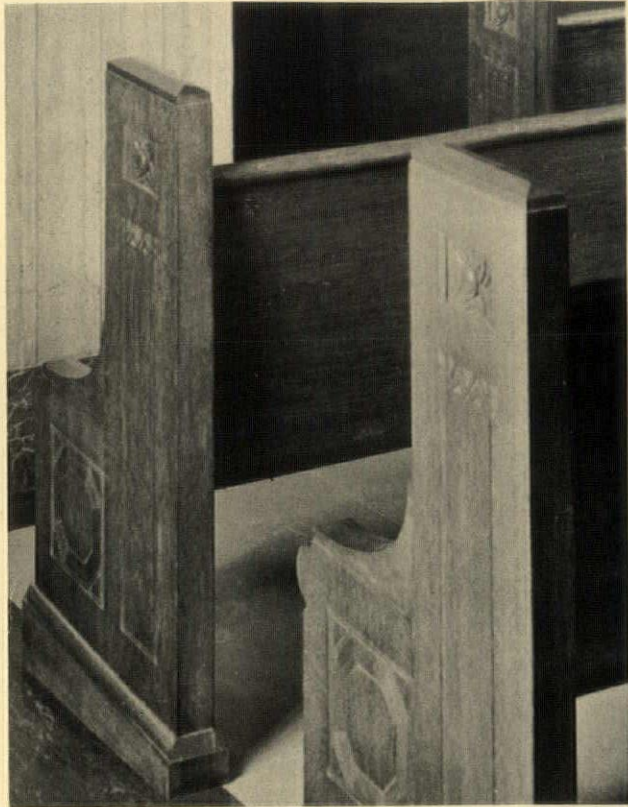
Hans Herkomer



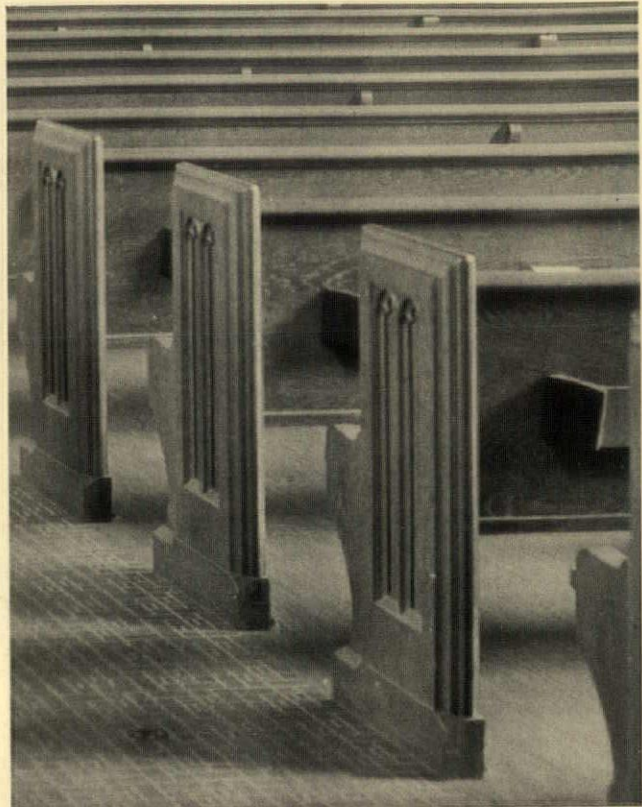
Morgan, Walls & Clements

Henry D. Dagit & Sons *C. F. Skilling & H. M. Patterson*





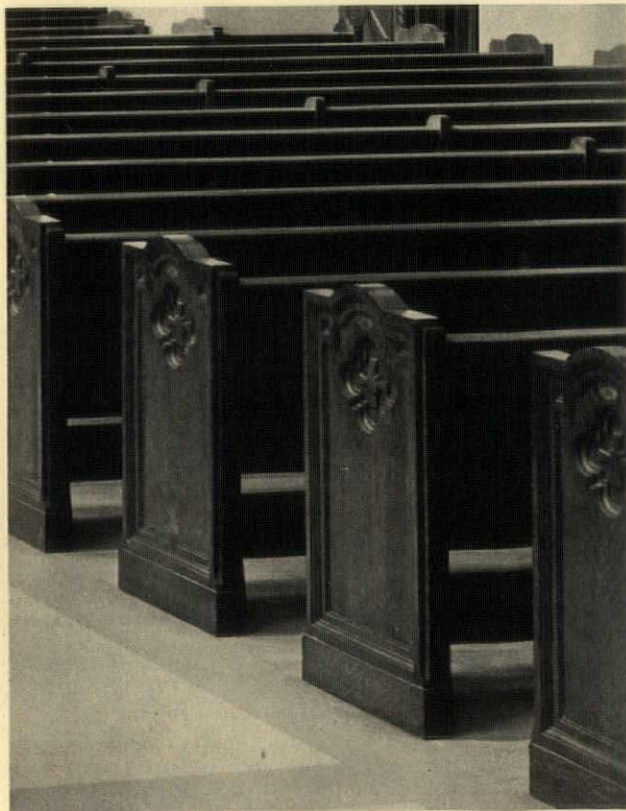
Austin & Ashley

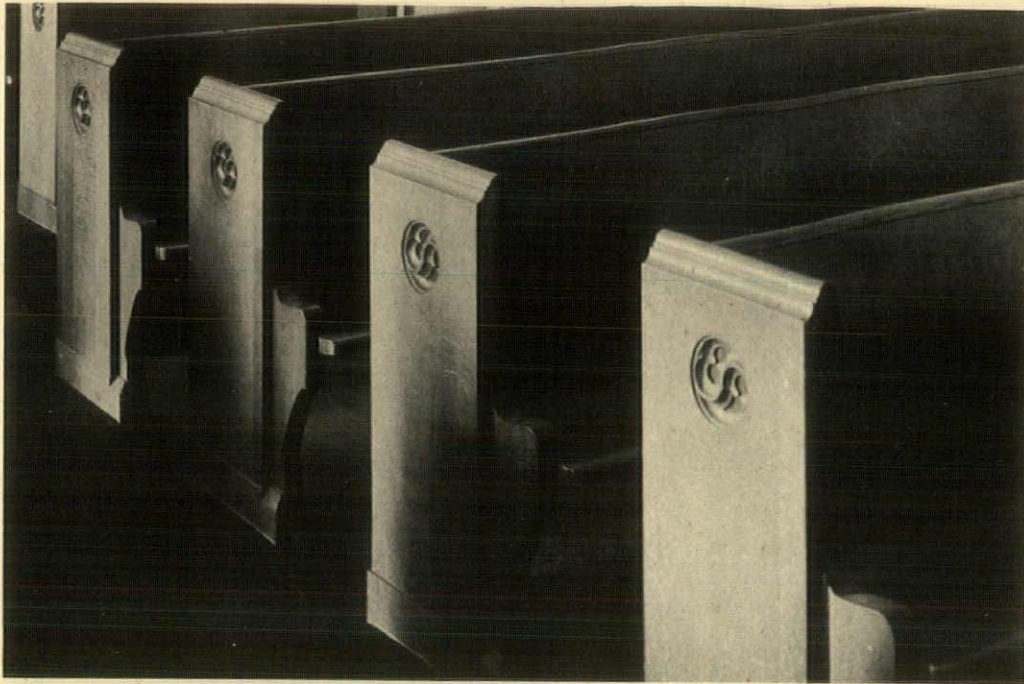


Maul & Lentz

Samuel E. Lunden

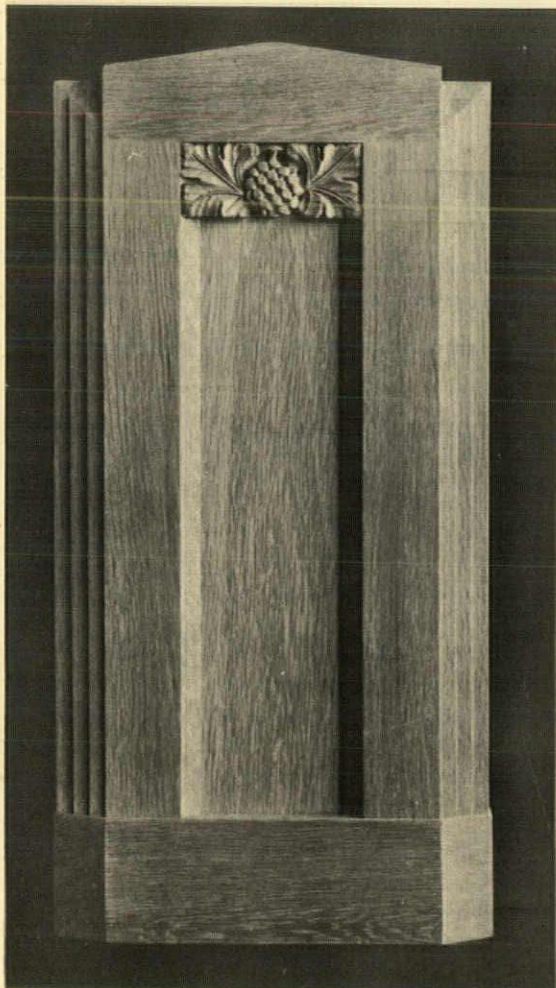
Henry D. Dagit & Sons



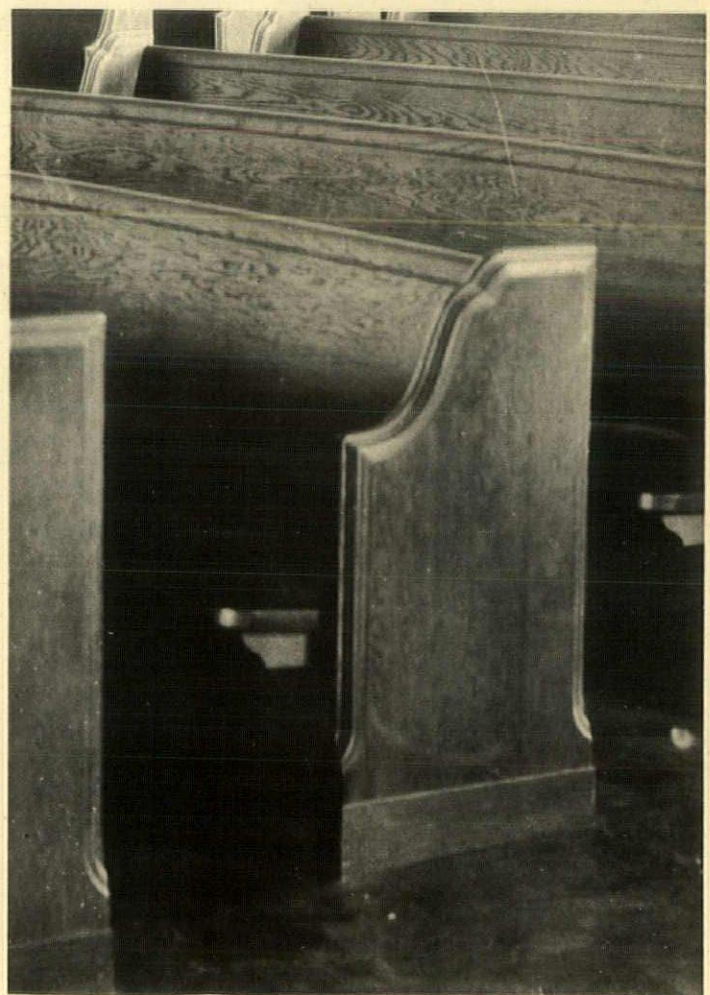


*Harry Creighton
Ingalls*

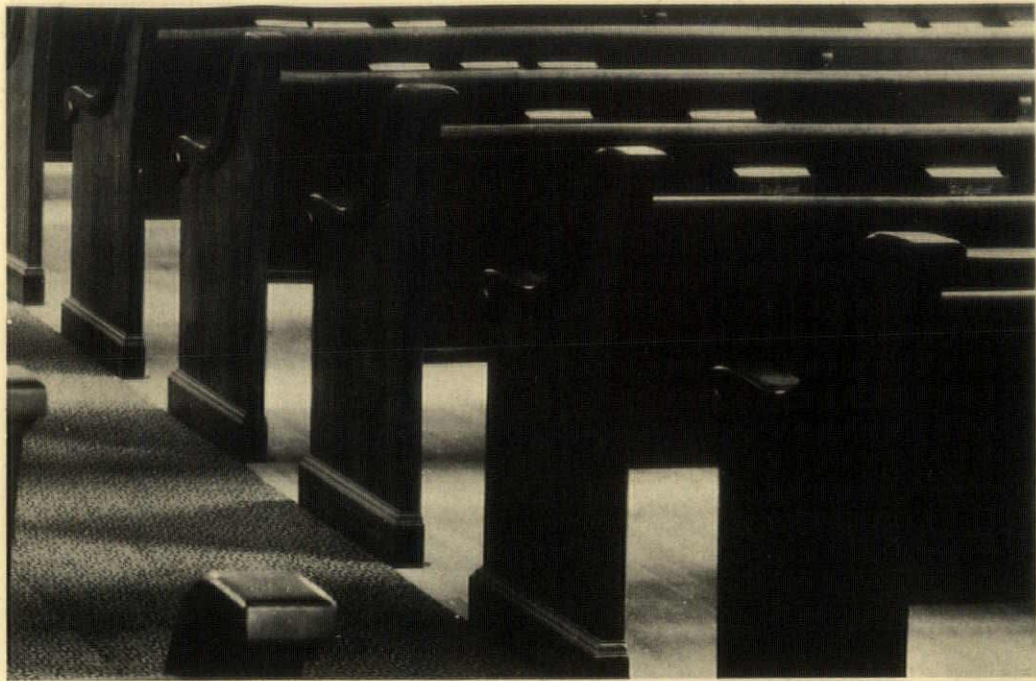
American Seating Company



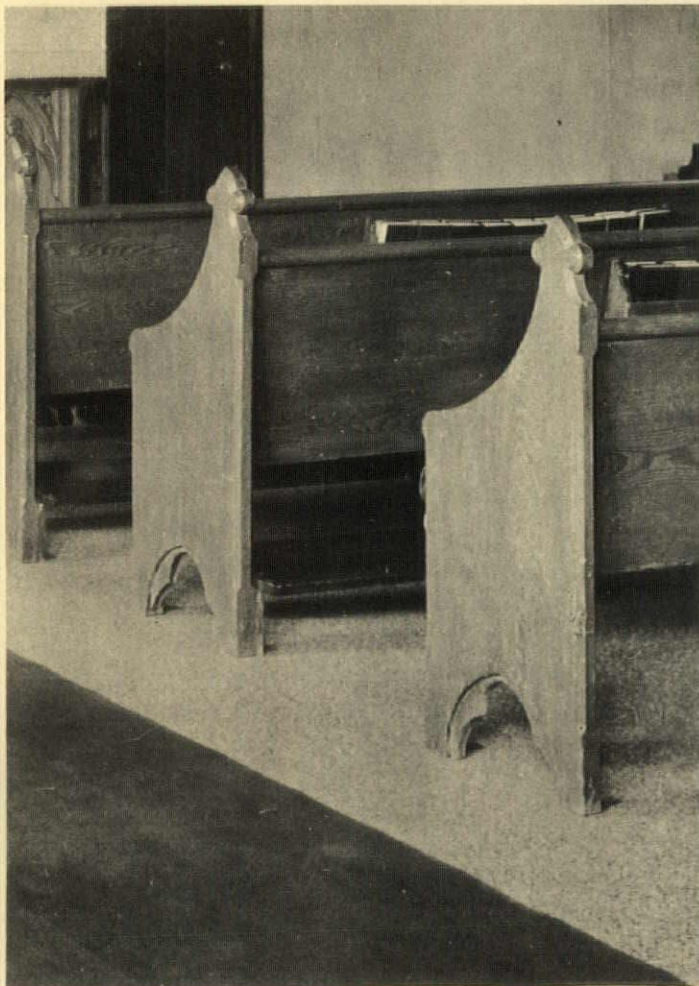
American Seating Company



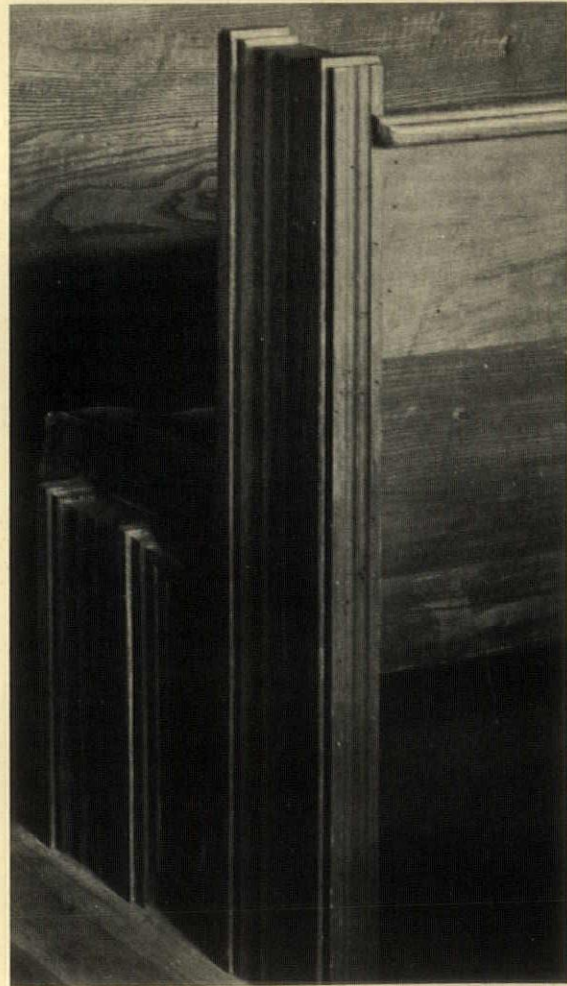
William B. Tubby

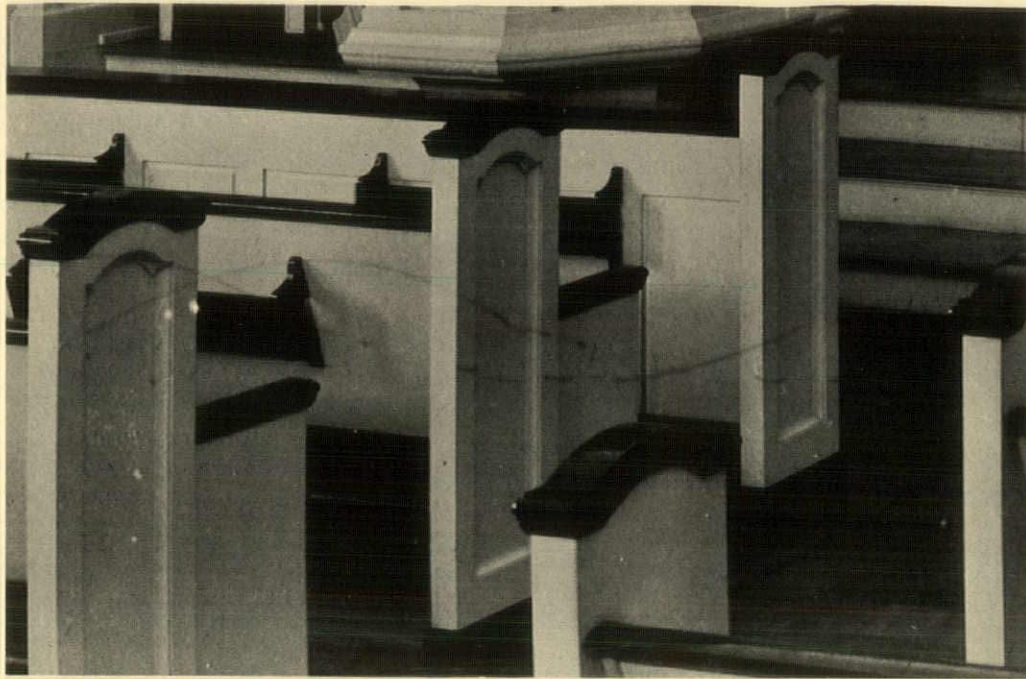


Crow, Lewis & Wick



Harry B. Herts



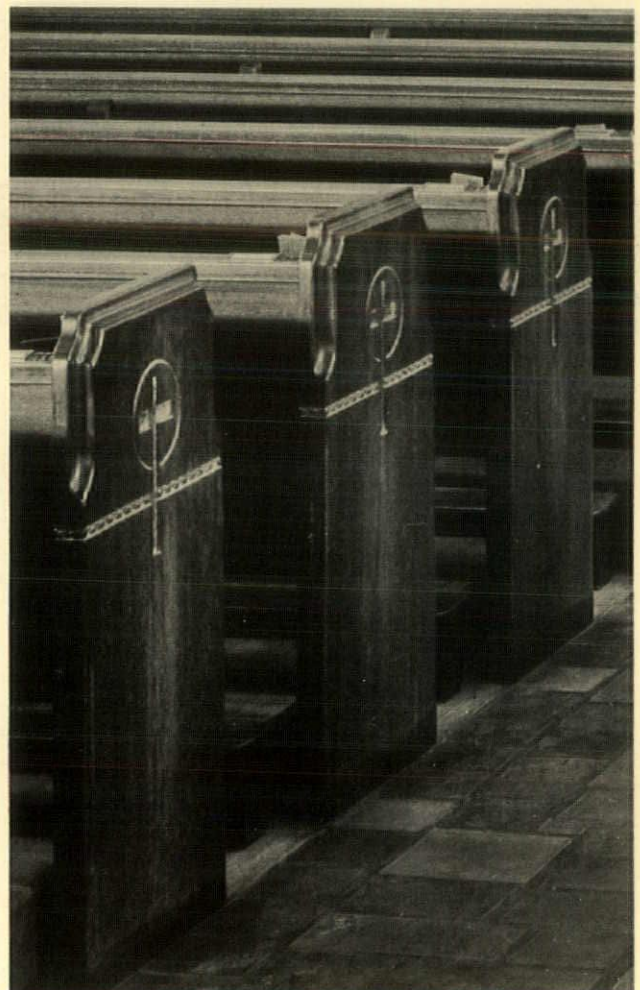


Ritcher & Eiler

William Brinkman



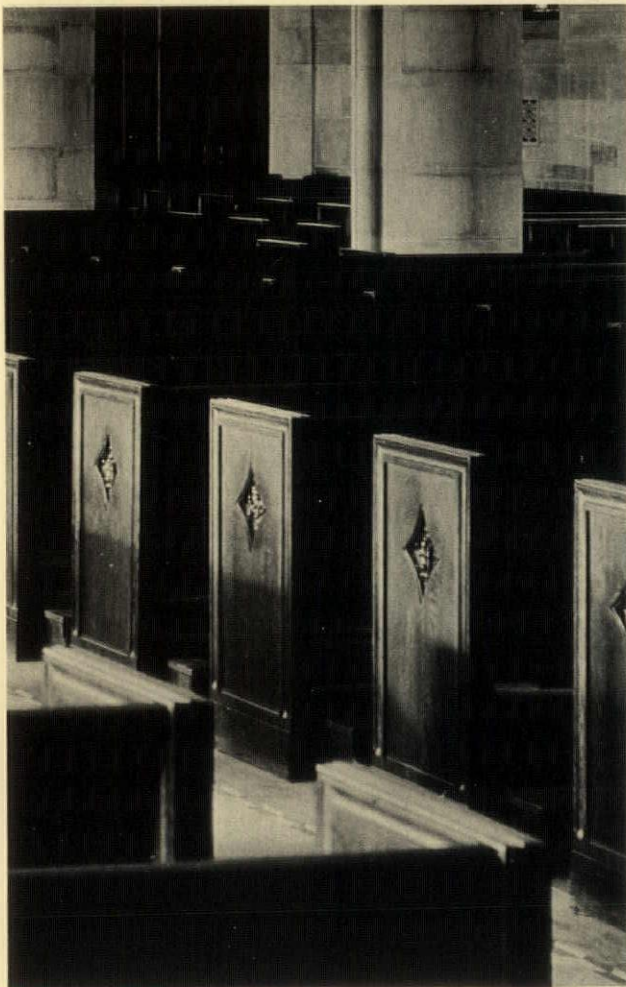
Newton & Murray



Harry B. Herts

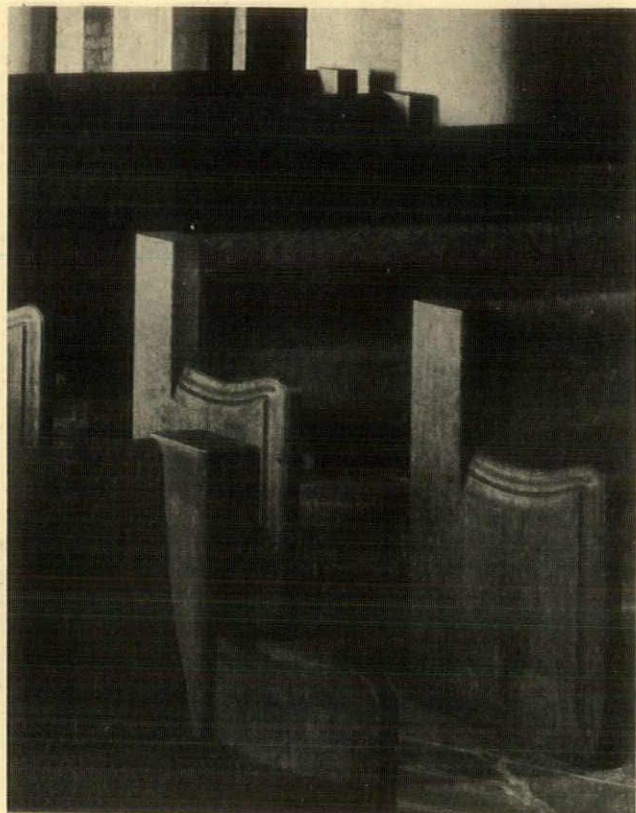


Maginnis & Walsh

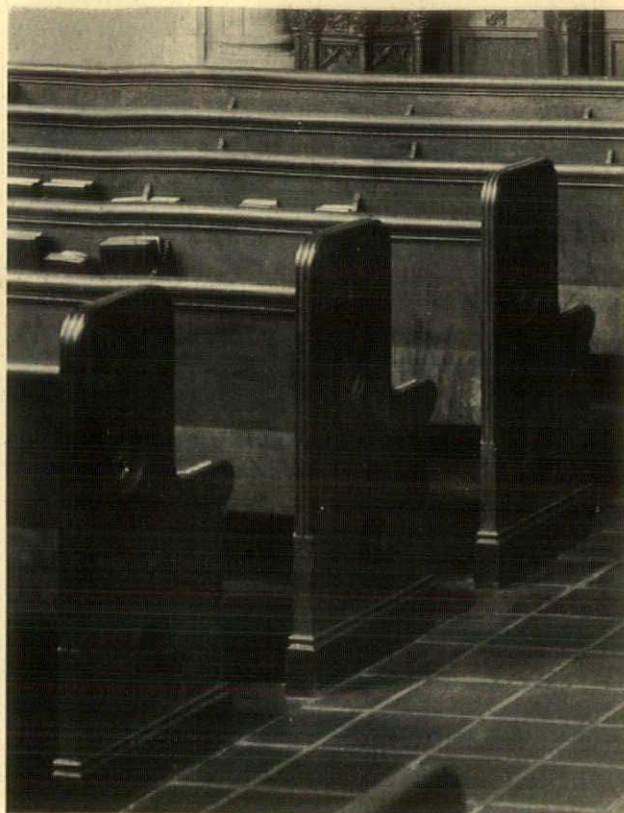


Thomas J. Duff



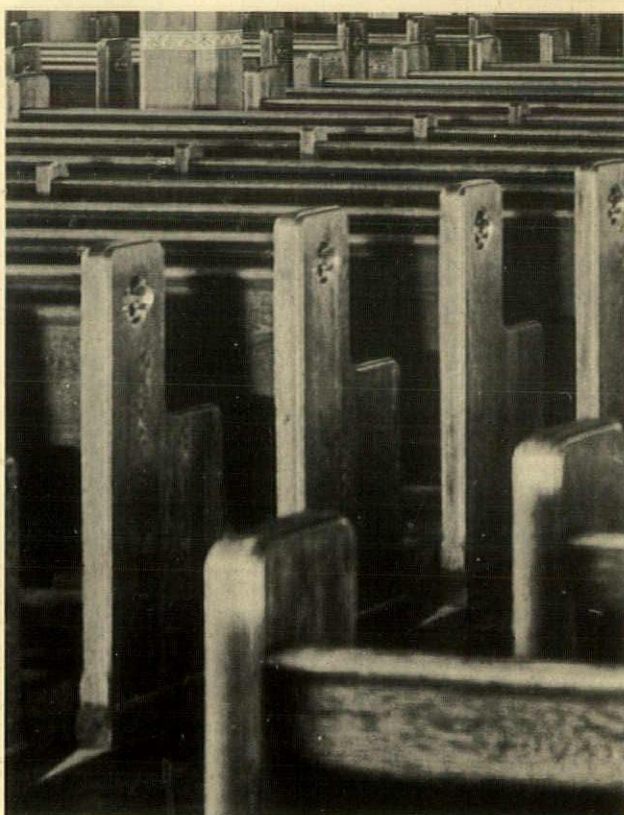


Hobart Upjohn



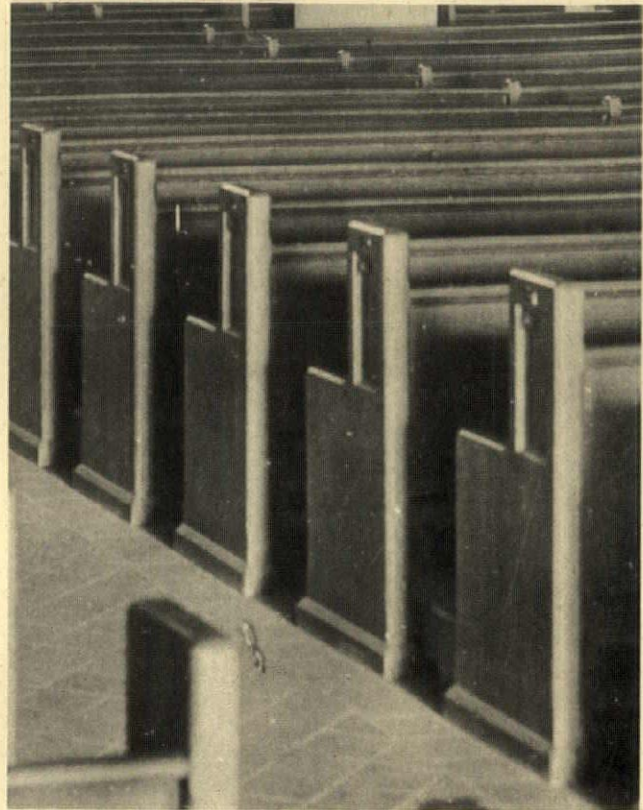
Cram & Ferguson

Hobart Upjohn; Harry Barton *William Koehl*





John R. Kibby

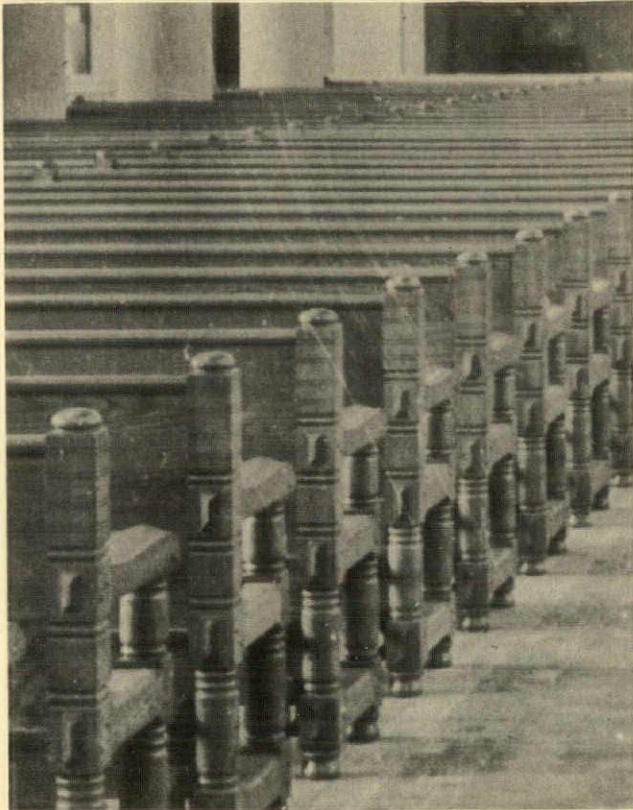


Francis Burrall Hoffman

Bertram G. Goodhue

Walter T. Karcher & Livingston Smith



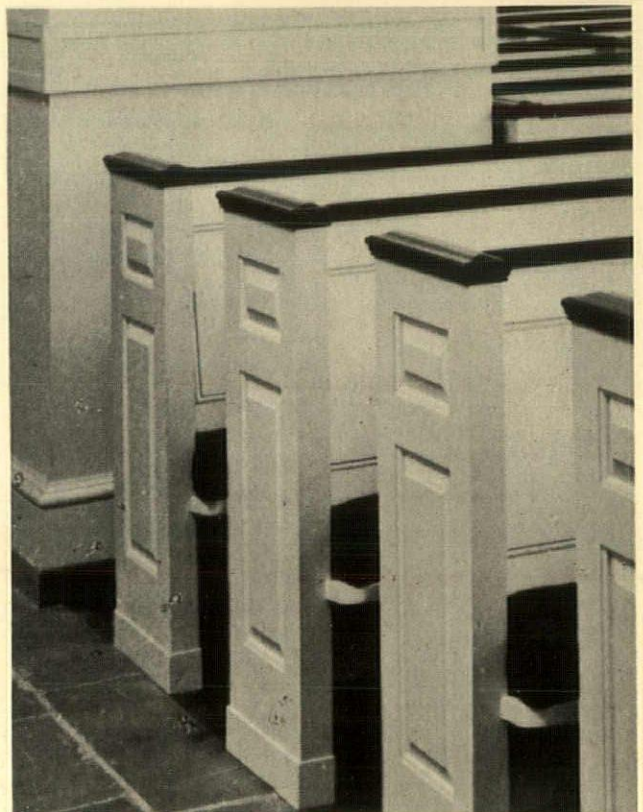


George I. Lovatt



American Seating Company

Delano & Aldrich Hobart Upjohn; Otto F. Langmann



New Government Buildings *in Washington* in which Anaconda Metals are Installed

Below are listed some of the new Government Buildings in Washington in which rustless Anaconda Metals have been or are being used:

BUILDING	PRODUCTS USED
U. S. POST OFFICE DEPARTMENT	
Delano & Aldrich, <i>Architects</i>	Anaconda Copper Pipe
McCloskey & Company, <i>General Contractors</i>	Anaconda Extruded Bronze
I. C. C.—LABOR BUILDING	
Arthur Brown, Jr., <i>Architect</i>	
James Stewart & Co., Inc., <i>General Contractors</i>	Anaconda Copper Pipe
CENTRAL HEATING PLANT	
Paul Phillippe Cret, <i>Consulting Architect</i>	
Rust Company, <i>General Contractors</i>	Anaconda "85" Red-Brass Pipe
DEPARTMENT OF JUSTICE BUILDING	
Zantsinger, Borie & Medary, <i>Architects</i>	Anaconda Sheet Copper
George A. Fuller & Co., <i>General Contractors</i>	Anaconda Copper Pipe
	Anaconda "85" Red-Brass Pipe
ARCHIVES BUILDING	
John Russell Pope, <i>Architect</i>	Anaconda Sheet Copper
George A. Fuller & Co., <i>General Contractors</i>	Anaconda Extruded Bronze
DEPARTMENT OF COMMERCE BUILDING	
York & Sawyer, <i>Architects</i>	
Consolidated Engineering Co., Inc., <i>General Contractors</i>	Anaconda "85" Red-Brass Pipe
UNITED STATES SUPREME COURT BUILDING	
Cass Gilbert, <i>Architect</i>	
George A. Fuller & Co., <i>General Contractors</i>	Anaconda "85" Red-Brass Pipe
THE PUBLIC HEALTH SERVICE BUILDING	
J. H. de Sibour, <i>Architect</i>	
Wills, Taylor & Mafera Corp., <i>General Contractors</i>	Anaconda Copper Pipe
THE LIBRARY OF CONGRESS ADDITION	
Pierson & Wilson, <i>Architects</i>	Anaconda Sheet Copper
Jacobson Brothers Co., <i>General Contractors</i>	Anaconda "85" Red-Brass Pipe
MALE RECEIVING WARD OF ST. ELIZABETH'S HOSPITAL	
Const. Div. of the Veterans' Administration, <i>Architects</i>	Anaconda Sheet Copper
B. W. Construction Company, <i>General Contractors</i>	Anaconda "85" Red-Brass Pipe

For years Anaconda has been the Building Industry's principal source of supply for copper, brass and bronze of unvarying high quality. That Anaconda products are so widely used in governmental construction work bears ample testimony to their dependability. The American Brass Company, General Offices: Waterbury, Connecticut. Offices and Agencies in Principal Cities.



ANACONDA COPPER & BRASS



ARCHITECTURE'S SERVICE BUREAU FOR ARCHITECTS



ARCHITECTS AND EVERY ONE INTERESTED WILL FIND HERE THE LATEST AND MOST UP-TO-DATE INFORMATION ON BUILDING EQUIPMENT AND ACTIVITIES IN THE INDUSTRY. THESE PUBLICATIONS MAY BE HAD BY ADDRESSING ARCHITECTURE'S SERVICE BUREAU FOR ARCHITECTS, 597 FIFTH AVENUE, NEW YORK. OUR SERVICE BUREAU WILL OBTAIN ANY OTHER CATALOGUES OR DATA YOU REQUIRE.

STEEL FRAMING FOR SMALL RESIDENCES

The United States Steel Corporation has prepared a very complete booklet on steel framing for small residences. This substantial manual of technical data, tables, drawings, and photographs is intended as a guide book for architects and builders. It is interesting to note that the compilers believe that the future development of steel in this field will be found in houses of individual, non-standardized design, as distinguished from the mass-production house. A study of the present booklet indicates that the policy followed by steel makers forty years ago in the field of tier buildings is revived with suitable modifications to meet the particular needs of the small residence. The booklet bears the price tag of fifty cents. It may be obtained from the sales office of any subsidiary of the United States Steel Corporation.

PIPE WELDING

A new pipe-welding book from the Linde Air Products Co., unit of the Union Carbide and Carbon Corp., 30 East 42d Street, New York City, explains the latest developments in the Fabrication of Oxwelded Piping. Some of the subjects of interest that you will find in this 160-page book are how to cut welding time in half on any kind of piping job; how to make stronger joints with less outlay for welding rods and gases; how to design, lay out, construct, erect, and maintain a welded piping system. Included are 75 illustrations and 20 ready reference tables. Architects, builders, and engineers interested in keeping informed of the development in this art will find this manual an excellent text to add to their library. Copies on request.

ROSTONE

To those of you who have visited the World's Fair the new House of Rostone brochure will be a welcome reminder of this fine building stone. Those who have not been able to attend will be glad to learn of this new colorful synthetic stone. It comes from Rostone, Inc., of Lafayette, Ind. Rostone is a new processed stone of exceptional architectural possibilities, with a wide range of permanent colors, produced in slabs and molded shapes. Crushing strength runs from 8000 lbs. sq. in. up. Moisture absorption is approximately 8 per cent. Weight is 130 lbs. per cu. ft. It does not effloresce and weathers handsomely. It is inexpensive in itself and provides efficiency in erection which saves money.

ARCOLA

For smaller buildings with or without cellars—this is the story of latest literature from the American Radiator & Standard Sanitary Corp., 40 West 40th Street, New York City. This all-on-one floor unit is fully described in a colorful booklet. It is proclaimed as the least expensive complete radiator-heating plant in America.

SEALEX WALL COVERING

A delightfully prepared brochure from Congoleum-Nairn, Inc., Kearny, N. J., presents Sealex Wall Covering, a new and versatile decorating material. Adaptation illustrations and color samples of ample size, well-spaced description and the architectural specifications combine to make a book of durable reference for your file. Advantages of Sealex number many. Among the most striking are: durability and flexibility, cleanliness, heat insulation, sound quieting, and ease of application. The chart which shows where to use Sealex is particularly interesting.

CHURCH ENSEMBLE

The first thing that is strikingly interesting about the new C. F. Church Mfg. Co.—40 West 40th Street, New York City—catalogue is its French wire loose-leafing binding. After you get through marvelling at that you will be intrigued by its contents—a thorough presentation of the entire Church ensemble. The amply illustrated booklet shows the new Church bathroom equipment in the seven most popular color combinations. What Church has done in the development of the toilet seat, it now does for an entire line of bathroom furnishings, dressing-table, wall vanity, hamper, chairs, towel stand, and vanity bench.

NASH PUMPS

The Nash Engineering Co., of South Norwalk, Conn., issues a new catalogue of Nash pumping equipment. It is the first time that all of the Nash line has been portrayed under one cover. There are tables and descriptions of the Nash Vacuum Pumps and Compressors, the Jennings line of Vacuum Heating Pumps, including the new low-pressured vapor turbine type, the Jennings non-submerged type of Sump and Sewage Pumps, Jennings no-valve pneumatic Sewage Ejectors and the Jennings line of Self-Priming Centrifugal Pumps. Your specification division will want a copy of this catalogue for its reference files.

SWINGING-LEAF BLACKBOARD

Since schools are frequently required to utilize rooms not originally intended for classroom purposes, and since additional blackboard space is needed for extra pupil load, the new Webco Swinging-Leaf Blackboard offers special practical interest. A distinct advantage is its light weight—no special wall construction being required for support. By providing extra sets of hangers in other rooms the entire unit is transferable. Individual panels can be removed, work prepared out of classroom, and panel rehung for demonstration. The Weber Costello Co., of Chicago Heights, Ill., make this board from genuine Old Reliable Hyloplate which is recognized as a standard. It will pay to send for additional details and illustrations.

(Continued on page 16)

This house, built for Mr. Charles Montague on Bradford Boulevard, Syracuse, N. Y., contains 10 telephone outlets at convenient locations, including one on the third floor and one in the basement game room. Paul Hueber, Architect, Syracuse.

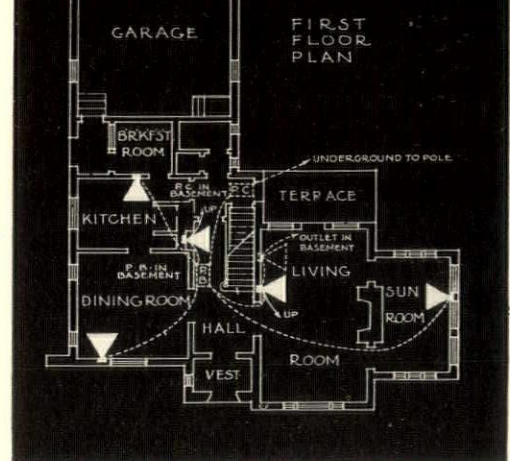
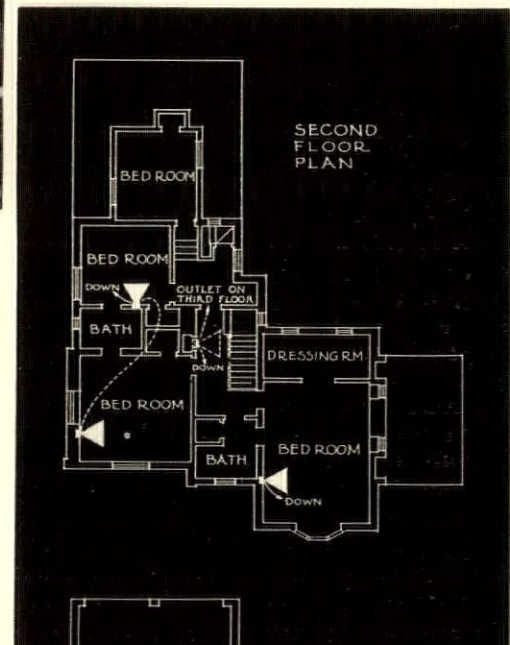


TIME PROVES THE WORTH OF TELEPHONE CONVENIENCE

BLUE-PRINTS show your clients the more obvious advantages of built-in telephone arrangements. Only months and years of actual living bring a full appreciation of what well placed telephones can mean in steps and minutes saved — in flexible, trouble-free service.

Time proves your planning in another way. Telephone conduit and outlets built-in during construction — or remodeling — not only meet immediate needs but provide for changing conditions in the future. Other telephones can be installed at new locations, simply, inexpensively. Walls and floors need not be torn up. Wiring is not exposed.

The most efficient telephone arrangements are often a product of close co-operation between architect and telephone engineer. Your local company maintains a trained technical staff to help you at any time with any phase of telephone equipment or installation. No charge, of course. Just call the Business Office and ask for "Architects' and Builders' Service."





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LIBRARY · ♦ · WASHINGTON · D · C

THE "SEVEN AGES OF MAN" WINDOW
IS REPRODUCED IN THE BODY OF THIS
MAGAZINE

PAUL PHILIPPE CRET IS THE ARCHITECT

DATA ON VALVES

Jenkins Bros., 80 White Street, New York City, have just announced the publication of a new 264-page catalogue on valves. All features of design and construction are clearly described. It is really an excellent source on valves and valve layout. All the facts necessary to valve specification, selection, and purchase are included. Services, pressures, temperatures, and fluids for which the valves are recommended are stated. The engineering data which are constantly needed on valve installations are covered in a special section of the book.

RESIDENCE ELEVATOR

Bulletin from the Warner Elevator Mfg. Co., of Cincinnati, Ohio, gives the up-to-date data on the Warner Electric Residence Elevator. The advantages stressed are the supporting steel column which prevents falling, the absence of ropes, chains, or cables to break, and that all the lifting power to raise and lower the platform and all the weight are supported from the cellar. Simplicity of design and safety factors are factors of recommendation.

MURALS

From the Publication Division of the Century of Progress Fair comes a description of the murals therein painted. In conception and execution they reflect the modern world of ideas and movement. There is not a classical subject. Not a goddess, not a cornucopia, not a Greek hero, not a chariot. The struggle of modern man with his environment is the thought that has possessed the artists. The daring new architecture of the Fair provides a natural background and an opportunity to study the trend of modern decoration and the relation of the mural to modern architecture.

BRI-TEX

Is the trade name of the new insulating material manufactured by the Creo-Dipt Co., Inc., of North Tonawanda, N. Y. The catalogue just received gives the technical information surrounding the adventure in science which produced this new reflecting insulation. The manufacturer invites its comparison with any fibre-board non-conduction insulation one-half inch thick. They claim it to be 40 per cent more efficient. Bri-Tex need only be nailed along the edge of the studs. No sawing, no notching. A hammer, nails, and sharp pocket knife are the only tools required for a Bri-Tex installation. You'll be interested in this bulletin. Make a note now to send for it.

TRUCK-DOOR PROBLEMS

The Kinnear Manufacturing Co., of Columbus, Ohio, in their recently published folder claim the answer to truck-door problems. The adaptation of the Kinnear Steel Rolling Door to trucks is interestingly portrayed. The descriptions of the use of these doors for side-delivery beverage trucks and for refuse collection indicate interesting practicality in fireproof and burglar-proof doors that roll up as easily and quickly as the window shades in your house. While this is not building data, you will find it interesting if you have any connection with municipal problems.

ANNOUNCEMENT

The appointment of Mr. Thomas O'Neil as manager of their New York office is made by the Milcor Steel Co. The Milcor Steel Co., of Milwaukee, Wis., are manufacturers of fireproof building materials and sheet-metal building products.

ADVERTISERS' INDEX

WHAT TO SPECIFY

WHERE TO BUY

IF YOU ARE INTERESTED IN OBTAINING THE CATALOGUES OF ANY OF THE ADVERTISERS IN THIS ISSUE OF ARCHITECTURE (AS LISTED BELOW) LET ARCHITECTURE'S SERVICE BUREAU SEND THEM TO YOU. ANY ADDITIONAL DATA CONCERNING THE INDUSTRY THAT THE READERS OF ARCHITECTURE REQUIRE WILL GLADLY BE COMPILED FOR THEM BY OUR SERVICE BUREAU.

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ALWAYS SPECIFY

Columbia

VENETIAN BLINDS

Wherever you use Venetian Blinds, those made by Columbia are your best specification. Columbia gives you the finest* blind. Columbia has the widest and most alert local dealer representation. Columbia is the strongest maker of window shades and Venetian Blinds.

All your clients, public or private, are most apt to know—and most certain to be pleased with—the blinds chosen for such installations as these:

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225 FIFTH AVENUE, NEW YORK

*We'll gladly prove our blind's superiority with any sort of factual data you care to request

PECORA

CALKING COMPOUND



HOTEL BEN MILAM, HOUSTON, TEXAS
JAMES RUSKIN BAILEY, ARCHITECT
CALKED BY A. M. BOWLES, HOUSTON, TEXAS

FORTIFIED BY PECORA CALKING COMPOUND

AIR and moisture, so essential to human life, are elements of constant menace to the life of the building structure. In the guise of wind and storm, rain, snow and ice, these foes seek out all crevices, seep through window and door frames and promote deterioration.

The one effective weapon of defense is calking, and the SURE way to calk is with Pecora, the permanent Calking Compound. It will not dry out, crack or chip when properly applied.

Most of the larger structures erected in recent years have been fortified by Pecora Calking Compound. It is not surprising to find Pecora specified and used for many smaller buildings also, for owners large or small are equally anxious to protect their investment by guarding against early building deterioration.

For further details see Sweet's Catalog or write direct to us.

Pecora Paint Company

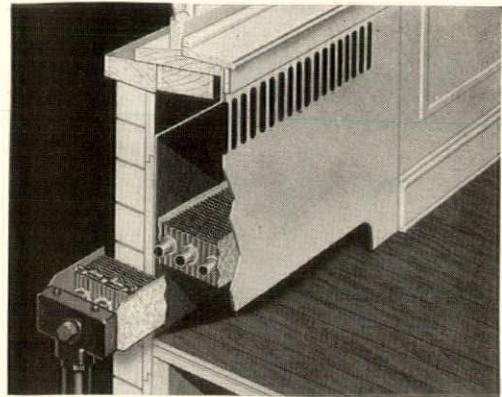
Fourth and Glenwood Avenue
PHILADELPHIA, PA.

Established 1862 by Smith Bowen

ALSO MAKERS OF PECORA MORTAR STAINS

ERSKINE

COPPER RADIATORS



A cutaway view of a recessed Erskine Radiator placed under a window

GIVE YOU INCREASED HEATING EFFICIENCY AND LOWER HEATING COSTS

On Erskine radiators the supply tubes are full $\frac{3}{4}$ " and the fins are $2\frac{1}{2}$ " high. A patented all-copper bond assures a permanently snug contact. Also, they are made of copper and brass. This improved construction means an abundant supply of heat even in the coldest weather, lowered heating cost and long years of service without fear of rust retarding the efficiency of the radiator.

Here are three points to remember about the Erskine Copper Radiator:

- 1 They are compact and can be installed in the walls where they will not interfere with interior decoration.
- 2 They are dust free. The soiled curtains and stained walls caused by exterior heating are eliminated by the Erskine circulating air system of concealed radiation.
- 3 Quick responsive heat. By the use of copper and the fin type radiator, it is possible to obtain heat in a very small part of the time required to heat a cast ferrous radiator.

SEE SWEET'S CATALOG, PAGE D-414

Chase Brass & Copper Co.

INCORPORATED

ERSKINE RADIATOR DIVISION

1 East 42nd St., N. Y. Waterbury, Conn.





Constructed by the Federal Government, McKIM, MEAD & WHITE, Architects

ARLINGTON MEMORIAL BRIDGE

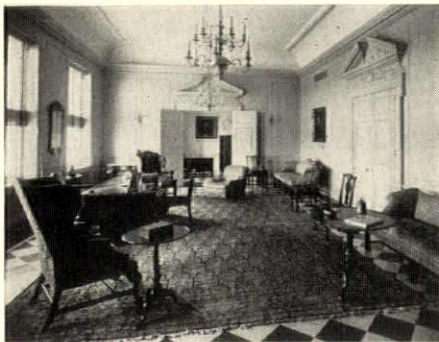
A classic addition to the beauty of Washington.
300,000 cubic feet of

MOUNT AIRY GRANITE

were used in its erection—each of many thousands of pieces an example of skilled craftsmanship.

J. D. SARGENT GRANITE COMPANY—MOUNT AIRY, N. C.

GRANITE FOR EVERY PURPOSE — WHITE MOUNT AIRY GRANITE



GOVERNOR'S OFFICE—STATE HOUSE

DOVER, DELAWARE E. WILLIAM MARTIN, Archt.
Complete furnishings for this building were provided by the Virginia Craftsmen.

OUR thorough knowledge of the requirements of restoration work and special projects of all kinds, and our exceptional facilities for executing such work, are freely offered to architects and decorators.

Among recent projects in which the Virginia Craftsmen participated are:

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NATIONAL WOMEN'S COUNTRY CLUB, WASHINGTON, D. C.
MORRIS PLAN BANK, RICHMOND, VIRGINIA
PIONEER HALL, UNIVERSITY OF MINNESOTA

May we send you our literature?

VIRGINIA CRAFTSMEN INC.
Harrisonburg, Virginia

Craft House
Harrisonburg, Va.



59 East 52nd St.
New York



NO FANCY TRIMMINGS TO IMPEDE VENTILATING ACTION— TO BUILD UP MAINTENANCE COSTS— BUT HOW THEY WORK!!!!

Built to withstand the worst of weather conditions year in and year out—to give a freer path for outgoing air than any other type—with bearings needing no lubrication—and for trouble-free operation, Swartwout Ventilators justify their slogan—

MORE AIR PER MINUTE PER DOLLAR

SWARTWOUT ROTARY BALL BEARING VENTILATORS

(Catalogue on Request)

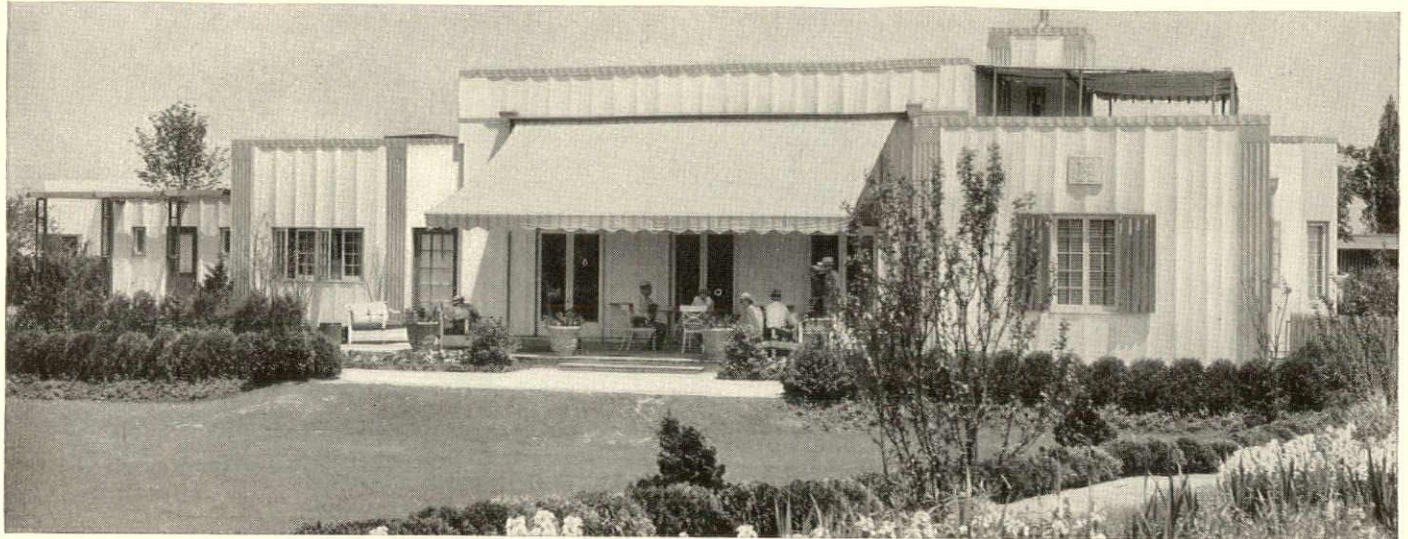
THE SWARTWOUT COMPANY

18527 Euclid Ave.



Cleveland, O.

Preference is better than a prize

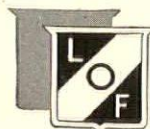


The W. & J. Sloane "House of the Today", like the majority of exhibits in the Home Planning Section at the Chicago World's Fair, is glazed with L·O·F Quality Glass. Corbett, Harrison, and MacMurray were the architects. The Still Construction Company, Chicago, were the General Contractors. The large decorative mirror, a Semon-Bache product made of L·O·F Polished Plate Glass, is an arresting example of the uses for glass in home furnishing.



No awards are being given, in Chicago, for the finest Polished Plate or Window Glass, but the products of Libbey·Owens·Ford have won an honor high above ribbons, medals or certificates of merit. They are used in the great majority of houses in the Home Planning Section, in which is exemplified the finest creative design of contemporary architecture. Surely, the significance of such a signal honor is apparent.

LIBBEY · OWENS · FORD QUALITY GLASS



LIBBEY · OWENS · FORD GLASS COMPANY, TOLEDO, OHIO, manufacturers of Highest Quality Flat Drawn Window Glass, Polished Plate Glass and Safety Glass; also distributors of Figured and Wire Glass manufactured by the Blue Ridge Glass Corporation of Kingsport, Tennessee.