

GR. 6844

# PENCIL POINTS

JANVARY  
1939





## BRONZE for sales appeal

SHOPPERS get their first impression of a store from its show windows. So it's important that the store front look inviting and set off merchandise with dignity and taste. In short... it must have "sales appeal."

Retailers and property owners find that store fronts of Anaconda Architectural Bronze attract customers with their distinctive beauty. That's why today in New York's fashionable shopping district, Fifth Avenue, 8 out of 10 store fronts are Bronze—an overwhelming acceptance by leading merchandisers that is spreading to towns and cities throughout America.

Anaconda Architectural Bronze is economical as well as suggestive of quality. Durable and

absolutely rustproof, it renders *permanent* service. Easily cleaned, it may be kept in its original lustrous state with only occasional attention.

The American Brass Company is the principal supplier of Bronze, Copper and Nickel Silver in the form of extruded shapes, drawn shapes, sheets, etc., for use in ornamental work of every description. Our extensive catalog shows thousands of standard shapes which may be combined to execute the most original of designs. Their use eliminates die costs.

• • •

*Dennison's, at 411 Fifth Avenue, New York City. Frank H. Holden, Architect, J. Stott Dawson, Associate. Anaconda Architectural Bronze by Penn Brass & Bronze Works, Long Island City, N.Y.*

38155



# Anaconda Copper & Brass

THE AMERICAN BRASS COMPANY, General Offices: WATERBURY, CONNECTICUT  
Offices and Agencies in Principal Cities • In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.



# D E S I G N

VOLUME XX NUMBER 1

## ARTICLES

- 3 Architecture, People, Bauhaus *Talbot F. Hamlin*  
 31 Charles Z. Klauder { *Henry R. Shepley*  
                                   *Aymar Embury II*  
 37 Ah, Jobless Youth! *Eugene Raskin*

## PLATES

- 2 DETAIL OF MURAL *Frank H. Schwarz*  
 11 EXAMPLES OF POST-BAUHAUS GERMAN DESIGN  
 19 THREE RESIDENCES *Wells & Merrill*  
 24 HOUSE AT WELLINGSLEY *Aldrich & Parker*  
 27 SCULPTURE *Carl Milles*  
 28 OREGON CAPITOL MURALS { *Frank H. Schwarz*  
                                   *Barry Faulkner*  
 30 LITHOGRAPH *Miles Sater*  
 43 FOUR WATER COLORS *Carl W. Heilborn*

## THE THRESHING FLOOR

- 57 Letters of professional interest by Alice Walton,  
 Ellis F. Lawrence, Erwin M. Lurie, Howard M.  
 Robertson, Charles Francis Meller, H. A. Russell,  
 Eugene Csolkovits, John T. Briggs, and Charles  
 L. Kirk

## COMPARATIVE DETAILS—Group 43

- 47 STONEWORK FOR WALLS, prepared by Albert D.  
 Taylor, President of the American Society of Land-  
 scape Architects

## DATA SHEETS—Prepared by Don Graf

- 39 Solid, Dry, and Liquid Measure; Land, Linear, and  
 Misc. Measure; U. S. and British Weights; Metric  
 Weights and Measure

## HERE, THERE, THIS, AND THAT

- 12 Letters from Readers, News from the Field, etc.

## COVER DESIGN—by Gustav Jensen

# PENCIL POINTS

KENNETH REID  
EDITOR

CHARLES MAGRUDER  
ASSOCIATE EDITOR

DON GRAF  
TECHNICAL EDITOR

*The Monograph Series*  
 RUSSELL F. WHITEHEAD  
 EDITOR

Published Monthly by REINHOLD PUBLISHING CORPORATION, Stamford, Conn., U.S.A.

RALPH REINHOLD, President and Treasurer  
 PHILIP H. HUBBARD, Vice President

H. BURTON LOWE, Vice President and Secretary  
 FRANCIS M. TURNER, Vice President

Executive and Editorial Offices: 330 West 42nd Street, New York

50 cents a copy. Yearly subscription \$3.00, two years subscription \$5.00, payable in advance, to the U. S. A. and all U. S. Possessions. To Canada, Cuba, Mexico, Central and South America, \$3.50 a year. To all other countries \$5.00 a year. Remittances by International or American Express Money Order or by Draft on a bank in the U. S. should be payable in United States funds. Subscribers are requested to state profession or occupation. Changes of address must reach us before the 20th of the month to assure delivery of forthcoming issue. Be sure to give both your old and new addresses. To Contributors: Articles, drawings, photographs, etc., sent with a view to publication will be carefully considered, but the publisher will not be responsible for loss or damage. Copyright, 1939, by Reinhold Publishing Corporation. Trade Mark Registered. All rights are reserved. Entered as second class matter, March 10, 1930, at the Post Office, Stamford, Conn., under the Act of March 3, 1879. Volume XX, No. 1, dated January, 1939. Indexed regularly in *The Art Index*.

20069







*You learn this from the schools*  
*on which* **ALUMINUM** *is used!*

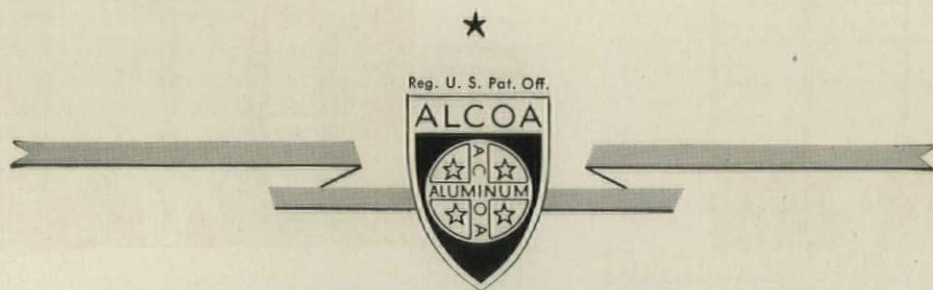
Aluminum provides a most economical way of adding beauty and of increasing the utility of a building. It requires but little attention for maintenance.

Aluminum windows offer such advantages as easy opening and closing, and permanent weather-tightness; no rusting or rotting, no warping or swelling. They never need painting. Narrow sash and frames give maximum glass area. They are surprisingly low in first cost.

You'll also find Aluminum being used in many other places on schools and public buildings. For skylights, copings and gravel stops; as spandrels and grilles; all are non-rusting and long-lived, showing, therefore, a low annual cost.

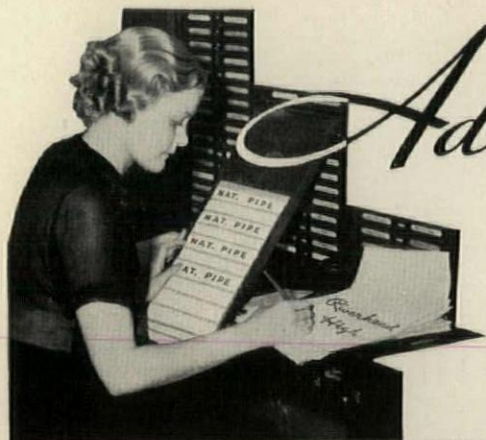
And any number of attractive, decorative effects are possible with Aluminum's many, lasting finishes.

Alcoa engineers are available to architects and builders for consultation on construction problems. Aluminum Company of America, 2198 Gulf Building, Pittsburgh, Pennsylvania.



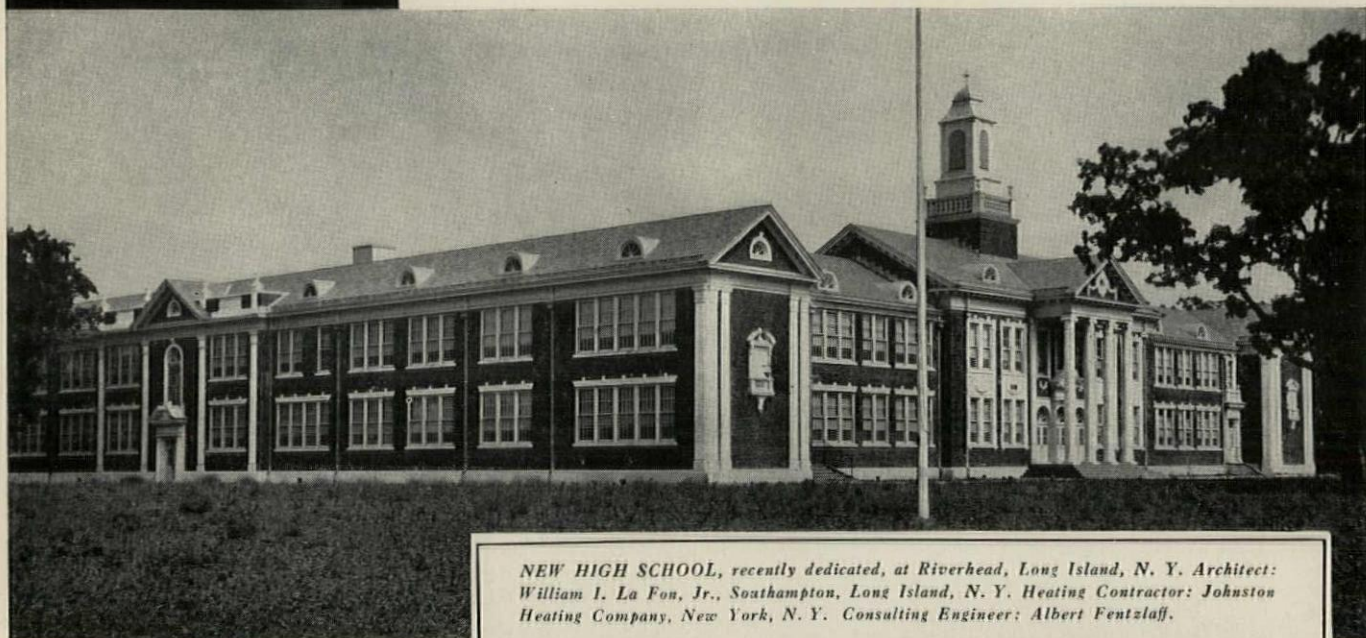
ALCOA · ALUMINUM





# Add Riverhead High

TO YOUR LIST OF  
**PROMINENT BUILDINGS USING  
 NATIONAL PIPE**



*NEW HIGH SCHOOL, recently dedicated, at Riverhead, Long Island, N. Y. Architect: William I. La Fon, Jr., Southampton, Long Island, N. Y. Heating Contractor: Johnston Heating Company, New York, N. Y. Consulting Engineer: Albert Fentzloff.*

**R**IVERHEAD'S 8000 residents turned out en masse at the recent opening of its new high school. To a man, they are proud of their new school. Proud of its distinctive Georgian Colonial architecture . . . of the many modern innovations in physical equipment . . . of the comfortable size which will provide for normal increase in student body.

But most of all, Riverhead is proud that its new school has been built to last for many years. Only the finest available materials went into the construction.

One of the chief contributors to the useful life of this school is NATIONAL



Pipe. Of the many tons of pipe used here, the major tonnage is NATIONAL.

Riverhead High is typical of hundreds of private and public buildings completed, in construction, or planned. Principal objective of the planners and builders is to give these buildings reasonable expectancy of long trouble-free life. Contractors have found that the best way to meet this specification

is to use NATIONAL Pipe.

Contractors tell us they like to work with NATIONAL Pipe because it is easy to install, profitable to use. It is clean inside and out, and uniform in every property. Bends, cuts, and threads with ease. Made by the world's largest producers of tubular products, and available for prompt delivery from distributor stocks nearly everywhere.

## NATIONAL TUBE COMPANY


PITTSBURGH, PA.

Columbia Steel Company, San Francisco, Pacific Coast Distributors • United States Steel Products Company, New York, Export Distributors



# UNITED STATES STEEL





**It's the first  
60 seconds  
that count**

## Exide Emergency Lighting protects penal institution during three-hour power failure...

**T**HE Exide unit in this penal institution operates four or five times a year. On May 23, two days prior to our inspection, the A.C. supply had been off for three hours, and the emergency lighting system functioned perfectly."

The extreme importance of unfailing light in a penal institution is obvious. But there are numerous other buildings in which sudden darkness dare not be risked... stores, schools, theatres, restaurants, public buildings, and especially hospitals. And for full safety, emergency lighting protection must be both instantaneous and automatic. That means Exide protection.

The utility companies take every precaution, but cannot control the effects of storms, floods, fires and street accidents. Privately-owned plants, no matter how carefully planned and operated, may also have interruptions that make the use of an Exide system essential. These units need no other attention than the addition of water four times a year. Send for Don Graf's Data Sheets giving full details.

THE ELECTRIC STORAGE BATTERY CO.  
Philadelphia

*The World's Largest Manufacturers of  
Storage Batteries for Every Purpose*  
Exide Batteries of Canada, Limited, Toronto

**Exide**  
Keepalite  
**EMERGENCY LIGHTING  
SYSTEMS**

**\$150** and  
up

### Mail this coupon

The Electric Storage Battery Company  
1904 W. Allegheny Ave., Phila., Pa.

Send me, without obligation, new bulletin and Don Graf's Data Sheets on Exide Emergency Lighting.

NAME \_\_\_\_\_

NAME OF FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_

I am an Architect ☐ Engineer ☐ Draftsman ☐



# What a Test for a Floor!

UNDER HOCKEY PLAYERS AND CIRCUSES...  
UNDER ICE AND DIRT... LIFE IS JUST ONE  
ENDURANCE TEST AFTER ANOTHER FOR THE  
MADISON SQUARE GARDEN TERRAZZO FLOOR



$\frac{3}{4}$ " TERRAZZO TOPPING

$1\frac{1}{2}$ " BRINE PIPE

T-IRON

$2\frac{1}{2}$ " CONCRETE UNDERBED

$\frac{3}{4}$ " SAND CUSHION

$\frac{3}{8}$ " 8-PLY WATERPROOFING

CORK SLAB

Detail cross-section drawing of the floor in Madison Square Garden, New York City's famous sports center. This unusual installation illustrates the qualities of Terrazzo. Where will you find another material that can successfully resist all the kinds of punishment that this  $\frac{3}{4}$ -inch thickness of Terrazzo does? Note details of construction. The top covering may be a layer of water (soon frozen to ice), or ordinary dirt.

**I**F YOU want to specify a floor that will resist all kinds of beatings and come through with colors flying, just answer these questions:

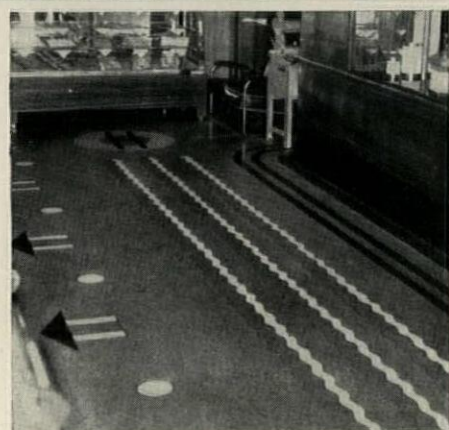
What kind of a floor will withstand the clashing skates of hockey stars... the thudding hoofs of horseshow entries... the rhythmic tread of dancing feet... or the heavy tread of a circus pachyderm? What material will resist effects of varying temperatures caused by freezing and refreezing of overlying coverings of ice?

In Madison Square Garden they have answered these questions with a base floor of Terrazzo. Just as architects and builders are using Terrazzo floors in public buildings of many kinds, in schools and retail

stores—in any building where floor traffic is heavy, constant, and wearing, and where maintenance costs must be low.

Terrazzo is as hard as marble. It is a combination of marble and cement. Yet this same Terrazzo can be as beautiful as it is practical. Usually mixed right on the job, its possibilities are limited only by good taste and imagination. And you can be sure that the finished job will be exactly as planned. Colors will be rich... designs clear... both will last.

Get complete data on Terrazzo and its uses. For this detailed information, write the National Terrazzo and Mosaic Association, 1406 G Street, N. W., Washington, D. C.

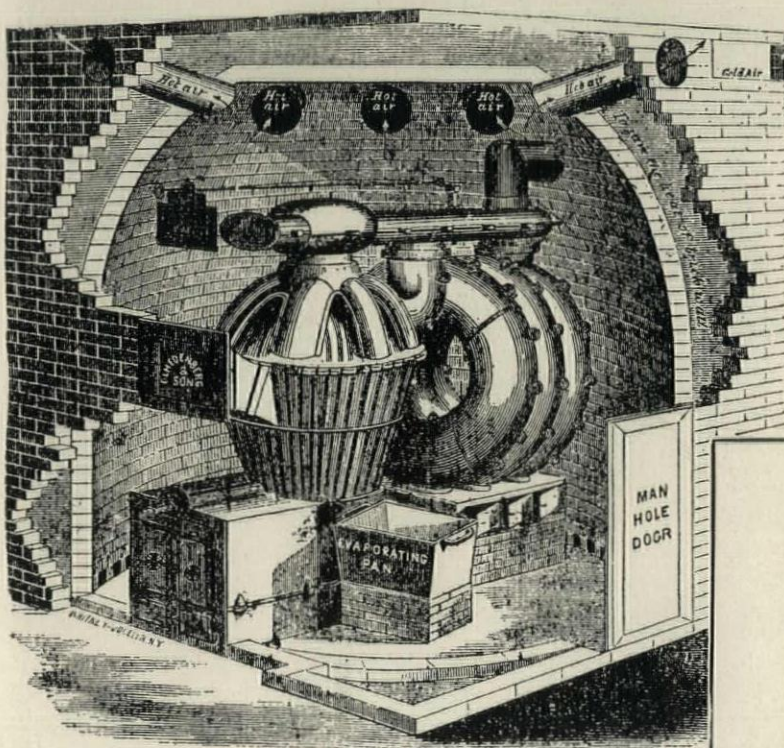


● Many smart designs for store floors are possible with Terrazzo. It gives you wide latitude in suggesting floors that are cheerful, inviting, long-lasting—and easy to keep clean at low cost. Figure on it for wainscoting, stairways, counters as well as floors.

## THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION



# LATEST IMPROVEMENTS

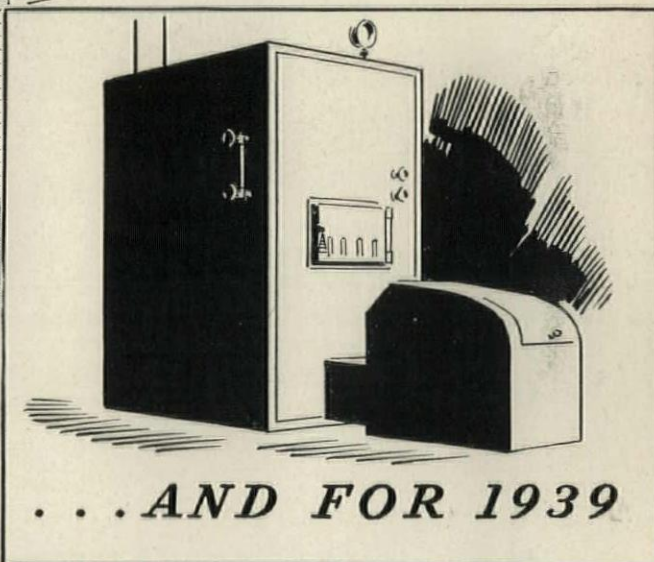


CIRCA 1850

If you had been designing a modern home about 1850, you would have found that the latest, most sensational improvement in heating equipment was a coal-burning furnace like the queer-looking contraption above. It was "tops" for comfortable, convenient, economical heating.

Today, its modern successor with an automatic bituminous coal stoker is the leader in providing comfortable, convenient and *economical* heating. No house or building faces a sure future without proper planning for coal storage and bituminous coal or coke heating.

Designing or modernizing houses and buildings for heating satisfaction in view of the changes in fuel costs and fuel supplies, which seem probable during their lifetime, necessitates planning for coal heating. For ready reference



... AND FOR 1939

in designing homes for modern heating, we have prepared a new portfolio which gives the fundamental principles and illustrates basement designs for modern bituminous coal or coke heating. Send for a free copy of this portfolio, "The 1939 Basement Plan Book," A. I. A. File 30-G. It will help you plan today for the needs of tomorrow's heating.

*Bituminous Coal-*  
*the "Universal Fuel"*

FOR HOME HEATING • FIREPLACES • HOT WATER  
INDUSTRY • INSTITUTIONS • BUILDINGS  
POWER • TRANSPORTATION



## NATIONAL COAL ASSOCIATION

The Nation-Wide Organization of Bituminous Coal Producers  
804 Southern Bldg. 307 N. Michigan Ave.  
WASHINGTON, D. C. CHICAGO, ILLINOIS

Please send me a copy of your Free Booklet "The 1939 Basement Plan Book," A. I. A. File 30-G.

Name .....

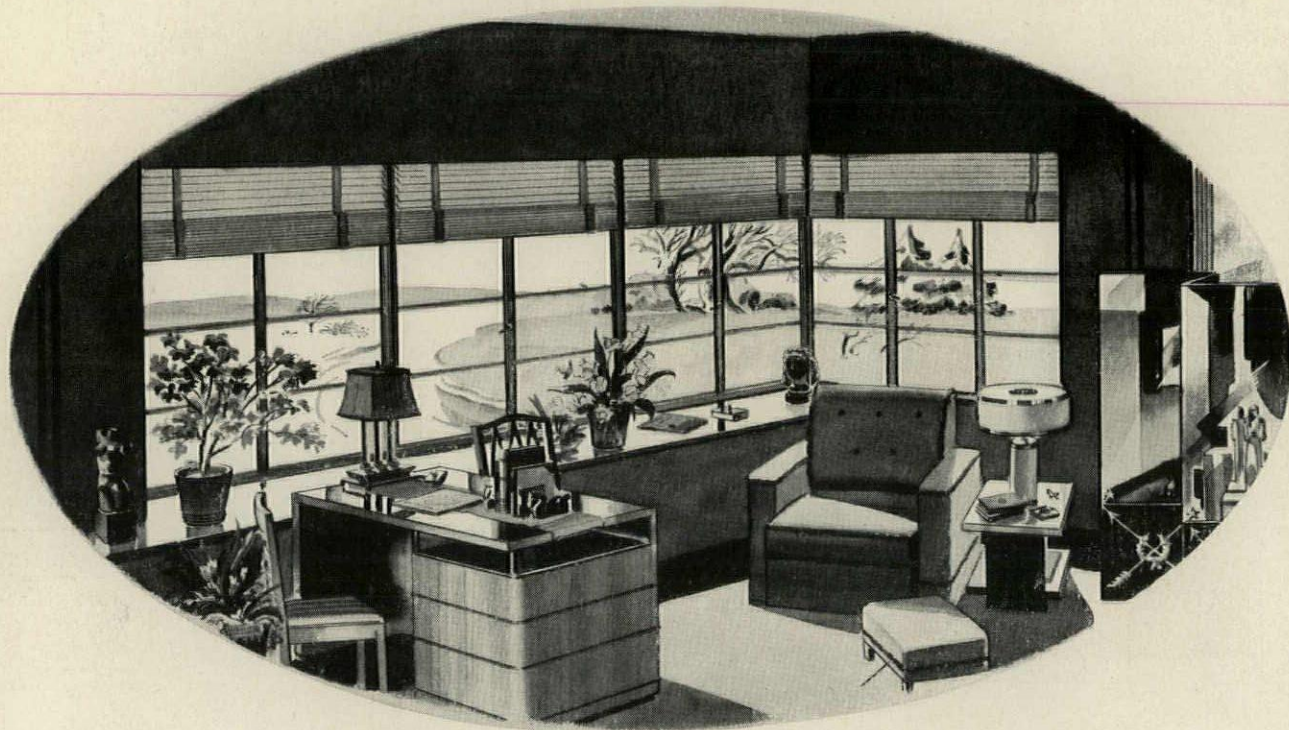
Firm ..... Street .....

City ..... State .....

PP-1



## "WINDOW CONDITIONING" IS ESSENTIAL



## FOR BEST RESULTS FROM WINTER AIR CONDITIONING

When you specify winter air conditioning in houses you are planning, remember that its benefits and comforts cannot be fully enjoyed unless these houses are "Window Conditioned."

For with "Window Conditioning", two panes of glass instead of one, healthful humidity can be maintained without fogged windows, without excessive moisture that drips down and spoils woodwork finishes.

And, in addition, "Window Conditioning" contributes much to the comfort of every winter. For the coldest areas in the entire structure—the windows—are effectively insulated. Drafts are practically eliminated.

More even room temperatures are maintained. Fuel bills are reduced—up to 30%.

With "Window Conditioning", your clients will be looking through two panes of glass instead of one. Therefore the quality of the glass specified becomes doubly important. L·O·F Quality Glass is noted for its greater freedom from waviness and distortion. It is today, as it has been for many years, Clearer, Brighter and Flatter than any window glass that the industry has ever offered.

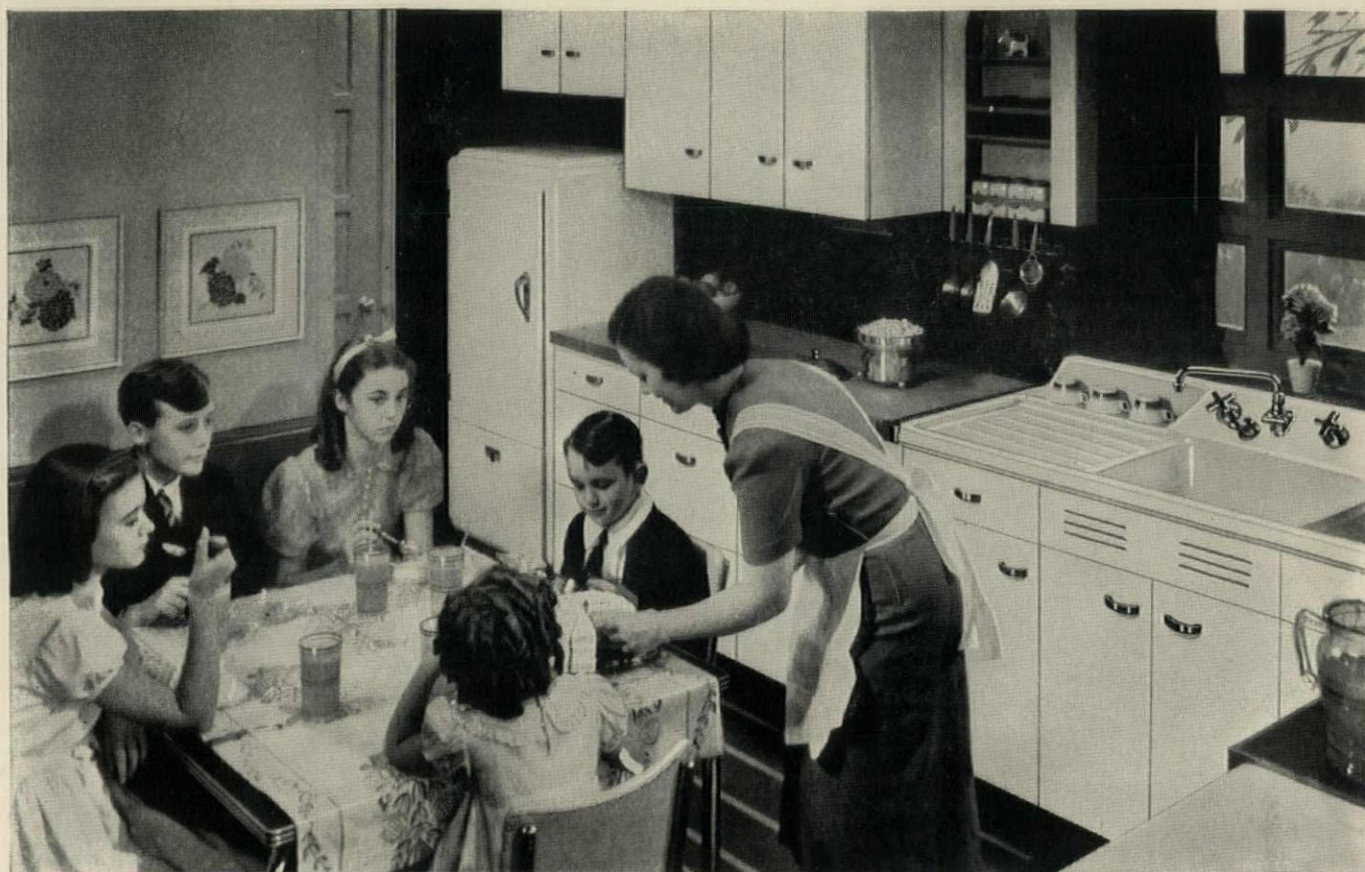
Libbey-Owens-Ford Glass Company . . . Toledo, Ohio.

**LIBBEY·OWENS·FORD**  
**QUALITY GLASS**



A copy of the Architectural Forum's article on "Insulated Glass", together with a booklet on "Window Conditioning" prepared for the home owner by Tyler Stewart Rogers, has been mailed to all architects on Sweet's list . . . Additional copies will be forwarded upon request.





## Life is lived . . . . *in kitchens, too!*



Bathrooms, too, can be planned for more pleasant living and the extra convenience that modern families want. Crane can give you valuable and useful ideas in planning the complete bathroom for practically any size of space. You'll find such information ready for your use in the Crane Bathroom Planner. Make use of this service.

A KITCHEN is a workroom—of course. But it's also a room where *life is lived*, often by many members of the family. And so, many of today's most popular kitchens combine step-saving efficiency with arrangements and features that contribute to more pleasant living. When such a kitchen is required, CRANE can help you plan it.

Crane offers you a wealth of ideas on fitting the kitchen more closely to individual family needs . . . on making the kitchen more "fun" to use. For Crane has pioneered Family-Planned Kitchens . . . sponsor-

ing kitchen improvements that are solid and permanent in value, rather than merely novel. Crane offers equipment embodying the latest, proved efficiency features—sinks that eliminate work because they are better fitted to their function. And Crane backs the architect's judgment with products of unquestioned quality and honest workmanship . . . obtainable within every price range. For aid in planning more useful, more pleasant kitchens, use your Crane Architect's Catalog—and visit a Crane Display Room!



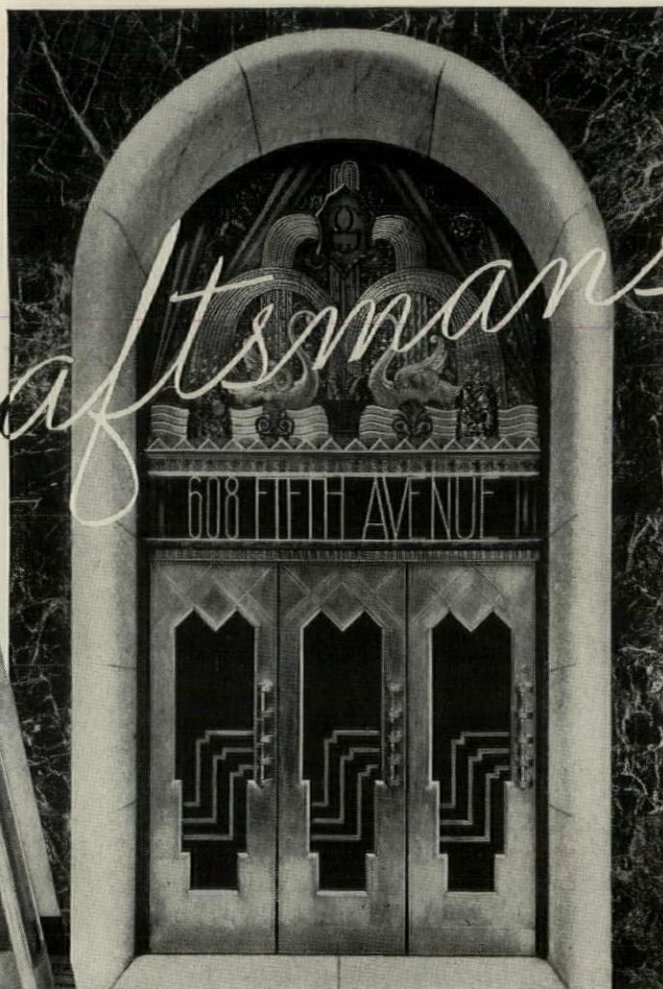
# CRANE

CRANE CO., GENERAL OFFICES: 836 SOUTH MICHIGAN AVENUE, CHICAGO  
VALVES • FITTINGS • PIPE • PLUMBING • HEATING • PUMPS

NATION-WIDE SERVICE THROUGH BRANCHES, WHOLESALERS, PLUMBING AND HEATING CONTRACTORS



*Craftsmanship*



SOLID NICKEL SILVERS  
rich and varied in color

REVOLVING DOORS of solid metal



STATUARY of every description



## IN NON-FERROUS METALS

Craftsmanship is the distinguishing element apparent in all products by General Bronze. For many years outstanding architects, builders and sculptors have looked to General Bronze for their needs in this field.

With craftsmanship is combined expert engineering in all details of construction.

We invite you to write for detailed specifications or illustrated folders on any division of non-ferrous metal fabrication—such as windows, revolving doors, elevator doors, entrances, decorative friezes, grilles, gates, lamp standards, marquises, railings, signs. Roman Bronze Works—a subsidiary—produces statuary of every description, large or small. Our catalogs are filed in Sweet's.

WINDOWS of bronze or aluminum



WINDOWS that are weatheright



# GENERAL BRONZE CORPORATION

34-19 TENTH STREET



LONG ISLAND CITY, N.Y.

FABRICATORS IN BRONZE • ALUMINUM • STAINLESS STEEL • NICKEL SILVER





# THE ONE-MAN SHEATHING!

2' x 8'—TONGUE AND GROOVE—ASPHALT-COATED

## BUILDS • BRACES • INSULATES

Look at these features of economy and good sense . . . a safe sheathing to handle on the scaffold . . . easier and faster to apply . . . cut-outs for doors and windows are made in place . . . tongue-and-groove edges to assure tight joints . . . there's less waste . . . framing is always in sight — mis-nailing is eliminated

. . . no headers are required . . . asphalt coated for moisture and weather protection.

Return the coupon for full details on this efficient "One-man" Sheathing.

Say "USG 2' x 8' Sheathing" on your specifications. That's assurance of strong bracing, efficient insulation and *low cost!*

## United States Gypsum Company

300 West Adams Street, Chicago, Illinois

PLASTERS • ROCKLATH\* • METAL LATH  
SHEETROCK\* • FIBER WALLBOARD • SHEATH-  
ING • INSULATING BOARD • INSULATING

WOOL • ACOUSTICAL MATERIALS • PAINT  
PRODUCTS • STEEL PRODUCTS • SIDING  
PRODUCTS • ROOFING PRODUCTS

LIME PRODUCTS

\*Registered trade-marks



UNITED STATES GYPSUM COMPANY  
300 W. Adams Street, Chicago, Illinois  
Please send me full details on USG Weather-  
wood 2' x 8' Sheathing.

Name .....

Address .....

City..... State.....



# HERE, THERE, THIS & THAT

## Potomac Patter

The holiday season will be over by this printing and we do hope you've had a Merry Christmas. Washington's architects should have had, particularly the non-Government men, who have been extremely busy. Of course, Government men have been busy too; but the *present* season will not affect them in quite the same professional way.

Material men authorized by their respective outfits to "treat the boys right" may spread "good will" among the local lads—but there is a standing order that acceptance of gratuities is not permitted in your Uncle Sam's service. Furthermore, some of the more fortunate private practitioners managed to procure lucrative Government or District projects and "day laborers" and "sundowners," the F.A.E.C.T. notwithstanding, were employed, wages notwithstanding. Such employment does tend to make the season more happy, bonus or no bonus, the latter predominating—thanks to Unionism.

Unionism was the topic on which Louis Justement, president of the Washington A.I.A. Chapter, so ably expressed himself to the members of the F.A.E.C.T. in their recent Fourth Annual Convention in the nation's capital. Apparently in hearty approval with the aims of the F.A.E.C.T. Justement spoke well and frankly. His experience with, and knowledge of draftsmen and their problems stood him in good stead as he agreed that present-day business methods practically require draftsmen to organize, especially in the larger offices; but warned the Federation of the difficult problem of organizing the men employed in small offices. And to attain the goal set, F.A.E.C.T. maintains all men should be brought into the fold. The convention indicated that great strides have been made in the very few years of its life; that much good has been done and a great deal more good will be forthcoming, if properly handled. About 100 delegates from all parts of the country attended, seeking the solution of their particular problems and discussing the problems of humanity—again their problems.

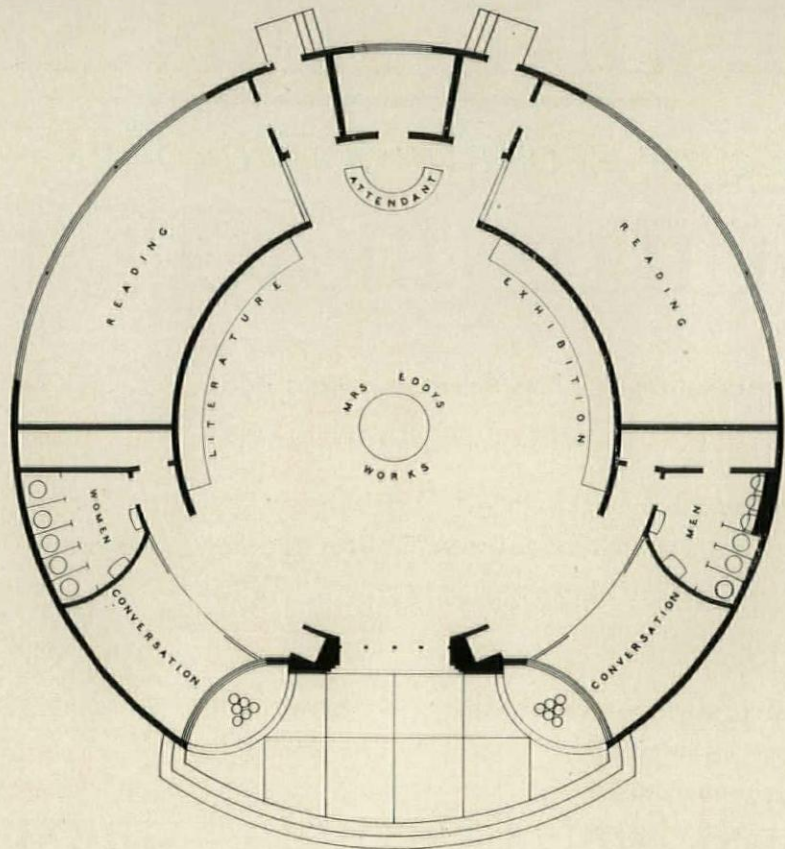
Gilbert Stanley Underwood, Consultant Architect with Procurement, broke into the field of public speaking, adding another asset to his already well-known achievements. Ad-

ressing the Washington Building Congress he predicted materialism and realism are coming into our future architecture. Without the usual turban, he "seered" the forthcoming gain in building industry to be not in the too-remote future and the professional band wagon riding to an American architecture which will no doubt assume a definite position in the history of architecture.

Charles M. Goodman of Procurement again breaks into this column,

not as a two-dimension designer on domestic Alba, which he does better than the next fellow, but as a three-dimension designer for a setting for sculpture. The Museum of Modern Art invited him to design and install the settings for the exhibition of modern American and European sculpture. He scored an exceptional success, for the show is perhaps the finest ever held in Washington.

May you all have a Happy New Year.  
RED.



*The design by W. Pope Barney, Philadelphia architect, for the Christian Science Hall at the New York World's Fair, 1939, is made distinctive by its symmetry of elevation and plan, centered on a display of works of Mrs. Mary Baker Eddy*





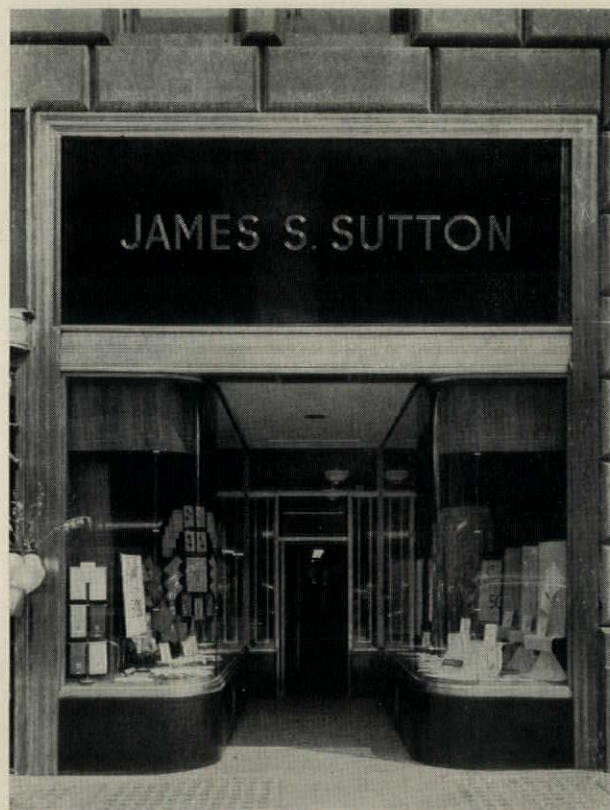
*Polished Virginia Black Serpentine for facing and bulkheads, Varner Bldg., Houston, Texas; Kenneth Franzheim, Architect*

## There are sound reasons for the popularity of this black stone

Virginia Black Serpentine has become increasingly popular for facing, bulkheads, and spandrel panels because it supplies the demand for a black exterior material which can be installed at moderate cost and on which upkeep will be negligible.

Since the stone has great toughness, density and uniformity of grain as well as strength, it can be cut into sections as thin as  $\frac{7}{8}$ " which makes for real economy. Installations in widely scattered parts of the country show a diversity of design treatments for re-modeling operations as well as new construction. It is being used quite widely on interiors also, for base, door trim, pilasters, mantel-facings, hearths, etc.

A set of samples, conveniently boxed, showing the range of stone, including mottled dark blues and greens from the Alberene quarries will be sent gladly. The Alberene Stone Corporation of Virginia, 419 Fourth Avenue, New York. Quarries and Mills at Schuyler, Va. Sales offices in principal cities.



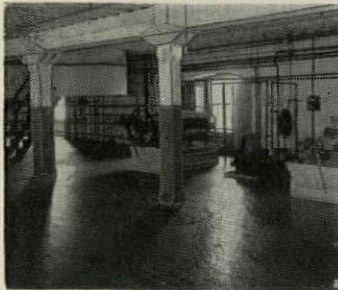
*Polished Virginia Black Serpentine facing and bulkheads; James S. Sutton Store, Fifth Avenue, New York City*

**Virginia Black**  
**S E R P E N T I N E**  
**FROM THE ALBERENE QUARRIES**



# No Assignment..... Too Tough for HILLYARD

## Floor Treatments



### FACTORY FLOORS

get a lot of abuse but when Hillyard Floor Treatment products and Hillyard methods are used the floors are no longer a "problem."

### HALLS

must be kept clean and bright to create favorable impressions. Nothing to worry about when the custodian uses Hillyard Floor Treatments.

### DISPLAY ROOM FLOORS

get a lot of attention and wear from the public and unless in the very best of condition unfavorable opinions may be formed by the public. Floor Treatments and the methods used by the Hillyard Company will always keep floors in excellent condition.



## FACTS . . . . .

For over thirty years Hillyard Floor Treatment and Maintenance Products have made friends wherever used. They are approved by Flooring Manufacturers and Flooring Contractors. Old floors in poor condition can be restored to a new appearance and kept in perfect "well groomed" condition by the use of Hillyard Floor Treatment Products and the Hillyard Maintenance System. New floors will keep that new, "spick and span" appearance when the maintenance man uses Hillyard Hi-Quality Floor Treatments and Hillyard method. Hillyard products will master any "tough job" and serve efficiently and economically.

For many years Hillyard Maintenance Materials have been specified by America's foremost architects, approved by leading floor manufacturers, and endorsed by flooring contractors as giving entire satisfaction in uniformity, dependability and economy. See Sweet's Catalog, Section 17, Page 40.

Call or wire the Hillyard Sales Co. for the Hillyard Maintenance Expert in your locality. His advice and recommendations are yours for the asking.

**FREE** The Hillyard Manual on Proper Floor Maintenance, full of real ideas and suggestions on practical, economical maintenance. Write for your copy today.



### Boston Housing Projects Pending

At this date, December 21st, Massachusetts housing projects still chafe at the bit, awaiting the order to start.

As a major architectural problem of the time, newish in conception and radical to some minds, we consider it over pigs knuckles whenever there are any on the menu. To some of us, the local *opponents* seem to be such as are agin new departures, on principle, or are against whatever threatens their pocketbooks; and a smaller group which takes note of the broad social responsibility, to make housing "truly effective," and which has not been achieved up to the present moment. (Suggested slogan: "An electric refrigerator in the house does not make a good citizen, it only makes another customer for the power company.")

Boston's enthusiasts are the *interested parties*, meaning architects with housing jobs and draftsmen who hope to work on them; disinterested politicians whose hearts go out to the under-privileged; and the shock troops of social advancement, who can think up as many favorable arguments as ever a kaleidoscope had varieties of pattern. The "pest on both your houses" element, with full belly and no cosmic urges or axes to grind, is liable to suggest that if Housing is inevitable it ought to have the best there is in talent behind it. Where done with Federal subsidies, these selfish commentators criticize the policy of decentralizing control over so important a matter, alleging that it puts a premium on opportunism of a, shall we say, pecuniary and political tinge.

Only today came added proof of this weakness, when Governor Hurley failed to reappoint Sidney T. Strickland to the State Board of Housing, upon the expiration of his term as the only architect on that board. Thus, a man of talent and long housing experience goes out and a political appointee of no observable qualifications steps in as this commonwealth's architectural mentor on its most difficult and specialized building problems.

With Housing coming of age hereabout, employee groups have availed themselves of a provision in the Wagner-Steagall Act that very thoughtfully requires prevailing wages in the pay envelopes of draftsmen engaged on such work.

The Architectural League of Boston submitted a minimum wage-scale, based on a similar one now effective in New York; F.A.E.C.T. came in with the same schedule. In brief, and

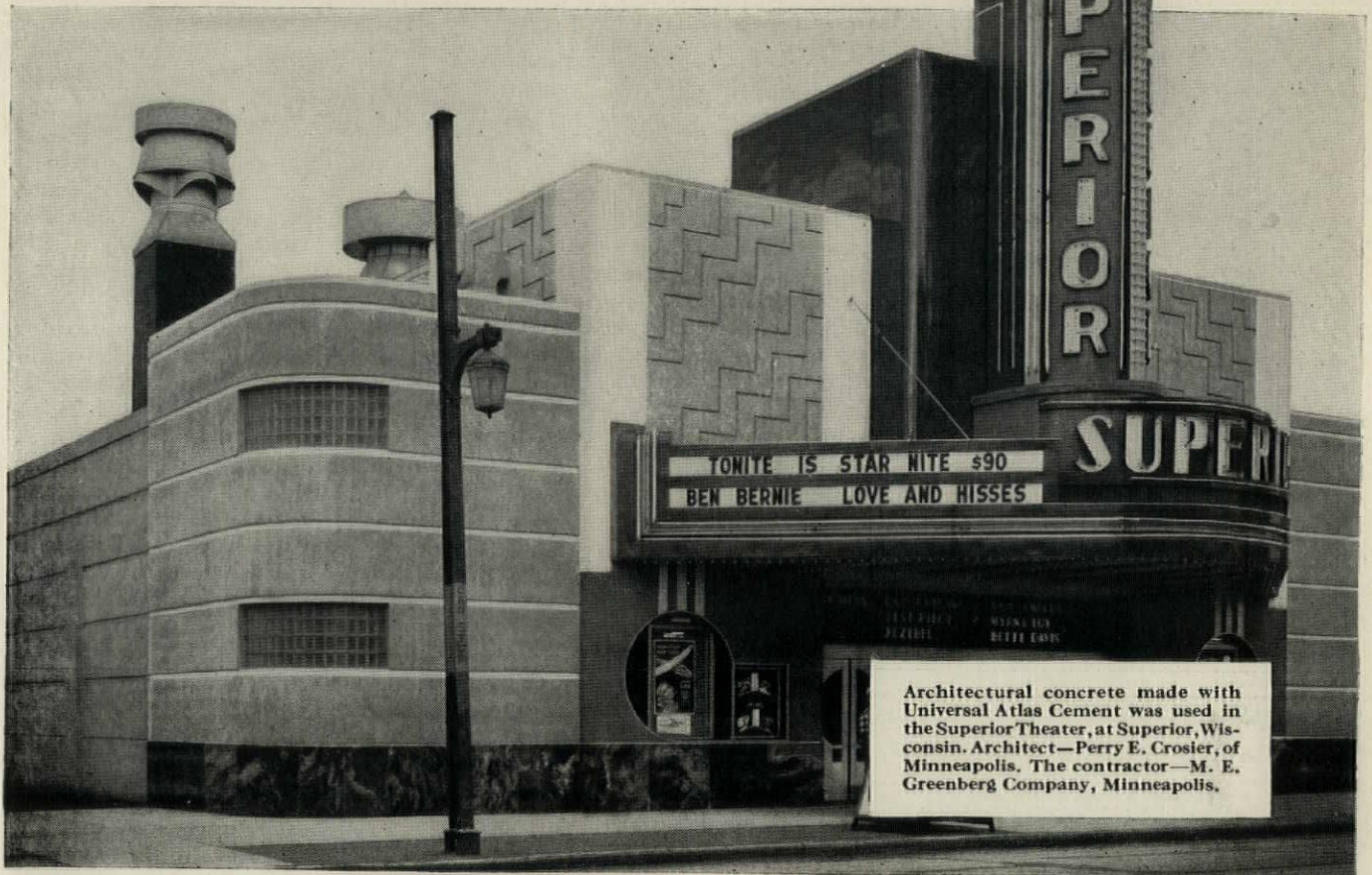
(Continued on page 16)

★ **HILLYARD SALES CO.** ★  
★ ...DISTRIBUTORS HILLYARD CHEMICAL CO. ... ST. JOSEPH, MO. ★



# CONCRETE

## GIVES IT MODERN FORM AND STRENGTH



Architectural concrete made with Universal Atlas Cement was used in the Superior Theater, at Superior, Wisconsin. Architect—Perry E. Crosier, of Minneapolis. The contractor—M. E. Greenberg Company, Minneapolis.

**Architectural Concrete made with Universal Atlas Cement has become a part of design for beauty in many types of buildings . . . .**

**T**HIS Wisconsin moving picture theater is an example of the steadily increasing use of architectural concrete. This reinforced concrete provides beauty as well as strength, durability and fire-safety. It requires little or no maintenance. It is low in first cost, too. Job comparisons usually show a saving in

favor of architectural concrete.

It walks hand-in-hand with modern architecture. Its plastic qualities, its clean, monolithic character can be molded to give form to the designer's vision. Its surface treatment, whether left exposed, painted, stuccoed, tiled or treated in innumerable ways offers a wide field for imagination and variety in design. And its application to all forms of buildings is a demonstrated success. Architectural concrete is a practical, economical and beauty-satisfying material.

Send the coupon today for more

information on this important development. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

Universal Atlas Cement Co. PP-AC-1  
Chrysler Building, New York, N. Y.

Please send me further information about architectural concrete.

Name

Address

City  State

# Universal Atlas Cements



(Continued from page 14)

translated into the more familiar nomenclature of Boston it ran:

Senior Draftsmen .. \$70.00 a week  
Draftsmen ..... \$55.00 " "  
Junior Draftsmen .. \$40.00 " "  
Apprentices ..... \$25.00 " "

At this writing the final word of the Housing Authority has not been given.

Four Boston offices are ready to take off, when the first batch of housing projects is started. Newspapers reported the following.

Henry & Richmond, Architect; Cost of Project, \$4,088,000; Fee, \$126,728.=3.1%; John M. Gray, Architect; Cost of Project, \$6,214,000; Fee, \$192,634.=3.1%; G. E. Robinson, Architect; Cost of Project, \$6,473,000; Fee, \$200,663.=3.1%; Richard Shaw, Architect; Cost of Project, \$2,032,000; Fee, \$87,376.=4.3%.

Other local offices are not too desperately situated, averaging a deal better than they did one year ago.

The field of capable draftsmen remains depleted, and nobody knows how a real flurry could be handled. To be sure the architectural schools are diligently training reinforcements, and more intelligently than of yore, but where New England is concerned their

practical effectiveness is limited. Functionalism, if I may be permitted as threadbare a word as the lamented "camouflage," may be above reproach but our idea of modernity is usually restricted to certain clichés applied to a false front, behind which the good old times reign almost unchallenged. This distressing condition will take a while to work off, and until then a lad who has come up from the ranks with his ear cocked for the topical rather than the theoretic, will be of the greatest solace to his boss.

The Architectural Club, from November 26, held a three-week exhibition of Contemporary Modern Architecture occurring in this small section of the world. It is hardly a hot bed of sedition, amongst us, but no less an uncompromiser than Professor Gropius contributed. Peter and Stubbins may be reckoned as of the Modernist Wahabites; but everyone else is in-again-out-again as the occasion demands or the spirit moves.

Boston's Architectural League, meeting at the Club on December 20th, inaugurated its collaborative effort with the latter's free employment service. All architects who want the best draftsmen obtainable (this side of Hell) would do well to call the Club's Executive Secretary Bert Buffey, at

Lafayette 8765. The League's speakers for the evening were F.A.E.C.T.'s International President Louis Alan Berne and E. A. Johnson, Secretary-Treasurer of the Building and Construction Trades Council.

Berne gave a succinct and forceful talk on the work of F.A.E.C.T. for draftsmen in housing, as having been first responsible for the establishment of a wage-scale designed to benefit professional workers, who are but poorly organized to economic ends.

Johnson, talking from the angle of the American Federation of Labor, made the point of a common interest between trades and draftsmen as component parts of the building industry, and of the common-sense recognition of one's status as a paid hand which, by all modern standards, requires affiliation with a national group.

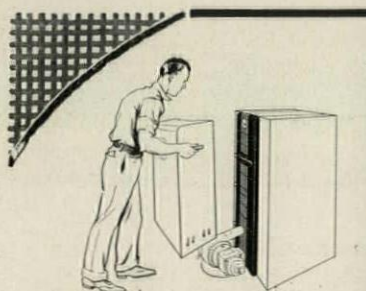
Having just gotten away from it all, on an annual fortnight up-country, the writer failed to hold his regular preliminary poll on the probabilities of Christmas graft. Such as it is, limited in scope by time, I find that the boys confidently expect a decenter showing of cigars, gadgets, and likker. They reason this way: (1) Business is better; (2) The udder that used to dispense the milk of human kindness

(Continued on page 18)

★  
*An Old Friend  
at a New  
Price*  
**KOH-I-NOOR**  
Drawing Pencils

**NOW**  
10¢ each  
\$1.00 per dozen

★  
**KOH-I-NOOR PENCIL CO., Inc.**  
373 Fourth Ave. New York



*On and Off  
Advantage of the*

**Yello-Jacket BURNHAM  
That Stings The Fuel Bill**

If you burn oil, you can have the burner either jacket enclosed or not. If you start by burning coal, and want to switch to oil, it's a simple matter. Or if you want to switch from oil to coal, it's just as simple. Should you decide to burn neither one, but use gas, you are still in an enviable position. No matter what the fuel this new Burnham Yello-Jacket Boiler stings the fuel bill.

Not shown in our 1938 Sweet's catalog, but will be in the 1939 edition. Send for special Yello-Jacket folder.

**BURNHAM BOILER CORPORATION**  
Irvington, N. Y. Zanesville, Ohio

*Burnham Boiler*



*With Linoleum*

**IT IS EASY TO DESIGN FLOORS  
THAT ATTRACT NEW COMMISSIONS**

*Decorative but thoroughly practical, this floor of Armstrong's Linoleum consists of a plain field with inset wreath designs.*

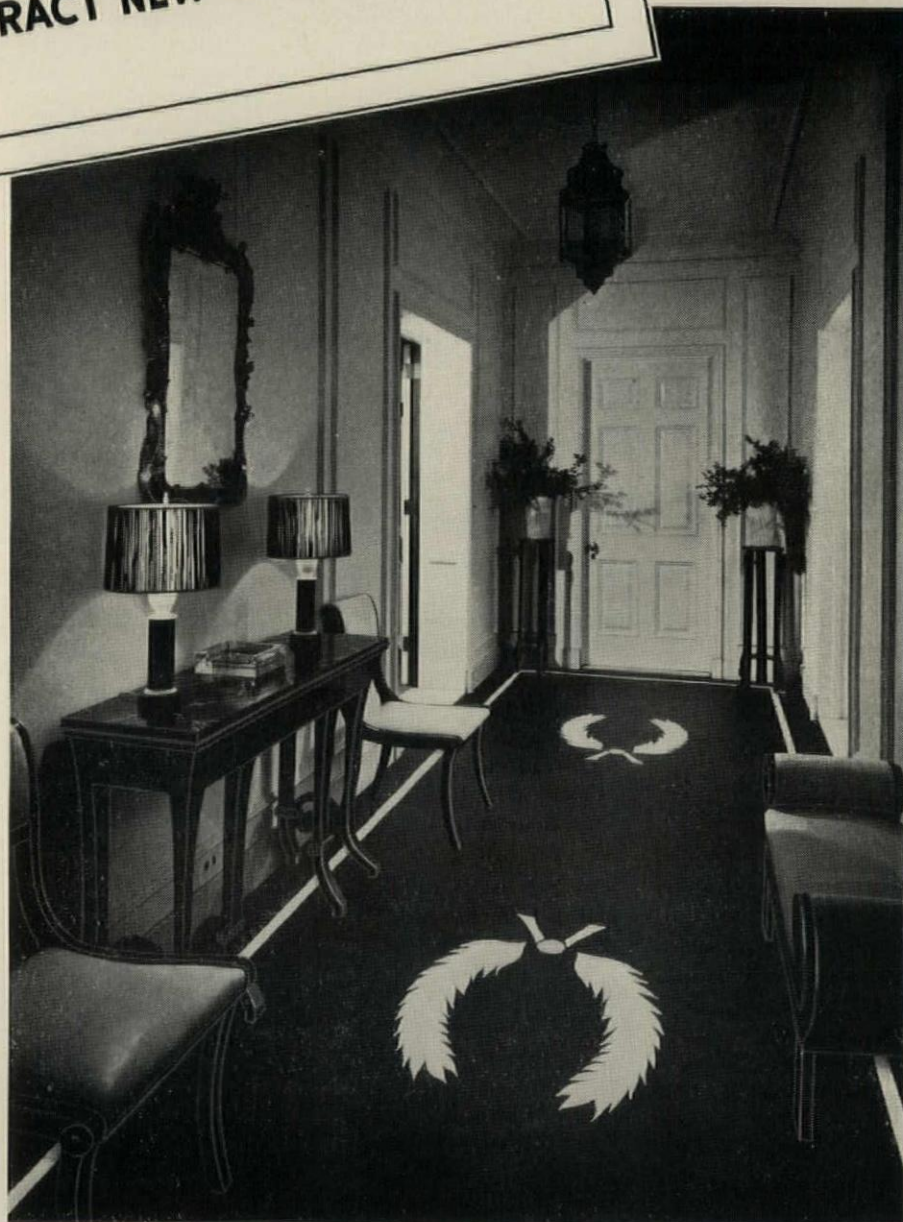
**S**PECIALLY designed linoleum floors, like the one shown here, do a double job for you. They satisfy your clients. They advertise you—and lead to new commissions.

It is easy to add extra distinction to homes, stores, and offices with Armstrong's Linoleum Floors. Almost any design that can be drawn can be reproduced in linoleum. An assortment of more than fifty colorings and grainings permits you to harmonize linoleum floors with every style of interior decoration.

Armstrong's Linoleum Floors provide all the practical advantages that clients demand. They are durable. They are comfortable and quiet. They are easy and inexpensive to maintain without refinishing.

For more complete information, see *Sweet's Catalog* or write now for color-illustrated "Better Floors." Armstrong Cork Company, Building Materials Division, 1206 State Street, Lancaster, Pennsylvania.

Armstrong manufactures the only complete line of resilient floorings—Linoleum, Reinforced Rubber Tile, Asphalt Tile, Cork Tile, and Linotile (Oil-Bonded). Therefore our Architectural Service Bureau can offer unbiased suggestions on the best type for a given area.



**RUBBER TILE • LINOTILE (OIL-BONDED) • ASPHALT TILE**

*Armstrong's* **LINOLEUM**  
*and* **RESILIENT, NON-CERAMIC TILES**

**CORK TILE • LINOWALL • ACOUSTICAL CEILINGS**



## Inquiry Draws Out Interesting Past of Plywood

Many remarkable facts relating to the long history and the many uses of plywood have been called to the attention of the editors since PENCIL POINTS inquired in these columns, on behalf of Dr. Nikolaus Pevsner, if anyone knew when and where plywood was first used in cabinet work.

"During the closing part of the last century I worked as a journeyman cabinetmaker in various cities in Germany and found plywood already commonly used. It was not sold as such in the open market, however, but was made by the individual cabinetmakers themselves in different sizes to suit their needs," writes Emil Lader, of the office of Joseph H. Wildermuth & Company, Gary, Indiana; agreeing with Dr. Pevsner's instance of the use of plywood in cabinetwork in 1898 in Dresden.

"It was used for door panels, in furniture, tops of tables, dressers, and drawer chests in high class work," Lader continues. "It seems to me that 40 years ago the use of plywood was already well-established and had been utilized for a considerable time before.

"At the turn of the present century,

large quantities of 1/4-inch three-ply were used in England. I think it was imported from Riga, Russia, and the face veneers were of European alder, if I remember right. It was commonly used for drawer bottoms and the backing of cabinets.

"It was also much used by the cabinetmakers in that country as veneering plates, instead of tinplate, because it was much cheaper. The plywood was heated at an open fireplace and the fuel employed was shavings. It stood the heat exceedingly well and did not blister. The glue used for making this plywood was probably casein glue, as ordinary cattle-hide, which was generally used in European cabinet shops at that time, would have been dissolved by the heat."

From Charles E. Devlin, of the Douglas Fir Plywood Association, we learn that "plywood is not necessarily the baby of the lumber industry but apparently is one of the grand-daddies of wood adaptation." Giving as his authority *Veneers & Plywood* by E. Vernon Knight and M. Wulpi (1927, Ronald Press) he writes:

"Actually, of course, plywood construction has been known for at least 35 centuries, since there are existing specimens of Egyptian furniture, ply-

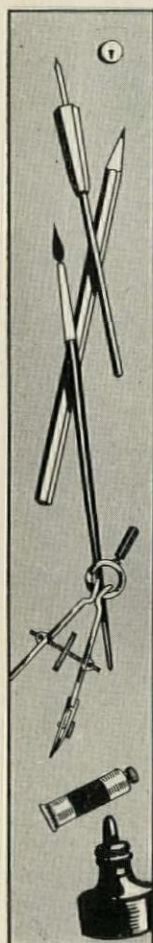
wood built, which have survived the long period of oblivion. They (the authors) indicate that little is known of the methods used: how the wood was sawed into sheets; how a glue, which after some 3,500 years still holds thin layers of face wood to the heavier base or core, was prepared."

(Continued from page 16)

having dried up, for lack of proper manipulation (ask any professor of animal husbandry), how can a "general," "sub," or material man expect a break or greasy ways (nautical similitude) without kicking-in a few seven-centers or a potable quart? If a politician receives up to 50% of an architect's commission for giving him a job, the lads are no end reasonable in demanding this rather trifling testimony of esteem.

The head draftsman, being an especially valuable friend, generally gets the lion's share, and no outsider knows the seething fury of the drafting room, when he is a fellow as neither smokes nor drinks, but takes the graft home, re-wraps it on the gift basis, and gives it away to some dissolute easy-come-easy-go acquaintances.

LEON KEACH.



**WHATMAN** Drawing Papers  
are grand for renderings.

The perfection of sizing results in a sympathetic surface upon which water color or wash flow beautifully.

Erasures and cleanings do not mar the beauty of WHATMAN Papers; no wonder architects all over the world cherish them from student days onward.

Sample book on request.

**H. REEVE ANGEL & CO., INC.**  
7-11 Spruce Street, New York, N. Y.

**J. WHATMAN**  
*Genuine*  
**HAND-MADE  
DRAWING PAPERS**

**Check In  
AT DE WITT OPERATED HOTELS**

The Hotels that Check  
with Every Travel Standard

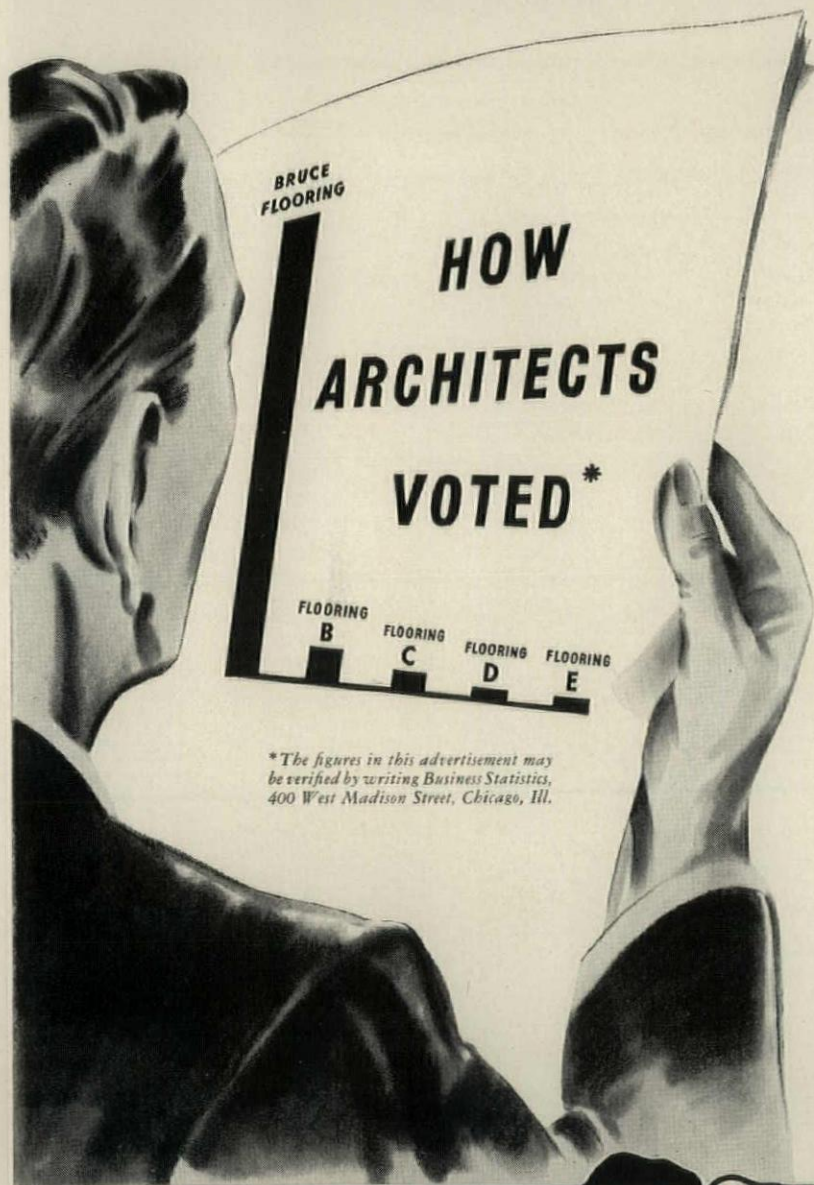
In Cleveland • **HOTEL HOLLENDEN**  
In Columbus • **THE NEIL HOUSE**  
In Akron • **THE MAYFLOWER**  
In Toledo • **THE NEW SECOR**  
In Jamestown, N. Y. • **THE SAMUELS**  
and **THE JAMESTOWN**

**DE WITT  
OPERATED  
HOTELS**

Theodore De Witt, President  
R. F. Marsh, Vice-President



# Architects vote BRUCE FLOORING FIRST 4 <sup>7</sup>/<sub>10</sub> to 1 over all other brands!



● An independent research organization asked architects all over the country to indicate the brand of hardwood flooring they preferred to specify. 82.6% of those replying said *Bruce first!* And Bruce Flooring received 14 times as many votes as the next most popular brand! See the chart for details.

Architects expressed this preference for Bruce because they have found that Bruce means high quality and rigid uniformity of grade—that Bruce products are adapted to modern construction—that Bruce has a positive interest in proper specification and installation.

*Check these other examples of Bruce preference!*

● IN 1938—Bruce Flooring was specified for *Three Prize-Winning Houses* in A. G. A. competition. 79 of the architects in this competition specified "Bruce"—no other brand receiving more than 5 specifications.



IN 1938—Eight out of thirteen apartment projects reported by a leading architectural magazine were equipped with Bruce floors.



● IN 1938—Over 15,000 homebuilders asked about Patterned Hardwood Floors of Bruce Finished Blocks.

Bruce offers you a complete line of flooring and lumber products. May we send you complete information? Just use the coupon.

**E. L. BRUCE CO., Memphis, Tenn.**

## OTHER BRUCE PRODUCTS



LARGEST  
MAKER OF  
HARDWOOD  
FLOORINGS

HARDWOOD STRIP FLOORING • SOLID OAK FLOOR PLANKS • BRUCE FLOOR FINISHES • MOULDING AND TRIM • YELLOW PINE • SOUTHERN HARDWOOD • HARDWOOD DIMENSION • CEDA' LINE • BRUCE PRESERVATIVES • TERMINIX

**THERE IS NO SUBSTITUTE FOR HARDWOOD FLOORS**

**E. L. BRUCE CO., Dept. PP-1, Memphis, Tenn.**

Please send me complete information on Bruce Products checked. (Check in product box at left.)

Name \_\_\_\_\_

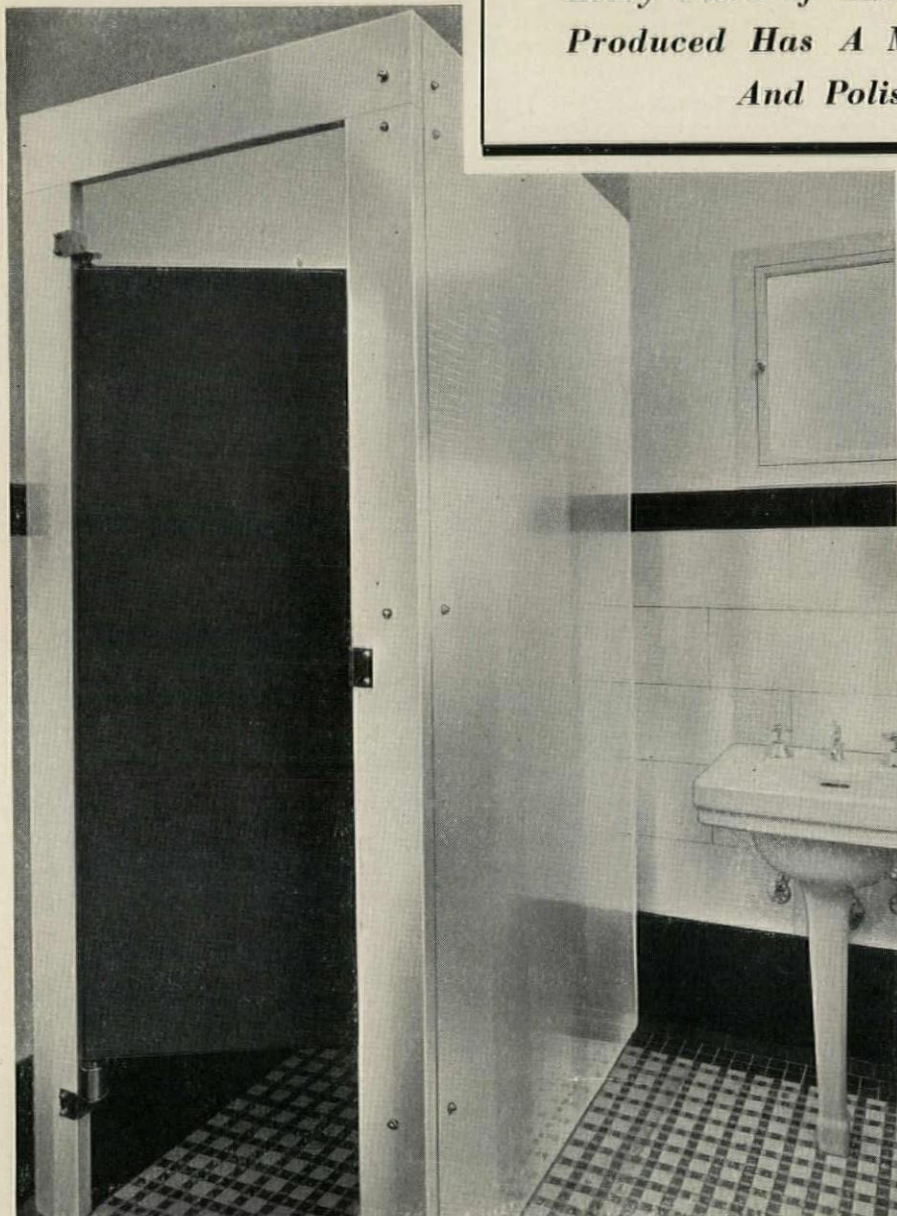
Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_



# *"Carrara"* Means Only One Type of Finish... *the Best!*

*Every Piece of Carrara Structural Glass  
Produced Has A Mechanically Ground  
And Polished Finish.*



A GROUND AND POLISHED FINISH means accurate reflections, eye-catching beauty. Notice how this toilet room of Carrara stamps the building as modern and desirable.

*Distributed by*

**PITTSBURGH PLATE GLASS COMPANY**

*and by W. P. Fuller & Co. on the Pacific Coast*

A MECHANICALLY ground and polished finish like that of the finest plate glass, identifies Carrara as a top-quality structural product. This finish gives Carrara unusual beauty, mirror-like reflectivity.

And Carrara possesses other vitally important advantages as well. For it will not check, stain or craze. Its vibrant color tones do not fade. It presents no maintenance problem. An occasional wiping with a damp cloth keeps Carrara always bright and sparkling. Essential, too, for buildings that must stay modern: it does not absorb odors. Toilet rooms of Carrara never betray a building's age.

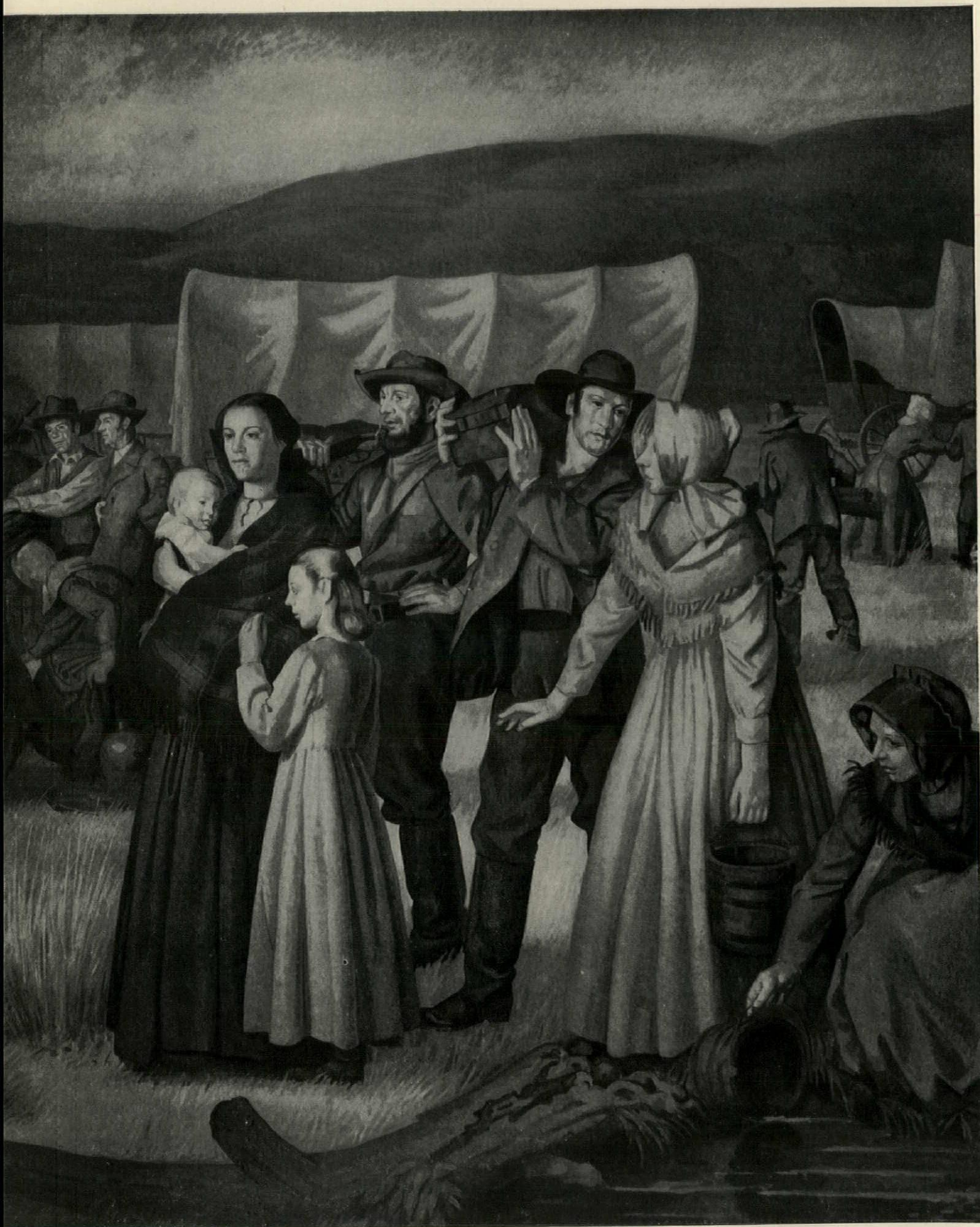
This modern material serves exceptionally well for toilet room stiles and partitions, for wainscoting . . . for countless practical and decorative uses. An expanse of Carrara, strategically placed, gives dignity, beauty, tenant appeal to any building. And in all its varied thicknesses, Carrara offers the same qualities. Every piece assures permanence, accurate reflectivity and low-cost maintenance. Get all the facts. Send your request for our free booklet, "Carrara, the Modern Structural Glass," to the Pittsburgh Plate Glass Company, 2101-9 Grant Building, Pittsburgh, Pa.





FRANK H. SCHWARZ AND BARRY FAULKNER, painters, have just completed and installed a group of important mural panels in the Oregon State Capitol, for which the architectural commission was won in competition early in 1936 by Trowbridge & Livingston and Francis Keally of New York. The competition was fully reported in PENCIL POINTS for July 1936. Overleaf is a detail of one of the Schwarz panels which is shown complete together with three other panels on pages 28 and 29 of this issue. Each of the panels is ten and a half feet high







# ARCHITECTURE, PEOPLE AND THE BAUHAUS

BY TALBOT F. HAMLIN

THE BAUHAUS EXHIBITION. The Museum of Modern Art is holding a retrospective exhibition of the work of the Bauhaus at Weimar and Dessau from 1919 to 1928. It is a most fruitful and interesting expression of a movement that was to have profound effects upon the art of the world. The Bauhaus undoubtedly acted as a sort of lens to catch many of the most important radiations of the art-feeling of its time, and focus them into an intense and striking brilliance. Yet the movements which it focused so beautifully existed in the world outside the Bauhaus, and owed their origin to a tremendous number of the circumstances of the time. Without the Bauhaus, it is conceivable that they might have found other centers which would have performed a somewhat similar service. Functionalism, economy, the close relationship of modern art and the machine, the doctrine of functional design, the attempt to form a new craftsmanship based on the machine to replace an outworn hand-craftsmanship—these ideas have all been widely held in many countries since the Great War, and indeed had found vivid expression (by Sullivan, Wagner, Wright, and Van der Velde, among others) before that catastrophe made the people as a whole aware that the old world was gone.

Nevertheless this should not blind us to the tremendous contributions which the Bauhaus made, not only in the actual design of objects, but also in the whole theory of art education. Education at the Bauhaus, in its introductory courses, aimed, first, at setting the student free from traditional ways of doing things, and, second, at giving him a close personal and sensuous feeling for the qualities and possibilities of materials and their endless varieties of texture, color, and mass or tenuity. It was, in a sense, the kindergarten system of learning about things by playing with things, raised to a new dignity and complexity. The "constructions" which these classes made, on the basis of this study, may have been as meaningless and erratic as you please — many of them doubtless were;—yet when they are seen

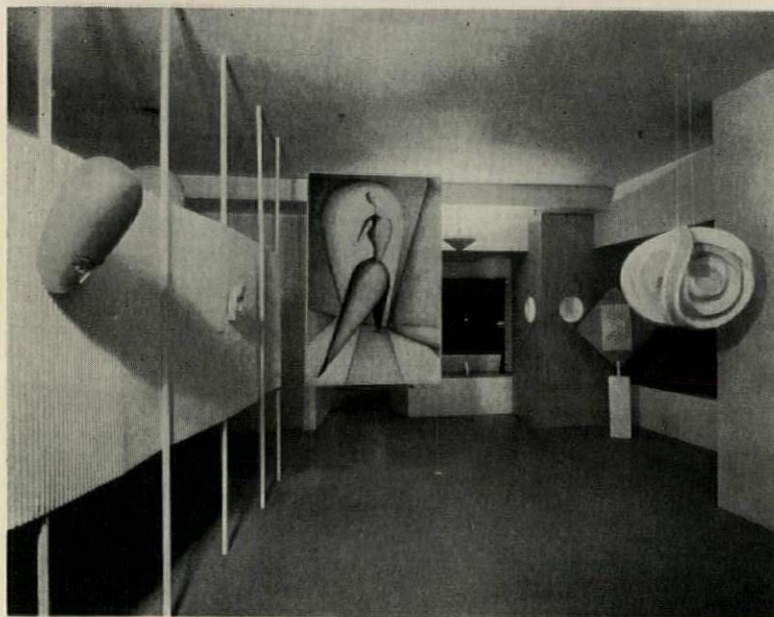
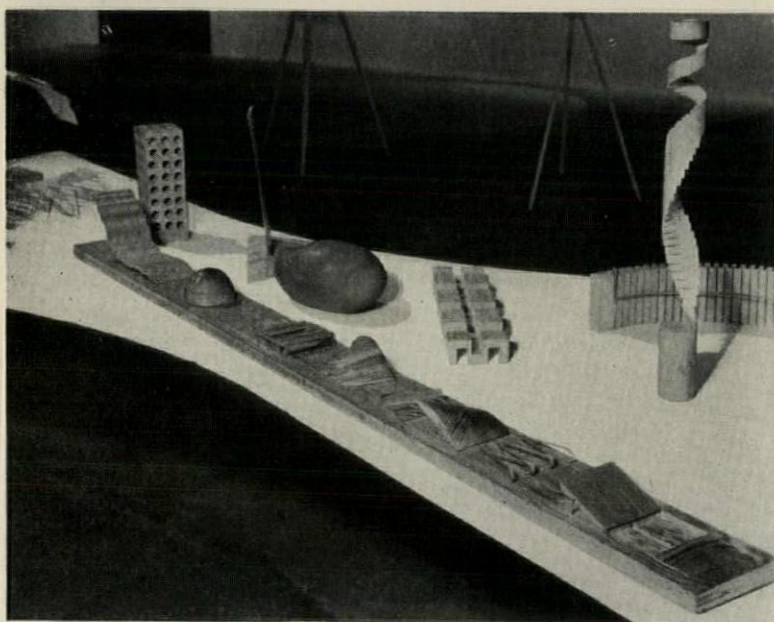
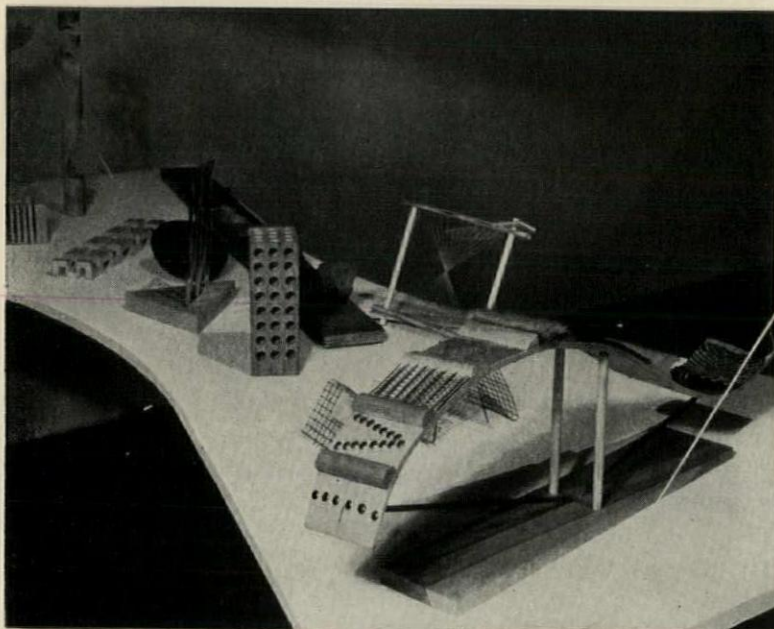
merely as means to an end, and not as works of art in themselves, they take on a different value. It is the fault perhaps of some of the later Bauhaus work, under the direction of that brilliant but erratic designer Moholy-Nagy, that what started out to be an educational means became an end in itself, and the student began to feel that he was producing, not mere experiments in materials, but great works of art. Between these and such exquisite abstract constructions as those of Gabo, which were so brilliantly shown at the Julien Levy Gallery last year, there is an enormous gulf—the same sort of gulf that separates an immature student's life drawing from Botticelli's *Birth of Venus*.

The most interesting section to me was that devoted to industrial design, where the training that the Bauhaus gave was most directly applicable. Here one is constantly amazed at the fact that so many of these forms, developed from ten to fifteen years ago, seem so pleasing and fresh today. The whole system of metal furniture based on pipe or tube sections is foreshadowed in Marcel Breuer's first tubular steel chair, though growing simplifications as this method of structure has been mastered make that original chair look heavy and overcomplicated. Yet the direction of this department of design in the Bauhaus was always forward, on a basis that was sound, because it was essentially dependent on the material itself and on the method of its manufacture.

In the "pure" fine arts like painting and sculpture, there is little except an exhibition of the works of the teachers; and these teachers—men like Kandinsky and Klee—had personalities so definite and expressions so characteristic that their direct relation to the Bauhaus idea seems difficult to grasp, and what one gets in this section of the show is merely what one might get in any number of art galleries which show the German moderns.

To me, the least satisfactory of the sections were those devoted to typography and to the stage, and it is in them that one begins to have

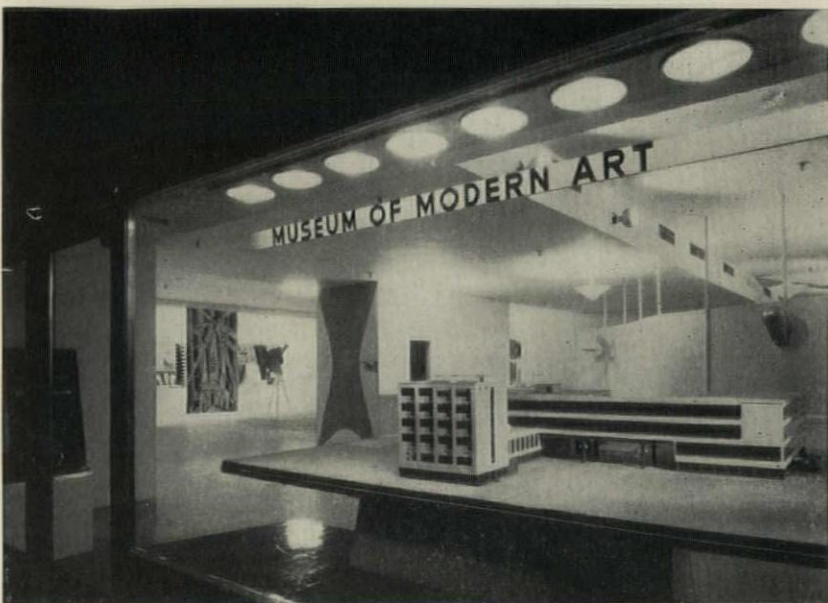
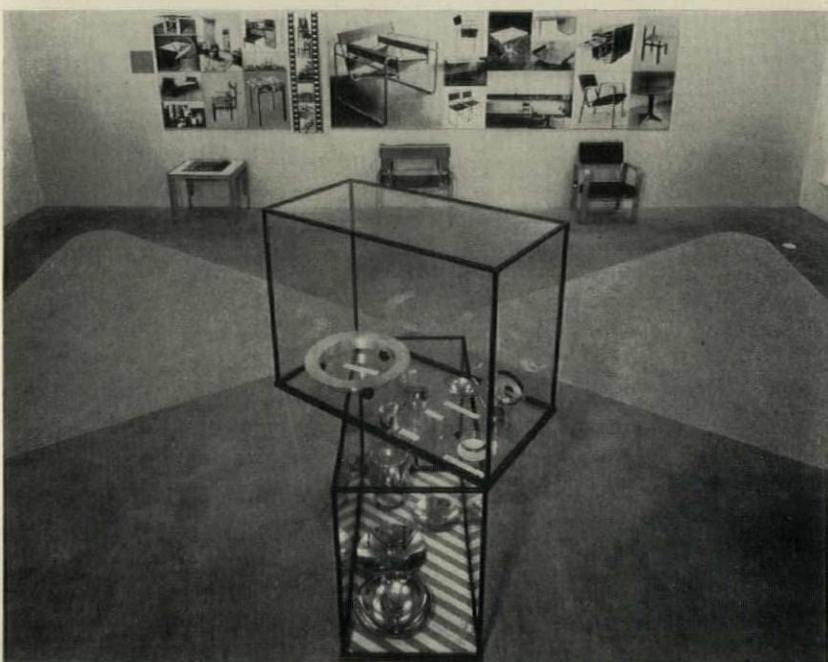




The current Bauhaus show at the Museum of Modern Art, Rockefeller Center, New York, includes exhibits of the work done at the Weimar and Dessau shops from 1919 to 1928 and also some of the things done recently in this country. The two upper views on this page show experiments with materials intended to develop understanding of their qualities from visual, tactual, and perhaps other sensory points of approach. Below is a view in the entrance hall of the museum showing, at the left, two masks from the courses in stagecraft; in the center, Oskar Schlemmer's painting, "The Dancer"; and, at the right, a sculptural construction in folded paper. The curved partition on which the masks are hung is of corrugated paper supported by slender wood stanchions, the whole painted a creamy white. Photos by Soichi Sunami



Here, at the top, is a corner of the section of the Bauhaus show devoted to Photography, Typography, and Textiles. Note the painted figures on the floor designed to guide visitors' movements and assist them in seeing the exhibits in proper sequence. Midpage, some products of the Furniture and Metals Workshop. Perhaps the best things in the entire collection are the simple metal and glass articles in the show-cases. Against the wall, on axis, is placed Marcel Breuer's tubular metal chair, designed in 1926, precursor of a long line of such chairs designed by others. Below is a general view into the exhibit with a scale model of Gropius's famous Dessau Bauhaus which housed the activities of the group of international pioneers he led into eventual exile. All photos by Soichi Sunami





some suspicion of the reason why there is a sense of fundamental aridity, a sense almost of a new academic quality, over a great deal of the other work shown. The basic purpose of typography, as the Bauhaus teachers themselves expressed it, is the clear and forceful expression of ideas; yet again and again the actual purpose of the examples shown seems to have been to confuse the idea or bury it beneath arbitrary obscurity. A favorite trick is to face type in many different directions at once, or to run long headings down the side of a page with letters arranged vertically as in Chinese. The result shown in many of the *Bauhaus Bücher* themselves is to obscure rather than to enlighten, to draw the attention to non-essentials rather than to the totality of the work. Similarly, the arbitrary omission of capitals—an experiment not limited to the Bauhaus by any means, but used frequently by the post-war poets—is certainly not an aid to the clear presentation of the meaning. The capital letter has come to have a very specific function in modern printing and its omission often fogs the entire clarity of the sentence structure and leads to confusion between common and proper nouns. Could it be that somewhere, unconsciously lurking in the background of this effort to be different, was some hidden desire to *épater les bourgeois*?

The stage section, with its insistence on masks to conceal personality and on costumes to conceal body structure, reveals another curious cross-current of purposes perhaps related to the fundamental bitterness and disillusionment of post-war Germany. The aim is always, in these stage designs, to conceal the human being behind constructions, to make him entirely subservient to mechanical effects and clever contrivances of sticks and stilts and geometrical forms. One such ballet could be amusing; but when, without exception, every single stage design shown seems to reveal this strange effort to eliminate personality from the stage, to remove its principal and unique function—through drama or dance or pantomime, to show us ourselves,—that seems somehow a crime against humanity itself, as well as an attempt to replace the stage with a sort of child's mechanical music-box toy. It may be that this sense of the dominance of the machine over man, and of material over the imagination, underlying all this training, was the weakness of the Bauhaus, as its fine technical command of materials was its strength.

The installation is brilliant, if occasionally erratic; the lettering would undoubtedly be

clearer if not on brilliant red cards; and there are occasional trick effects which do not help the high standard of clarity set by the general arrangement — tricks which made it seem necessary to label certain cracks in the corners of the room with signs reading, "This crack is not a part of the installation of the exhibition, but is caused by the blasting across the street."

It is difficult to speak of the architecture. Little is shown, and of course no adequate discussion or exhibition of Bauhaus architecture could be attempted without including the work of Mies van der Rohe, which is automatically cut out by the arbitrary choice of 1928 as a closing date for the work shown.

Despite these lacks, the exhibition is stimulating and exciting, eloquent of a fresh attack upon the problems of design in a machine age. Historically, it is of the first importance as an expression of that up-surge of German creative thought in the years after the War—an up-surge magnificent in its promise but tragic in its development and its end, for hardly had the horror, disillusionment, and anti-humanism of the War begun to pass away when a new anti-humanism swept down to bring an end, in Germany, to the Bauhaus and all the things for which it stood.

For us, I feel, the lesson is clear—not only to keep alive the freshness and mastery of the Bauhaus approach, without falling into its dangers of subduing man to the machine, but also, and even more, to see to it that our own life here in America continues to be a life in which we can make our own experiments, in which we can grow. It is here in America, above all, that the future of a free and creative art now lies. It is up to us to see that that condition continues, and that we continue to grow in our art, not by copying the past—even the recent past—but by learning what it has to teach and going on from there.

\* \* \* \*

ARCHITECTURAL COMPETITIONS. Architectural competitions have obviously enjoyed a renaissance during the past year; but, however interesting may be the results of the Wheaton and Goucher competitions, and those held by the Treasury Department for post offices, it does not behoove us who believe in them to rest on our laurels. There still exists, particularly I understand in certain governmental circles, a fear of the system as endangering the efficiency as well as the standards of governmental architectural work.



There has been much criticism also, on the part of the architects themselves, of the particular way in which some of these competitions were conducted, as well as of the results which they achieved. Some disappointment on the part of competing architects is natural; valid differences of taste as to the relative merits of different designs are inevitable;—yet neither of these, I believe, seriously jeopardizes the basic merits of the system as a whole. What is necessary is a study of how the present system can be improved and a careful consideration of what architects are to take part in competitions, how the competitions are to be judged, and how the judgment itself can be made an educative factor for both architects and lay people.

With regard to the first of these, I do not feel that the argument about waste of professional time is of any real importance. There is nothing to compel an architect to enter a competition if he does not wish to; if he so wishes, the amount of time and effort put into the competition by himself and his employees is entirely his own affair. Moreover, the values to an office of occasional participation in a competition can be made so important in engendering "spirit," speed, decisiveness, and imagination that the individual costs in money are more than compensated for. There is, in addition, the feeling of having contributed something definite to the development of American architecture.

I do feel, however, that certain methods of limiting the number of architects eligible to any given competition might sometimes be desirable. For instance, would it not be in thorough accordance with our American love of local government to do in our smaller governmental competitions what has been done successfully with mural paintings and sculpture—that is, to limit the entries on a regional basis? The size of the region might be determined by the size of the building; the bigger the building, the bigger the region. In this way, not only would local architectural offices be assured of their proportion of federal work, but also an important step would be taken tending to the decentralization of architectural culture—a most desirable end. The result, I think, would be precisely the same in architecture as it has been in the other arts—the discovery of a great deal of new architectural skill, and the tremendous enrichment of the American architectural heritage.

This regional limitation also would often avoid the unwieldy lists of competitors, such as that which was criticized in the Covington post office competition, and it would mean a

more careful and reasoned judgment. In the case of very large buildings, those of national importance, and buildings in Washington, D. C., the competition might well be on a nationwide basis. Someone has suggested a formula of \$1,000 a mile, as a simple way of obtaining local or regional limitation; that is, the building of \$50,000 to be limited to architects practicing within 50 miles of its location, and so forth. Some such idea—although this one was advanced in a semi-humorous vein—might be developed as a sort of guide in preparing tables of limitations.

Other suggestions have been made to limit the entries on a basis of size of work done, classing architectural projects according to their size and importance—allowing all registered architects to enter the lowest class; those who can show executed work and satisfactory letters from clients on work, say, of \$50,000 cost, to be eligible in the second class; whereas the highest class would only be open to those who could give evidence of satisfactory completion of work costing \$1,000,000. I can understand why this system should appeal at first sight to clients, since it would seem to guarantee the professional competence of the competitors. From the broader point of view, however, I believe it a dangerous criterion to follow, because it would frequently shut out young men of small practice like many who have won competitions with designs that have proved epoch-making—as English experience with the purely open system has shown. Any such limitation should be unnecessary, provided the competition program definitely reserved the right to suggest or to force association between a winner who might be inexperienced and a more experienced architect in the executive handling of the job.

The kind of judgment is a matter quite as important. I hardly believe America would accept the English system of the single professional assessor whose decision was final. Some kind of jury system is, I think, inevitable in this country; and the one thing which the architects must work for is to have a majority of professional members on the jury, as well as a professional adviser who can command the respect of the architects, the jury, and the client.

The importance of the professional adviser cannot be over-emphasized. He must have the final responsibility of drawing up the program—and it is often by the program that a competition is made or marred. He must see that all the relevant points which are going to affect the judgment are in the program,



and later, in his report and in his dealings with the jury, make sure that no entirely new criterion, which the program nowhere suggests, is brought in to determine the award.

Once the judgment is made and the commission and prizes awarded, there should be issued a jury report, as an essential part of the competition procedure. This report should go to all the competitors as a right, and if possible it should also be made public and available to those who see the exhibition. Only so can the educational purpose of the competition, which to my mind is one of its most valuable functions, be achieved. The plan elements of any large architectural project are so complex, and the methods of approach by which the goodness or badness of any solution may be evaluated are so various, that, without a published report, frequently just and excellent judgments may sometimes appear arbitrary.

It goes without saying that a contract to execute the work should be an essential element in the first prize award, and that there should also be included some equitable method of payment to the architect if only a portion of the work is carried on. These points should be covered in the program. In the case of purely prize competitions for ideas, such as those conducted by various manufacturers, building institutes, and so on, this would not be possible, since no execution of the winning designs is contemplated. However, even in cases of this kind, the designs of the competitors should be protected against use and abuse; and it would seem that, if they are widely used in advertising, some remuneration for this use should be provided for, especially in those cases where the prizes are small.

I feel that during the coming year every architectural society, small and large, should be studying this entire question, towards the final aim of developing a new set of A.I.A. competition documents to take care of our new conditions, and in order that the excellent beginning that has been made may not peter out because of faulty details.

It is an interesting fact that the incoming President of the Royal Institute of British Architects, Mr. H. S. Goodhart-Rendel, in his inaugural address made the value of competitions one of the most important sections. He said:

"I make no apology for preaching at all seasons and in all places the Institute's gospel of competitions because I think that a great many people, while believing it, do not realise its paramount importance. The days of enlightened patronage are almost over, and

the number of laymen that can pick a good architect is as small as the number of those that can pick a good portrait-painter. On the one hand, you have a body of employers that normally go for their architecture to the men they like meeting at golf clubs or at city dinners; on the other, you have a body of brilliant young men who are mostly better at architecture than at "mixing" or feasting. The work produced by the good mixers and the good feasters may often be all that its occasion requires, but it is fairly certain to miss opportunities that for the general good of architecture ought to be taken. Now, the competition, as things are, is the only door that can always be kept open to the unknown man who has something to give that the world of architecture needs. If we wish our art not to degenerate into a genteel branch of commerce we must see that this door stands wide.

"Architecture cannot thrive without a constant supply of ideas, and the most fertile ideas will often be found in the heads of young and unknown men. Architectural ideas cannot be materialised — cannot be fully born without opportunities, and I think the Institute ought to be a sort of Queen Charlotte's Hospital (London's most famous obstetrical hospital) for providing what is necessary for their delivery. As is generally known, the President of the Institute is sometimes asked to nominate architects for particular undertakings, and occasionally is able within the limits of his knowledge to tap new veins of ore, to point the way to unexploited talent. Almost always, however, he is asked not who would do the job best, but who has done most jobs of the same kind. I always wonder why architects are commonly supposed to be like the baker in *The Hunting of the Snark*, who 'could only kill beavers.' In trade such specialisation is convenient; it would no doubt, be unreasonable to ask a greengrocer for a string of sausages, and I daresay that a good many commercial portrait-painters would run aground if they were to tackle seascapes. There are, moreover, some kinds of buildings in which specialised skill can only be acquired by experience, but they are not many. Nevertheless, it is often impossible to convince the authority wishing to build a branch library or a market that any architect can possibly do it who has not built many libraries or markets before. If such authorities only would hold a competition with a specialist as their assessor both they and he might learn a great deal."

\* \* \*



**THE FEDERAL ARTS BILL.** The Treasury Department at Washington recently issued a statement that the Fine Arts Section of the Procurement Division was being made into a permanent organization. This action, of course, has no actual binding effect upon any succeeding administration. It is a simple administrative matter, which can be reversed just as easily as it was announced. However, the very fact that this announcement was made reveals a real wish on the part of the administration at Washington to do the right thing by the fine arts. This wish is probably sincere, but that should not blind us to the fact of its essentially temporary nature.

This action brings up with startling power the basic truth that never has the United States Government had an actual policy with regard to art matters. This chaotic state has existed too long, and eventually some sort of definite federal bureau or department will be set up. It is probable that the Sirovich bill will be re-introduced into the next Congress, and it is up to those who hope for the creation of an actual government bureau by congressional action, and yet who do not approve the details of the Sirovich bill, to propose some alternate. It is likely that any bill, to be enacted, must be more general and more simple in its terms than last year's bill. There is surely some way in which all of those who believe in a federal art bureau may unite, so as to avoid the factional warfare which arose last year.

Dr. Walter Damrosch, who was one of the most outspoken opponents of the Sirovich bill, has recently announced the terms of a bill which he is proposing, according to which a national bureau of fine arts would be established, under a board of eleven trustees, serving without pay and appointed by the President. These trustees would not only appoint an executive secretary, and directors and secretaries for each of the five fields of music, theatre and the dance, literature, the graphic and plastic arts, and architecture and decoration, but would also have a veto power over all proposals suggested by each department, and would make final recommendations to Congress for the allocation of funds to be appropriated for art purposes.

A full discussion of this and other proposals, by all of those interested in the project, is of course of the greatest importance. Judging from mere newspaper reports on the Damrosch bill, it is difficult to see exactly in what way appropriations would be made and allocated, and what type of control would be needed. Certainly, such a scheme would stand or fall entirely on the character of the unpaid

trustees. The length of term to be served by the trustees is not stated in the accounts I have read, but it is obviously of the first importance. However, this proposed bill has many interesting facets, and if it were possible for its supporters and those who are backing other types of fine arts bills to come together and find a common ground for agreement much might be accomplished.

Perhaps the best way of finding such a common ground would be to examine the functions of the proposed department, before the attempt is made to decide on its detailed make-up. To me, the functions of such a bureau must consider not only painting and sculpture, not only music and drama, but also, and perhaps above all, architecture. Would not the chief functions of any department of the fine arts be four: (1) the acquisition or preparation of new art works, including supervision of the choice of architects and artists for all federal edifices, by competition, examination, or otherwise; (2) the stimulation of the creative arts in America, by subsidizing local organizations where necessary, or by stimulating the formulation of all sorts of local art organizations where none exist; (3) the conservation, restoration where necessary, and administration of existing works of art and buildings in the possession of the federal government, including a study of historical or artistic monuments which should be preserved as a matter of national concern; and (4) the supervision and correlation of all the various federal educational activities which bear on all fine arts matters.

On the basis of these functions, an intelligent capital budget for all art expenditures could be prepared for Congressional action. The total amount of this would vary, but some sort of approximation of the total required could readily be gained from the expenditures of the present Federal Art Project and the work done under the Procurement Division. Surely, with the extraordinary total sums spent each year for all purposes by our government, this is a mere pittance, to be increased rather than diminished as its purpose is realized to be, not temporary relief for individuals, but permanent enrichment of the nation.

Once the purpose of the bureau is determined, its actual make-up could follow slowly, experimentally, and flexibly, as the need showed; and I feel that to tie down its organization in the basic act establishing any such bureau would be to harm its free development rather than to help it. The act might merely state that the government real-



izes that the fine arts constitute an important branch of national culture, directly conducive to national health and happiness, and are thereby matters of national concern and a fit subject for national expenditure. Would it be too much to ask that a department dealing with matters of such great cultural importance and with such a wide scope be given the status of a department rather than of a bureau, and that its head be a member of the Cabinet?

It seems to me that the important thing to do is to get the general principle accepted, that such a bureau or department should exist; the details of its organization and administration could then be worked out as necessity required, under the control of an enlightened public opinion working through the decisive political power such public opinion must inevitably in the long run wield.

The Committee on Allied Arts of the American Institute of Architects also seems to be worried about the whole problem of the proper way to obtain and to pay for those works of art without which any public building is likely to be inhuman and oppressive. The report of this committee, recently made public by Ely Jacques Kahn, points out that, although there is a definite public demand for such decorations, it is difficult to obtain adequate appropriations for them in the building budgets, and that the present system leads to waste and disappointment. He suggests that perhaps cooperative groups of artists could be formed, to work on some kind of guild basis, so that the building committee or architect or government official could go direct to the guild and rest assured that the result obtained—whether the work of one man or many—would be of high standard, and that at the same time all the members of the guild would profit from the commission. This might prove

an excellent system, but I can hardly see how it would lower the costs of works of art to the client. Largely, it seems to me, it is a question of whether the laborer is worthy of his hire; that is, do we expect our painters and sculptors, to choose but two categories of artists, to live like (a) paupers, (b) unskilled laborers, (c) skilled mechanics, (d) small executives, or (e) large executives? In other words, where does the artist fit into the 20th century picture, and what is the 20th century prepared to pay him for his work? The answer to this is bound to be, in a way, an evaluation of our culture and our civilization. Conditions may have changed to make the old private patron a less certain source of living for the artist, and to make him more dependent on public or governmental employment; yet this does not excuse us as a civilization for letting the artist starve, unless we are thoroughly decided that we are through with him. Personally, I dread to think of a civilization deprived of the richness and the beauty that the artist may bring into the life of all. There is only one other possible alternative—that all the fine arts will become purely amateur efforts, done for the joy of doing and not for payment at all. Perhaps the "new leisure" will bring this about. Still, under such a system, I fear the decay of technical and craft knowledge, as well as of that competency in expression and in composition which can only come from a lifetime of application. To anyone who has heard Hoffman play all the Chopin preludes, they mean quite a different thing from the sentimental tinklings produced by the lady next door. . . . Even under the amateur art system, I am afraid that there would still be people so devoted to the arts that they would be worthless at anything else. What should we do with them?



# POST-BAUHAUS GERMAN DESIGN

BY KENNETH REID

FRESH from viewing the current Bauhaus Exhibition at the Museum of Modern Art in New York and contemplating the two books, one by Walter Gropius and the other by L. Moholy-Nagy, that were recently published to record the works of the famous group begun at Weimar and Dessau and later continued in Chicago, the editors became interested in seeing something of what has been going on in Germany since the advent of Nazi "culture" and the expulsion of internationalism in art. We were agreeably surprised to find that a good deal of the post-Bauhaus design, far from representing a relapse into dull, archaeological copying of past works, has a freshness and human warmth difficult to reconcile with the anti-human social outlook of Nazidom as represented by its leaders. In the book "Kunst und Kunsthandwerke am Bau," published by Julius Hoffmann in Stuttgart, we found two-hundred or more examples of the work of German architects, painters, sculptors, and craftsmen that seemed to us to represent a rather high level of design accomplishment. Out of this collection, which is probably the cream of what has been done in Germany in the decorative arts and crafts since 1933, we have chosen to reproduce seven photographs on the immediately following pages. If you like them you can see many more of them in the book. If you dislike them you can damn us for presenting them here. In examining them, however, please regard them from a wholly æsthetic point of view and do not permit your judgment to be affected by your very natural distaste (to use a mild word) for the government under which they were brought forth. We suspect that they may tell something of the real state of affairs in Germany today. But let us stick our necks out a little farther.

The contrast between the qualities evident in this work and the qualities found in the work of the Bauhaus group is too great to be ignored. Recognizing, as we do, the good that the Bauhaus has done by awakening designers all over the world to the latent possibilities of

the machine and by helping to bring about a widespread rebirth of creative energy, we cannot help but feel that thus far the Bauhaus products have failed to acquire the human appeal possessed by the more recent German work. Whether they will ever do so is for the future to determine. Up to now they appeal undeniably to the intellect—but not to the heart. Perhaps they planned it that way. You see we are incurably romantic.

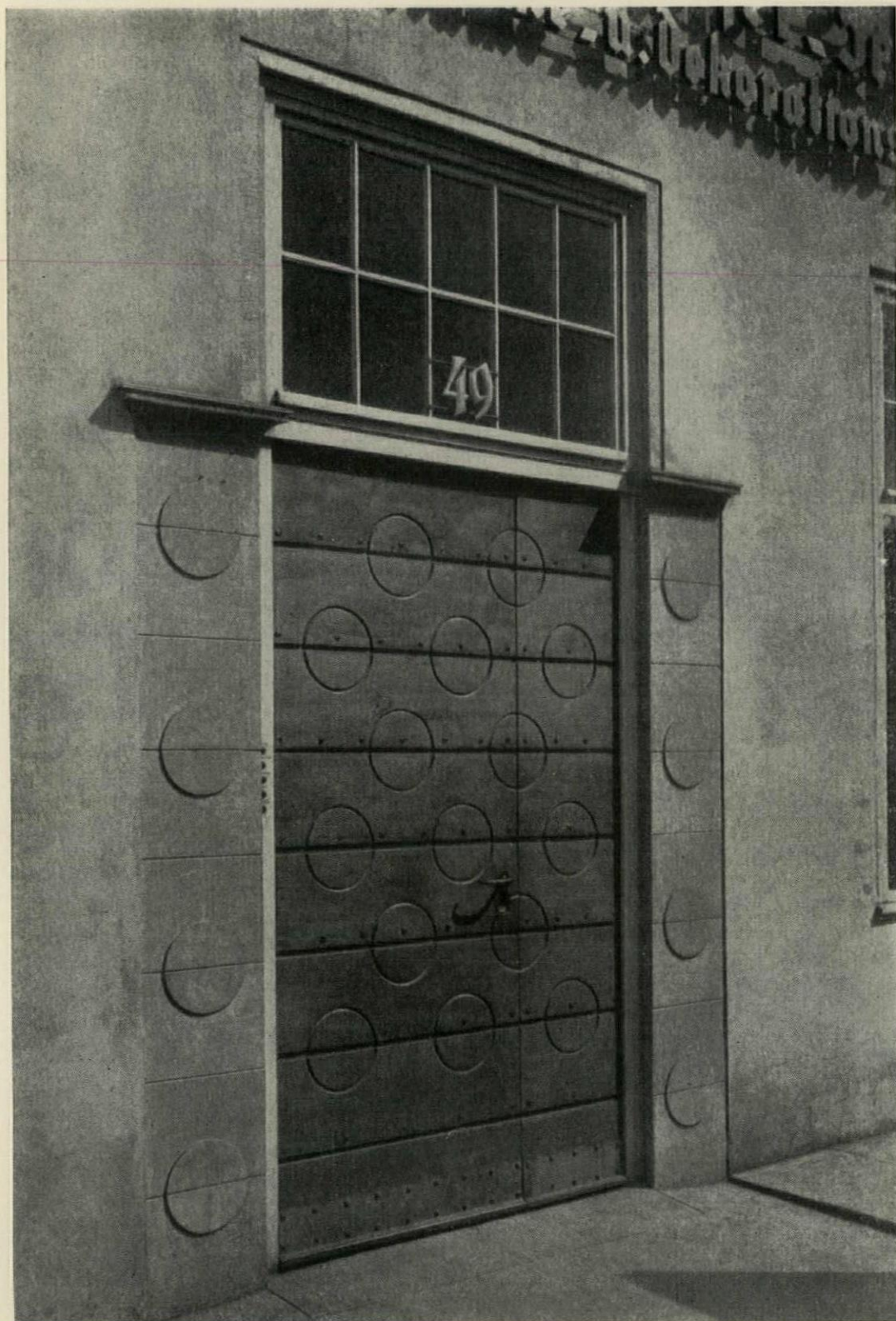
Faced with an apparent paradox, we have worked out a little hypothesis to explain it. Greater minds than ours are invited to substantiate or destroy it. Here it is.

Both Hitler and the Bauhaus developed during the post-war years in Germany—a time of profound depression. Pessimism was in the air and men were filled with bitterness against a past that had brought them to such a state of affairs. It is not surprising that out of these conditions should grow a determination to abandon past practices and seek a completely new approach to the problems of contemporary and future life. Seized with such determination, the Bauhaus turned to affairs of design; the "Fuehrer" to affairs of state. Both grew in strength until there came about a conflict between them. Like repels like. Political power, which was Hitler's, proved stronger than the intellectual power, which was Gropius'. The Bauhaus was forced to yield.

For Hitler's purposes a strongly nationalistic art was needed. He took the artists and craftsmen who were left—men who had their roots in the old Germany and who possessed that *gemütlichkeit* associated with the older German people—and gave them their chance to express it. Millions of marks backed them up in a great building program. They burst into song, so to speak, giving free rein to their emotionally artistic natures. They have thereby produced works which betray, in spite of their sponsor, the continuing vitality of that humanity that belonged to the Germanic race in other days and which we like to believe is still there.

Now let the shooting begin.





*From "Kunst und Kunsthandwerke am Bau"*

*A door of oak planks, studded with hand-forged nails and carved with a simple arrangement of circles, makes a strong and decorative entrance to a house in Danzig designed by Heinz Bahr, Architect, of Königsberg*





*From "Kunst und Kunsthandwerke am Bau"*

*A door decorated with carved wood relief panels forms the entrance to the reception room of the government land authority in Eisenstadt, Hungary. The architect was Rudolf Parthen of Vienna. Note the light fixtures*





*From "Kunst und Kunsthandwerke am Bau"*

*The interior of a coffee and tea store, decorated with blue and white tile and by the arrangement of the shelves of striped canisters, was done by architect Carl Müller of Cologne. Simplicity and order make it distinctive*





*From "Kunst und Kunsthandwerke am Bau"*

*The counting room of the Stuttgart Technical Works was designed by Dr. Otto Schmidt, head of the Stuttgart Building Department. The mural painting which relieves the severity of the room was executed by Emil Glöcker*

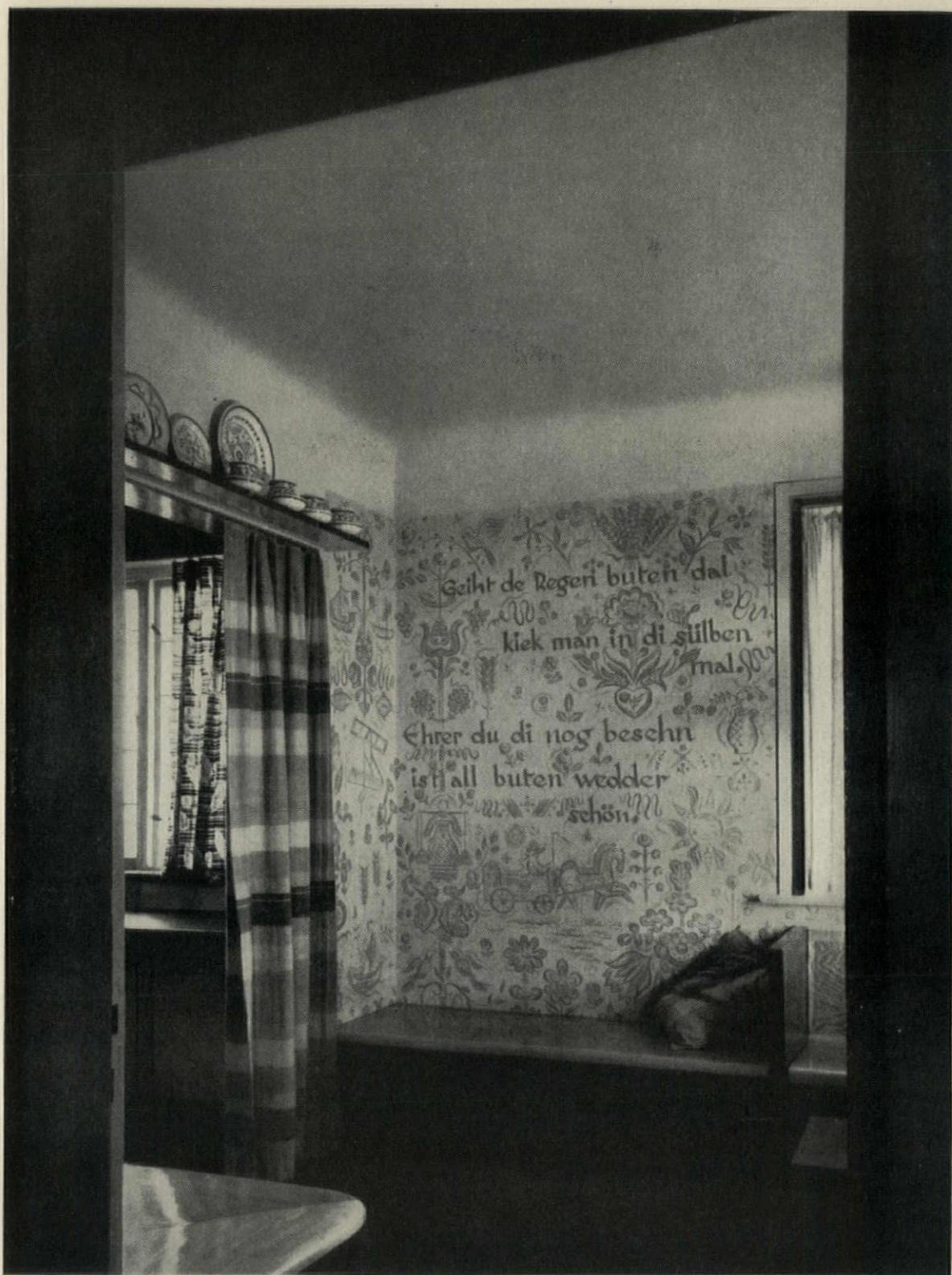




*From "Kunst und Kunsthandwerke am Bau"*

*A decorative glass window in the Memorial Hall of the Friedhof Chapel in Kornwestheim was designed and executed under the direction of architect Hans P. Schmoll*





*From "Kunst und Kunsthandwerke am Bau"*

*Painter Franz Porsche of Hamburg decorated this playful "living kitchen" in a small house designed by architect Gerhard Langmaack, also of Hamburg, for his own use*

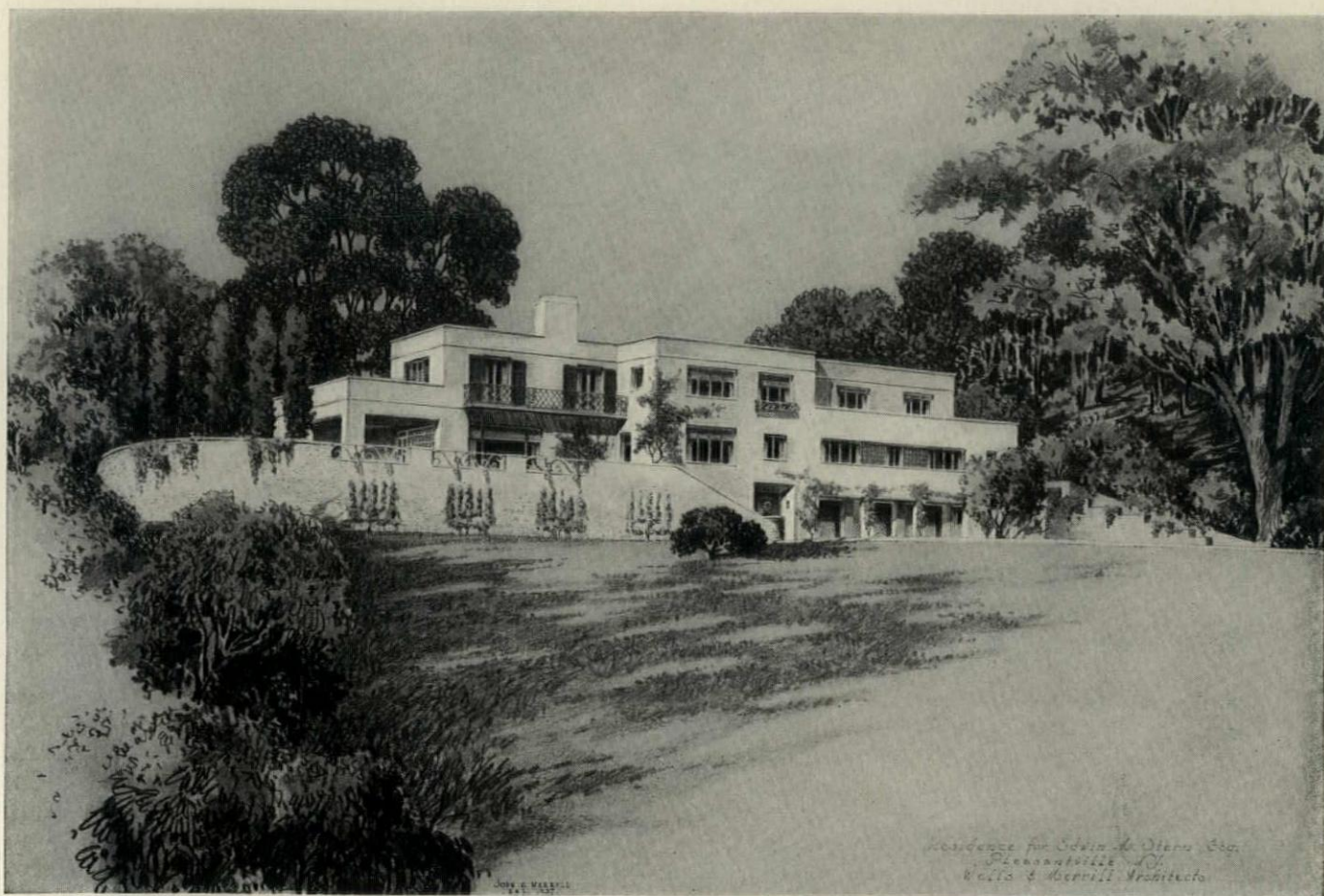




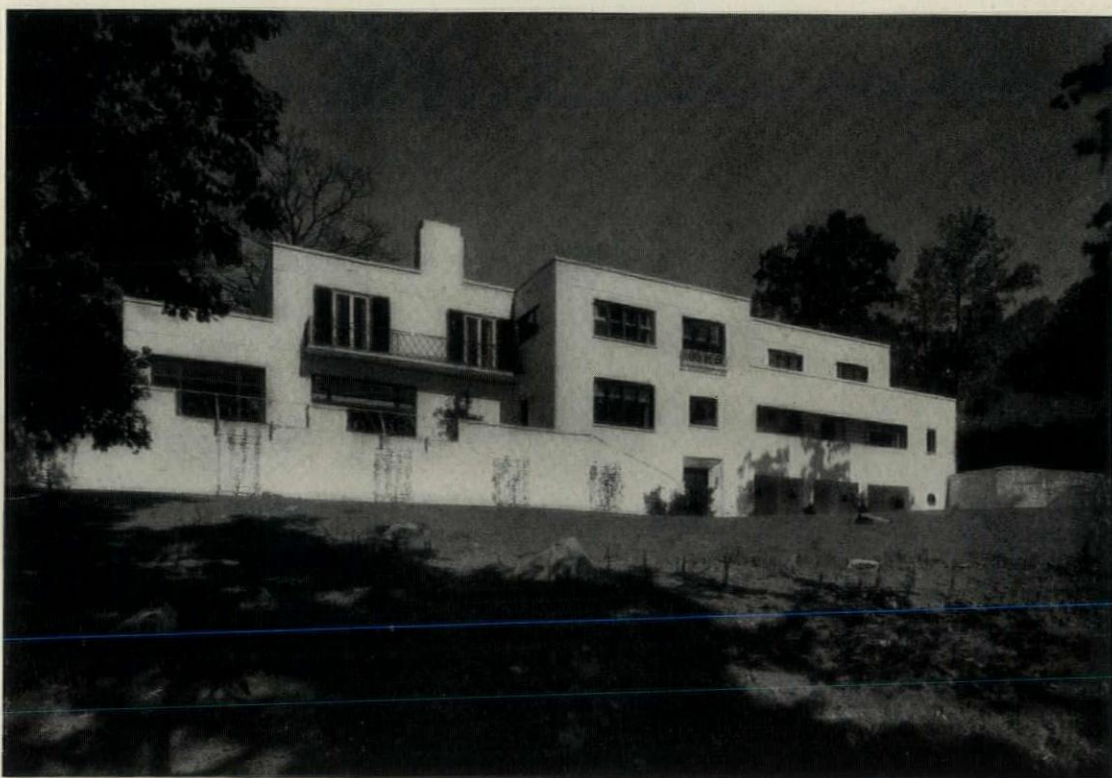
*From "Kunst und Kunsthandwerke am Bau"*

*The exhibition hall for the Decorative Arts and Crafts Exposition held at Leipsic in 1936 had for its architects Kurt Frick of Koenigsberg and Curt Schmieden of Leipsic. The fountain basin in the foreground was by sculptor Bruno Eyermann, Leipsic, while the mural panel at the end of the hall was painted by H. W. Berger of Stuttgart*

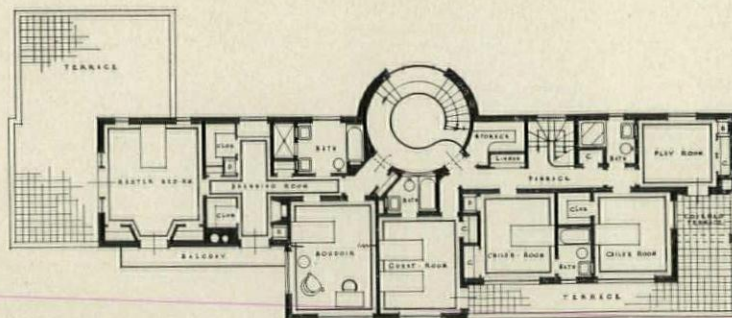




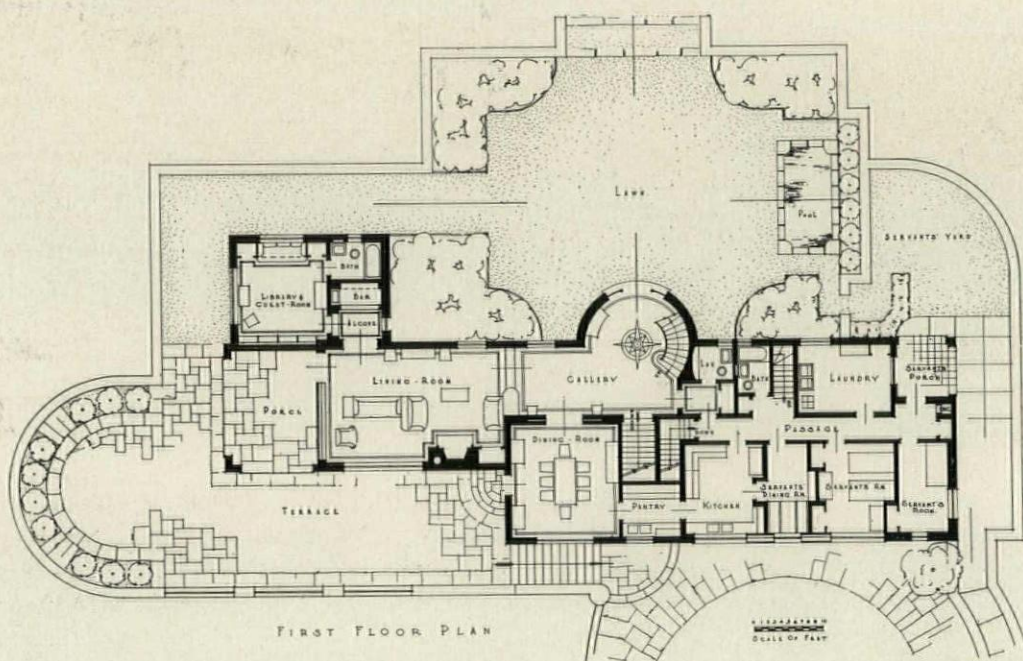
*This residence designed by Frederick M. Wells and John C. Merrill, Architects, of New York City, for Edwin M. Stern at Briarcliff Manor, New York, occupies a sloping site on rugged terrain. The client asked for "the advantages of modernism with enough of the traditional to be harmonious with the landscape"*



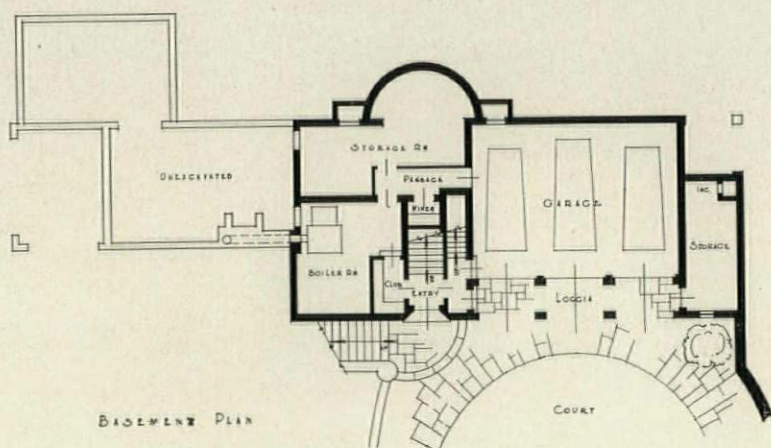




SECOND FLOOR PLAN



FIRST FLOOR PLAN



BASEMENT PLAN

The plans of the Stern house show that Wells and Merrill emphasized a sense of space on the principal floor with a wide opening between the living room and gallery, and a wall of glass brick at the other end of the living room decorated inside by vines growing from the base

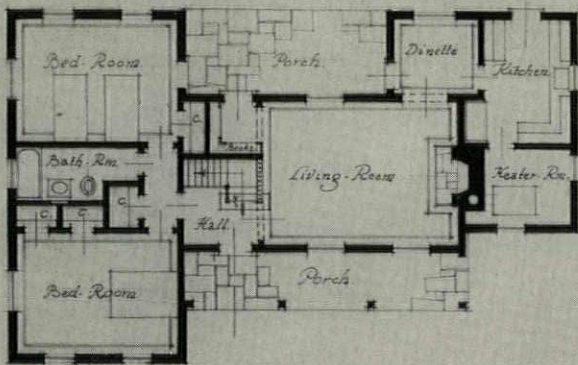
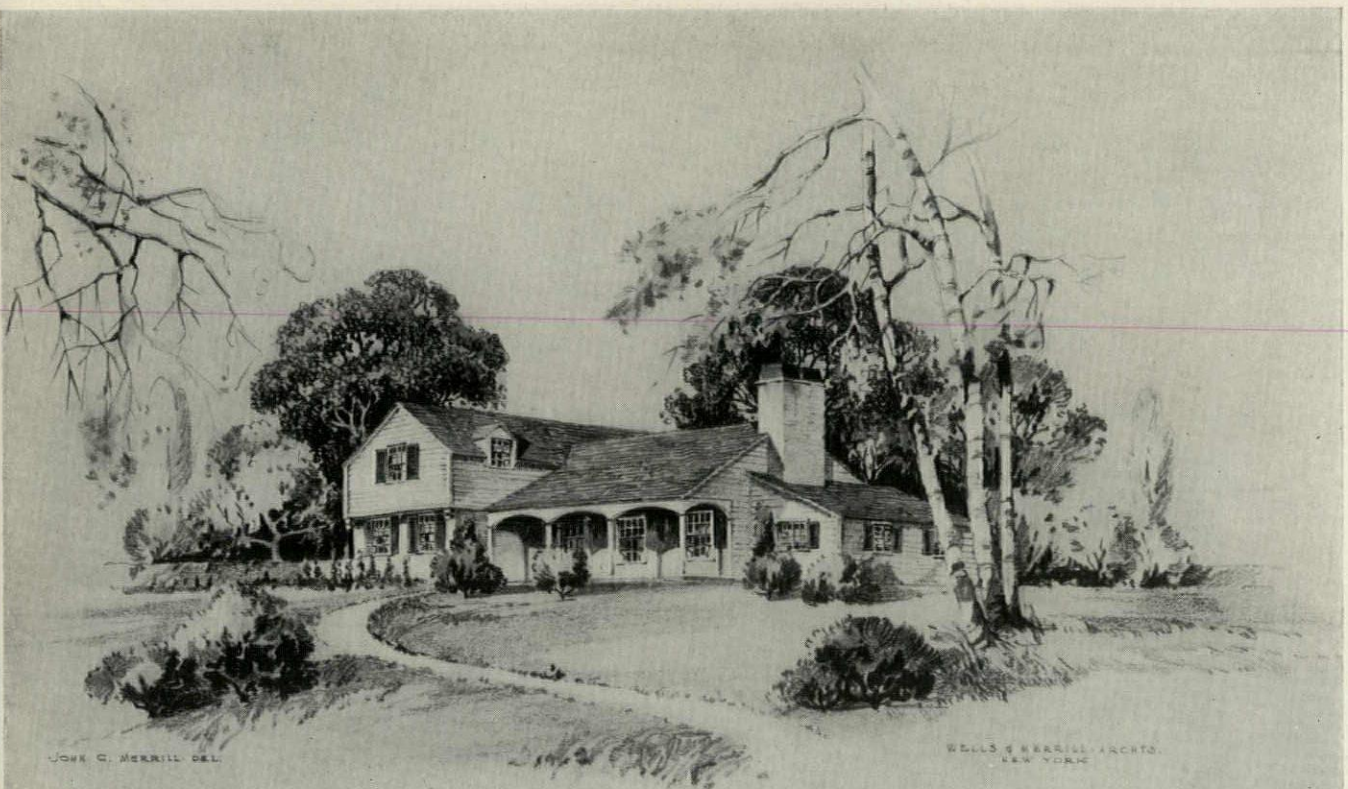




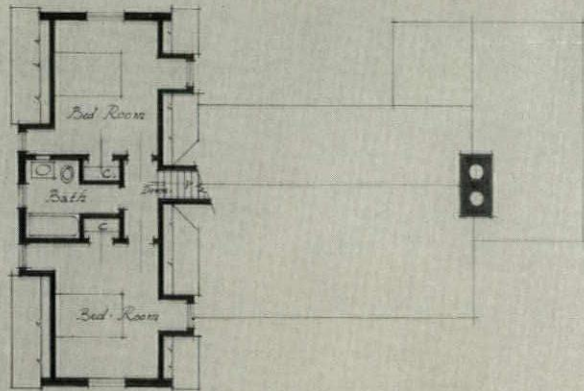
*Photographs of a model of the Stern house made by Theodore Conrad, of Jersey City, indicate the unusual location between a cliff and a deep ravine at the end of the lawn before the house. Michael Rapuano, Landscape Architect, of New York, cooperated on the entrance court, the service ramp and the rear garden*







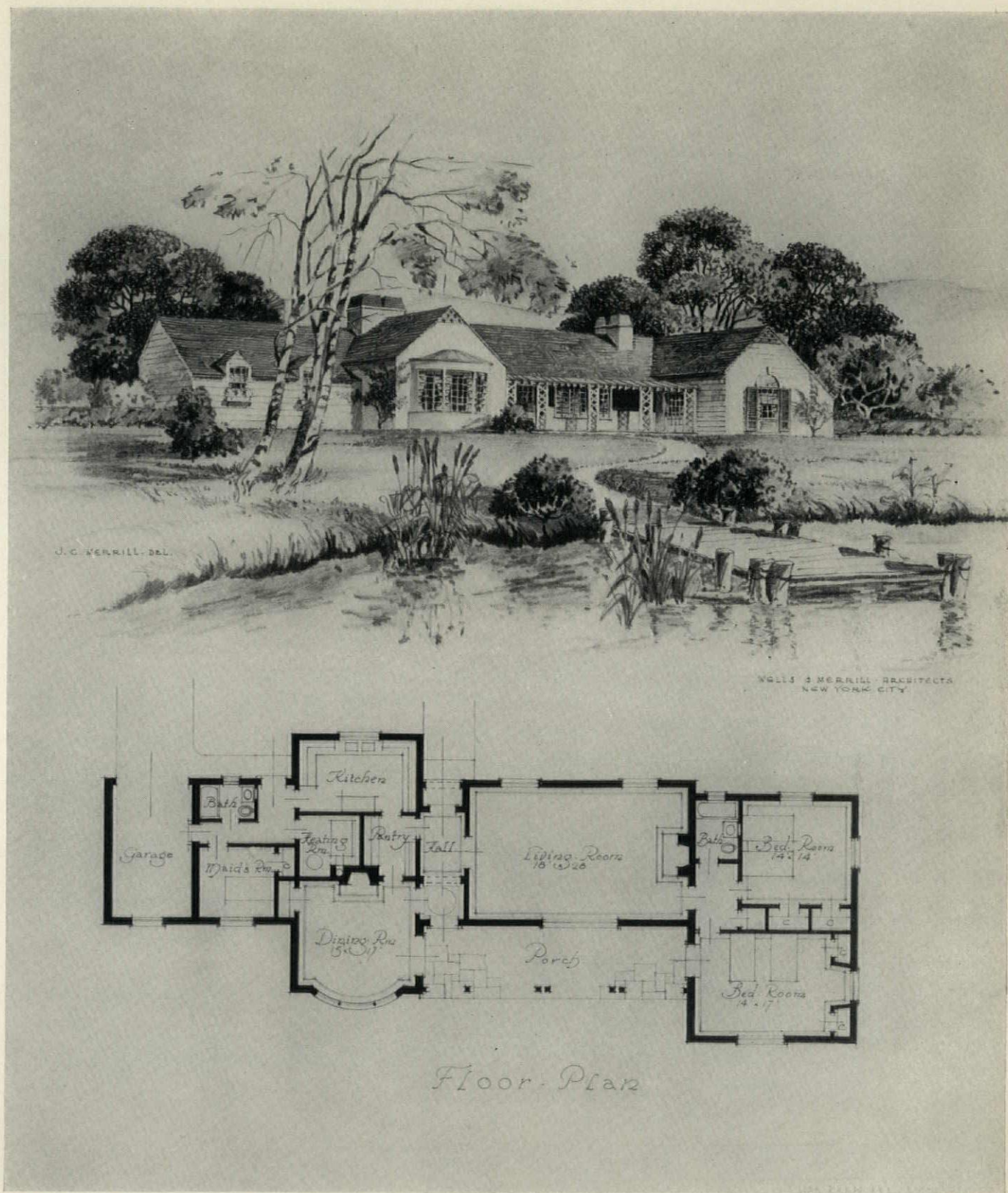
*First Floor Plan*



*Second Floor Plan*

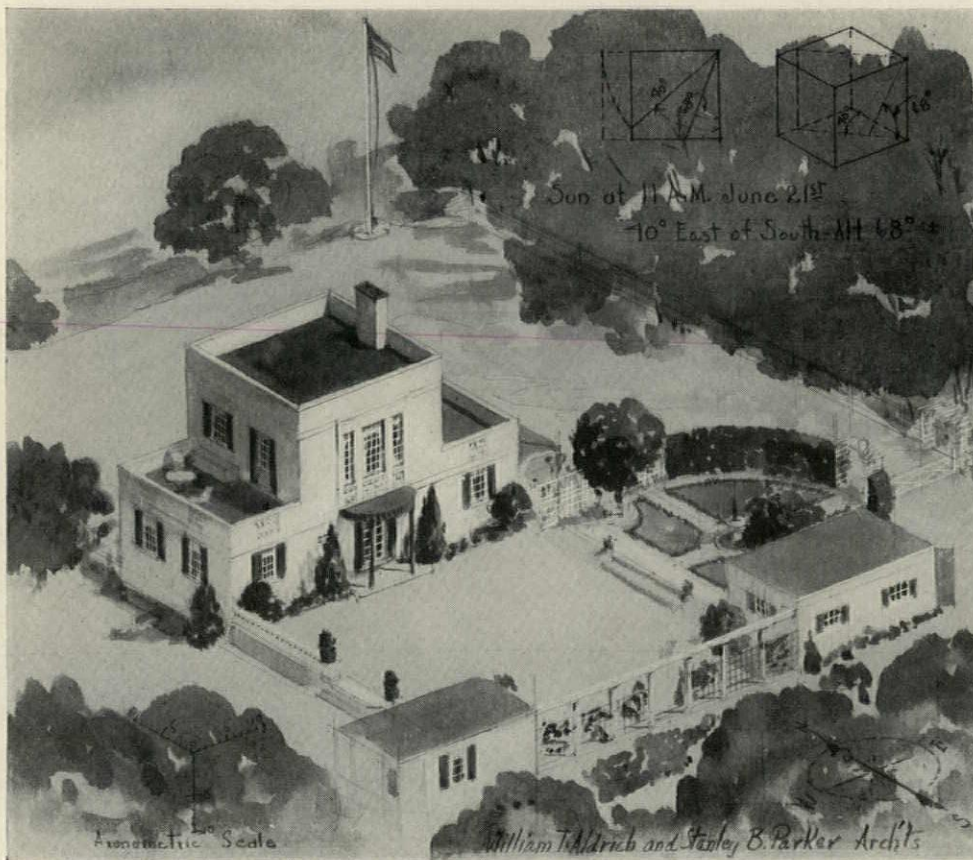
The designs here and on the opposite page were prepared by Frederick Morris Wells and John C. Merrill, Architects, of New York City, for a large development on a lake front. The house above might be occupied in winter, as well as summer, and could be readily increased in size



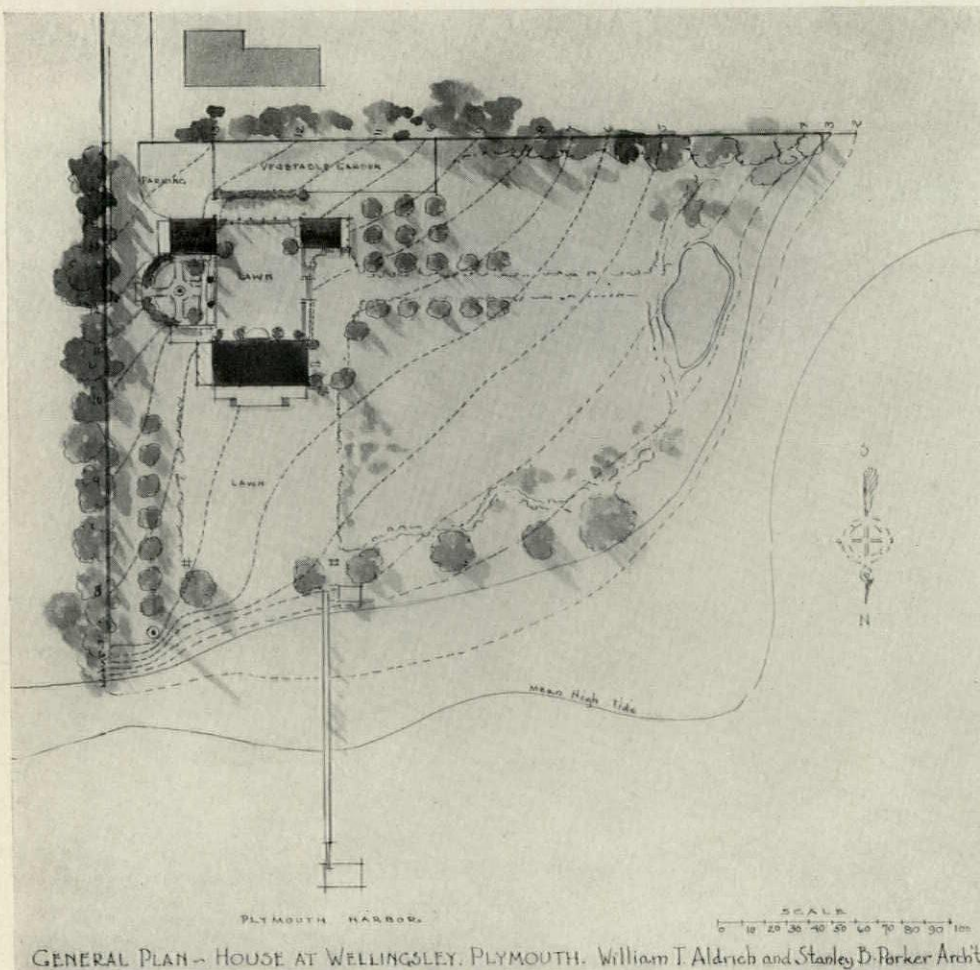


More loosely arranged is this summer home, designed by Wells & Merrill partly for week-end living. The view from principal rooms to the lake before the house and the spacious living porch are featured. This and other renderings shown from the office were made by John C. Merrill



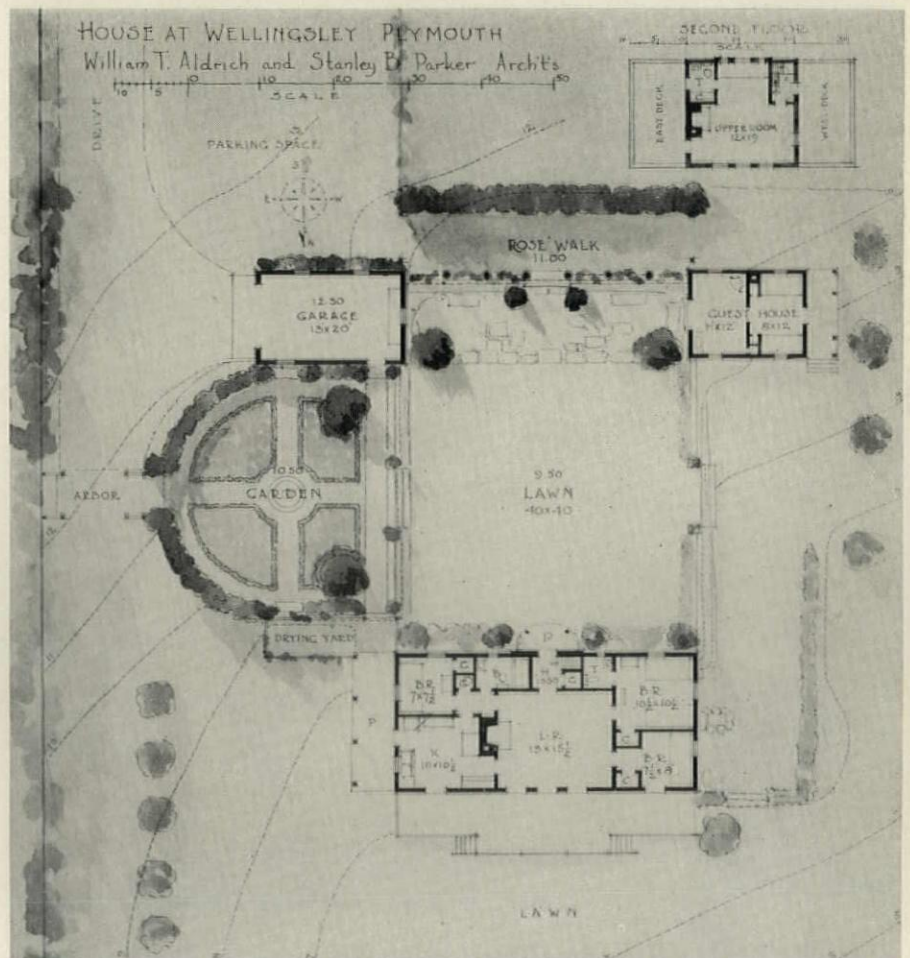
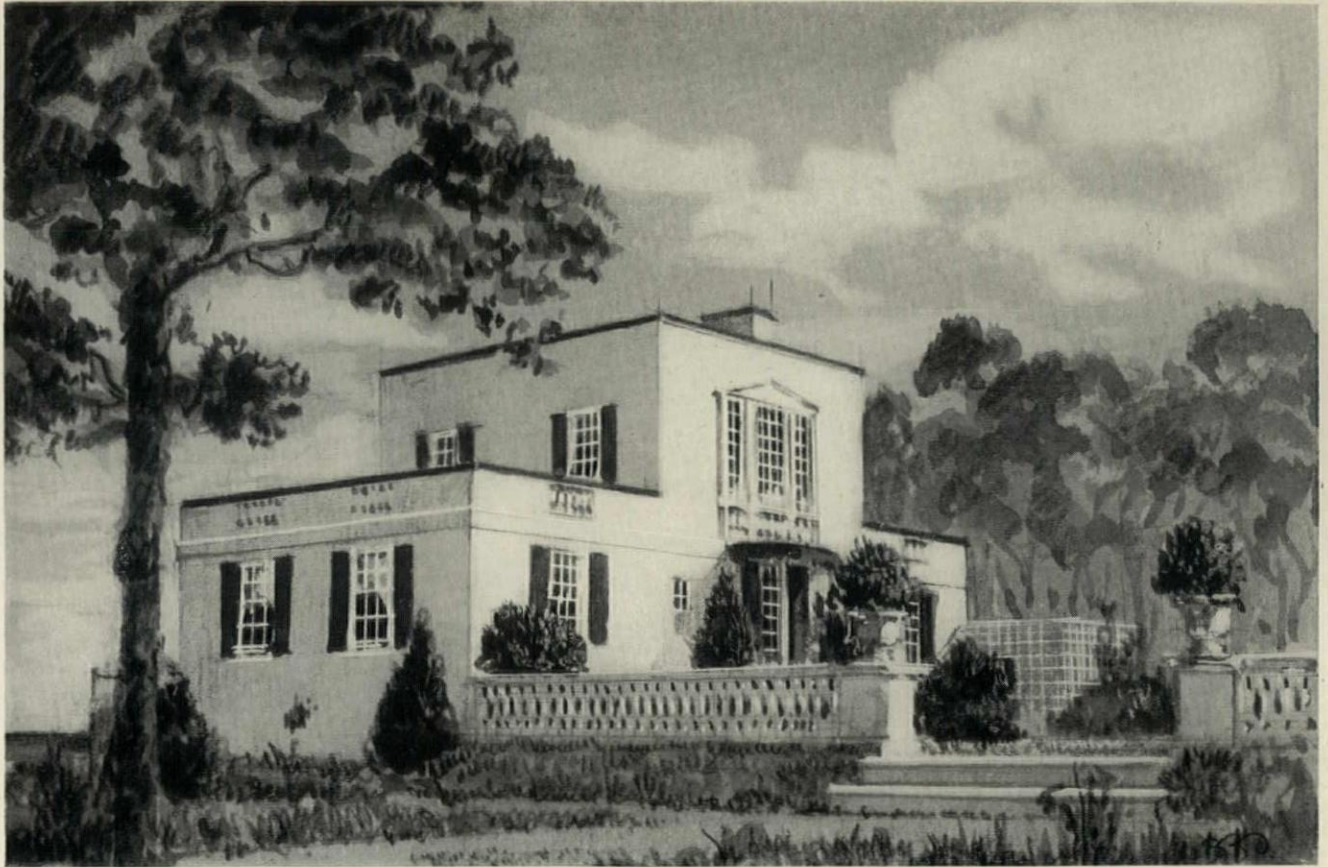


*This axonometric view of a house on the shore of Plymouth Harbor, designed by William T. Aldrich and Stanley B. Parker, Architects, of Boston, was drawn by Parker using a method developed by Aldrich for accurate and quick depiction of his designs*



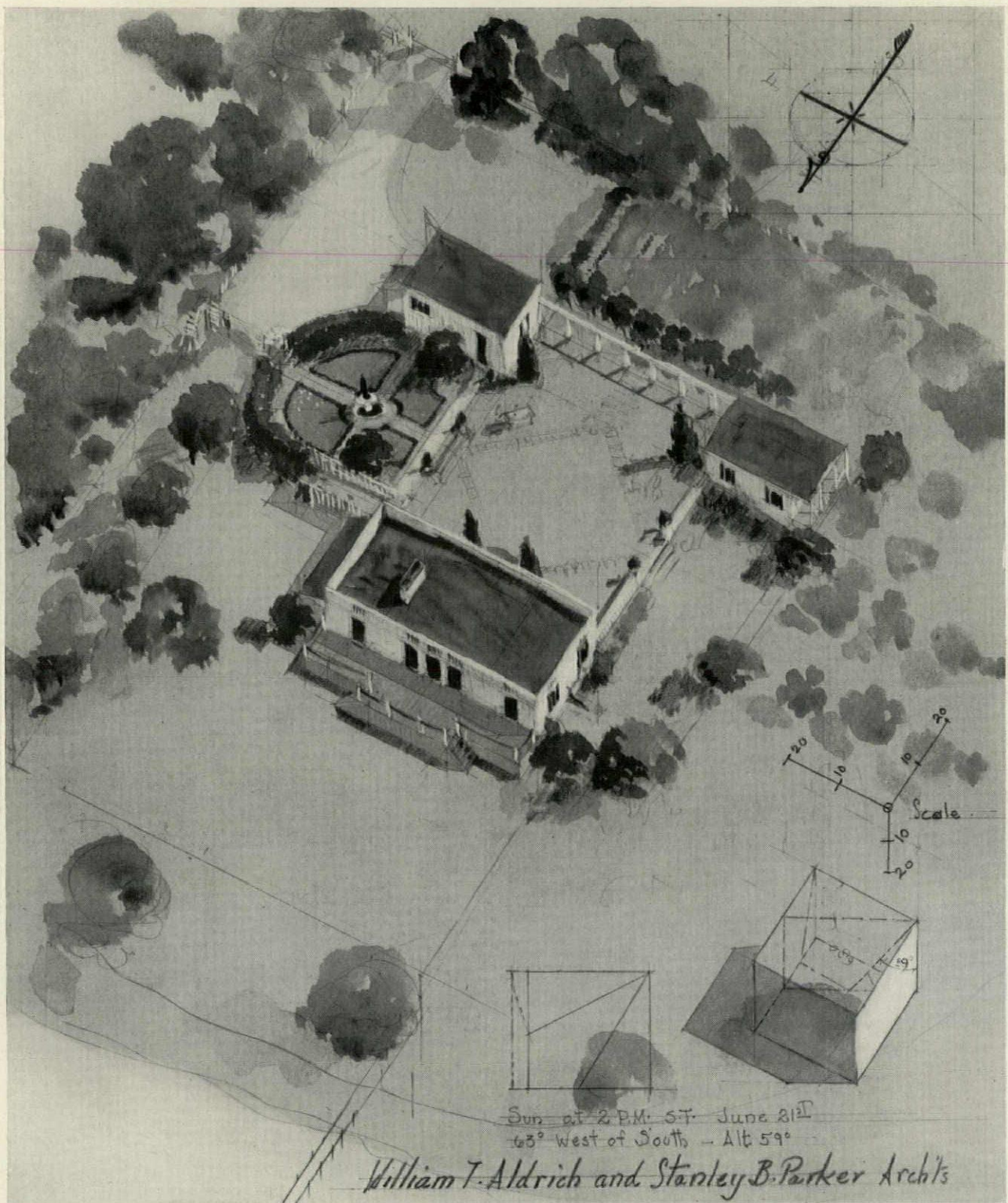
*The plan shows that the principal view is directly north and a sheltered court on the south has been provided, flanked by a guest studio and garage. A tree-lined informal lane to the waterfront is for use of the owners and neighboring families*





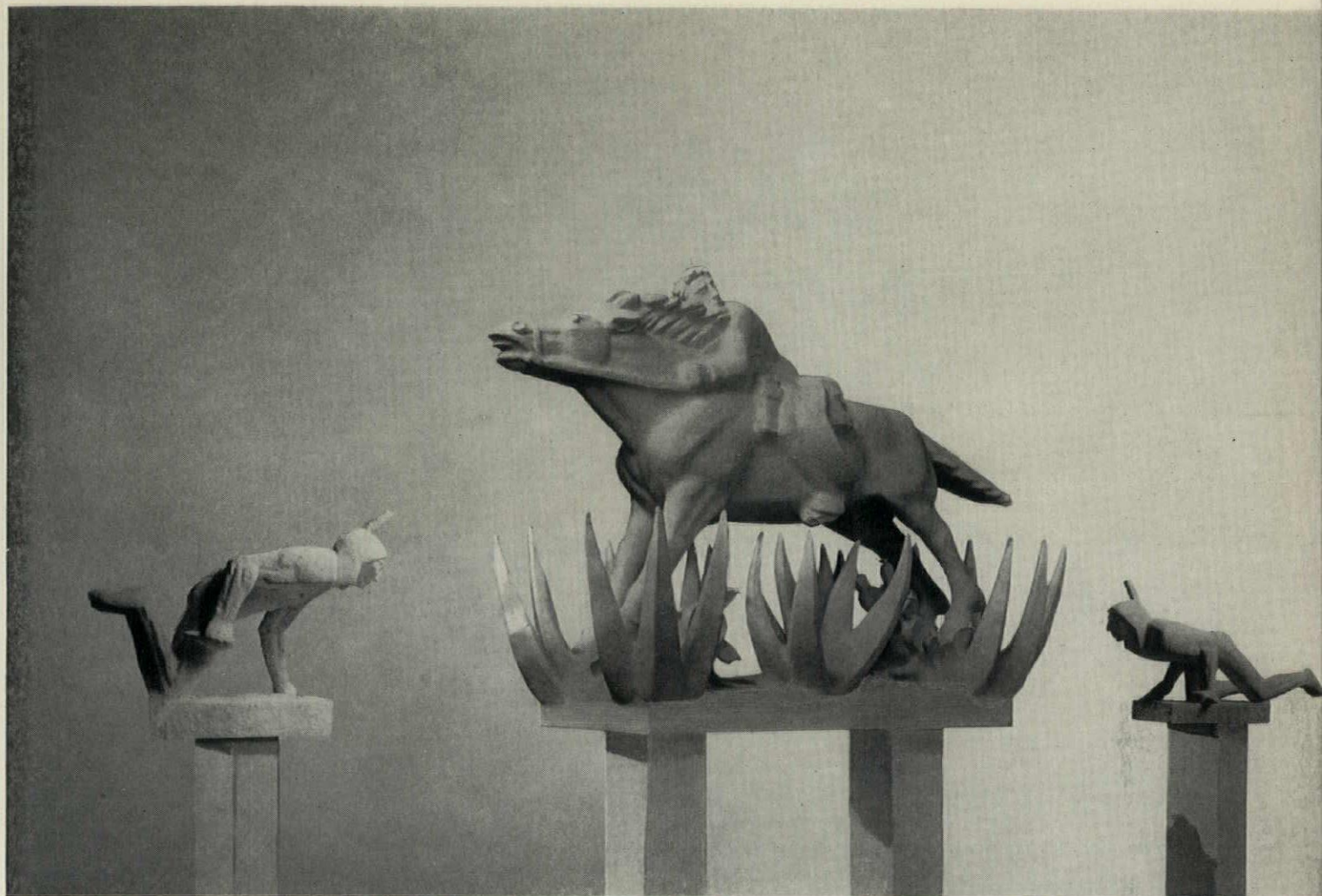
The perspective above is interesting as a three-point centrolinear drawing for which a vanishing point was determined for the vertical lines, as well as horizontal lines, by a method developed by Aldrich. It is the first example of this method to be published. This view of the house is looking from the southwest





Another "airplane perspective" made by Aldrich's axonometric method is reproduced here from a rendering by Parker, who also delineates and makes perspectives for other architectural offices. The advantages over centrolinear perspective are principally in saving time. A specific time of day and year is represented by light and shadows in each drawing. Upper room is here omitted



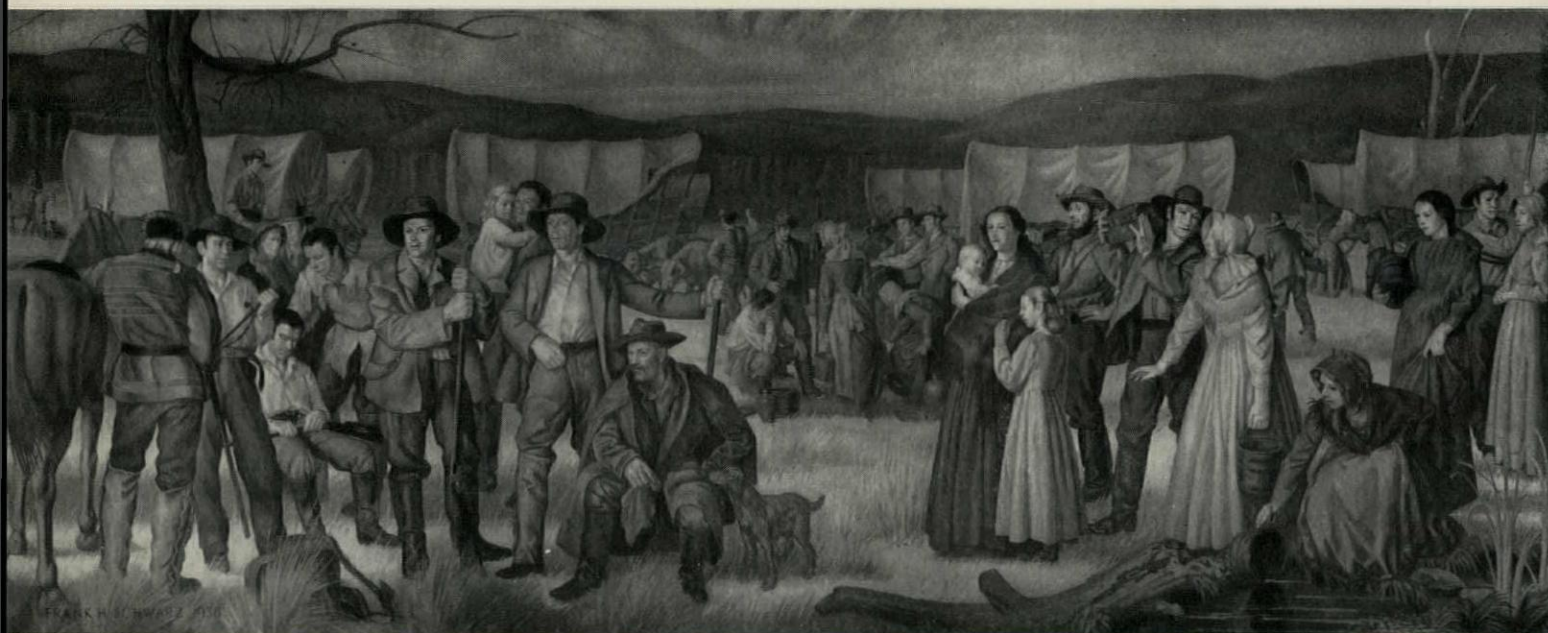


*Carl Milles' final sketch model for the sculpture, "The Pony Express," which will stand before the entrance to the A.T.&T. Building at the New York World's Fair 1939. The photograph was taken from the plaster model which was at one quarter size. The finished work will measure sixteen feet high and the pedestals supporting it will themselves be sixteen feet high, making a total of thirty-two feet. Voorhees, Gmelin & Walker are the building's architects*





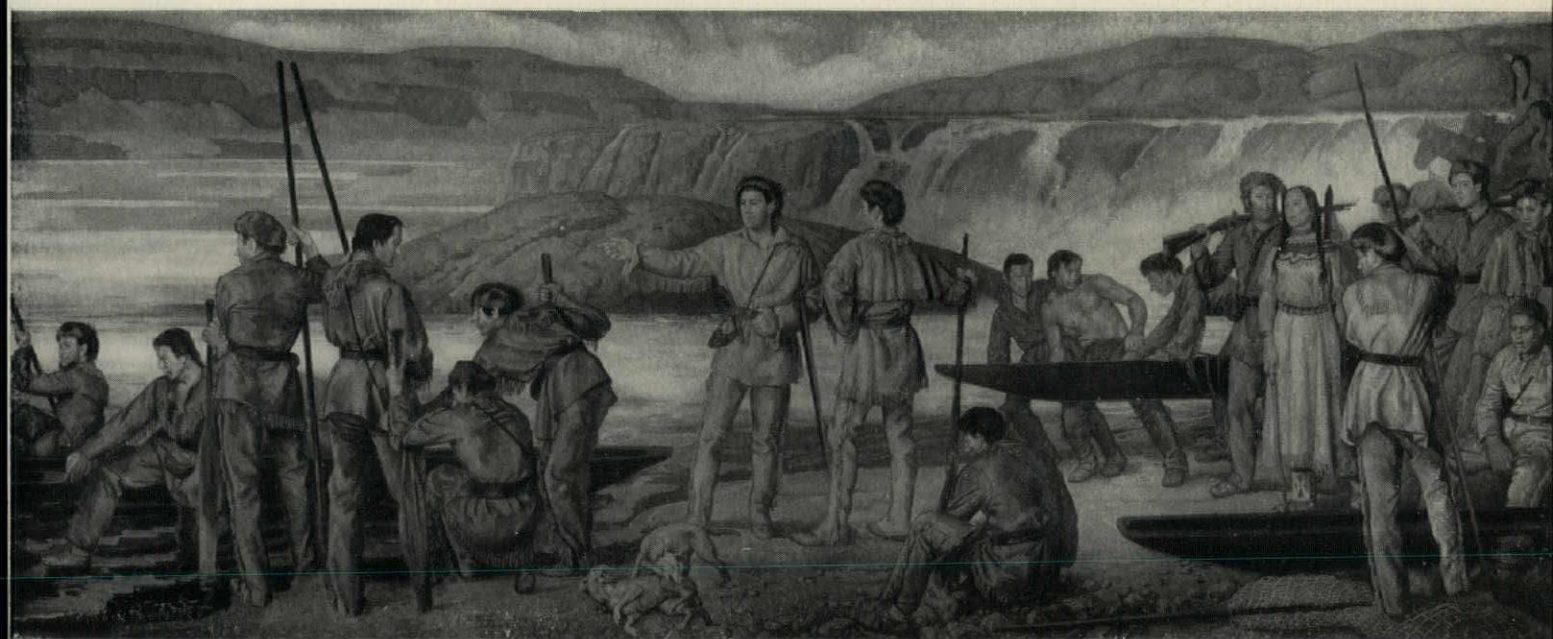
*Four of the mural panels recently completed by painters Frank Schwarz and Barry Faulkner for the new Oregon State Capitol at Salem, Oregon, are shown on this and the facing page. Above is Faulkner's rendition of the subject "Captain Gray on the Columbia River." Below is a composition by Schwarz showing a "Wagon Train of 1843." (See frontispiece)*







*The scenes depicted by the two painters are based on records of important events in the history of the Northwest. Above is Barry Faulkner's panel "Dr. McLaughlin at Fort Vancouver." The fourth panel is entitled "Lewis and Clark" and was executed by Frank Schwarz. The paintings now adorn the walls of the great rotunda as part of a notable collaboration*

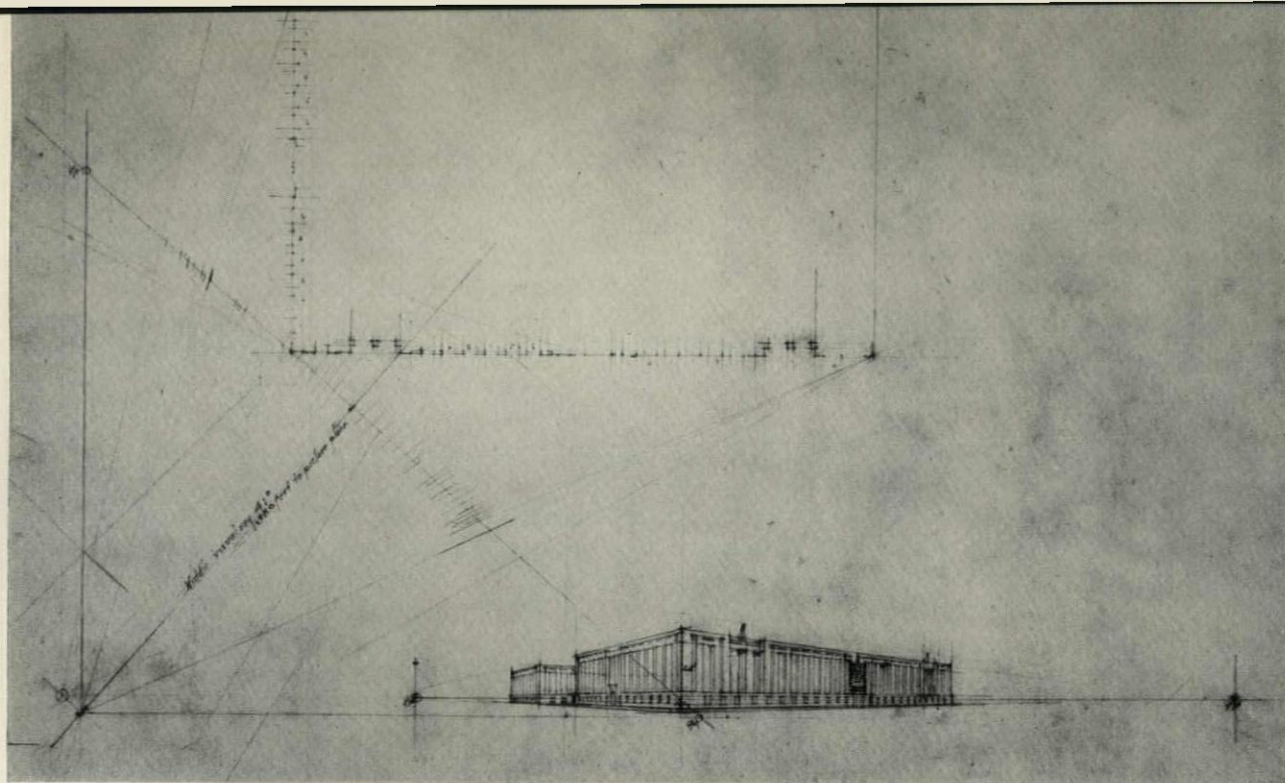






*Impressive in scale and character is this lithograph of a Chicago business street, entitled "LaSalle Street Canyon," by Miles Sater, prominent Chicago designer and delineator*






---

# CHARLES Z. KLAUDER

## 1872—1938

---

THE death of Charles Klauder marks another milestone in the line of great American architects which began with Bulfinch, continued with Ithiel Towne, then with Richardson, Hunt, McKim, and with Platt and Goodhue concurrently. He possessed with them a rare type of æsthetic aristocracy achieved through greatness. He was never so well known to the American public or to his fellow architects as were most of his predecessors. Modest to excess, he publicized neither himself nor his achievements, and while most of us knew him as the designer of magnificent and spirited Gothic buildings at Princeton, Wellesley, Cornell and Yale, few architects seem to know that his work was by no means confined to the Gothic tradition. No one perhaps has done a better building in the style of the Italian Renaissance than his Boy Scout Headquarters in Philadelphia, and McKim himself would have been proud of the Drexel Building designed in the Grand Italian manner. In the University of Delaware, Penn. State College, and Albion College, he produced magnificent examples of the Colonial Renaissance; the

Chemistry Building at the University of Delaware, one of his latest achievements, being perhaps the finest of all modern buildings derived from our American Colonial.

For the great group of the Colorado School of Mines at Boulder, it is hard to assign a precedent. It contains memories of the Italian Hill cities and of old Spain, so alive and vigorous, as to suggest a new approach. The latest of his designs, not yet built, the vast Social Security Building for Washington, will be a new landmark in the architectural world.

In his approach to his design, Klauder felt rather than remembered precedent; he moved about within the styles he used; he was a Gothic architect of the 13th century, or a Colonial of the 18th, applying his imagination and energy to the problems of today. In the Dining Halls Group at Princeton he created one of the great Gothic buildings of the world; belonging to the past in spirit only.

EDITOR'S NOTE: The last drawing on which Klauder worked is shown at the top of this page. For two hours on Saturday, October 29, 1938, he was happily absorbed in the very small perspective of a monumental building, without any premonition of his untimely end, which was to occur just twenty-four hours afterward.



He was singularly fortunate in his ability to put down on paper the images conceived in his mind. These took form first as little perspective drawings made with a vigor that few men have equalled, for he was a master draftsman; they were sometimes suggestions of mass only, sometimes full of detail; and if the results of his imagination pleased him he would at once translate them into exact elevations drawn at tiny scale but very carefully dimensioned so that they might be followed by draftsmen without error; and so perfect was his ability to carry along the plan in his mind as he drew the elevations that he rarely found it necessary to make a material change. As he worked he made profiles of the mouldings and sketches of details at full size so that the freshness of his original conception was preserved.

His mastery of the profession was complete in all its phases. The ground plan of the Colorado School of Mines shows the same fundamental rightness of design that he displayed in the lettering of the War Memorial at Princeton; and the rapidity and completeness with which he conceived a design and put it on paper was a constant wonder to those who ever had the fortune to watch him work.

He was self-taught. He never even completed high school, but on his fifteenth birthday began his life work in the office of the then leading architect of Philadelphia. Thirty-four years later, in one year, he was awarded the Medal of Honor of the New York Architectural League, the Gold Medal of the American Institute of Architects, and the degree of Master of Fine Arts at Princeton. He learned by doing. In practice he acquired the requisites of his profession, and in his fifty-one years of working life picked up by the

wayside a culture, a learning and a wisdom that colleges cannot give.

As a man he was not below his achievements. His breadth of vision embraced all schools of thought; there was nothing good which he did not appreciate; he had the quality of understanding the points of view of other men no matter how divergent from his own; his criticism was never unkind or destructive, but he fell upon pretentious and specious reasoning, a veritable Juggernaut of righteousness.

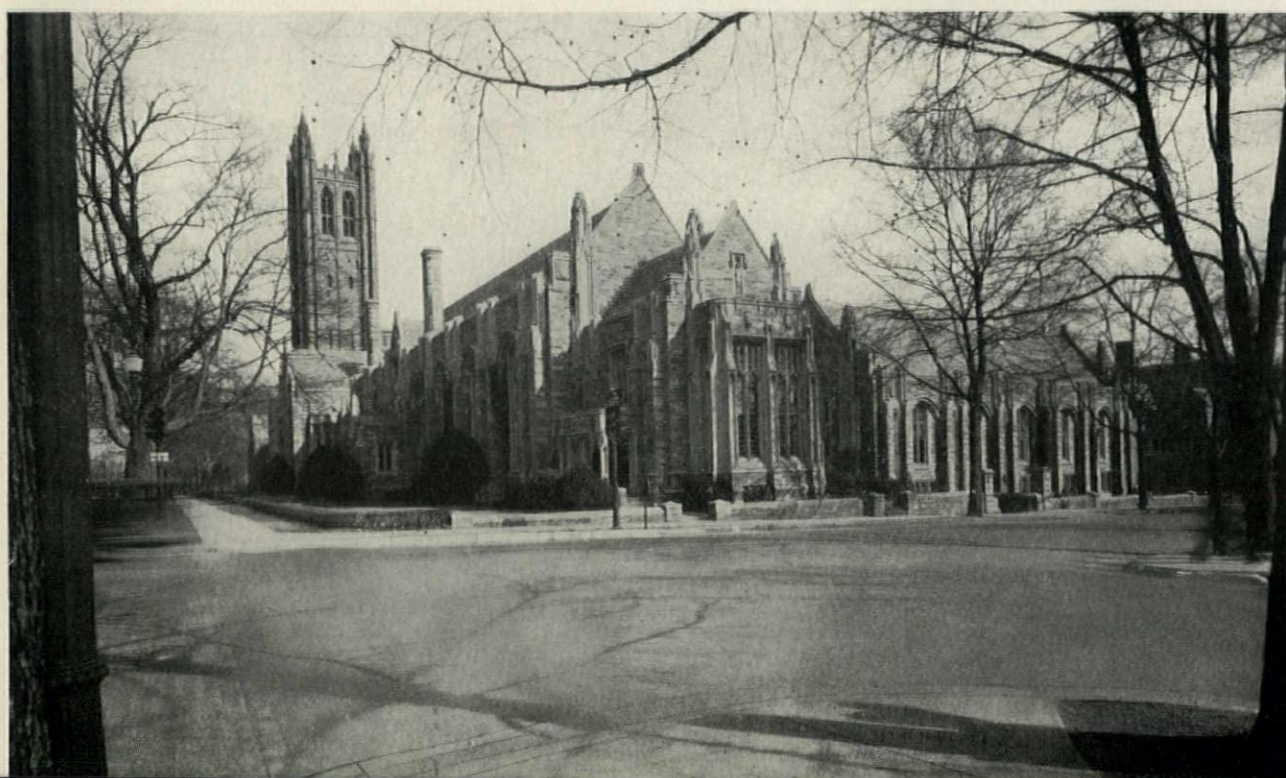
He loved to design model yachts and had a natural talent amounting to a passion for the intricate mathematical calculations of displacements, volumes, and rating formulae. His latest Yacht the "Jane" was a leading contender for the National Championship. It was a matter of pride with him to measure a drawing with some other scale than that at which it was drawn, announcing without hesitation the dimensions in feet and inches; and it never failed to please him to have someone turn the scale over and find him accurate to the inch.

He had little crescent-shaped reading glasses over which he looked when he wanted to emphasize a point, and the corners of his eyes would crinkle up before a humorous or kindly remark.

We loved him, and we are glad to remember that he knew it.

HENRY R. SHEPLEY  
AYMAR EMBURY II

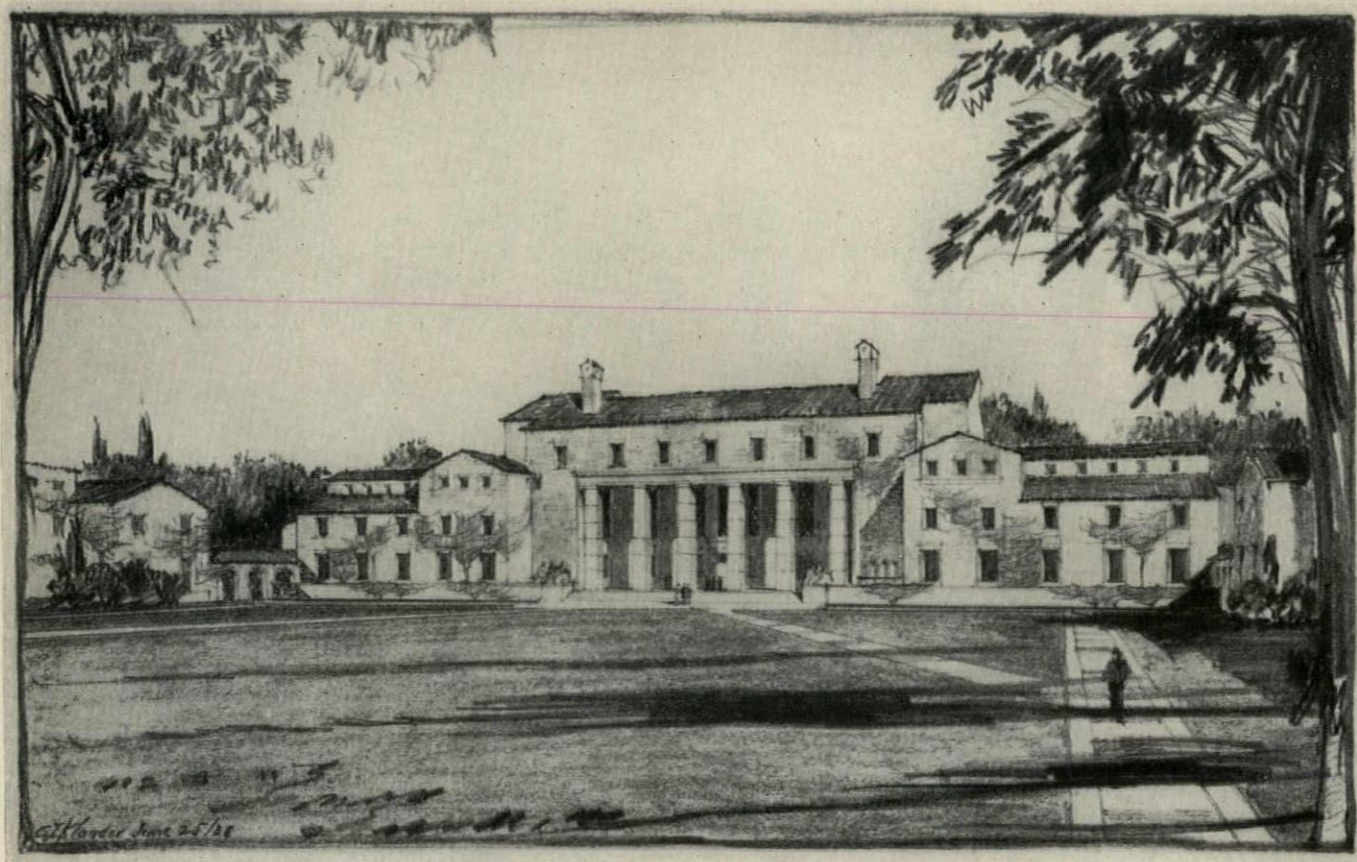
*The Dining Halls and Holder Tower at Princeton University as seen from the northwest. Opposite, a water color study of the Tower, selected as typical of Mr. Klauder's earlier method of architectural delineation*







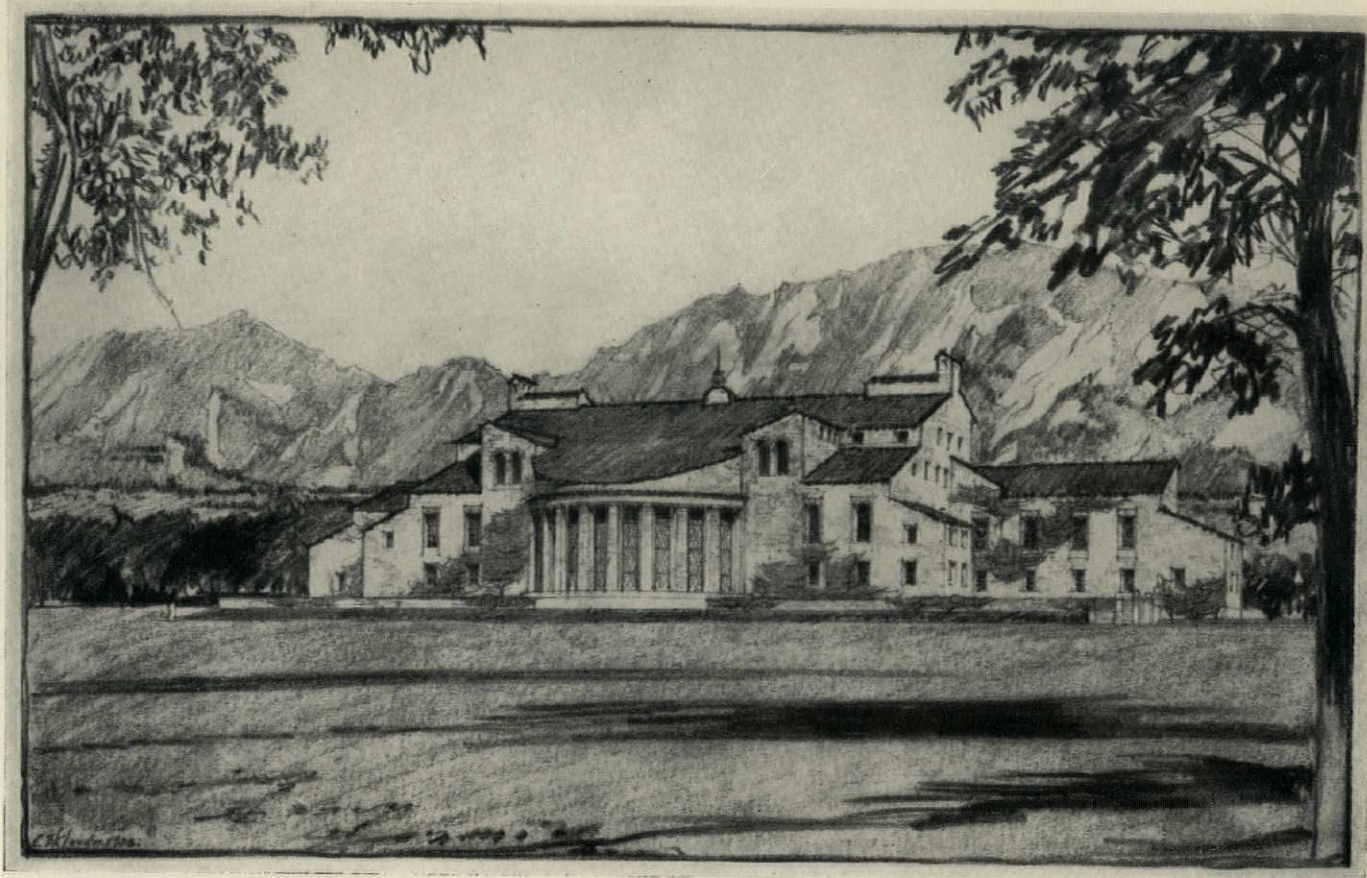




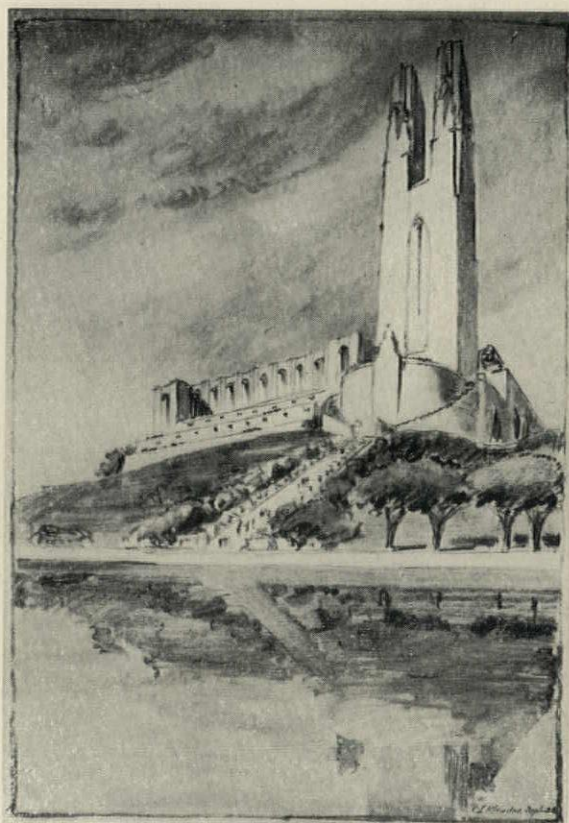
*The drawings shown above and at the top of the facing page were the two last important renderings made by Mr. Klauder. They depict the Library soon to be completed for the University of Colorado as it will appear from the southwest and northeast respectively. They were drawn with sepia crayon. The photograph hereunder shows the Liberal Arts Building at the University of Colorado, first of the series of distinguished and original designs he developed for Boulder*







*An imaginative charcoal sketch for a proposed tower is characteristic of Mr. Klauder's talent for swift and effective graphic portrayal of the architectural ideas developed in his exceptionally inventive mind*







*The Cathedral of Learning at Pittsburgh, designed by Charles Z. Klauder, was a startling solution of the problem presented by the modern city university, located in a community where land for building sites was unusually scarce. Held by some at first to be impractical, the idea has now stood the test of time*



# AH, JOBLESS YOUTH!

## THE GREAT ARCHITECT PROPOSES A DISPENSARY

BY EUGENE RASKIN

"FOUR of them," murmured the Great Architect, sadly eyeing the two empty bottles on his desk. "Four—in one day!"

"What do you mean, four?" I questioned. "In spite of having been with you all day, I can still trust myself to count up to two. Two is all—unless . . ." I hesitated, suspiciously, ". . . you polished off a couple at breakfast. Did you?"

"Did I what?" he asked, irritably. "It's most annoying, the way you keep changing the subject—shows a weak character. Four boys, I said, all in one day, all looking for jobs. Who said anything about breakfast?"

Muttering something under my breath about people who expected other people to be mind readers, I subsided, clutching my glass, in which there still remained a goodly gulp of the famous red fluid.

"All graduates of distinguished architectural schools," the Great Architect sailed on, "all prize winners, and all willing to work for practically nothing, just to get some con-founded experience. What could I tell them? I told them . . ."

"I know," I interrupted, wearily. "I was right here. You have nothing on the boards, or in sight. And even if you had, you'd want experienced men, men who could take responsibility. The days of the paternalistic office are gone, you told them. Vanished. Fini."

The Great Architect raised his eyebrows. "I'll thank you," he said, frigidly, "not to synopsise for me. No one can justly accuse me of being wordy. I am fully capable of saying what I have to say briefly, clearly, succinctly, and to the point, without undue verbosity, redundancy or over-elaboration, and without assistance."

"I apologize," said I, meekly. He bowed his head in grave acceptance, then promptly forgot all about it, and struck an oratorical pose. "Aha," I thought, "Here it comes." It came.

"What else," the Great Architect trumpeted, "could I tell them? I couldn't blame their schools for having prepared them inade-

quately—after all, the schools do all they can with the limited time they have the boys. They can't teach practice before fundamentals. I couldn't blame the architects—the poor beggars have enough trouble keeping their own heads above water as it is, without taking any youngsters under their . . . water-wings. The whole thing boils down to this—the boys can't work until they've had experience, and they can't get experience without work. A complete impasse."

"It sure is," I agreed, pleasantly, draining my glass. "What say we open a fresh bottle?" But he was beyond the need for stimulation; or perhaps he merely chose not to hear me.

"But you know," he went on, "all about this problem. It's an old story—not only in architecture, but in the other professions as well. With this exception," he raised a forceful forefinger, "that the other professions have managed to solve it, while we . . ." He shrugged expressively. "Why haven't we the sense to profit by good example?"

"Those two bottles," I pointed out, "just set us a splendid example. Shall we . . .?"

"Take medicine, for instance," the Great Architect boomed. "Young doctors, fresh from school, become internes, and get their experience under the supervision of older men. Of course, this is possible only because of the existence of hospitals—but there's the germ of an idea there."

"Pretty antiseptic, if you ask me."

"I didn't. Suppose we had architectural clinics, scattered about in the principal cities of the nation. People with small architectural problems that they wouldn't ordinarily consider important enough to take to an architect—and pay his fee—could come to the clinics for treatment. Several practicing architects of the community would contribute, say, an afternoon a week apiece, so that the boys would get all the supervision they need. By Jove, there's something to this! Many of the horrors now perpetrated without architectural advice would be avoided, the training



of our youngsters would be controlled instead of haphazard, the public in general would learn to use our profession's services, the . . ."

"Who's going to pay for all this?" I interjected.

"Pay for what?"

"Well, for one thing, an afternoon per week of a busy architect's time is worth something. He may not be so willing to donate it."

"Oh, yes, he will," the Great Architect chuckled. "Just make it an honor to serve, and throw in some initials he can put after his name. Like C.S.A.C.—Consultant to the Spodunk Architectural Clinic . . . Architects are suckers for initials."

"That may be," I said, noncommittally. "But how about the office overhead—rent, lights, supplies? And what are the boys to live on?"

"Well . . ." he gestured vaguely. "There

could be a nominal fee charged—five or ten dollars . . ."

"It wouldn't be enough," I replied firmly. "Besides, you need considerable capital to get the clinics started. Where will that come from?"

"I don't know . . ." There was a hunted look in his eye. "The government, maybe? WPA?"

"Bah!" I had him on the run, now, and gloried in the sensation. Leaning forward, I pinned him with my gaze. "There's absolutely nothing in the idea of architectural clinics, and you know it!"

"Well, now," he said evasively, "I wouldn't go so far as to say that. By the way," his face brightened, "do you think we could stand another bottle?"

"Now you're talking," I said, and reached hastily for the corkscrew.

*This pencil rendering by Robert A. Deshon depicts a house designed by Daniel M. Rees, Architect, of Cincinnati. It was made while Deshon was an architectural student at the University of Cincinnati, working for Rees on a cooperative system of training*

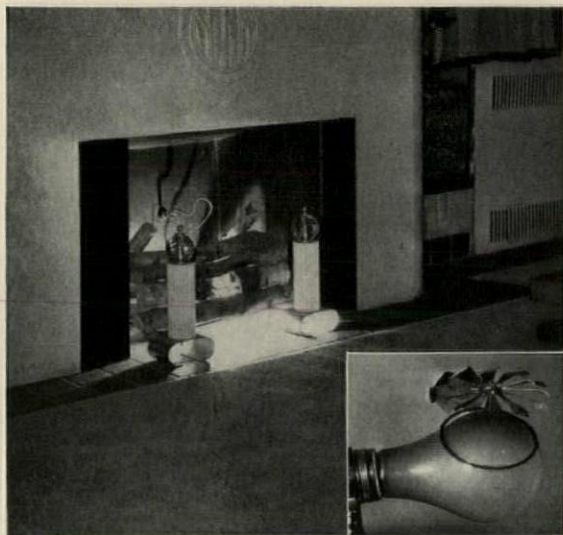




# PENCIL POINTS DATA SHEETS

*Prepared by* DON GRAF, B.S., M.Arch.





## THE DISREGARD OF THE OBVIOUS

The advertisement had said "Electric Fireplace complete for \$19.75." That was before Christmas. Now, there it was against the wall. And very pretty, too. I leaned back luxuriously among the pillows while Ah Fooey (my faithful No. 1 boy) busied himself about the room.

"Will Master have big fire? Mebbe littee fire?" he asked in his matchless patois.

### SOLID, DRY AND LIQUID MEASURE

Index No.  
**C2k**  
MATHEMATICS

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

#### CUBIC OR SOLID MEASURE.

*United States and British.*

- 1 cubic inch = .0005787 cubic foot = .000021433 cubic yard.
- 1 cubic foot = 1728 cubic inches = .03703704 cubic yard.
- 1 cubic yard = 27 cubic feet = 46656 cubic inches.
- 1 cord of wood = 128 cubic feet = 4 feet by 4 feet by 8 feet.
- 1 perch of masonry = 24.75 cubic feet = 16.5 feet by 1.5 feet by 1 foot. It is usually taken as 25 cubic feet.

#### DRY MEASURE.

*United States only.*

| SET<br>15<br>JAN<br>1939 | Pints | Quarts | Gallons | Pecks | Bushels | Cubic Inches |
|--------------------------|-------|--------|---------|-------|---------|--------------|
|                          | 1     | .50    | .125    | .0625 | .015625 | 33.6003125   |
|                          | 2     | 1.     | .25     | .125  | .03125  | 67.200625    |
|                          | 4     | 2.     | .5      | .25   | .0625   | 134.40125    |
|                          | 8     | 4.     | 1.      | .5    | .125    | 268.8025     |
|                          | 16    | 8.     | 2.      | 1.    | .25     | 537.605      |
|                          | 32    | 16.    | 4.      | 2.    | .5      | 1075.21      |
|                          | 64    | 32.    | 8.      | 4.    | 1.      | 2150.42      |

1 heaped bushel = 1.25 struck bushel, and the cone must be not less than 6 inches high.

#### LIQUID MEASURE.

*United States only.*

| Gills | Pints | Quarts | Gallons | Barrels | Cubic Inches |
|-------|-------|--------|---------|---------|--------------|
| 1     | .25   | .125   | .03125  | .000992 | 7.21875      |
| 4     | 1.    | .5     | .125    | .003968 | 28.875       |
| 8     | 2.    | 1.     | .25     | .007937 | 57.75        |
| 32    | 8.    | 4.     | 1.      | .031746 | 231.         |
| 1008  | 252.  | 126.   | 31.5    | 1.      | 7276.5       |

The British imperial gallon = 277.410 cubic inches or 10 pounds avoirdupois of pure water at 62° F. and barometer at 30 inches.

The British imperial gallon = 1.20091 United States gallons.

1 fluid drachm = 60 minims = .125 fluid ounce = .0078125 pint.

1 fluid ounce = 480 minims = 8 drachms = .0625 pint.

From *Cambria Steel Handbook*—1919 Edition.

### LAND, LINEAR AND MISC. MEASURE

Index No.  
**C2m**  
MATHEMATICS

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

#### LINEAR MEASURE

*United States and British.*

| Inches | Feet   | Yards  | Rods     | Furlongs  | Miles     |
|--------|--------|--------|----------|-----------|-----------|
| 1      | .08333 | .02778 | .0050505 | .00012626 | .00001578 |
| 12     | 1.     | .33333 | .0606061 | .00151515 | .00018939 |
| 36     | 3.     | 1.     | .1818182 | .00454545 | .00056818 |
| 198    | 16.5   | 5.5    | 1.       | .025      | .003125   |
| 7920   | 660.   | 220.   | 40.      | 1.        | .125      |
| 63360  | 5280.  | 1760.  | 320.     | 8.        | 1.        |

#### ROPE AND CABLE MEASURE.

- 1 inch = .111111 span = .013889 fathom = .0001157 cable's length.
- 1 span = 9 inches = .125 fathom = .00104167 cable's length.
- 1 fathom = 6 feet = 8 spans = 72 inches = .008333 cable's length.
- 1 cable's length = 120 fathoms = 720 feet = 960 spans = 8640 inches.

SET  
15  
JAN  
1939

#### NAUTICAL MEASURE.

1 nautical mile, as adopted by the United States Coast and Geodetic Survey, equals the length of one minute of arc of a great circle of a sphere whose surface equals that of the earth = 6080.204 feet = 1.1516 statute miles.

1 league = 3 nautical miles = 18240.613 feet.

#### GUNTER'S CHAIN.

- 1 link = 7.92 inches = .01 chain = .000125 mile.
- 1 chain = 100 links = 66 feet = 4 rods = .0125 mile.
- 1 mile = 80 chains = 8000 links.

#### SQUARE OR LAND MEASURE.

*United States and British.*

| Square Inches | Square Feet | Square Yards | Square Rods | Acres      | Square Miles    |
|---------------|-------------|--------------|-------------|------------|-----------------|
| 1             | .006944     | .0007716     | .00001131   | .000000207 | .000000000207   |
| 144           | 1.          | .111111      | .003086     | .00002066  | .0000000002066  |
| 1296          | 9.0         | 1.           | .033057     | .00020661  | .00000000020661 |
| 39204         | 272.25      | 30.25        | 1.          | .0020661   | .00000000020661 |
| 6272640       | 43560.      | 4840.        | 160.        | 1.         | .0015625        |
|               | 27878400.   | 3097600.     | 102400.     | 640.       | 1.              |

1 square rod = 40 square rods.

1 acre = 4 square rods.

1 square acre = 208.71 feet square.

From *Cambria Steel Handbook*—1919 Edition.



"Turn it on to 'Roaring,'" I answered, "with flicker" (see inset) "and crackle" (\$1.95 extra). "I'm in a virile mood tonight, my man."

"Velly good, Stupid," said Ah Fooley, with a merry twinkle in his eye, "how's abott you should eating it vun Tootsie Frooties roll for de soppir, noo?"

"Right!" said I.

"Right!" said Ah Fooley, producing the healthful confection (5c) somewhat squashed, from inside his baygel, or native shirt.

My faithful Swedish Snoos-hound, Ch. Blish Snead of Bergman's Tire Repair Shop and Kennels (ex. Slobber, by Flebe-Itn), leaped onto the divan beside me. I dismissed Ah Fooley. I knew he wanted to join some of his Oriental chums in a little shot of *ng-ga-pee* and a game of *jai-alai* (pronounced "jai-alai").

What a picture of contentment we were! The illusion was perfect. Never had the flicker attachment worked

with such conviction. The electric rheostat at "roaring" made the concealed lights throw a bright glow on the hearth. The shadow of the electric wire from the fire back, danced in serpentine shadows. (See illustration.) The electric crackle crackled. The steam radiator hissed nearby, providing the actual *Btu's* to complete the illusion. I unwrapped the candy and tossed the paper in the fireplace. Ch. Blish Snead began to breath heavily.

It was so quiet, so warm, so sort of "homey." Carried away by the completeness of the fantasy wrought by the synthetic open fire, I threw my Corona Corona Corona (50c each) into the fireplace. I closed my eyes . . .

I suddenly realized that Ch. Blish Snead was barking . . . there were men running and shouting . . . there was smoke in the room . . . all was confusion . . . rough hands shook me from my lethargy . . . *Gad! the fireplace had CAUGHT FIRE!*

## U. S. AND BRITISH WEIGHTS

Index No.  
**C2n**  
MATHEMATICS

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

### AVOIRDUPOIS WEIGHT.

United States and British.

| Grains*  | Drams   | Ounces  | Pounds  | Hundred-weight | Gross Tons |
|----------|---------|---------|---------|----------------|------------|
| 1.       | .03657  | .002286 | .000143 | .0000128       | .00000064  |
| 27.34375 | 1.      | .0625   | .003906 | .0003488       | .00001744  |
| 437.5    | 16.     | 1.      | .0625   | .00055804      | .00002790  |
| 7000.    | 256.    | 16.     | 1.      | .0089286       | .0004464   |
| 78400.   | 28672   | 1792.   | 112.    | 1.             | .05        |
| 1568000. | 573440. | 35840.  | 2240.   | 20.            | 1.         |

1 pound avoirdupois = 1.215278 pounds troy.

1 net ton = 2000 pounds = .892857 gross ton.

### TROY WEIGHT.

United States and British.

| Grains*† | Pennyweight | Ounces†  | Pounds†  |
|----------|-------------|----------|----------|
| 1        | .041667     | .0020833 | .0001736 |
| 24       | 1.          | .05      | .0041667 |
| 480      | 20.         | 1.       | .0833333 |
| 5760     | 240.        | 12.      | 1.       |

1 pound troy = .822857 pound avoirdupois.

175 ounces troy = 192 ounces avoirdupois.

### APOTHECARIES' WEIGHT.

United States and British.

| Grains*† | Scruples | Drams   | Ounces†  | Pounds†    |
|----------|----------|---------|----------|------------|
| 1        | .05      | .016667 | .0020833 | .000173611 |
| 20       | 1.       | .333333 | .0416667 | .0034722   |
| 60       | 3.       | 1.      | .125     | .0104167   |
| 480      | 24.      | 8.      | 1.       | .0833333   |
| 5760     | 288.     | 96.     | 12.      | 1.         |

†The pound, ounce and grain are the same as in troy weight.

\*The avoirdupois grain = troy grain = apothecaries' grain.

From *Cambria Steel Handbook*—1919 Edition.

## METRIC WEIGHTS AND MEASURE

Index No.  
**C2p**  
MATHEMATICS

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

### LENGTH, CAPACITY AND WEIGHT.

| Length   | Kilometre          | Hectometre              | Decametre               | Metre               | Decimetre  | Centimetre  | Millimetre  |
|----------|--------------------|-------------------------|-------------------------|---------------------|------------|-------------|-------------|
| Capacity | Kilolitre or Stere | Hectolitre or Decistere | Decalitre or Centistere | Litre or Millistere | Decilitre  | Centilitre  | Millilitre  |
| Weight   | Kilogramme         | Hectogramme             | Decagramme              | Gramme              | Decigramme | Centigramme | Milligramme |
|          | 1                  | 10                      | 100                     | 1000                | 10000      | 100000      | 1000000     |
|          |                    | 1                       | 10                      | 100                 | 1000       | 10000       | 100000      |
|          |                    |                         | 1                       | 10                  | 100        | 1000        | 10000       |
|          |                    |                         |                         | 1                   | 10         | 100         | 1000        |
|          |                    |                         |                         | .1                  | 1          | 10          | 100         |
|          |                    |                         |                         | .01                 | .1         | 1           | 10          |
|          |                    |                         |                         | .001                | .01        | .1          | 1           |

1 myriametre = 10 kilometres = 10000 metres.

1 tonne = 1000 kilogrammes = 100 quintals = 10 myriagrammes.

1 gramme = weight of 1 cubic centimetre of distilled water at its maximum density at sea level in latitude of Paris and barometer at 760 millimetres.

1 litre = 1 cubic decimetre.

### SQUARE OR SURFACE MEASURE.

| Square Kilometre | Square Hectometre or Hectare | Square Decametre or Are | Square Metre or Centiare | Square Decimetre | Square Centimetre | Square Millimetre |
|------------------|------------------------------|-------------------------|--------------------------|------------------|-------------------|-------------------|
| 1                | 100                          | 10000                   | 1000000                  | 1000000          | 100000000         | 10000000000       |
|                  | 1                            | 100                     | 10000                    | 100000           | 1000000           | 100000000         |
|                  | .01                          | 1                       | 100                      | 10000            | 100000            | 10000000          |
|                  | .0001                        | .01                     | 1                        | 100              | 10000             | 1000000           |
|                  | .000001                      | .0001                   | .01                      | 1                | 100               | 10000             |
|                  |                              | .000001                 | .0001                    | .01              | 1                 | 100               |
|                  |                              |                         | .000001                  | .0001            | .01               | 1                 |

1 square myriametre = 100 square kilometres = 100000000 square metres.

### CUBIC MEASURE.

| Cubic Decametre | Cubic Metre | Cubic Decimetre | Cubic Centimetre | Cubic Millimetre |
|-----------------|-------------|-----------------|------------------|------------------|
| 1               | 1000        | 1000000         | 1000000000       | 1000000000000    |
| .001            | 1           | 1000            | 1000000          | 1000000000       |
| .000001         | .001        | 1               | 1000             | 1000000          |
| .000000001      | .000001     | .001            | 1                | 1000             |
|                 | .000000001  | .000001         | .001             | 1                |

1 cubic metre = 1 kilolitre = 1 stere.

From *Cambria Steel Handbook*—1919 Edition.





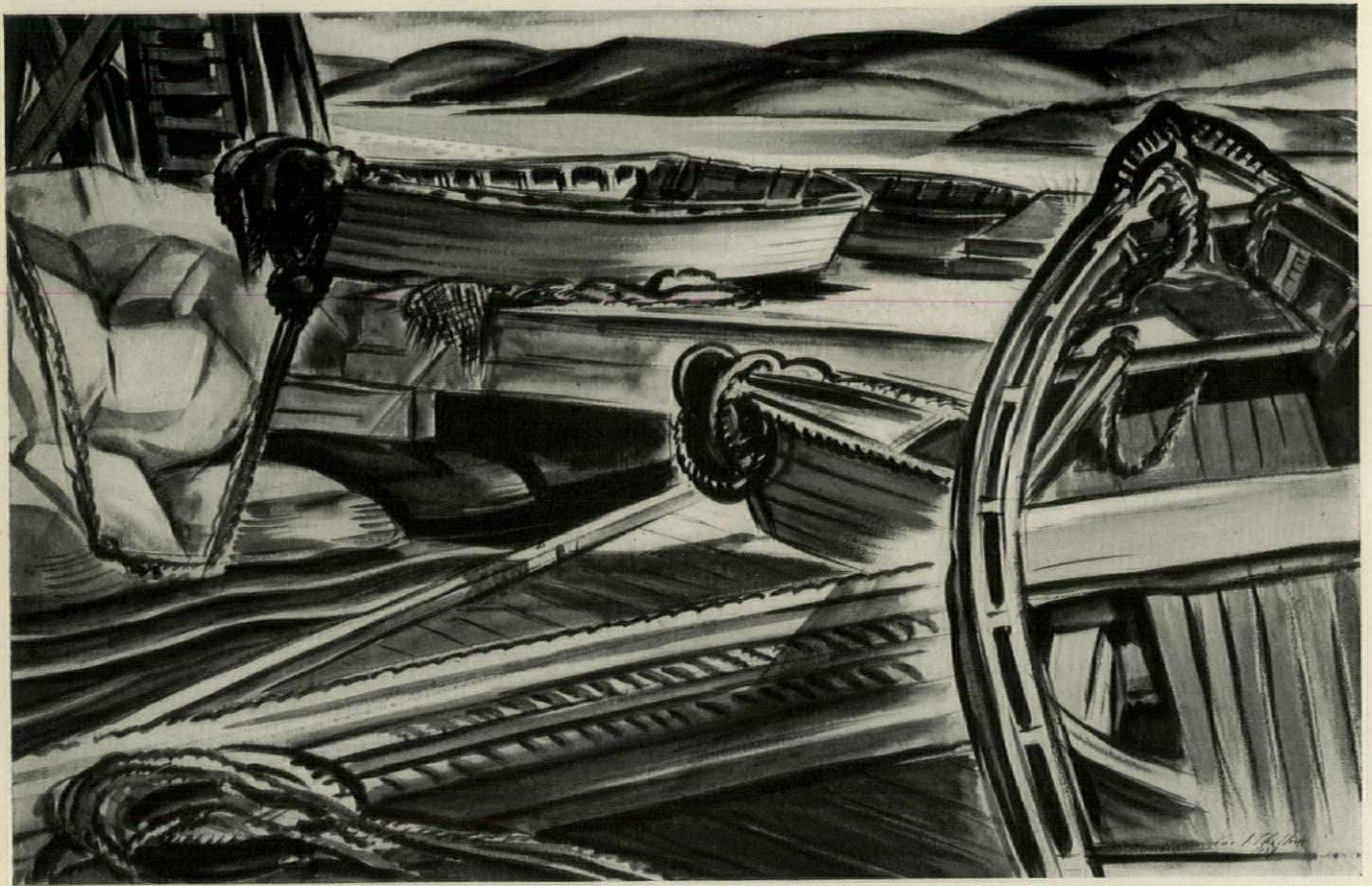




## FOUR WATER COLORS BY CARL W. HEILBORN

*Carl W. Heilborn will be remembered as one who has contributed to past issues of PENCIL POINTS a number of black and white plates—pencil, pen and ink, brush drawings, etchings, lithographs, etc. An extended article on his work was printed in the June, 1932, issue and just a year ago a group of his sketches for movie sets was presented. More recently, he has been developing his skill at water color, and though the reproductions herewith have been reduced to black and white perhaps they suggest sufficiently the merit of the originals*





*BOATS IN RED*

Water Color by Heilborn





SALINAS VALLEY  
Water Color by Heilborn





*COLUMBIA RIVER*

Water Color by Heilborn



# STONEWORK FOR WALLS

## SOME NOTES AND DETAILS CONCERNING TEXTURES

BY A. D. TAYLOR, L. A.

EDITOR'S NOTE: *This brief discussion of the factors to be considered in design of stonework (by the president of the American Society of Landscape Architects) is intended primarily to explain to our readers the purpose of the author in preparing the accompanying Details*

FOR the best results, the design of stonework must be appropriate to the purpose for which the wall is being built. In approaching the problem of an appropriate choice, the designer therefore must consider several factors on the basis of their relative importance.

The sizes and shapes of the stones to be used must be determined, to produce a desired scale in the completed stonework. The texture of the individual stones must be carefully considered, to produce the desired texture in the wall. And a third important factor is the color of the stones to be used which, so far as the color of the stone can be permanently preserved, determines the color of the wall.

The design to be followed for a specific wall will to some extent be governed by the kind of stone available at a reasonable cost, the color of the stone, and the expense of having it cut to produce a specific texture of wall. Unlike brickwork, stonework does not lend itself to well-defined "bonds" comparatively limited in range. The fundamental designs for stonework in wall surfaces are represented by the accompanying plates of photographs and scale drawings, prepared after methodical compilation of information gathered during approximately twenty years in a rather extensive practice of professional landscape architecture.

\* \* \* \*

There is practically no printed reference information in this field available for those designing or constructing dry stone and stone masonry walls, either free-standing or as a supporting part of some structure. These

photographs with the scale drawings should be of great help to the designer in selecting a texture for any proposed wall meeting the requirements imposed by the type, size and color of stone available and the function of the stonework.

The detailed scale of the design, resulting from the relative sizes of the various stones used in the wall, is but one factor in the design of the wall. The drawings presented here for reference, would be rather incomplete without the accompanying photographs which illustrate the *texture* of the stone surfaces. Color also may make for success or failure of the stonework when completed.

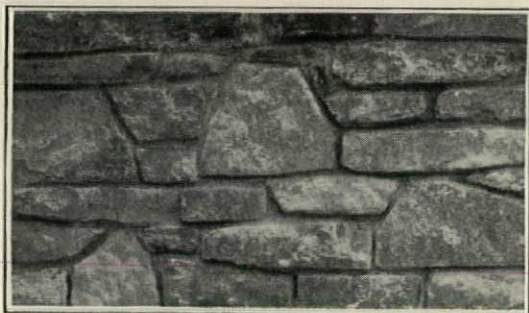
The stonework suggested in these plates for dry stone walls generally may be used in free-standing walls and in the lower retaining walls. The stonework suggested for stone masonry walls may be developed as a stone veneer on reinforced concrete construction or as a complete masonry construction for free-standing walls, retaining walls, and walls which are used as a supporting portion of some structure, but is not in every instance adapted for use in dry stone walls.

When plant pockets are desired in any wall, other than a dry stone wall, the detailed design of these pockets should be most carefully studied in order that they may not weaken the structure. It is also important that they be of the best size and shape for the type of plants to be planted. This principle is illustrated in the accompanying plates.

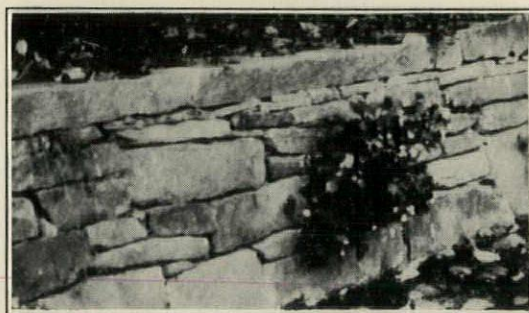
\* \* \* \*

Because there are so many failures in the design of stone wall texture, it seems desirable to include one plate of photographs only (Plate No. E-1) showing some results of unintelligent or misdirected design.



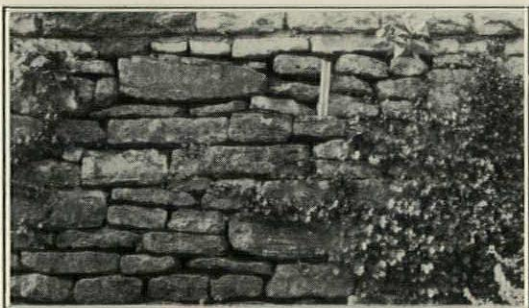


1

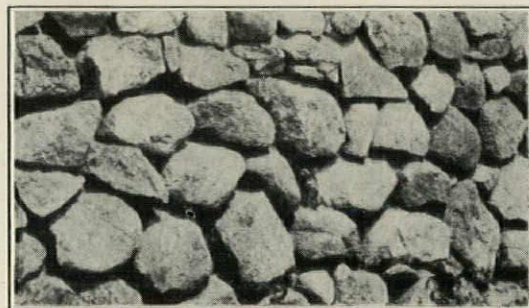


2

# STONEWORK FOR WALLS



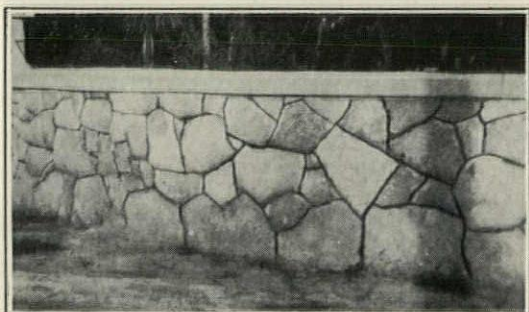
3



NO DRAWING FOR  
THIS PHOTO

4

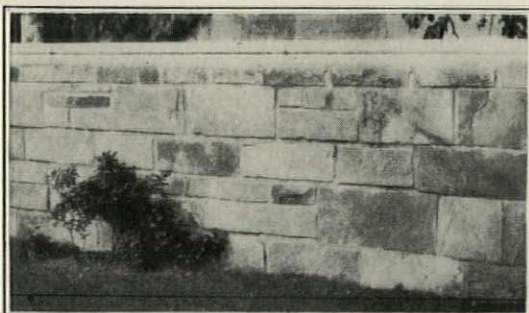
REFER TO PLATES A B C & D FOR SCALE OF STONEWORK



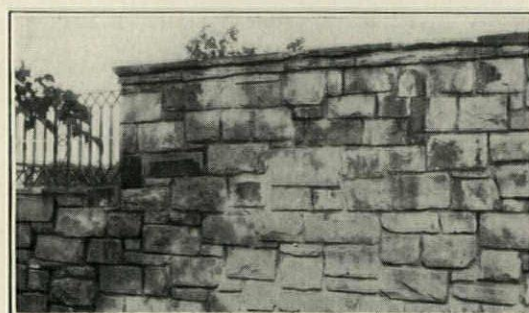
5



6



7



8

SEE DRAWINGS, SIMILARLY NUMBERED, ON PLATE NO A

PLATE NO A-1



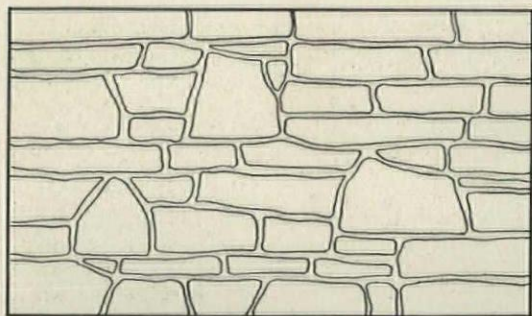
FIELD STONE-NATURAL-  
WITH MORTAR JOINTS

FIG. 1

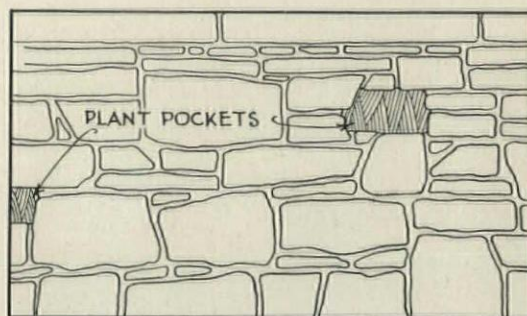
FIELD STONE-NATURAL-  
WITH MORTAR JOINTS

FIG. 2

## STONEMWORK FOR WALLS

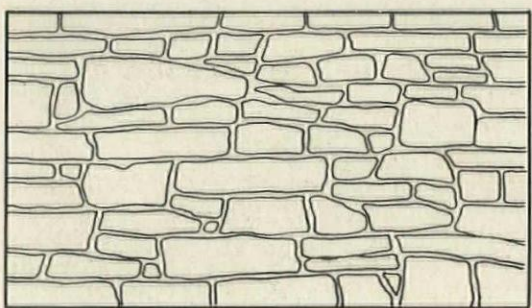
FIELD STONE-NATURAL-  
WITH MORTAR JOINTS

FIG. 3

NO PHOTO FOR THIS DRAWING

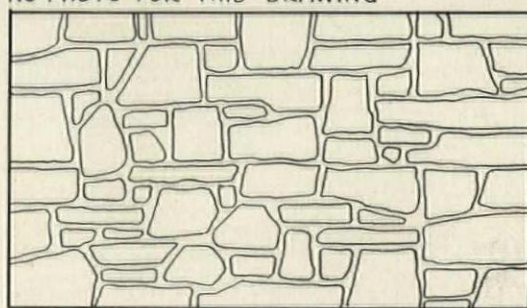
FIELD OR CREEK BOTTOM STONE  
NATURAL-WITH MORTAR JOINTS

FIG. 4

APPROXIMATE SCALE

0 1 2 3 4 5 6 7 8 9 10 FEET

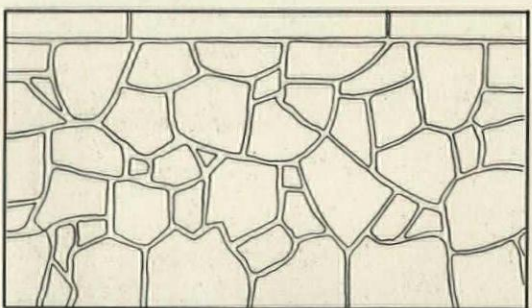
ROUGH STONE-TRIMMED-  
WITH MORTAR JOINTS

FIG. 5

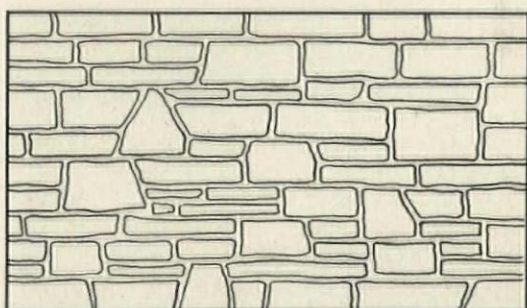
FIELD STONE-NATURAL-  
WITH MORTAR JOINTS

FIG. 6

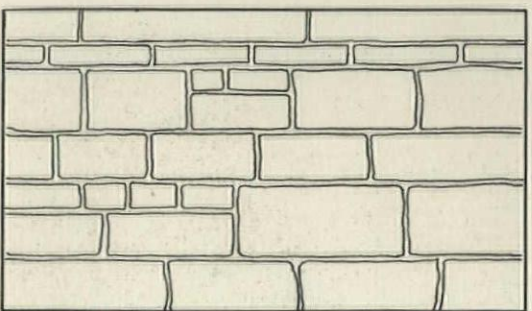
COURSED RANDOM STONE  
WITH MORTAR JOINTS

FIG. 7

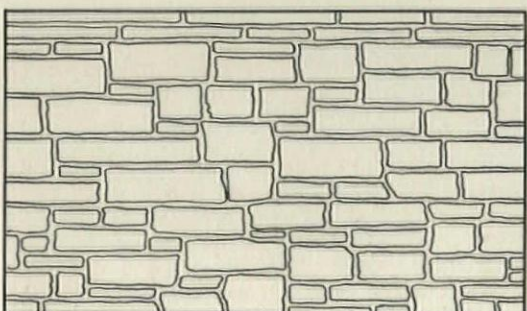
RANDOM RUBBLE  
WITH MORTAR JOINTS

FIG. 8

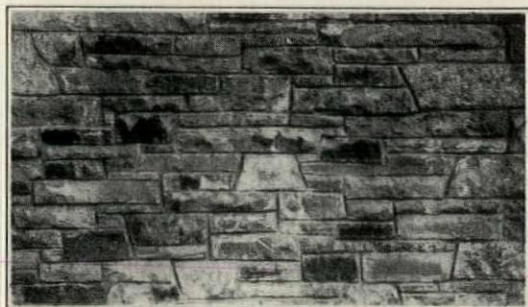
SEE PHOTOGRAPHS, SIMILARLY NUMBERED, ON PLATE NO. A-1

PLATE NO. A



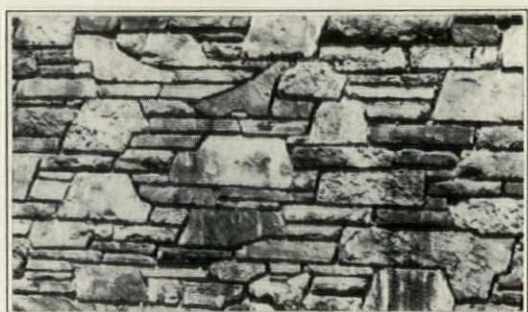


1

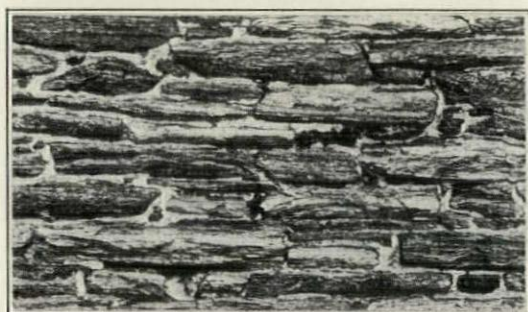


2

# STONEWORK FOR WALLS

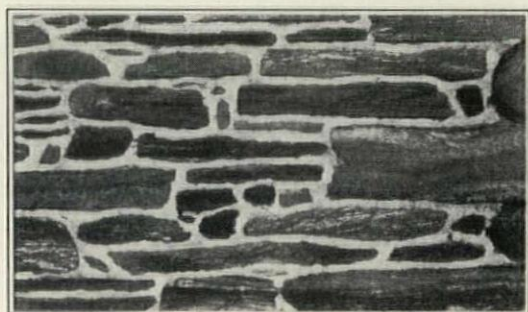


3

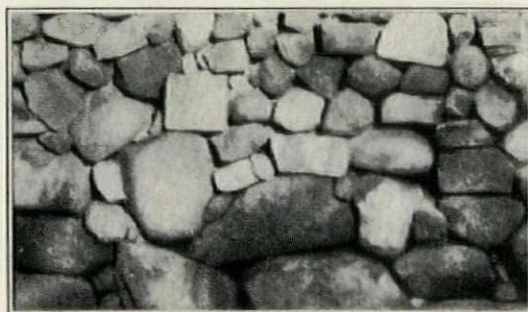


4

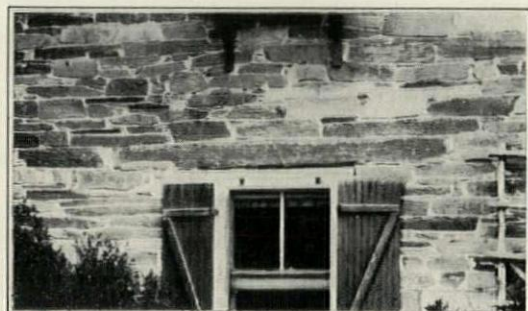
REFER TO PLATES A B C & D FOR SCALE OF STONEWORK



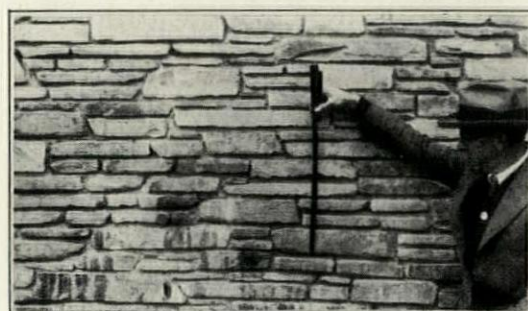
5



6



7

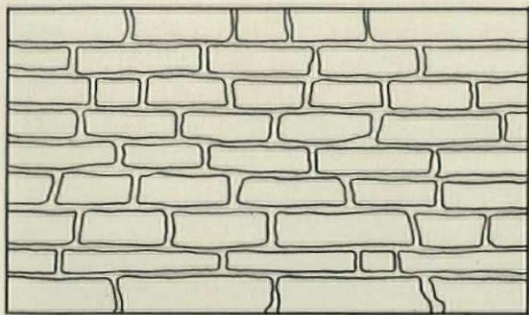


8

SEE DRAWINGS, SIMILARLY NUMBERED, ON PLATE NO. B

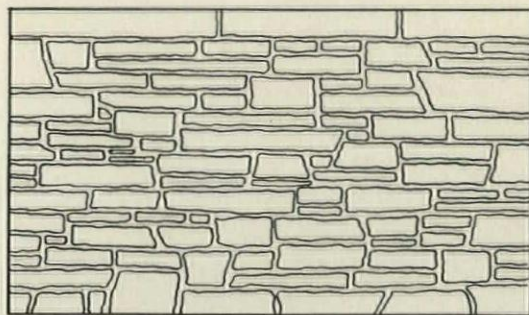
PLATE NO. B-1





PLAIN RUBBLE IN COURSES  
WITH MORTAR JOINTS

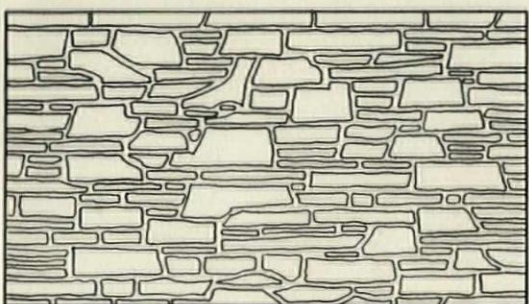
FIG. 1



SPLIT STONE  
WITH MORTAR JOINTS

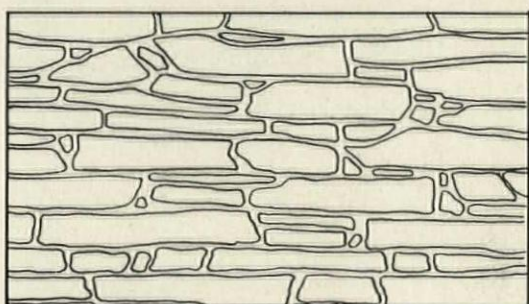
FIG. 2

## STONEMWORK FOR WALLS



FIELD OR CREEK BOTTOM STONE  
FINE - WITH MORTAR JOINTS

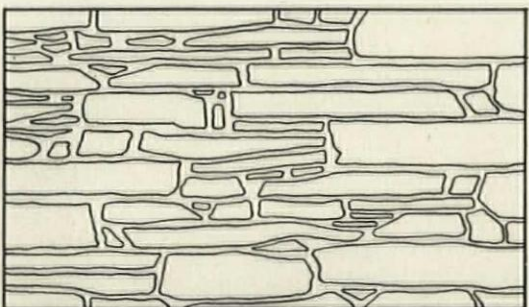
FIG. 3



FIELD STONE - NATURAL -  
COARSE - WITH MORTAR JOINTS

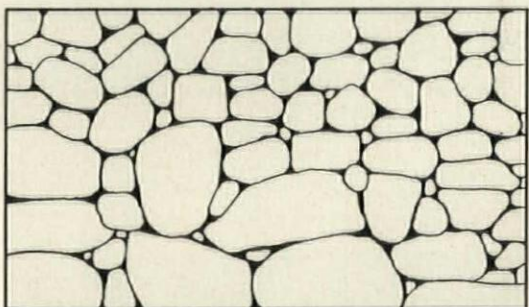
FIG. 4

APPROXIMATE SCALE



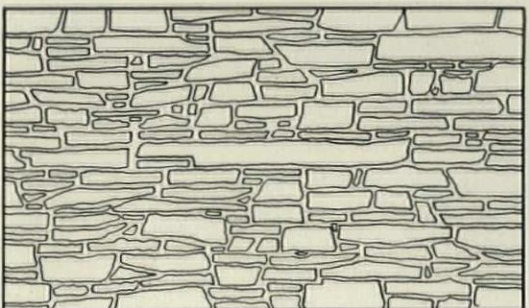
LEDGE ROCK NATURAL -  
COARSE - WITH MORTAR JOINTS

FIG. 5



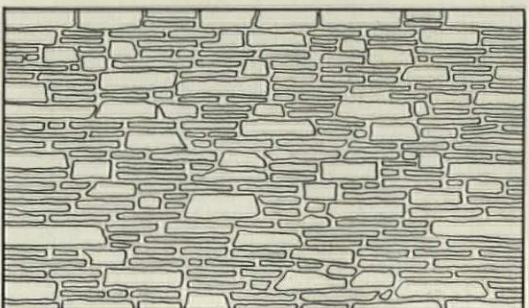
BOULDER WALL - LAID DRY  
OR WITH MORTAR JOINTS

FIG. 6



CREEK LEDGE - NATURAL -  
COARSE - WITH MORTAR JOINTS

FIG. 7



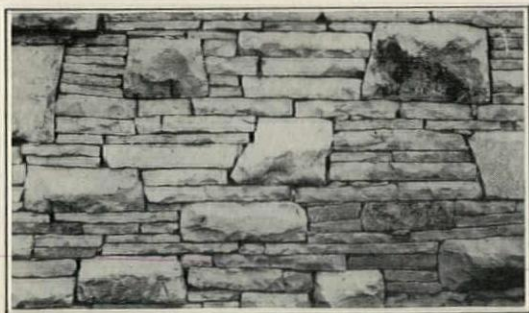
CREEK LEDGE - NATURAL -  
FINE - WITH MORTAR JOINTS

FIG. 8

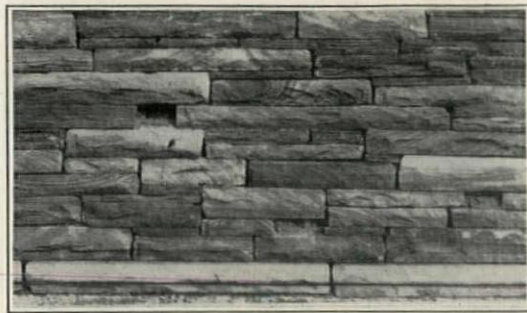
SEE PHOTOGRAPHS, SIMILARLY NUMBERED, ON PLATE NO. B-1

PLATE NO. B



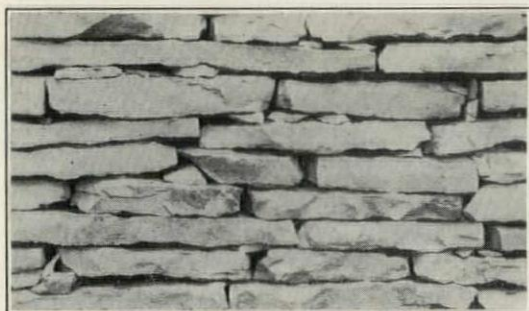


1

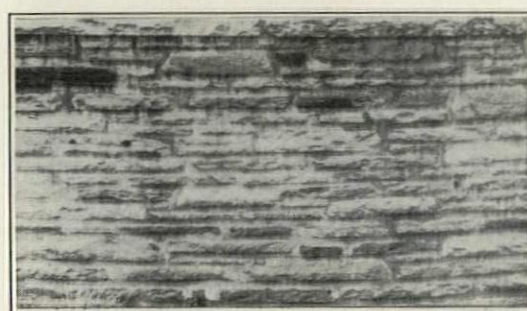


2

# STONEWORK FOR WALLS

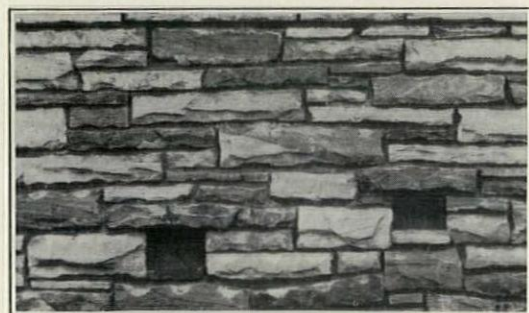


3

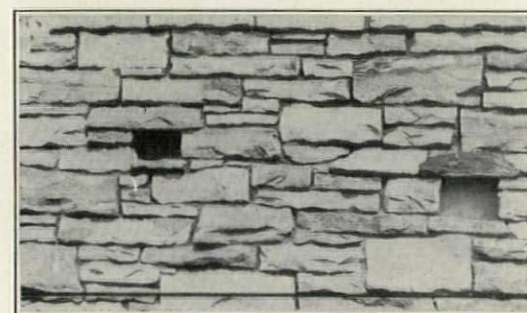


4

REFER TO PLATES A B C & D FOR SCALE OF STONEWORK



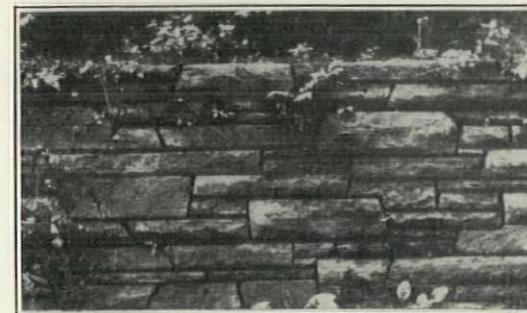
5



6



7

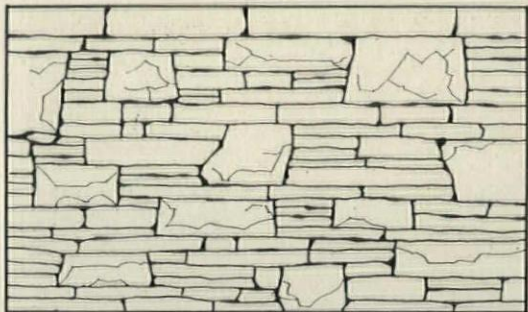


8

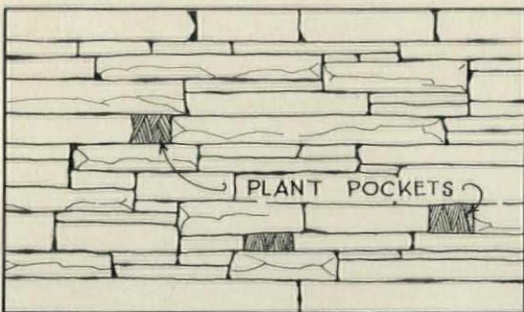
SEE DRAWINGS, SIMILARLY NUMBERED, ON PLATE NO. C

PLATE NO. C-1



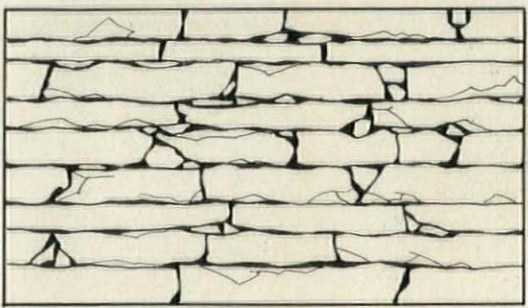


RANDOM RUBBLE-SPLIT BEDS-LAID DRY FIG. 1

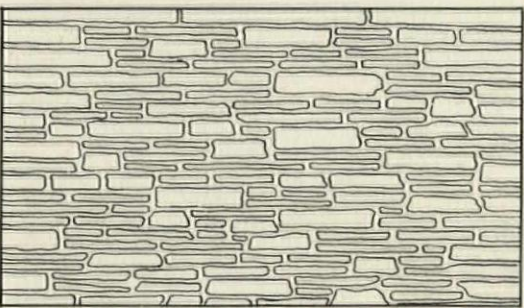


RANDOM RUBBLE-SPLIT BEDS-LAID DRY FIG. 2

STONEMWORK FOR WALLS

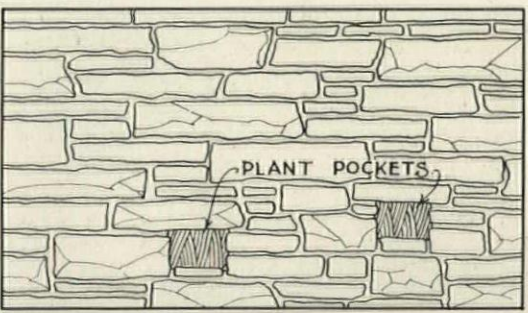
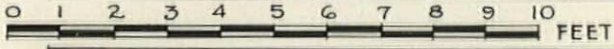


SPLIT STONE-ROUGH-LAID DRY WITH CHINKERS FIG. 3

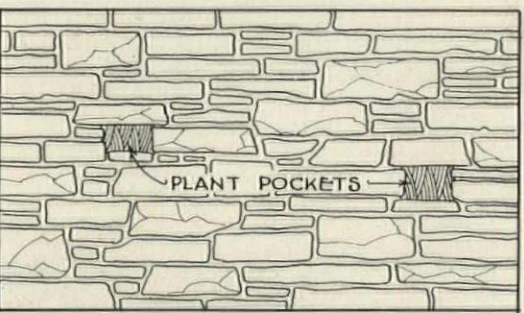


SPLIT STONE-FINE-WITH MORTAR JOINTS FIG. 4

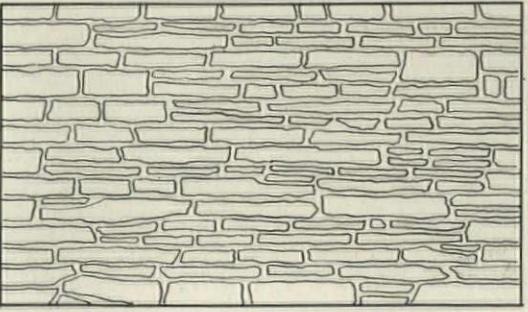
APPROXIMATE SCALE



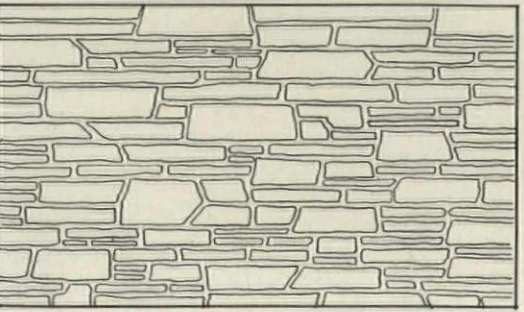
SPLIT STONE WITH MORTAR JOINTS FIG. 5



SPLIT STONE WITH MORTAR JOINTS FIG. 6



SPLIT STONE WITH MORTAR JOINTS FIG. 7

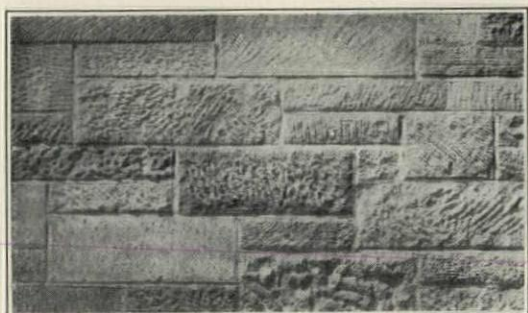


SPLIT STONE WITH MORTAR JOINTS FIG. 8

SEE PHOTOGRAPHS, SIMILARLY NUMBERED, ON PLATE NO. C-1

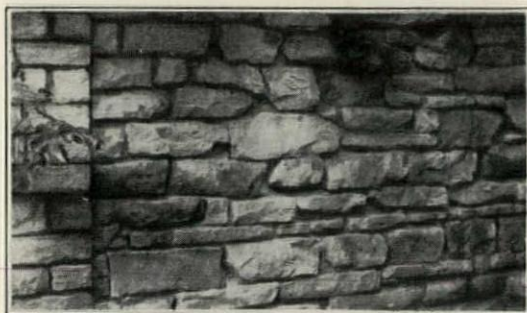
PLATE NO. C





NO DRAWING FOR  
THIS PHOTO

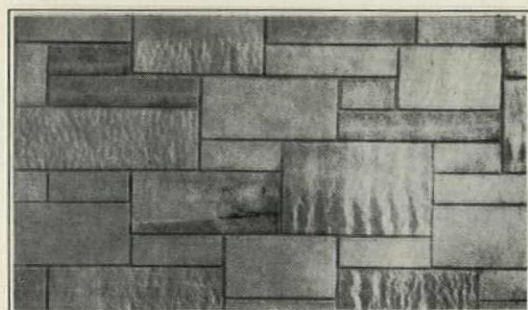
1



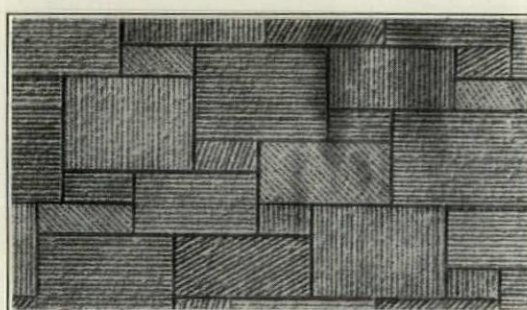
NO DRAWING FOR  
THIS PHOTO

2

## STONework FOR WALLS

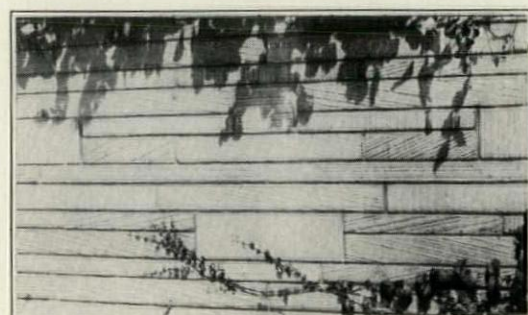


3

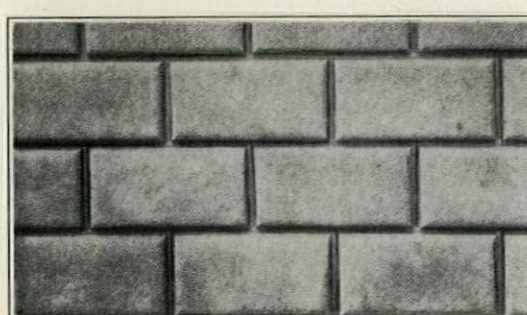


4

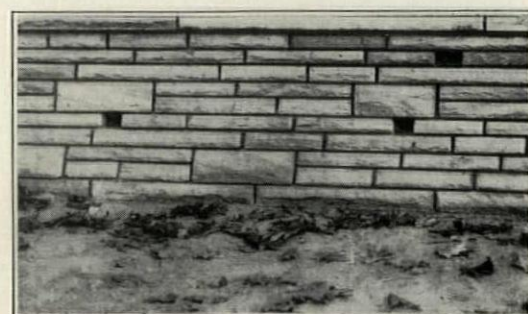
REFER TO PLATES A B C & D FOR SCALE OF STONework



5

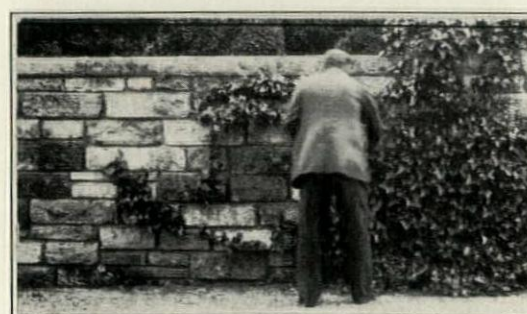


6



NO DRAWING FOR  
THIS PHOTO

7



NO DRAWING FOR  
THIS PHOTO

8

SEE DRAWINGS, SIMILARLY NUMBERED, ON PLATE NO D

PLATE NO.D-1



NO PHOTO FOR THIS DRAWING

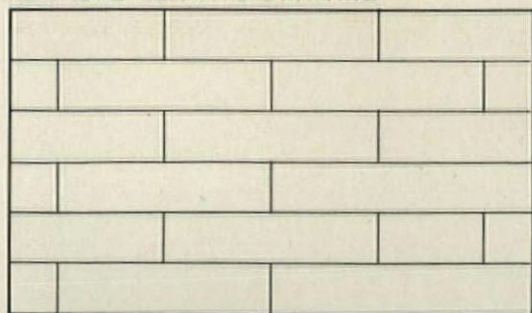
COURSED ASHLAR  
WITH NARROW JOINTS

FIG. 1

NO PHOTO FOR THIS DRAWING

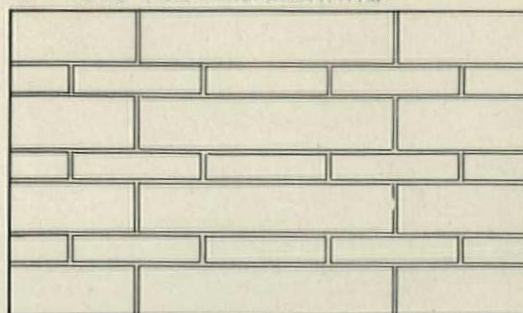
COURSED ASHLAR-TWO  
HEIGHTS WITH WIDE JOINTS

FIG. 2

## STONEWORK FOR WALLS

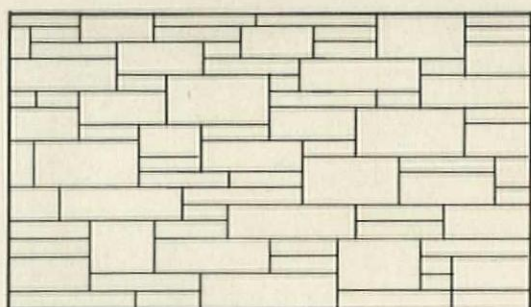
RANDOM ASHLAR  
WITH NARROW JOINTS

FIG. 3

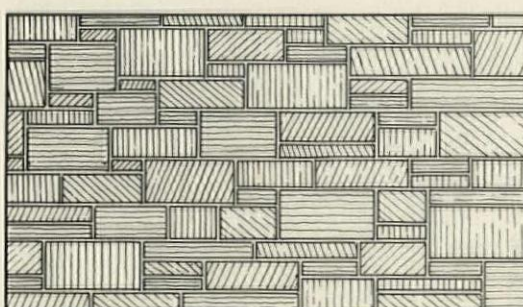
RANDOM ASHLAR-RIPPED  
SURFACE WITH RAKED JOINTS

FIG. 4

APPROXIMATE SCALE:

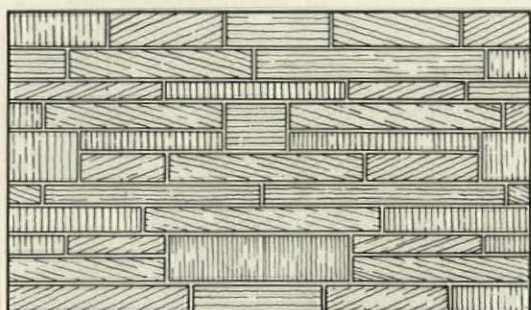
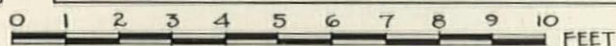
RANDOM ASHLAR-VARIATED  
RIPPED WITH RAKED JOINTS

FIG. 5

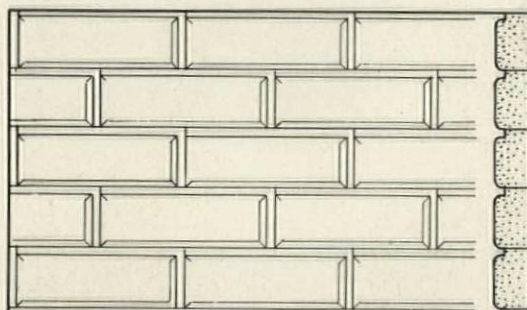
RUSTICATED STONE  
ROUNDED EDGES

FIG. 6

NO PHOTO FOR THIS DRAWING

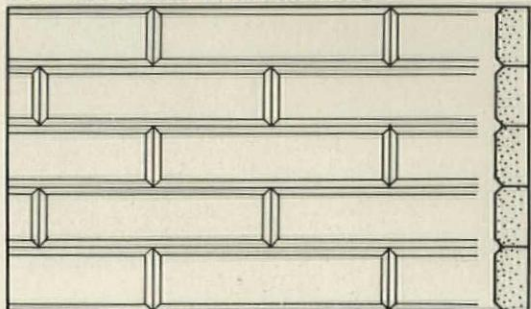
RUSTICATED STONE  
"V" EDGES

FIG. 7

NO PHOTO FOR THIS DRAWING

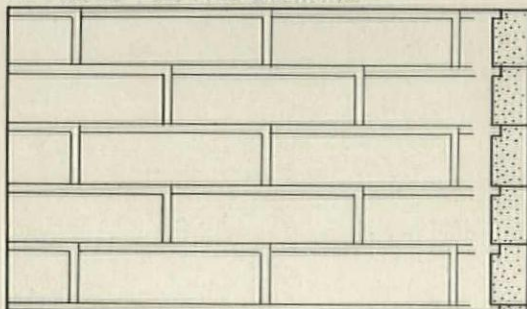
RUSTICATED STONE  
SQUARED EDGES

FIG. 8

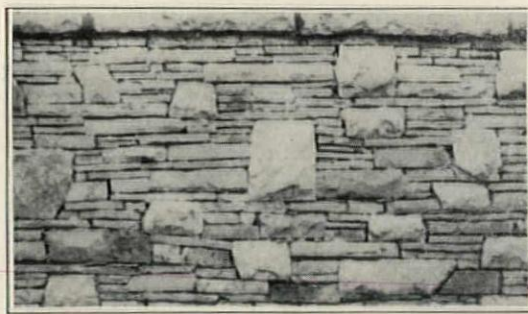
SEE PHOTOGRAPHS, SIMILARLY NUMBERED, ON PLATE NO. D-1

PLATE NO. D



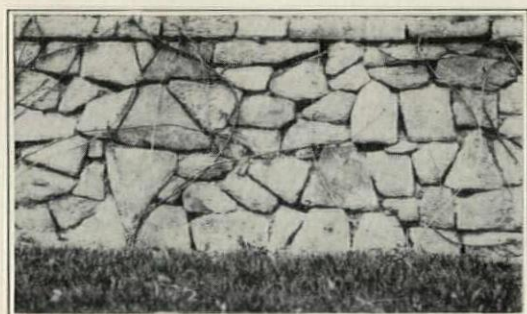


1

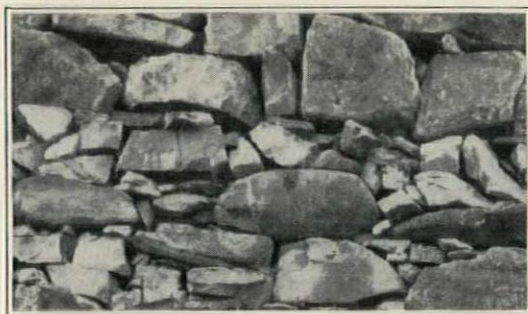


2

## STONework FOR WALLS



3



4

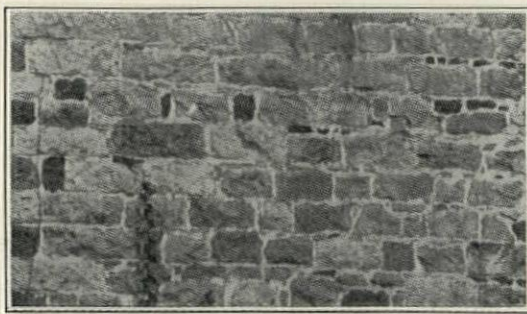
### EXAMPLES OF UNDESIRABLE TEXTURES



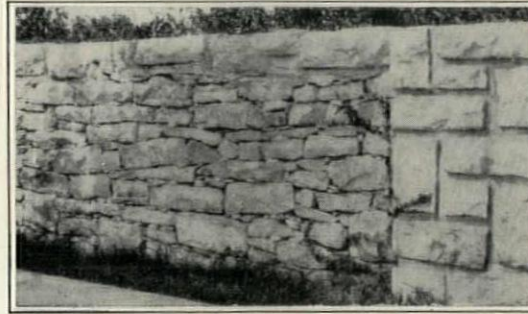
5



6



7



8

NO DRAWINGS TO ACCOMPANY THESE PHOTOGRAPHS

PLATE NO.E-1



# THE THRESHING FLOOR

## A SECTION DEVOTED TO BRUTAL FRANKNESS

*From ALICE WALTON, Architect, of Columbus, Georgia, another letter as frank and provocative as her "say" about the Architect's chances of survival, in the initial issue of this section, July, 1938, is welcomed. The Editors are inclined to speculate which of her fellows the writer is twitting—and just what they may have to say.*

SOME time ago, on an amateur hour broadcast, Major Bowes asked a young blues singer about to do her stuff if she had ever studied music.

"Naw," she chirped, "I didn't haf ta."

The audience tittered as if the girl had said something *outré*; but it was really the audience that was "ootra." Serious study, book larnin' would seem, in the light of results, to be as *passé* as the altruism of Colonel Carter of Cartersville. If the blues singer or the nose singer (now the more popular of the two) had been a student of music she would never have been a blues singer nor a nose singer, and then the radio would have been without one of its most important legs to stand on.

Art can no longer afford to be long because time is even more fleeting than it used to be. Babes in arms must grab while the grabbing is good, for in just a tragically few years they won't be babes any more, even to their mothers, and they will be submerged by one of the yearly freshets of babes gushing from the universities with many, many newer and fresher ideas shrilling for recognition.

A successful mural painter of this age of YOUTH picked up a scrap of paper on which his two-year-old son had been drawing pictures after the manner usual to two-year-olds. The father looked long and reverently at the scrawls and then said with entire sincerity and seriousness, "It is the children, the very young children, that have the real understanding of true art." Incidentally, he used the scrap as the leitmotif for his next (very successful, financially) opus, a ten-foot-wide mural extending clear

around the rotunda of an important building.

Studying the awards in some recent, and some not so recent, competitions, one cannot but note how strongly this philosophy has been influencing architectural design. Architecture is as naïve in its pursuit of juvenility as a woman having her face lifted.

As the sounds loved in babyhood—the regular tattoo of a spoon on a high chair; later, the beating of drums and tin pans and the tooting of little tin horns—are the core of swing music, the "rhythm," so are the forms loved in childhood the germ of modern design.

The nursery blocks and balls and beads, the "erector" toys indigenous to the childhood of the generation now in fullest flower, are the most all pervading elements of modern architectural design. All the details of these noble and instructive playthings are used constantly in the more advanced schools of design, and the winged words used by their perpetrators to describe and to exalt the extraordinary combinations of forms achieved by a mastery of their subtleties is indicative of a recent association with harassed English teachers bent and determined to inculcate an awareness of Roget.

In addition to these basic elements, the tin can, once valued as a store house for fishing bait and as something on which to train a young shinny stick, is riding high in favor as a dramatic and "interesting" form of form for some function of a building. Slightly flattened and corpulent, they make the amazing legs of the equally amazing building for the Petroleum Industry's exhibit at the new World's Fair Symphony in Swing. While in this instance they may be merely a subtle and affectionate tribute to the part Mr. Ford's masterpieces have played in the prosperity of the oil business, they are also used in other, far more serious efforts.

Form plus function is the Poobah of the modernistic designer. Which follows which is not always certain. The modernist has so many five starred words one loses the trail some-

times, and some of the functions following some of the forms, or vice versa, must be extraordinary.

Not only does form follow function, but *designer follows designer*. Just as we grow more and more dependent on buttons to push for our needs, so the young designer grows more and more dependent on what his fellows are going, whether it is the latest dance step, the last slang or the most recent attack on the natural limitations of building materials.

Nose to tail, like those deluded and trusting sheep that are led to their doom by a traitor goat, these young people trot happily along, upheld and sustained by a faith as sublime as their young faith in Santa Claus that each is being dynamic, original, dramatic, fresh, and stimulating when he designs a window going full tilt around a corner, with the wall above supported on faith in God; a flat roof in a climate where the snow piles four feet deep when it so desires; belts and bands of protruding masonry tied tight around an innocent building from top to bottom; witless ornament that starts briskly out for some place and then stops in full career, like an idiot with a new impulse; flat slabs of concrete supported on thin iron pipe in lieu of porch or entrance roofs; scattered plans, with the rooms lying where they fall, and with queer (or dramatic) boxes and cylinders erected over groups of such far-flung rooms at strategic points, or at wholly irrational points if the designer happens to be in the mood and tense enough.

They want to see the same thing repeated over and over again, just as they wanted their bedtime stories repeated over and over again, with not a word changed. To be sure, one of their most persistent adjectives is "original," and of course these designs were original once, so they must still be original; nothing has changed them.

Sad to relate, about the only difference in the copy cats is in the precedents each school uses. The fogies turn and return, like an old garment, the charms of the Parthenon and its peers; the newer fry turn to the cattle sheds,



the sod shanties and the tar paper shacks of the Old West as source material. A picture of a Western mining town of the Fifties is a real find. And these masterpieces, in their purity, resemble nothing more than the straddling little houses and barns with "windows and smoking chimneys and everything" that small boys used to draw for the astonished admiration of their mamas.

Study? Pff! They don't haf ta!

*To the Advisory Committee on Preparation for Practice, A.I.A., the following statement was addressed by Chairman ELLIS F. LAWRENCE of Portland, Oregon, F.A.I.A., during the New Orleans Convention. Its author feels, and we agree, that the questions he has brought up merit wide discussion by architects both in and out of the A.I.A. Readers are urged to comment freely, addressing themselves to the Editors or directly to Mr. Lawrence.*

AT EVERY Convention from now on it will be well to ask: "Why the Advisory Committee on Preparation for Practice?" An annual restatement of its objectives will help assure its continuance if free discussion results. This should vitalize and correct those objectives, and so stimulate the interest of the profession without which it cannot fulfill its mission. This mission, through coordination of the efforts of the units involved, is to assist those who seek to practice the profession of architecture and to protect the standards of the profession.

The Committee is needed because:

1. American architects choose to allow politically-appointed State Boards to control the use of the title of "Architect," rather than to follow the example of the R. I. B. A. in Great Britain. Here we are willing to risk the determination of the right to practice to men whose caliber and architectural ability are evaluated by Governors, rather than by the A.I.A. Here it is "must"; in England, it is "may." (It speaks well for our democracy that such a large proportion of members of the State Registration Boards are men of real character.) Here, registration tends to brand all practitioners as equal in the eyes of the law. There, the title marks men as being outstanding practitioners, attested as such by their peers.

2. Such a political system as ours is always in danger of bureaucracy, standardization, and too much or too little zeal in law enforcement.

3. The best antidote to these dangers lies in the democratic way, which is cooperation of the elements through their elected representatives, with full and free discussion among them, in-

telligent understanding and publicity of findings. To permit, as we have in the past, each element to pursue its own course without the help and understanding of other elements in the field, is to foment suspicion and a lack of confidence that means ultimate break-down and wasted effort.

4. If we accept registration by states it certainly should be augmented by some form of national registration, for convenience, economy, and the national solidarity of the profession.

5. If æsthetics and education are to respond to social movements and enlightenment, they must be kept free to develop. It will take the combined intelligence and action of the schools, profession, and registration boards to safeguard this freedom.

6. In Preparation for Practice three major fields must function, each with due regard for the others—the schools, where theory and knowledge are given and Education in its broader meaning should train in philosophy, mental growth and the art of living; the profession, under whose direction practical experience must be offered; and registration boards, intrusted under the law with the responsibility of examining and registering.

7. An agency is needed to discuss and record tendencies in architectural practice, education, and registration throughout the country and report them to the profession, schools, and boards. How else can local units keep abreast of the times?

8. The full correlation of all undertakings in the process of Preparation for Practice will take ample finance. A centralization in such a committee, supported by all agencies, should solve this phase of the problem better than

separated and unrelated actions by those agencies.

These reasons amply justify the creation of the joint Advisory Committee on Preparation for Practice. They mark the Committee as one of the most important, if not *the* most important of committees in the mechanism for servicing professional standards and ideals.

Architects have learned from experience that finding out *what not to do* is nearly as important as finding out *what to do*. It would be constructive, therefore, to list all mistakes and abuses in the present system of Preparation for Practice that come to the attention of the members of the Committee.

The following are some examples that your Chairman has met with during the last few years:

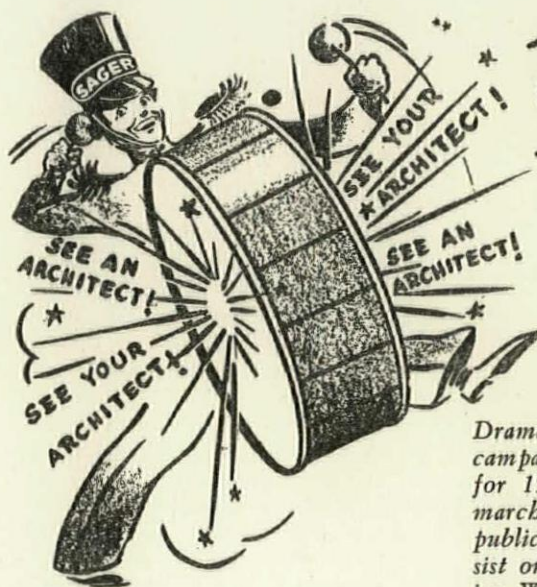
1. In one sparsely settled state with one major city, members of the registration board are selected on a geographical basis, rather than on merit.

2. One state board has thrown down the gauntlet to New York architects, and the story persists that New York architects need not apply there for the privilege of practicing in that state.

3. A candidate goes blind the fourth day of the examination and fails in "Structural Design." Though he holds a certificate from Columbia University in the subject, and has conducted a large office in New York, he is refused in a Western state, and must take all the examinations over.

4. A large Eastern state examines 170 in two examinations, and passes 12. Two who failed in Design were graduates of the *Ecole des Beaux Arts*.

5. An Eastern state attempted to



*We're beating  
the drum for you  
**ARCHITECTS***

Dramatizing the "Sell the Architect" campaign of the SAGER LOCK WORKS for 1939, this peppy youngster will march across advertising pages of lay publications and urge owners to insist on professional architectural service. Window displays and literature of the company will perform the same service on behalf of the profession



limit registration to graduates of approved schools. Shades of Bertram Goodhue!

6. Some states are securing laws compelling use of registered architects. Shades of Thomas Jefferson!

7. A firm made up of a business manager and efficiency expert, a designer, a structural engineer, and a mechanical engineer, cannot use any name, other than that of the designer, as a firm name—as he is the only registered architect in the group.

8. In some states, incorporation of firms of architects is permitted.

Your Chairman suggests the following questions for discussion and debate:

1. Are all candidates for registration to be examined by the boards?

2. If all candidates are to be examined by the boards without discrimination, why is it felt that schools should be approved?

3. If the schools are approved, why not accept their examinations in theory, history and design as counting toward registration, as does the R. I. B. A.?

4. If the policy of approving schools is accepted, who is to assume the very grave responsibility of decreeing their status?

5. The profession, the boards, and the schools themselves are all vitally interested; therefore, should not all three elements participate in establishing the approval, or disapproval of the schools if that be accepted as good policy?

6. How can approval fail to call for another Standard Minima, of Requirements in some form or other.

7. Should the aesthetics of design be a part of the basis for registration, the legal status of which comes from "protection of life and health"? How can design survive if it comes under the law?

8. Must we accept as final the present examination technique; and should not those experienced in examining be called upon to assist in formulating methods?

9. Why a three or four-day examination?

10. Why not a divided examination—perhaps theory by the schools, and practice by the boards?

11. Should not every examination be a combination of written and oral discussion and answers, as the purpose should be to determine the candidate's fitness for practice; and the examinations devised to help this objective and not thwart it?

12. Does it matter where or how knowledge and experience are secured, as long as the candidate demonstrates his competency?

13. Why expect a designer to know enough structural and mechanical engineering to pass the examinations in these subjects; and why expect the structural engineer to pass in design?

14. Why penalize the non-school man by depriving him of the legal right to demonstrate his ability at the same age as the school man?

15. Why should not registration be by firms, rather than individuals?

16. How can we get the Mentor System adopted and working in the Chapters of the A.I.A.?

17. Should State Societies be represented on the Committee on Preparation for Practice?

18. Because of the importance of the work of the Committee, should not a Director of the A.I.A. be on its membership?

By giving the above reasons for the existence of the Committee, examples of abuses under the present system, and questions, your Chairman hopes you—the reader—will agree that the full solution of Preparation for Practice has not been found. The first step toward solution calls for an open mind and the questioning attitude. A closed mind is the danger. The discovery of the weaknesses in present methods will but help the committee strengthen the parts that are sound. We are in a transition period, searching for the right way to capitalize the earnest, conscientious—yea, even the inspired work of those in all three groups who have persistently sacrificed their time and effort in helping the youth destined to be our future architects.

The Committee has in its brief existence accomplished much. It has established understanding and mutual regard between the Profession, the Board and the Schools. It has set up the Mentor System. It has clarified documents. It has stimulated national registration.

The Committee has not been able to solve the serious problem of financing its activities, especially that pertaining to national registration.

Suggestions would be gratefully received by the Advisory Committee on Preparation for Practice.

*Not one—but fourteen draftsmen—here join in an "Amen" to the letter in our November, 1938, issue reporting sharp practices in certain offices and urging the draftsmen and designers to "stand up for their rights." A suggestion will be welcomed by them.*

MAY I herewith compliment you for printing the article in last column on page 713 of November issue on securing a job and not being paid.

I happen to be in this same predicament,

being told by my architect employer to move to this town and that I would be employed steadily. Now I am stranded here and my boss owes me over \$500 in back pay. Some of this pay is for work I did on schools under PWA, which jobs have never materialized.

I will certainly appreciate knowing how I can proceed to try to collect this money. The boss is friendly with most of the lawyers here. If you or any of the readers know what to do, I sure will appreciate receiving this information for fourteen of us who got stung.

ERWIN M. LURIE, C. E., of Chicago, is in accord with the suggestions of Don Graf's "Disregard of the Obvious" for October, 1938, judging from this. A new New Deal asked!

REMEMBERING our discussion about equipment of toilet rooms, which you and I had maybe a year or so ago, I was very interested in your article "Disregard of the Obvious" in which you finally came out and "told the world." I certainly agree with everything that you bring out in this article and wish that it could be reprinted and sent to managing officers of the various railroads, bus lines and public utilities companies, most of whom maintain their toilet rooms in terrible shape (if we can designate lack of attention, maintenance). It should also be sent to every owner or property manager of public buildings such as offices, public libraries, court buildings, municipal and state buildings, etc., because it seems to me that in buildings of these general types used by an occupancy which is largely transient that the "disregard of the obvious" is most prevalent.

I want particularly to compliment you on the next to the last paragraph in regard to the inventor of a paper-saving toilet roll contraption. Many's the time that I have cursed him and it occurs to me that if the New Deal wants to get hold of a lot of votes which are just about lost to it, that they ought to offer a 100% loan and furnish modern paper dispensing equipment which would do away with those old-time "savers." In fact, you are overlooking a big bet and if you went to Mr. Roosevelt and suggested to have him put you on the job of getting rid of all the unsatisfactory toilet accommodations throughout the country and giving the downtrodden public a new deal in this connection, I think that he would get more appreciation for efforts along these lines than he has for anything outside of possibly the "settlement" of the banking situation back in 1933.



American architects may well find the British viewpoint of HOWARD M. ROBERTSON, F. R. I. B. A., as expressed in this discussion, thought-provoking. It is reprinted through courtesy of the *Architectural Record* of "Design & Construction," in which it was published in the issue for August, 1938, as "The Domestic Scene."

A LADY client of mine recently went over to the United States and took with her plans for a medium size house which our office had prepared. The design, at her request, had something of the American Colonial flavour: painted brick, shingles, shutters.

It has just come back to these shores, with the client. But now the house is to be expressed in terms of Greece via Pompeii via Malmaison via Bermuda via Noel Coward via an unnamed American decorator. In other words, while the plan remains substantially the same, the body of the structure is to wear another suit of clothes, because the lady now sees in that way, and is, temporarily at any rate, tired of the other ways.

Curiously enough, the functional part of the scheme is not affected. The glass area of the windows is as big as required; the kitchen and services as convenient; the bathrooms as ample and as well fitted. Functionally, therefore, the house is modern, in the sense of being convenient, serviceable, and economical. And as regards expression, it will probably end up as a pleasant enough contemporary home with Directoire leanings.

This little story is used as an illustration of what, in very many cases, seems to be happening today in domestic work, namely, an acceptance of modern technique coupled with a mild eclecticism, being an expression of the client's personality, or at least of the client's mood of the moment and, if the client has no real personal convictions, then an expression of that very fluid and intangible thing, the current fashion.

To right, and to left, of this main stream of eclecticism, lie the extremes which spring from more deep-seated motives, sometimes on the part of the client, and very often, too, on the part of the architect, who is able, through his very sincerity, to influence his client towards accepting his own way of thinking.

Into the character of such convinced designers enters the fervour of the proselytiser, willing and able to convert others to his faith; a faith springing from an almost fanatical belief in his own æsthetic rightness, or else heightened by the sense of a social duty to make others see the light. To such an architect the rela-

tion between architecture and the study of sociology is very close, and—by extension—the connection between design and politics. Such a man has generally single-track convictions, and will refuse jobs which do not satisfy them. He regards architectural design as service with a mission. But, curiously enough, he will sometimes indulge in unsocial—or shall we say purely fantastic—bits of design in a way which cannot be justified on grounds of service or function. He will not only practise, preach and convert, but he will tyrannise in so doing, and impose elements which have no basis beyond that of being associated, through the pioneering of other designers of the same school, with work of the particular character which he affects. Such elements of design are frequently on a par with other stock, elements of traditional design; they are clichés, originated by pioneers, but now vulgarised by more extensive adoption minus their *raison d'être*. They have, however, a certain prestige of novelty, and can often be quite well defended on the score of possibly leading somewhere, whereas the older clichés are frequently worn out; and well most of us know it.

The modern architects of the last two or three decades have purified design, and, whatever their personal idiosyncrasies, have pointed out the errors of traditionalists who were nothing more than that. They have enormously stimulated imaginative thinking on constructive lines, and have developed a building technique employing many new materials and many old ones in a fresh way. To them is due great honour. But much less honour is due to their followers who think that they have found the formula, and despise others who do not employ it. Architectural progress is not made on such a basis of intolerance, nor in such a mood of self-satisfaction. The expression of the designer remains as his individual prerogative, one of the few liberties left nowadays; and whether one likes it or not, evolution with its series of "booms and slumps" will continue.

The architectural picture as regards domestic work at this moment seems to portray a reaction away from the work of the pioneers of the last few years, largely because of the strength of their influence and the resultant and subsequent vulgarisation of their vital themes which become obscured and utilised purely as "features." Many good architects of the thatch and elm boarding persuasion will now run you off a "modern" house while you wait. They have all the recognised hallmarks at their fingertips, and

produce them as easily as a French Grand-Prix man will knock together a big plan for anything from a naval dockyard to a Garden of Eden, without opening a book. Not only that, but the speculating builder is hot behind, with his little bag of tricks, generally, however, too transparent to deceive the élite.

However, the result is that the fashion leaders with money are becoming a little wary of the functional modernism as such. Firstly, having fewer real convictions, they have seen, tasted, and become bored. And secondly, fashion in the broader sense is turning to something else, and the wealthy keep a keen eye on fashion. The pages of *Vogue*, *Harper's Bazaar*, *Fortune*, *You*, and the French decoration magazines, all tell a story. It is of something happening, of a leaning towards the baroque, the bizarre, a very sophisticated decadence, and occasionally towards design which is just good and not much else.

This latter type is the one on which I personally would put my money as regards the future of domestic design. I believe that there will be more and more clients, in the medium expenditure class, who will want, for their house, "just house." They will list their accommodation, their whims as to bed-placing, towel rails, and bedroom basins. They will say that they want ample windows which they can look out of when sitting down. They will not want to be identified with any "ism," firstly because of modesty, and secondly because of the bogey of one day having to sell. They will probably express a preference for some particular feature, such as a copper door-hood; but they will list a considerable number of features which they do not like.

The result will probably be, in the hands of a good designer, a fairly satisfactory one. Architects will produce houses in which the materials selected dictate the colour and texture; in which flat roofs will be combined at will with pitched each as appropriate, and neither used because of either snobbishness or political leanings; in which æsthetic effects will not be far-fetched and consequently tiresome; in which everyone will see out, and see in, to the precise degree required by the climate, aspect, and personal desires; in which utilities will be shown when good-looking, and concealed when ugly, pending their general improvement; in which sham Tudor and sham modern will find it hard to escape an automatic elimination.

Curiously enough, the "just house" house will not be easy for the jerry



builders to imitate. It will be too much the outcome of its particular conditions to be readily standardised; yet it can easily have harmony with its neighbours and that sort of personality which is not aggressively conspicuous; and which is the most satisfying in the long run.

What happens to the house will probably happen also to blocks of flats, in fact, the signs of straightforward sane building are quite strongly in evidence in this branch of design, which in the better examples is becoming agreeably free from stunting or false sentiment.

A probable source of danger, not easily eliminated, will remain in the form of the control exercised by the large estates. The control has value; but it is so often in the hands of unimaginative or limited individuals, and punishes the good while the bad go scot-free. Such a situation, however, is susceptible to remedial treatment, and is partly the result of our own past sins.

---

*More replies to John J. Klaber's letter on housing, in our July, 1938, issue, show that the subject is far from dead! In this, CHARLES FRANCIS MELER, of Philadelphia, a resident of one of the very projects under fire from Klaber, and alert editor of the Hill Creek News which serves his neighbors, offers some pertinent ideas on the housing solution.*

I FOUND myself agreeing with John J. Klaber on many points in his article on "subsidized housing," but I really think I should tell him some pertinent facts bearing on a subsidized project and break down some of the well-written arguments of the man who is so envious of Mr. Iskowitz.

Now I'm not Iskowitz and I do not live in Williamsburg. I live in Hill Creek, Philadelphia, with my wife and little son, in a nice fireproof home with all the conveniences that Mr. Klaber mentioned. I have the added attraction of a wooded hillside sloping down to a winding stream, banked with weeping willows.

Mr. Klaber wails he can not afford to live in such a nice home; his apartment is smaller than Mr. Iskowitz's; the building is old, dirty and not fireproof and it fronts on a narrow noisy street. Now I don't know what Mr. Klaber's income is, but I'll just take a guess that he can afford to get away from it all by moving to a suburb. Or if he must live at his present address maybe he can plan a modern building and convince the owner to follow the Government's example. After all, he says he is an architect.

I can afford to live here because my monthly rent is about thirty dollars. I think I'm entitled to live here, not because I'm an American, but because I'm a human being. And the American standard of living is supposedly the highest in the world. Of course, maybe some persons do not feel that all human beings are entitled to live in decent quarters.

In Hill Creek we have very few Iskowitzes and I personally think it is un-American to try to keep them out. We all know America is the melting pot. And most tenants in Hill Creek and other housing projects are very, very American. If Architect Klaber would only attend some of our tenants' meetings he would find what fine, clean-living, steady, honest Americans we are. We even write letters to the nasty newspapers telling them so!

Why should living in a nice home like ours cost about eighty dollars a month rent when built by private industry? Should a loaf of bread cost a dollar? How much is a decent home worth in rent and how much is a loaf of bread worth? The bakers hold down the price of bread because of keen competition and they make a profit. They make the very best bread obtainable but if a better recipe is found, they grab it.

So what is the matter with our architects and builders? Slum areas are a blight on civilization. They are the discarded recipes of modern housing. And builders CAN build good, safe, airy homes instead of monkey-row houses. Architects CAN plan desirable operations with broad windows looking out on trees and play areas instead of slapping together factory-like rows on a checker-board pattern of streets.

Our neighbors look down snootily on the development private builders are throwing together on the other side of the stream, and we are worrying about late autumn denuding our trees when we will have to stare at the long rows of buildings, with tiny holes called windows and real estate men will be booming these as the perfect six-room house at five thousand dollars. If we had a bit more income that is what we would have to live in. It hurts me to think of it.

Oh, our homes have very plain little white baths. Private builders install baths of robin's egg blue, or is it fuchsia? Our homes are very plain, with broad casement windows and angular lines and sharp groupings, instead of some mad decorator's nightmare of kitchen and wallpapers. You see, our homes were planned.

Now take us. There are three of us so we get a living room, a combined dining room and kitchen, very work-

able but not "arty," and two bedrooms. We have plenty of closets, electric outlets and off-white casein walls. Our home is exactly the right size for us. What could we do with a dining room or another bedroom?

Our friends come in swarms and gasp. If only they could get something like it! Why John makes fifty a week and he can't find such a thing as a four-room house . . . These windows . . . They all rant about the windows. But darn it—John earns too much. So what can he do? Well, he and his wife look around. They see the house with the robin's egg blue bath. Two years ago that would have enchanted them. Builders have been selling houses on baths ever since baths were invented. But these friends have visited a Federal project so a bath is a bath to them now. And now they want something more than doodads and false fronts on houses. They've seen simplicity and realize that only in honesty is there real beauty. Sham gables have been revealed as sham. And trick windows, high and ugly in walls, just seem tricky—and useless. So they sigh. And they do not take the robin's egg blue bath house after all.

From best statistics on record, if American builders constructed 1,000,000 homes a year for the next ten years there would still be a housing shortage in this country.

Subsidized housing in America is a revolutionary departure from smug former ideas but Government subsidy in England awakened builders there and as a result England has been having a building boom unknown before.

Other European countries have had subsidized housing for years and none of them have discontinued it so there must be something to it.

So maybe if Mr. Klaber would pass this around and tell his builder friends that people are becoming fed up on tricks, maybe (though this may be a bit hard) if he and some of his architect friends would actually design small houses for living, he and his friends might profit nicely from what he thinks is the Government's mistake.

If he will give the people what they need—four-room and five-room homes—things might start to hum. Didn't I read somewhere that the building industry gauges our national prosperity? Then we have been going through a depression for no good reason so isn't it time for American architects to get off their high horses and do something about it?

It is true the projects belong to the Federal Government, which built them, so this is proper. And the Government leases them to the Housing Authority, which is still sound busi-



ness as it does not rent them for nothing. The total costs are amortized for sixty years. Now this may not be sound business but it is a lot better than wasting PWA funds for building totem-poles in some politician's back yard.

I do not see where the Iskowitzes taste in food and clothes has anything to do with this so I think Mr. Klaber might have used better taste than commenting on this. As he states, he does not have to eat their food. Nor does he have to wear their clothes.

I'm sorry Mr. Klaber feels so badly about helping to pay Mr. Iskowitz's rent without his consent. But it might make him feel better to know he is paying for everything the Government does, and paying without his consent. But then, maybe he knows all this and maybe that is why he did not mention it. Then, too, he may have a sneaky desire to pay for battle-ships which become obsolete in a few years, so I can see why he is not interested in helping to pay for substantial buildings that will last much longer. Oh, I almost forgot—he is annoyed so much because he can not live in these buildings. I'm sure it would be a different story if he could, because the Government has not really gone into slum clearance yet and there is only a small percentage of slum dwellers living in projects. It is still low cost housing so Mr. Klaber had better not speak out of turn to most of the tenants by calling them ex-slum dwellers, because he will most likely get an unpleasant surprise.

As everyone already knows that Government costs always run higher than private industry, here is industry's opportunity to go the Government one better by really building for slum clearance — better and much cheaper. And I don't believe anyone has told Mr. Klaber that indirectly, as a taxpayer, he will benefit from slum clearance through its good effects on fire hazards, disease epidemics and crime, which alone is a sound investment in our national welfare.

So I would not worry too much, Mr. Klaber, about the Government not clearing the slums nor because some people are getting wonderful bargains in housing. The Government is clearing the muddled head of the building business, or at least trying to. Maybe the head is too thick. But give credit to USHA for trying. That is something the business is not doing.

*The "turn-out" at the Christmas Party of the San Diego, California, Chapter, A.I.A., was probably due in no small part to the alluring invitation reproduced at the right. It was printed in brown on a heavy oatmeal paper.*

*Perhaps Allen W. Jackson stepped on a few more toes than he intended to, in his "Falsity of Axioms" published in PENCIL POINTS for October, 1938. Certainly a slightly tart reply from Halifax, N. S., by H. A. RUSSELL was unexpected, but none the less welcomed by us for this section.*

MR. Allen W. Jackson's article in your October issue certainly invites comment from the advocates of what he lightly and tolerantly includes in the perfidious term "abracadabra."

The first reaction to such strictures naturally leads to invective, but after serious consideration one is inclined to be more charitable. After all why should we resent the confusion which results from the first imperfect presentation of a science which can be mastered only by intensive application, and has not yet been presented in a manner that makes it of practical assistance to the architect.

Mr. Jackson's attitude toward those who have been giving their attention

to the geometry of form, is no doubt in agreement with that of a great majority of architects, who view this intrusion of science into the realms of art, with suspicion and mistrust.

Such an attitude is unfortunate though inevitable. Therefore let the reply be persuasive rather than vindictive. Perhaps if we can convince Mr. Jackson that geometry and design had a common origin, he might not be so sure that art and science are opposite facets of the human mind.

Picture a small boy playing on a sand beach. From the flotsam thrown up by the surf he selects the forked branch of a tree. Sticking one point into the sand he uses it just as you use a bow pencil to describe a circle. Many years later he remembers the trivial incident, and correlating it to the knowledge accumulated in the meantime he reflects, "Had I been alone in a primitive world with nothing more than the most primitive of men possessed or knew, I still could have drawn a circle."





Primitive man had no idea of a rectangle or a right angle, nor does nature supply him with an instrument with which he could produce such a form. Nature does suggest a circle to his mind and nature supplies him the instrument with which to draw it. Here then is our beginning, and having found it we may proceed to trace in logical sequence the successive steps. Perhaps a thousand years after man had learned to draw a circle, some primitive genius placed the point of his dividers on the perimeter of the original circle and drew a second circle which passed through the centre of the original circle and cut the perimeter in two places. Using these new intersections as centres, he proceeded until he completed the figure consisting of the original circle and the six secondary circles.

Now if Mr. Jackson cares to pursue this method of developing geometric patterns, introducing lines through the various intersections and further subdividing the original circle into twelve and twenty-four segments with accompanying secondary circles, he will soon be able to see suggestions of the Greek and Egyptian forms.

I shall not ask the indulgence of sufficient space for demonstrations, suffice it to say that I can show Mr. Jackson at least twenty such and I have no doubt that with a little trouble Mr. Jackson will be able to find at least some of them for himself. The significance of all this is that it explains not only the origin of the Greek forms but their geometry.

Now if Mr. Jackson despises the whole of that remarkable art of the ancients, he may well despise the "abracadabra" of the more advanced science of form, but I do not think he does, nor do I think will despise the more advanced science of form if he can be made to understand it.

Architects talk glibly of proportion, yet, as far as I can learn, they have the vaguest idea in the world as to the meaning of the word. To the mathematician the whole secret of proportion is locked up in the simple little formula  $a$  is to  $b$  as  $b$  is to  $c$  or  $b^2 = ac$ . The whole science of form consists in the application of this principle to line, space, and cube.

Unfortunately this is merely an indication of the method which can be acquired by intensive study, and since any further discussion of the subject must develop into an extended treatise on the geometry of form, which PENCIL POINTS would not care to publish, I must leave Mr. Jackson to ponder these few reflections, in the hope that it may soften his attitude toward that ill-rewarded fraternity whose researches so often enrich others.

EUGENE CSOLKOVITS, of New York City, would have PENCIL POINTS return to "fundamental architectural laws" with publication of the *Classic Orders*, which he finds too often forgotten. What do you think?

For many years, I have read many different kinds of architectural and construction engineering magazines. All of them published many ideas and designs of a different style of construction. At the same time, I met many Architects, and also Construction Engineers from different colleges and universities. But up to this time, I have had little opportunity to see, in architectural magazines, or to meet any draftsmen who had any perfect ideas of the fundamental architectural laws.

Many of them are good designers and know the history of the architectural. But the old knowledge is dying and a new one is born every day.

It is true, that PENCIL POINTS has never asked for suggestions, but I am taking the liberty of suggesting that you add but one page to the magazine on which to mention a little about the five Orders; Tuscan, Doric, Ionic, Corinthian, and Composite, by the great Palladio and Vignola. I imagine that the additional page would make a hit with many of the readers, and I know that the suggestion I have made is very much needed for many thousands of draftsmen and architects.

I have studied the Roman and Greek Orders for many years and I come to the conclusion that every architect is indeed very much in need of this information.

*Parts of a paper read by JOHN T. BRIGGS, Architect, of New York City, Secretary of the New York Society of Architects, at the recent convention of the New York State Association of Architects, are published here for their value to those interested in strengthening the profession in any part of the country—or even in the city.*

DID we now have concerted and coordinated action of all the architects in this state, we could paraphrase the exclamation of the Count of Monte Cristo and say, "The world of architecture in this State is ours!" Ours to function in; ours in which to make our contribution to the well-being of the public; ours to use to properly and ideally house all forms of human activity within the state. Our rewards would be increasingly happier peoples who would smile more in their work and play. And we architects would smile more, too, for in this, the contribution of our profession to the public service, we would be exercising

our creative genius and our constructive experience.

You members of the profession gathered here will all agree with me in this. But you will say that John Jones, an individual architect, cannot bring about much of a change and in this you are right. But all registered architects in this State, coordinated and working as one—working toward a common ideal—can accomplish wonders.

Here are some of the more obvious paths along which a united State Association of Architects in private practice should tread:

First and foremost, we must conduct a vigorous campaign to acquaint the public with the ideals, the procedures and the services that are rendered by architects in private practice. Let Mr. and Mrs. America know that there is a professional man, equipped by training and experience, to give expert answer to the problems of the small house, the multiple house, the factory building, public buildings, gardens and landscaping, zoning in all its phases, large and small town planning; to the problems of traffic, construction of roads; to the selection and erection of monuments and to all of those items of civic advance expressed in stone, in trees or in the heart.

We must not neglect the broad public. It is the legislators, mayors, councilmen—who appoint the chairmen and members of art committees, town planning committees—who draw up and act on legislation affecting buildings, roads and towns. We must be active in civic affairs. We must know the problems of our towns. We must study these problems in our local society meetings—seek solutions—present these solutions to the town officials and the public-at-large. We should be the experts—rather than the local plumber or baker or merchant—but we must be leaders, not followers.

The public—Mr. and Mrs. America—must be told about architects, must be taught to "Consult your Architect!" as Terry Kimball so aptly puts it. We must tell Mr. and Mrs. America about these "Bureaus"—Federal, State, City and Private Corporation bureaus, whose growth has been so insidious. Whose growth, gentlemen, has been entirely our own fault. They have supplied many of the advantages that we, through organization, should have provided for individual architects and draftsmen—chief among which is continuous employment and the attendant freedom from worry. Sorry compensation—or is it?—for the loss of individuality and personal, professional pride in their output. Architects of the State, strongly organized, could



have prevented much of the growth of these bureaus—strong organization can still remove this growth.

Does the public benefit by the work of these bureaus? If it does, they should be continued. But, to my mind, the public at large is the real sufferer, in this instance, restricted as they are and will be in bureau practice, to the limited architecture and freedom of expression of the bureaucrats. Architectural bureaus lead to regimentation. Is this what Mr. and Mrs. America wants? The bureaucratic building system needs evaluation in the mind of the public—one more reason for taking our story to every citizen and citizen-in-the-making in our State.

CHARLES L. KIRK, Vice President of the Eddystone Portland Puzzolan Cement Company, was unwilling to pass by Talbot F. Hamlin's criticism of concrete as an exposed building material in the New York climate, in the May, 1938, issue. His quite different deduction runs as follows:

I HAVE read with interest your article in the May, 1938 issue of PENCIL POINTS. In this article on "Housing In New York" you ask some pertinent questions and it would seem that they should be answered. However, they cannot be answered without criticizing the architects and the engineer in their approach to the problem of material selection and their readiness to gloss over basic facts known to them and self-evident in the history of their art.

I will take the paragraph at the upper left hand corner of page 292 and digress on it. Before discussing it, however, I would say that if the statements I will make are true and can be proven to you, it will be difficult for you to grasp their import because your basic training, preliminary to the start of the study of the mechanics of your profession, has lacked the thoroughness

necessary to give you the broad knowledge to cover design, specification, construction, inspection, and use.

If you had had this foundation, you would have had the courage to try to find a way to use concrete in the climate of New York and to seek a source a mortar as good as the best that was used a century ago. And it takes courage in these days of reciprocal "You tickle me and I'll tickle you" days of selection of materials. Please keep in mind that the pronoun "You" is used here in the collective sense and has no personal application.

In the past thirty-five years, making contacts with architects, engineers, contractors, and mechanics, it is entirely possible that I have picked up some viewpoints of value by being in the position of looking into the groups rather than looking out from them.

Recently, in a letter to an Eastern publication, I classified the elements in construction in sequence of their importance as follows:

1. Design
2. Workmanship
3. Materials

Analyzing these, we find they work out as follows:

1. Design is controlled by use, which includes exposure. It also covers material selection but poor design handicaps materials.

2. Workmanship follows design and can only give you what the limits of design establish.

3. Materials can only function within their own limits. The best of materials will not off-set poor design and poor workmanship.

You refer to concrete as an exposed building material. I know the California situation. Study its climate; No rain nine months of the year and then only a very light rain in those areas where the architectural concrete you have in mind is located. There are plenty of concrete failures and mon-

strosities in California. Their problems are merely delayed by climatic conditions. But in New York; where climate is climate, where wind, rain, snow, frost, humidity, hot sun, salt spray, laden winds and all those combinations which they say makes a New Yorker want to go to California; they accelerate the action and New York gives exposed concrete a "ride" in every sense of the word.

You speak of various ways concrete can be used, but you are not talking of concrete when you mention surfacing and finishing. Concrete is a conglomerate and why not treat it as such? But you want it to look like Indiana Limestone or Italian Marble. What this treatment does to concrete is another story.

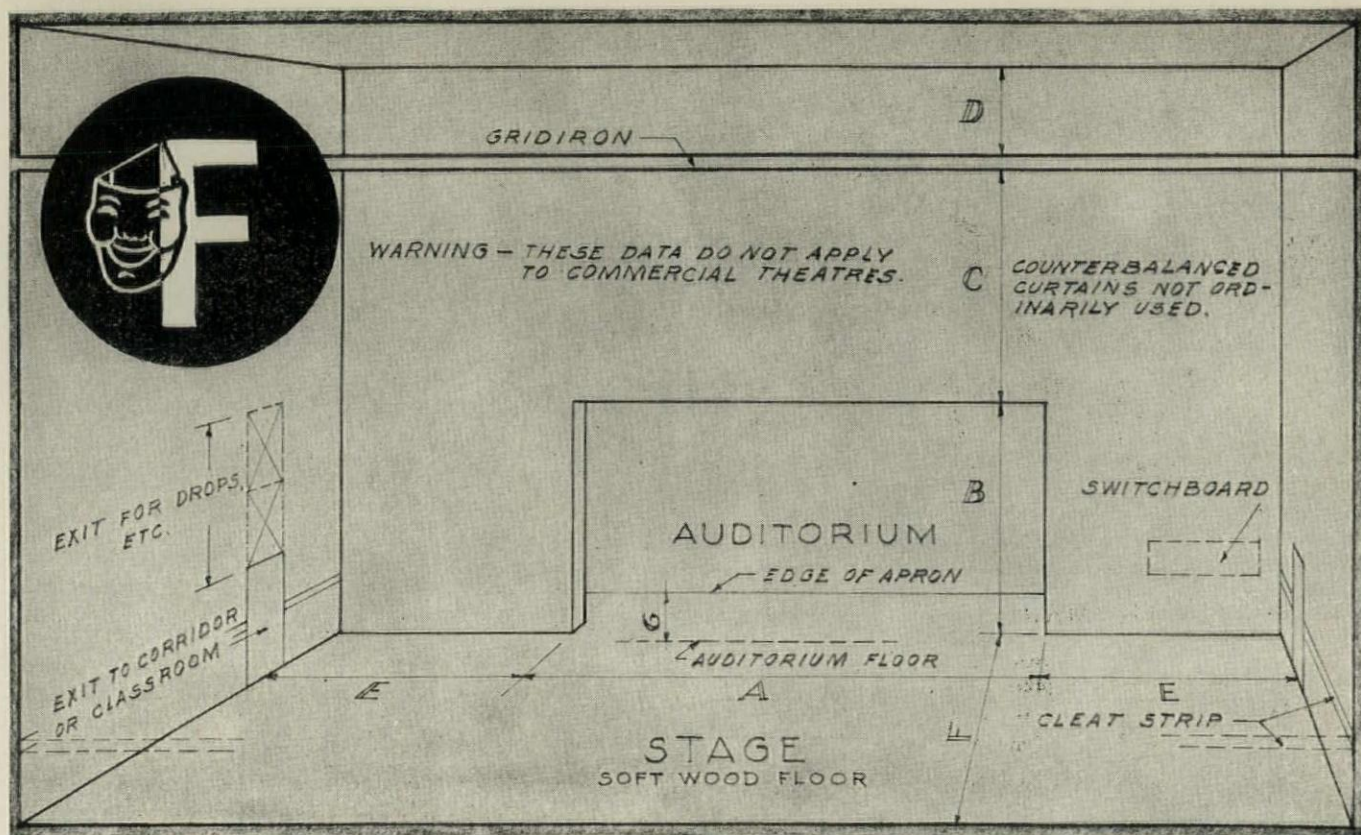
You speak of mortars of a century ago. You do not however speak of wall design nor workmanship. Walls of a century ago were 12" thick and solid brick with mortar joints filled and brick properly bedded. The walls you refer in the Williamsburg project are not even a substantial curtain wall in design, yet they are supposed to be load bearing. They consist of a 4½" face brick with a back-up tile of uncertain quality and not of the standard of the face brick. Dig out one of the walls that are leaking and examine the workmanship.

There are other factors involved, but as you say these buildings were designed by good architects. Is it possible that there were too many? Is it possible that authority was too thinly spread or so far back in the picture as to be ineffective? Is it possible that inspection failed? Is it possible that the specifications were so broad that like a "Mother Hubbard" they covered everything but touched on nothing?

There is an answer and I feel you have it. It is tied up in the endeavor to maintain aesthetics and use with low cost. It is a tough job.

EDITOR'S NOTE: As we go our rounds we continue to hear a good many architects giving voice to their opinions and ambitions for the profession. They speak right out in conversation and have vigorous ideas as to what is wrong with this or that. There seems to be agreement that the profession has problems to solve and that open discussion of these problems will be beneficial. This department is designed to furnish a place for frank debate. So, if you feel strongly about some matter of general professional concern, here's your chance to relieve your feelings and perhaps stir some of your brother professionals to do something about it. Or if you disagree with anything we print you can put your arguments before the same audience. Again, let us hear from you





## SPACE REQUIREMENTS FOR A HIGH SCHOOL STAGE

| KEY TO DIMENSIONS           |         |                |         |
|-----------------------------|---------|----------------|---------|
|                             | MINIMUM | DESIRABLE      | MAXIMUM |
| A                           | 15'-0"  | 25' TO 30'     | 40'-0"  |
| B                           | 8'-0"   | 1/2 A TO 3/4 A | 3/4 A   |
| C                           | 6'-0" * | AT LEAST 2B    |         |
| D                           | 5'-0"   | 6'-0"          |         |
| E                           | 6'-0"   | 1/2 A          |         |
| F                           | 20'-0"  | 30'-0"         |         |
| G                           | 3'-2"   | 3'-8"          | 4'-2"   |
| * GRID AT CEILING OF STAGE. |         |                |         |

### \* TYPHONITE ELDORADO

\*Typhonite is a new form of natural graphite, consisting of extremely minute particles produced by a whirlwind or typhoon of dry-steam in a recent invention used exclusively by Dixon in making leads for Eldorado, the master drawing pencil.

The design for a high school auditorium is quite different from the same problem for a commercial theatre. This drawing, made on tracing paper with \*Typhonite Eldorado F, gives desirable minimum and maximum dimensions which are usually observed. Since the proscenium opening rarely has either an asbestos or main act curtain, the backstage arrangement is considerably more flexible than it would be in a moving picture or legitimate theatre.

**DRESSING ROOMS**—Special rooms not essential. Classrooms accessible from the stage will do.

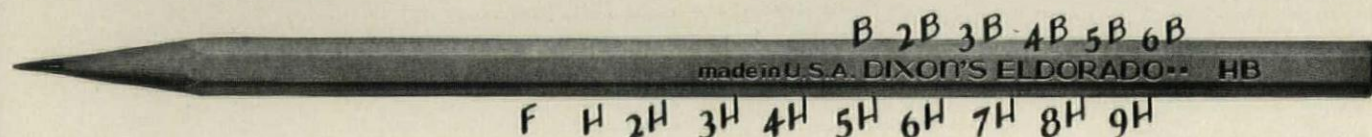
**STORAGE FOR COSTUMES AND PROPS**—Even if small, this room must be provided for and easily accessible from the stage.

**STORAGE FOR DROPS**—If no storage space is available adjacent to the stage, necessary pulleys and counterweights may be provided to hoist drops to the grid ceiling in the wings of the stage. If spacious stage height is impossible, drops may be rolled up and stored.

**WORKSHOP**—Best workshop for the making and painting of scenery, etc., is the stage itself, if amply designed.

**GRID LADDER**—Access to grid from upper floor, or special stair desirable. A ladder fixed to the wall of the stage is the alternate.

For your files, an actual size blue print is offered by Dixon, makers of Eldorado, the Master Drawing Pencil. Send to: JOSEPH DIXON CRUCIBLE COMPANY, Pencil Sales Dept. 167-J1, Jersey City, N. J.





# S E R V I C E D E P A R T M E N T S

**THE MART.** In this department we will print, free of charge, notices from readers (dealers excepted) having for sale or desiring to purchase books, drawing instruments, and other property pertaining directly to the profession or business in which most of us are engaged. Such notices will be inserted in one issue only, but there is no limit to the number of different notices pertaining to different things which any subscriber may insert.

**PERSONAL NOTICES.** Announcements concerning the opening of new offices for the practice of architecture, changes in architectural firms, changes of address and items of personal interest will be printed free of charge.

**FREE EMPLOYMENT SERVICE.** In this department we shall continue to print, free of charge, notices from architects or others requiring designers, draftsmen, specification writers, or superintendents, as well as from those seeking similar positions.

**SPECIAL NOTICE TO ARCHITECTS LOCATED OUTSIDE OF THE UNITED STATES:** Should you be interested in any building material or equipment manufactured in America, we will gladly procure and send, without charge, any information you may desire.

*Notices submitted for publication in these Service Departments must reach us before the fifth of each month if they are to be inserted in the next issue. Address all communications to 330 West 42nd Street, New York, N. Y.*

## THE MART

Peter H. Petersen, 3211 3rd Street So., Arlington, Va., has for sale *Brickbuilder Magazine*, years 1901, 1902 and 1903, complete, without covers or advertising, in very good condition. Will accept reasonable offer.

**WILL SUB-LET:** Private room suitable for architect's office, including use of reception room. Midtown New York. Phone VAnDerbilt 6-2364.

**WANTED:** Used drafting machine. K & E, Post's or similar. Describe and state price. H. W. Stowell, P. O. Box 105, Albuquerque, New Mexico.

Louis L. Wetmore, 5 Sherman Avenue, Glens Falls, N. Y., has the following books for sale: *Architectural Details of Southern Spain*, Mack & Gibson; *English Interior Woodwork of the XVI, XVII and XVIII Centuries*, Henry Tanner, Jr.; *Grecian Architecture and Ornament*, including the Principal Pompeian Subjects of recent discovery by eminent French architects, George Polly; *The Petit Trianon, Versailles*, Arnott & Wilson; six *Architectural League Year Books*; 1924 *Book of the Boston Architectural Club*; *The Georgian Period*, Vols. 1, 2, 3, plates, Wm. Roach Ware; *Monograph of the Work of McKim, Mead & White, 1879-1915*, Part 2; *Building Details*, Part 1, Snyder; *The Tulleries Brochures*, January 1929 to November 1932; *Gypsumist*, Architect's Edition, 1925 to 1931. All in good condition, some practically new. Make offer.

H. G. Little, U. S. Quarantine Station, Mobile, Alabama, has the following **PENCIL POINTS** for sale: June, 1920, through June, 1928, ads eliminated, bound in six months units in heavy detail paper covers and trimmed even; July, 1928, through October, 1929, uncut and unbound; November, 1929, through June, 1934, ads eliminated, unbound; July, 1934, through April, 1937, uncut and unbound. All in good condition, most of them like new. Would like to sell as one lot, purchaser to pay transportation. Please make offer.

## PERSONALS

WALTER SCOTT ROBERTS, *Architect*, has moved his office from the Masonic Building to Suite 210 Sherman-Coffman Building, 115 East Fourth Street, Owensboro, Ky.

VIRGEL A. DAVIS, *Architect*, has opened an office for the practice of architecture at Tucson, Arizona. He will specialize in residential work and will be located at the El Cortez Development, North First Avenue at Seneca.

NEIL HAMILL PARK, *Landscape Architect*, has established an office for the practice of landscape architecture in the Sterick Building, Suite 1329, Memphis, Tennessee.

RAMIREZ DE ARELLANO, TORO & FERRER, *Architects*, have established an office for the general practice of architecture at González Padín Building, San Juan, Porto Rico.

GEORGE P. DION, *Architect*, has moved his office from 48 Center Street to 18 Ellen Avenue, Chicopee, Mass.

## FREE EMPLOYMENT SERVICE POSITIONS WANTED

**REGISTERED ARCHITECT** of Illinois, young, desires position with architect. Designs, rendering and working drawings from inception to completion. Experienced in commercial structures and residences. B.S. degree. Will submit drawings. Chicago or Middle West preferred. Box No. 1.

**ARCHITECTURAL DRAFTSMAN.** Yale and architectural school graduate, just back from European study. Age 25. Desires connection with architectural firm. Box No. 2.

**JUNIOR ARCHITECTURAL DRAFTSWOMAN**, age 29, eleven years training and practical experience gained in offices of father and brother, both registered architects. Position desired with architect, preferably in small office dealing mainly with residential work. Experienced in office management, sketches, working drawings and scale models. Will go anywhere in U. S. Box No. 3.

**JUNIOR ARCHITECTURAL DRAFTSMAN** desires position in architect's or builder's office. Position must hold possibility of advancement. Second year student of architecture at Pratt Institute. Desire to break into the field as a beginner. Can do neat, accurate and rapid drafting. Twenty years of age. Can submit samples of work. Max Stitzer, 379 Alabama Ave., Brooklyn, N. Y.


**YOUNG MAN**, 19, Brooklyn Technical School education. Salary secondary. No practical experience but willing worker. H. Bloch, 4303 Clarendon Road, Brooklyn, N. Y.

**MARRIED MAN**, 33, five years training, seven years sound varied experience, some talent and considerable industry in architecture, wants responsible work. Particularly interested in supervision. May I submit samples and further information? 2063 North Meridian No. 9, Indianapolis, Indiana.

**JUNIOR draftsman**, 18, some experience, desires position. Neat and accurate. Possibility of advancement of prime importance. Architectural student at night. Ephraim F. Hubert, 238 Thatford Ave., Brooklyn, N. Y.

*(Continued on pages 33 and 34, Advertising Section)*





*400 Miles of Steel...  
to light your Cigarette*

THAT book of matches in your pocket would fall apart except for that inconspicuous piece of stapling wire. It takes approximately 444 miles of that wire every day to supply the enormous demand for book matches.

Steel is even more important in almost every act of your daily life. Many food delicacies come to you in tin plated steel cans and are cooked on a steel range; the modern plumbing and heating of your house would be impossible except for steel; your clothes, glasses, watch, shoes....all contain vital steel parts; you probably travel in a steel automobile or train to a steel framed office building or factory, to work at a steel desk or machine.

All the comforts and conveniences of modern life, which have come to be considered necessities, have been made possible by modern refinements in steels. Such refinements in steels do not just happen.... Youngstown maintains a great laboratory and an experienced organization, always working with customers to find the steel best suited to their needs and products.

## THE YOUNGSTOWN SHEET AND TUBE COMPANY

Manufacturers of Carbon and Alloy Steels

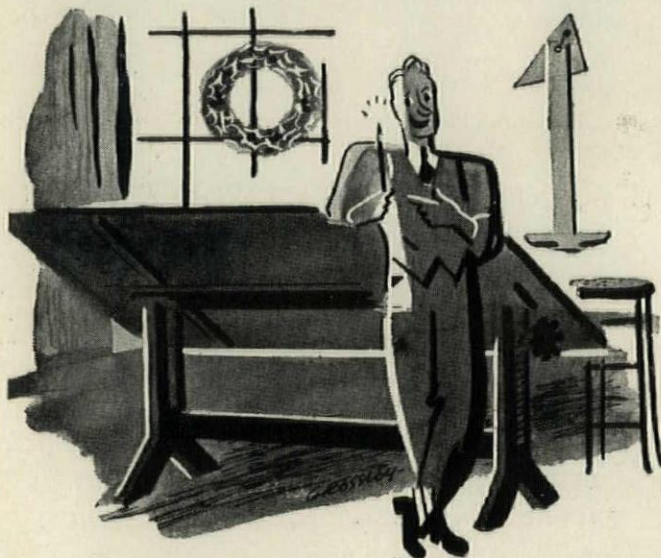
General Offices - - YOUNGSTOWN, OHIO

Sheets - Plates - Pipe and Tubular Products - Conduit - Tin Plate  
Bars - Rods - Wire - Nails - Unions - Tie Plates and Spikes 25-10A

# YOUNGSTOWN



**F**rom Spelvin, the Draftsman,  
 A tip to all craftsmen  
 Whose blueprints are smudgy, unclear.  
 "Castell" has no hard spots,  
 Results will be sure-shots,  
 Insist on 'Castell' this New Year."



**C**onsider the importance of the pencil in the hands of the architect, the engineer, the designer, the draftsman. From it flows ideas, specifications—to be translated into great projects, the stuff of human progress. Is it any wonder that craftsmen are glad to pay 15c each—\$1.50 per dozen—for "Castell", the world's finest drawing pencil!

A. W. FABER, INC. • NEWARK, NEW JERSEY

**NO GRIT** **NO SCRATCH** **NO SMUDGE**

THE HIGHEST PRICED DRAWING PENCIL SOLD IN AMERICA

**AW. FABER-CASTELL**

DRAWING PENCIL IN THE METAL BOX

★ 15¢ 1.50 per doz.

## PUBLICATIONS ON MATERIALS AND EQUIPMENT

*of Interest to Architects, Draftsmen and Specification Writers*

*Publications mentioned here will be sent free unless otherwise noted, upon request, to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.*

### THE NEW MODEL E WHITE PRINT MACHINE.

—Folder illustrating and describing in detail a new development in equipment for making technical white prints—one that combines an entirely new Ozalid printer with an advanced type of Ozalid developer in a single, compact, lightweight unit. 4 pp. 8½ x 11. Ozalid Corporation, 354 Fourth Ave., New York, N. Y.

Published by the same firm "The New Ozalid Model D White Print Machine." Folder covering a new office-size white print machine for producing duplicates of specifications, drawings, office records, reports, correspondence, etc. 4 pp. 8½ x 11.

"The Ozalid Model A White Print Machine." — Folder describing a new automatic high-speed white print machine for making architectural and engineering white prints. 4 pp. 8½ x 11.

### KELSEY-BRADLEY CONDITION-AIRE UNITS—

TYPE R.—Catalog giving detailed description of a line of home conditionaires for gas, stoker or oil firing. Dimensions, sizes, capacities, etc. 8 pp. 8½ x 11. Kelsey Heating Co., Inc., James and Pearl Sts., Syracuse, N. Y.

### MONOWALL.—New illustrated booklet showing in

full color 32 patterns of Monowall, a modern one-piece wall finish for residential and commercial interior walls and ceilings. The booklet answers questions most frequently asked about the material, and contains instructions for installing and cleaning it as well as descriptions of recommended moldings and their applications. Armstrong Cork Co., Building Materials Division, Lancaster, Pa.

### FLUORESCENT LIGHTING EQUIPMENT.—Folder

presenting detailed information covering a new line of equipment designed especially for use with Fluorescent Lumiline lamps. Several luminous patterns with the Fluorescent lamps are shown. 8½ x 11. The F. W. Wakefield Brass Co., Vermilion, Ohio.

### REVERE COPPER WATER TUBE.—A.I.A. File No.

29-b-4. New publication describing the physical properties, types and general advantages of Revere copper water tube. Included are installation data, specifications, tables to determine sizes, etc. 12 pp. 8½ x 11. Revere Copper and Brass Incorporated, 230 Park Ave., New York, N. Y.

### HIGGIN BLACKOUT SHADES.—Filing folder covering

a line of photographically light-tight and darkening shades for schools, hospitals, physicians' offices, oculists' offices, laboratories and studios. Included is complete data on uses, sizes, construction and window details. 16 pp. 8½ x 11. Higgin Products, Inc., Newport, Ky.

*(Continued on page 30, Advertising Section)*



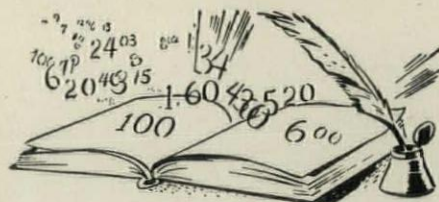
# HERE'S PROOF

*That America  
likes her  
Home Financing  
WITHOUT  
RED TAPE!*



## FACTS

This is the true picture of residential financing in the United States. Figures are from recent Federal Home Loan Bank Board reports.



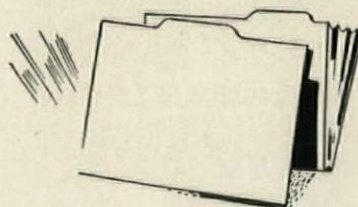
## FIGURES

Total home mortgage loans made in 1937 by institutional lenders—\$1,605,000,000.00.\*

Here are the percentages:

|   |         |
|---|---------|
| Savings or Building and Loan Associations . . . . . | 55.82%  |
| All Commercial Banks . . . . .                      | 22.08%  |
| Mutual Savings Banks . . . . .                      | 8.24%   |
| Life Insurance Companies . . . . .                  | 13.86%  |
| Total . . . . .                                     | 100.00% |

\*In addition, an estimated \$475,000,000.00 was loaned by individuals and other non-institutional lenders to finance homes.



## FILE

Put it down for your record and your reference that America wants *red-tapeless* home financing *that's easy, friendly and safe!*

Put it down that Local Savings or Building and Loan Associations do 11.64% more home financing *than all other financing institutions put together!* They finance home loans at home! They give prompt service—release money without delay!

That is why they are recognized as the nation's most logical source of building money. And that is why they serve your interests best!

Your recommendation of this home financing service will benefit you because—*"When You Support Your Local Savings or Building and Loan Association—You Help Local Business!"*

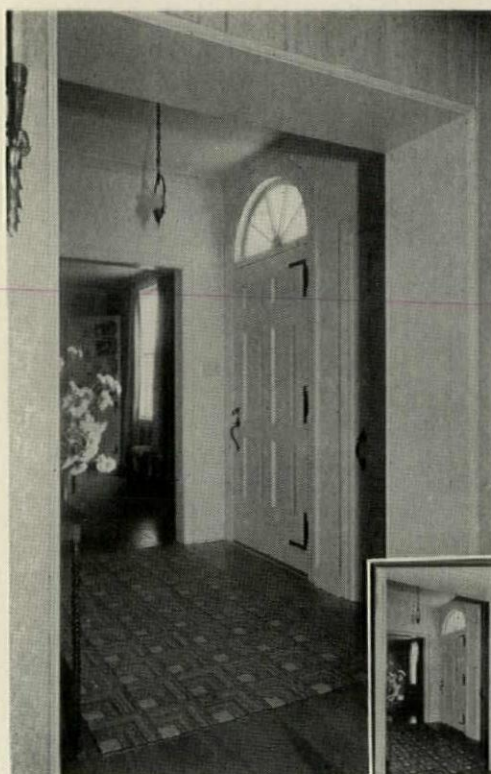
Let members of the United States Building and Loan League (333 North Michigan Avenue, Chicago, Illinois), in your community help you to more business.

**ARCHITECTS**—*when you put neighbors' savings to work financing neighbors' homes, you keep home dollars at home.*

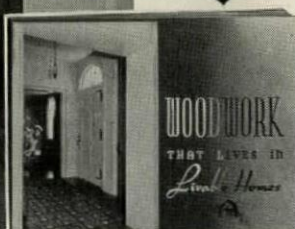
*Your Local* SAVINGS OR  
BUILDING AND LOAN ASSOCIATION

*When you support Your Local Savings or Building  
and Loan Association—You help local business!*





THIS VALUABLE BOOK includes specifications for painting and finishing. Your copy will be sent postpaid on request to the Bureau's address below.



*for Painted Woodwork that retains its life and color*

## **SPECIFY**

# **Arkansas Soft Pine**

## *Satin-Like Interior Trim*

Produced from a superior quality of shortleaf (*Pinus Echinata*), distinguished for its soft texture, tough fiber and freedom from pitch and hard streaks.

Correctly dried and seasoned in controlled, humidified air to a definite moisture content, it stays put, with no tendency to shrink, swell or open up at miters.

Even absorbing qualities provide uniform "taking" of priming coat, so pigment and wood fiber become integral. Finishing coats thus are applied and rubbed down much closer to the wood than when otherwise built up on an undercoating of heavy shellac.

Retains the life and color of delicate pastel effects, with no likelihood of fading, discoloration or raised grain.

Grade and Trade Marked as makers' warranty which protects your specification and confirms identity at point of delivery.

Available in A.I.A. approved patterns, through local lumber dealers and millwork factories east of the Rockies, excepting the Gulf States east of the Mississippi.

Write for brochure illustrated above and Don Graf Data Sheets which will be sent on request.

**ARKANSAS SOFT PINE BUREAU**  
1390 BOYLE BUILDING      LITTLE ROCK, ARKANSAS

GRADE **AB & BETTER** MARK  
**KILN DRIED**

## **PUBLICATIONS ON MATERIALS AND EQUIPMENT**

(Continued from page 28, Advertising Section)

**ICE AND FROST.**—Bulletin No. 505-A. Useful reference manual designed to serve as a guide in the selection and use of air conditioning systems. Four Frick systems of air conditioning are illustrated and described in detail. 12 pp. 8½ x 11. Frick Co., Waynesboro, Pa.

**SPECIFICATIONS FOR TERRAZZO WORK.**—A.I.A. File No. 22-e. Bulletin, 1938 edition, containing complete specifications for terrazzo work and for mosaics. 4 pp. 8½ x 11. The National Terrazzo & Mosaic Association, Inc., 1406 G St., N. W., Washington, D. C.

*Published by the same association, "Terrazzo Maintenance." Bulletin presenting useful suggestions for the correct maintenance of terrazzo floors. 8½ x 11.*

**MODERN STYLE CONVECTOFIN.**—Bulletin with descriptive data, dimensions, etc. covering the latest addition to the Convectofin line of room heating convectors. 8½ x 11. Commodore Heaters Corp., 11 W. 42nd St., New York, N. Y.

**CURTIS FLUORESCENT LAMP EQUIPMENT.**—Folder describing a new line of equipment, utilizing the Curtistrip simplified wiring channel, which makes possible a wide variety of Fluorescent lamp installations, including exposed or concealed applications, single lamp assemblies, continuous linear assemblies, suspended or surface mounted installations, cove, recessed or trough lighting. Application drawings and notes, etc. 6 pp. 8½ x 11. Curtis Lighting, 1123 West Jackson Blvd., Chicago, Ill.

**PERFECTION JOINT COVERS.**—A.I.A. File No. 12-h-1. Folder with specifications and detail drawings a new device designed to protect the joints in copings on parapet walls and in projecting courses such as cornices, belt courses and multiple sills on schools, churches, institutions, stores, industrial plants, etc. 4 pp. 8½ x 11. Dusing & Hunt, Inc., 1927 Elmwood Ave., Buffalo, N. Y.

**FORMICA WALL COVERING.**—New brochure dealing with the subject of Formica, a decorative material suitable as a wall covering, also for basing, cabinet, counter and table tops. Included are installation photographs, color chart and installation details. 12 pp. 8½ x 11. The Formica Insulation Co., Cincinnati, Ohio.

**YEOMANS-SHONE PACKAGE SEWAGE LIFT STATION.**—Data sheet with description, selection and specification information covering a complete pumping plant for handling sewage and drainage in large buildings, sewer systems, etc. 8½ x 11. Yeomans Brothers Co., 1433 Dayton St., Chicago, Ill.

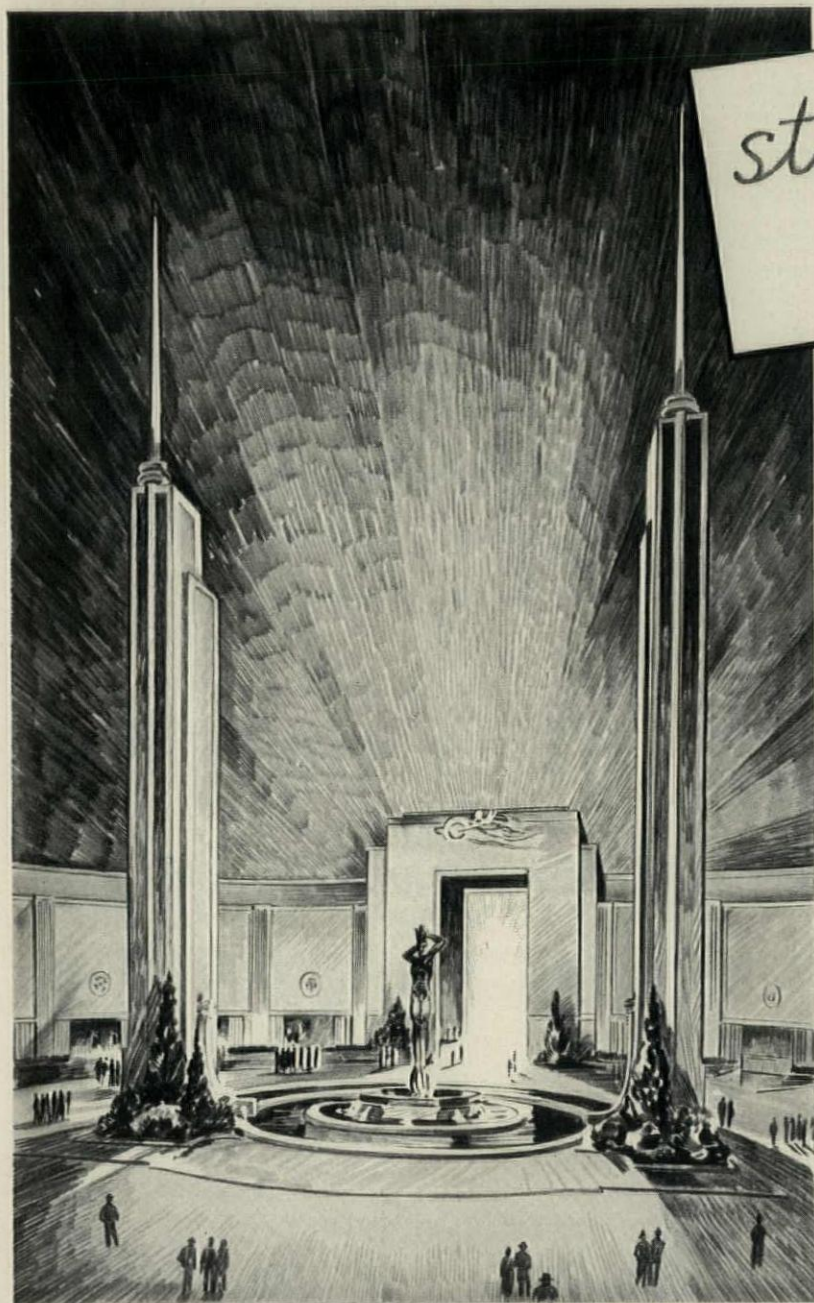
**KEWANEE STEEL BOILERS.**—A.I.A. File No. 30-c. General catalog 80-f covering a full line of Kewanee steel boilers, low pressure firebox boilers using mechanically fired and fired fuels, also Kewanee Tabasco water heaters, garbage burners and tanks. Included are illustrations, diagrams, specifications, setting measurements, etc. 24 pp. 8½ x 11. Kewanee Boiler Corp., Kewanee, Ill.

**HOLOPHANE IN-BUILT CORRECTALITE.**—Bulletin with specification and installation data covering a newly-developed line of units especially adaptable for store lighting. 8½ x 11. Holophane Co., Inc., 342 Madison Ave., New York, N. Y.

(Continued on page 32, Advertising Section)



# LARGEST BUILDING AT THE WORLD'S FAIR



*started with  
a pencil*

TO THE genius of those who design such remarkable buildings as this, add one simple tool and you have the beginnings of every great architectural achievement of modern times. From inception to finished drawings, that important tool is the pencil . . . And almost invariably it is Venus Drawing.

For, in America and principal foreign countries, the most widely known and favored pencil for architectural and engineering design is Venus. Its 17 shades of black provide enormous range. Each is precisely graded. All give you the smooth flow of colloidal lead\*!

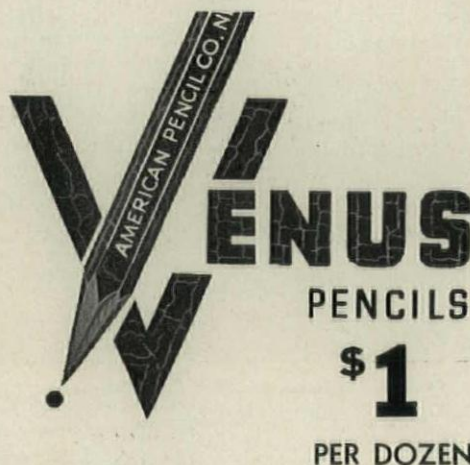
As you know—if you've ever used an inferior pencil—the only real satisfaction lies in the precise performance that Venus Drawing alone gives.

So we suggest you standardize on Venus Drawing. Be assured of a pencil that literally becomes a part of yourself—helps you put ideas on paper precisely as you want them.

## "RAILROADS ON PARADE"

The huge Railroad Building will occupy sixteen acres of land! It will include an open-air theater seating 4,000. It will contain 3,600 feet of outdoor tracks, a life-size locomotive and a complete railroad in miniature . . . plus many other exhibits and pageants of leading American and foreign railroads.

The Railroad Building, of which Railway Plaza (illustrated) is but a section, was designed for the New York World's Fair 1939, by Eggers and Higgins, architects.



AMERICAN PENCIL CO., *Hoboken, N. J.*

\*U. S. Pat. No. 1,738,888

ALSO MADE . . . IN CANADA—Venus Pencil Company, Ltd., Toronto. IN ENGLAND—Venus Pencil Co., Limited, London

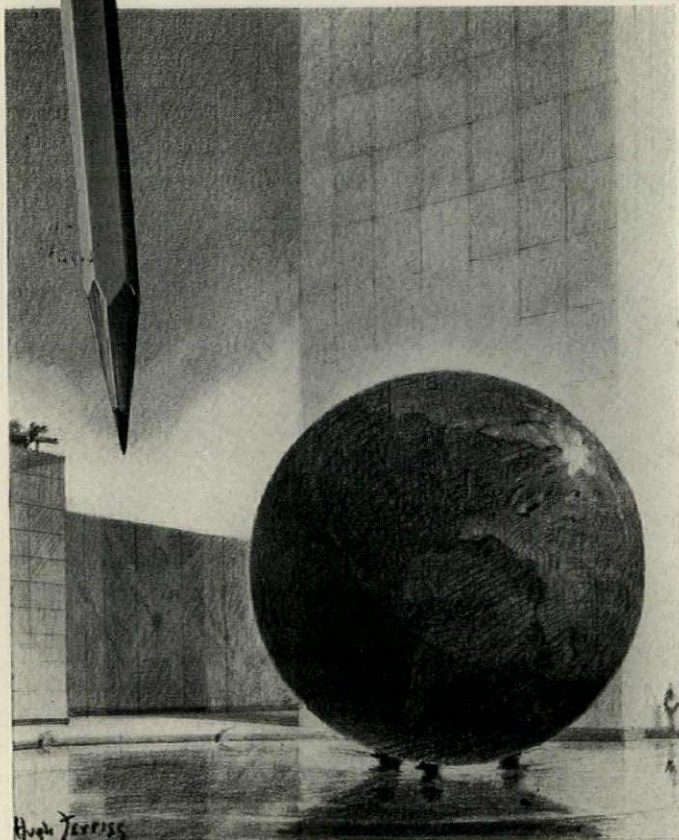


## GEOMETRICAL SIMPLICITY IN THE CITY OF THE FUTURE

Hugh Ferriss, author of "The Metropolis of Tomorrow"—an architectural visualizer whose dreams in steel are both inspirational and practical—predicts, "The architecture of the near-future may be counted upon to carry still further the existing trend towards the simplicity of the forms of solid geometry."

Technicians in architectural rendering will be interested in the "color contrasts" so effectively achieved in this composition by the use of Microtomic Van Dyke Drawing Pencils. You, too, will find the uniform grading and superior denseness and covering qualities make this an unusually facile and versatile pencil.

## MICROTOMIC VAN DYKE PENCIL



Microtomic Van Dyke Pencils are made in 18 degrees from 1B to 9H. Also with Chisel Point Leads in 4B, 2B, HB, 2H, 4H and 6H.

**EBERHARD FABER**  
The Oldest Pencil Factory in America

## PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 30, Advertising Section)

**AIR-MET.**—A.I.A. File No. 37-b-7. Folder describing the construction and installation of Air-Met, an improved reflective type of insulation for homes. Specifications. 4 pp. 8½ x 11. The Ruberoid Co., 500 Fifth Ave., New York, N. Y.

**PERMUTIT HOUSEHOLD WATER CONDITIONING.**—A.I.A. File No. 29-d-3. Catalog No. 477. Useful reference guide on the subject of water softening explains where to use soft water, its advantages and how to select the proper size softener. Included are specifications, capacity table and descriptions of a complete line of household water conditioning equipment. 24 pp. 8½ x 11. The Permutit Co., 330 W. 42nd St., New York, N. Y.

**WEBSTER-NESBITT GIANT UNIT HEATERS.**—A.I.A. File No. 30-d-11. Valuable reference manual for architects and engineers covering a line of giant unit heaters for heating large areas. Included are descriptive, selection and application data, physical data and dimensions, typical specifications, capacity tables, automatic control and piping diagrams, etc. 72 pp. 8½ x 11. John J. Nesbitt, Inc., Holmesburg, Philadelphia, Pa.

**SANGAMO TIME SWITCHES.**—A.I.A. File No. 31-d-46. Bulletin No. 87 prepared especially to assist architects in the proper type of time switch for apartment house lighting, flood lighting, motor control, alarm and signal systems, in the control of automatic heating, and many other applications. Specifications, tabular matter, etc. 20 pp. 8 x 10½. Sangamo Electric Co., Springfield, Ill.

## MANUFACTURERS' DATA WANTED

**VIRGEL A. DAVIS, Architect,** El Cortez Development, North First Avenue at Seneca, Tucson, Arizona.

**ORVILLE O. JENKINS, Architect,** Ponca City, Okla.  
**RAMIREZ DE ARELLANO, TORO & FERRER, Architects,** Gonzalez Padin Building, San Juan, Puerto Rico. (Data for complete A.I.A. file.)

**NEIL HAMILL PARK, Landscape Architect,** Sterick Building, Suite 1329, Memphis, Tenn. (Data on garden furniture, wrought and cast iron out-door lighting, pool construction, plumbing, etc.)

**EDWARD BUKSBAUM, Architect,** 902A Gates Avenue, Brooklyn, New York. (Data for A.I.A. file.)

**CARL N. JONES, Instructor,** Department of Architectural Drafting, Wyandotte High School, 26th and Minn. Avenue, Kansas City, Kansas. (Data for complete A.I.A. file as well as other descriptive data on building materials and construction. Also samples for a display of building materials.)

**SIDNEY I. KLEIN, Architectural Drafting,** 5125 Greenwood Avenue, Chicago, Ill. (Complete data on school buildings, town halls, fire stations, water works buildings, for A.I.A. file.)

**JAMES V. FONELL, Designer,** 2765 Kingston Pike, Knoxville, Tenn. (Data for A.I.A. file.)

**GERRIT GERMERAAD, Designer,** 1749 Linden Road, Homewood, Ill. (Data on small residential work and store fronts; also A.I.A. file data.)

**JOHN J. NOONAN, Student,** Suite No. 1, 115 Gainsboro Street, Boston, Mass.



## FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

Replies to box numbers should be addressed care of PENCIL POINTS, 330 West 42nd Street, New York. 25 words or less in this Department FREE—over 25 words ten cents per word should accompany all notices. Copy must be in by 12th of month preceding date of issue.

(Continued from page 26, Advertising Section)

### POSITIONS OPEN

**DRAFTSMAN WANTED:** Young man living in New York metropolitan area, who can make accurate ink drawings and do mechanical type lettering, to do construction drawings for publication. Man should have had some experience and a junior draftsman's knowledge of construction. Ability in design is of no value. Salary \$30. Give complete details in first reply, including photograph, if possible. Box No. 4.

**GRADUATE architect, or Certified architect,** familiar with all types of building construction, to take charge of Architect's office, as partner. Write all about yourself, business experience, amount you can invest, etc. Box No. 20.

### POSITIONS WANTED

**ARCHITECTURAL draftsman, registered architect.** Good on design and construction. Over 15 years of practical experience. University graduate, trained at Columbia and Harvard. Box No. 5.

**DRAFTSMAN, 4 years University of Minnesota,** experience 6 years contracting, small house design and lumber yard. 4 years construction and highway drafting, advertising and free lance artist. 30 years of age. Box No. 6.

**CONSTRUCTION Superintendent.** Registered New York and licensed Miami, Florida. 15 years' experience apartment houses, chain stores and other types throughout the country. Travel anywhere. Box No. 7.

**LICENSED Architect (Illinois and Florida).** 30 years' varied experience. Can do any part of architectural work to satisfaction. Salary or part commission. Box No. 8.

**PRACTICING Architect, A-1 draftsman and salesman,** 30 years' practice wishes engagement. \$75 per week or would consider partnership. Box No. 9.

**PARTNER WANTED** by registered architect of New York City. Write all about yourself and amount of money you can invest, etc. Box No. 23.

**ARCHITECT, registered,** desires position as construction superintendent. Experienced in commercial and residence building. Complete knowledge of types of construction. BS degree and licensed in Illinois. Box No. 10.

**ARCHITECTURAL draftsman, age 24, single,** graduate of Pratt Institute. Four years' experience. Willing to travel. Neat worker. EVergreen 4-8268 (Brooklyn, N. Y.)

(Continued on page 34, Advertising Section)

**Do You Know ABOUT**

# PENCIL-tex?

**This is ordinary pencil cloth**

THESE PENCIL LINES ARE WEAK INDISTINCT GRAY

THIS WILL MAKE A POOR BLUE PRINT

**Note the difference using the same pencil**

**This is PENCIL-tex**

THESE PENCIL LINES ARE STRONG SHARP JET-BLACK

THIS WILL MAKE AN "INK-QUALITY" BLUE PRINT

Try it yourself.

Ask for a SAMPLE



### for sharp jet-black detail on cloth-WITH PENCIL

You've never seen a pencil tracing cloth like Post's new PENCIL-tex. Your favorite hard pencil will draw jet-black on its processed velvety surface. It has glass-like transparency. It will give you ink quality at pencil speed. It will give you contrasty blue prints hours quicker. It is tough, durable, subject to erasure and made in sizes to fit your needs.

**Just phone or write your nearest POST man in this nationwide POST network**

#### BIRMINGHAM

James A. Head, Inc.

#### BOSTON

Boston Blue Print Co.

#### BUFFALO

Buffalo Blue Print Co.

#### CHICAGO

The Frederick Post Co.

#### CHICAGO

Holders, Inc.

#### CLEVELAND

The City Blue Printing Co.

#### DALLAS

The Rush Co.

#### DAYTON

The Gem City Blue Print & Sup. Co.

#### DENVER

H. R. Meininger Co.

#### DETROIT

The Frederick Post Co.

#### FORT WAYNE

Fort Wayne Blue Print & Supply Co.

#### FORT WORTH

Majestic Reproduction Co.

#### HOUSTON

Gulf Blue Print Co.

#### INDIANAPOLIS

Indianapolis Blue Print & Litho. Co.

#### KANSAS CITY

Western Blue Print Co.

#### KNOXVILLE

Schorn & Kennedy

#### LOS ANGELES

Stationers Corporation

#### MILWAUKEE

Frederick Post Co., of Wisconsin

#### OKLAHOMA CITY

The A. & E. Equipment, Inc.

#### OMAHA

Standard Blue Print Co.

#### PHILADELPHIA

Philadelphia Blue Print Co.

#### PITTSBURGH

American Blue Printing Co.

#### PORTLAND

The J. K. Gill Co.

#### ST. LOUIS

Service Blue Print & Photo Copy Co.

#### SEATTLE

Kuker-Ranken, Inc.

#### TOLEDO

Toledo Blue Print & Paper Co.

#### TULSA

Triangle Blue Print & Supply Co.

**THE FREDERICK POST CO., BOX 803, CHICAGO**

### DID YOU GET YOUR Symbol Chart?

There's nothing like it. 249 useful drafting symbols all on one wall chart. Your POST man has one for you FREE.







**The American Institute of Architects**  
The Octagon, 1741 New York Avenue  
Washington, D. C.

### THE STANDARD CONTRACT DOCUMENTS

These contract forms have stood the test of time. They have reduced to a minimum lawsuits and misunderstandings.

They make for good will between the Architect, the Owner, and the Contractor.

They eliminate worry. They reduce office overhead. They safeguard the position of the Architect. They expedite the business of building.

Is there any Architect who has not adopted these forms as his own?

### TITLES AND PRICES

|   |        |
|---|--------|
| Agreement and General Conditions in Cover   | \$0.50 |
| General Conditions without Agreement  | .35    |
| Agreement without General Conditions  | .15    |
| Bond of Suretyship  | .10    |
| Form of Subcontract   | .10    |
| Letter of Acceptance of Subcontractor's Proposal  | .10    |
| Cover (heavy paper with valuable notes)   | .02    |
| Complete set in cover   | .75    |
| Review of the Standard Documents—<br>by William Stanley Parker  | 1.00   |
| Complete trial set in cover (75c) will be mailed from The Octagon the day the order is received or can be had from almost any dealer in Architect's supplies. |        |

### MISCELLANEOUS DOCUMENTS

|  |        |
|--|--------|
| Accounting Forms and Binders                                 |        |
| <i>Prices furnished on request</i>                           |        |
| Agenda for Architects  | \$0.40 |
| Standard Filing System and Alphabetical Index (combined)     | 1.00   |
| Standard Filing System for Architectural Plates and Articles | 1.00   |

### BOOKS

|  |        |
|--|--------|
| Handbook of Architectural Practice   | \$5.00 |
| (Under revision—announcement later.)   |        |
| Manual of Accounting for Architects  | 5.00   |
| The Autobiography of an Idea—<br>Louis H. Sullivan                           | 3.00   |
| (Reprint pending—announcement later.)  |        |
| A System of Architectural Ornament—<br>Louis H. Sullivan                     | 15.00  |
| Charleston, S. C. (Vol. I—Octagon Library<br>of Early American Architecture) | 20.00  |
| Bertram Grosvenor Goodhue—Architect and<br>Master of Many Arts               | 30.00  |

Transportation prepaid on orders amounting to \$1.00 or more net. Orders, communications and remittances (checks, money-orders, cash or stamps) should be sent to The American Institute of Architects, The Octagon, 1741 N. Y. Ave., N. W., Washington, D. C.

## FREE EMPLOYMENT SERVICE FOR READERS OF PENCIL POINTS

(Continued from page 33, Advertising Section)

**ARCHITECT**, graduate of German University, 18 years' experience, 3 of which were in United States, designing and supervising of construction. Chiefly residential work, housing, city planning. Box No. 11.

**COMPLETE** typing service. Specifications and allied work done accurately, promptly and inexpensively. Henrietta Snyder, MAin 4-3100. Evenings ES. 7-8451.

**GRADUATE** from Ohio State University, December 1938, BA degree in engineering. Single, age 24. Any locality. Available immediately. Full qualifications upon request. Box No. 12.

**FREE LANCE** work or partnership wanted. First class architectural designer (college graduate) on residential work, with 20 years of designing and building experience (over 300 residences). Excellent renderer in colors, charcoal, pen and ink, etc. Box No. 13.

**JUNIOR** draftsman, age 26, graduate Mechanical Institution. Salary no object. Box No. 14.

**ARCHITECTURAL** draftsman, BA degree architecture, experience in store, school work, houses and in the field. Desire position with architectural firm specializing in educational work. Box No. 15.

**DRAFTSMAN** and renderer, age 24, desires position with architectural firm in New York or New Jersey. Graduate of I.C.S. Box No. 16.

**PUBLIC TYPIST**, specifications, forms, letters, etc. Four years' architectural experience. Accuracy and speed guaranteed. Fees reasonable. Miss R. Pavalow, 565 E. Tremont Ave., Room 4, Bronx, N. Y. TRemont 2-9292.

**ARCHITECTURAL** draftsman, 4 years' experience in new and alteration work. Familiar with various city building departments. Graduate of Cooper Union Institute winning second prize. Box No. 17.

**ARCHITECTURAL** draftsman, 20 years' experience. Handles work sketches to completion, makes details, renderings, writes specifications, superintends. Expert designer, economical, practical in construction design. Handles schools, residential work, hospitals, commercial work. Familiar with F.H.A. requirements, procedure. Rapid, dependable, can keep several men busy. Box No. 18.

**AMBITIOUS** young man, 17, desires position with architect, artist, builder or engineer. Acquainted with some phases of each. Willing to start in any capacity. Box No. 19.

**MECHANICAL** engineer, 25, wants work with Frank Lloyd Wright or architect who has studied under him. Preparing for mass produced houses, wants design experience. Will work as draftsman. Box No. 21.

**RESPONSIBLE** work wanted by draftsman, 33, of 5 years' university and 8 years' office training, some talent and considerable industry; particularly interested in superintendence. Ask for record and samples of work. Box No. 22.



## KENNETH M. MURCHISON

Kenneth M. Murchison, F.A.I.A., prominent professionally in New York for many years, died suddenly, December 15, in a subway station. He was 66 years old.

A native of New York, Mr. Murchison started his architectural practice here in 1902, after graduating from Columbia University in 1894 and studying for three years at L'Ecole des Beaux Arts in Paris. His firm designed a number of rail and ship terminals, banks, hotels, clubs, and the U. S. Marine Hospital on Staten Island.

He was formerly president of the Architects League of New York and the Society of Beaux Arts Architects. His services to the latter group, his work for Beaux Arts principles and his prominent part in founding and continuing the annual Beaux Arts Ball were recognized by France in 1931, when he received the decoration of a Chevalier of the Legion of Honor.

## W. R. McCornack Is Named M.I.T. Dean

Walter R. McCornack, Cleveland, Ohio, Architect and authority on housing, will become Dean of the School of Architecture of the Massachusetts Institute of Technology, when Dean William Emerson retires next autumn, Dr. Karl T. Compton, President, has announced.

Dean Emerson has been head of the Institute's School of Architecture since he joined the faculty in 1919 after a notable career in architecture in New York, where he specialized in the design of bank buildings and model tenements.

McCornack, who is noted for the

design of school and college buildings, is a native of Oneida, Illinois, and was educated at Knox Academy and Knox College at Galesburg, Illinois, and the School of Architecture of the Massachusetts Institute of Technology. Since 1925, he has designed schools and college buildings in Illinois, Ohio, Virginia, Kentucky and Connecticut. Since 1930 he has devoted himself principally to housing, a notable example of which is Cleveland Homes, Inc., a slum clearance program.

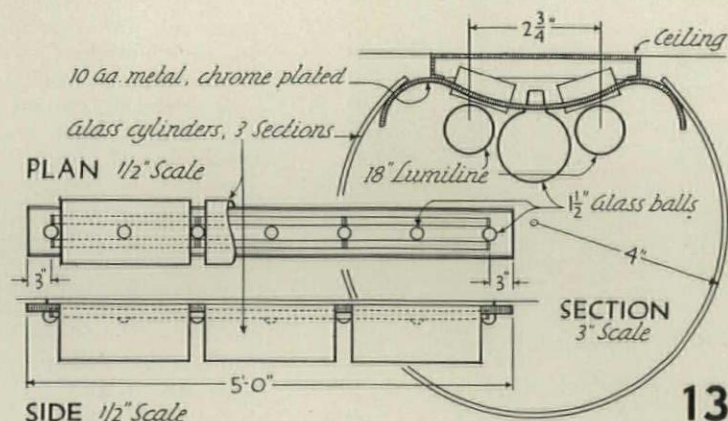
## Special Details

The COMPARATIVE DETAILS presented this month were prepared by Albert D. Taylor, Cleveland, Ohio, president of the American Society of Landscape Architects. A set in our usual style, showing examples of the Covered Passage-way from House to Garage, is being drawn by our draftsman for publication in February.

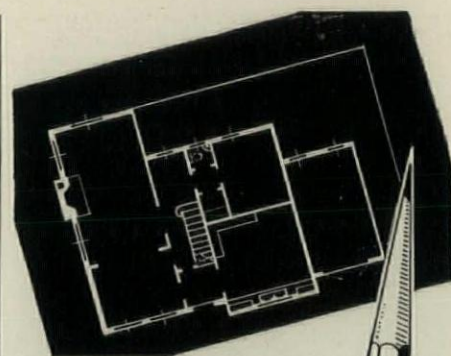
## Chapter News

The monthly news sheet edited by Ward W. Fenner for the New York Chapter, A.I.A., has been christened *Oculus*, symbolizing the function of the publication in shedding light on activities of the Chapter. For those who have forgotten their classical definitions, the oculus is the circular opening through the top of a dome.

The drawing of a modern lighting fixture designed by Morris B. Sanders, New York Architect, and published in the COMPARATIVE DETAILS in our December issue, page 766, is here correctly shown. Close inspection of the photograph will reveal that there are no metal straps, as first indicated



MORRIS B. SANDERS  
Architect  
THE EGLI CO. INC.  
Lighting



## PERFECT BLUEPRINTS Direct FROM PENCIL TRACINGS!

● If you have been making direct reproductions at the sacrifice of quality—take a tip from the thousands of firms which use them exclusively—try Mars LUMOGRAPH Pencils!

The lead in Mars LUMOGRAPH has a special light resisting element—an exclusive LUMOGRAPH feature—and renders lines of greater "resistant opaqueness"—giving you far clearer and sharper reproductions than you have ever had.

Mars LUMOGRAPH is superior for all your drawing needs—stronger, smoother, stays sharp longer. It is perfectly uniform and the degree is stamped on all six sides of the exclusive black tip. 17 degrees—15c each—\$1.50 a dozen packed in a metal box.

A trial will convince you of LUMOGRAPH's saving in time, labor and money. If your dealer cannot supply you, send us your order and his name.

#1018 Artist (Chuck) Pencils  
#1904 Artist Pencil Leads

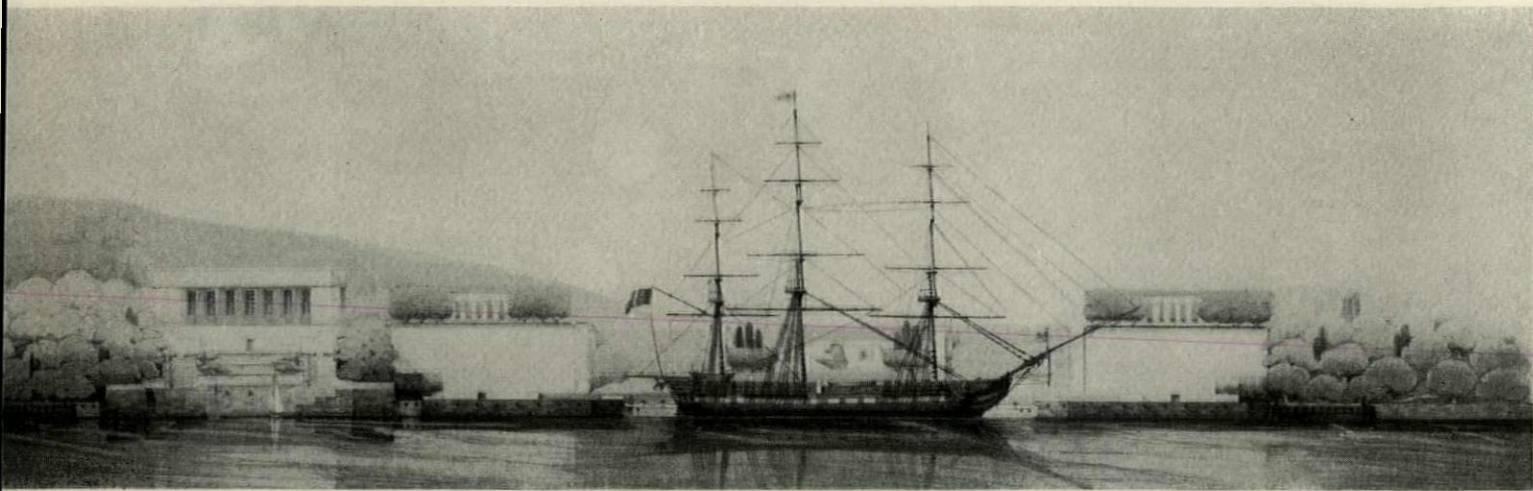
and  
**TRADITION CHROMA**  
Colored Pencils

strong—brilliant—made in 16 special colors

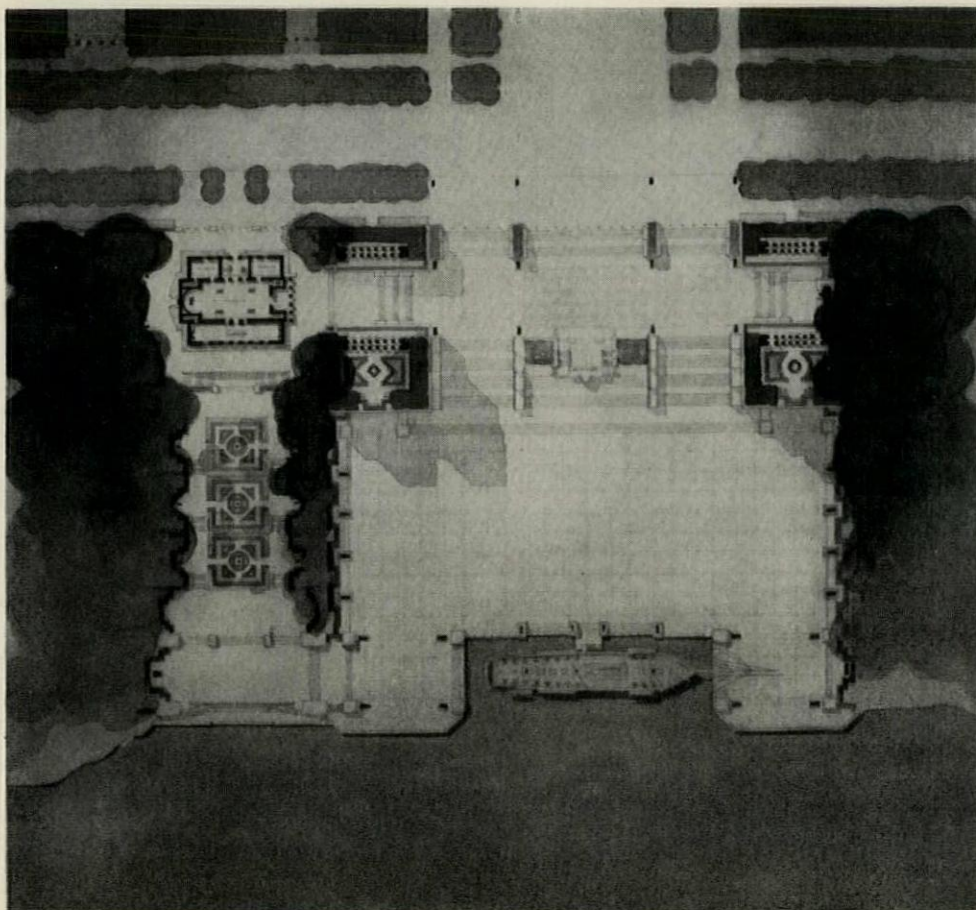
# MARS LUMOGRAPH

J. S. STAEDTLER, Inc.  
53-55 WORTH ST., NEW YORK

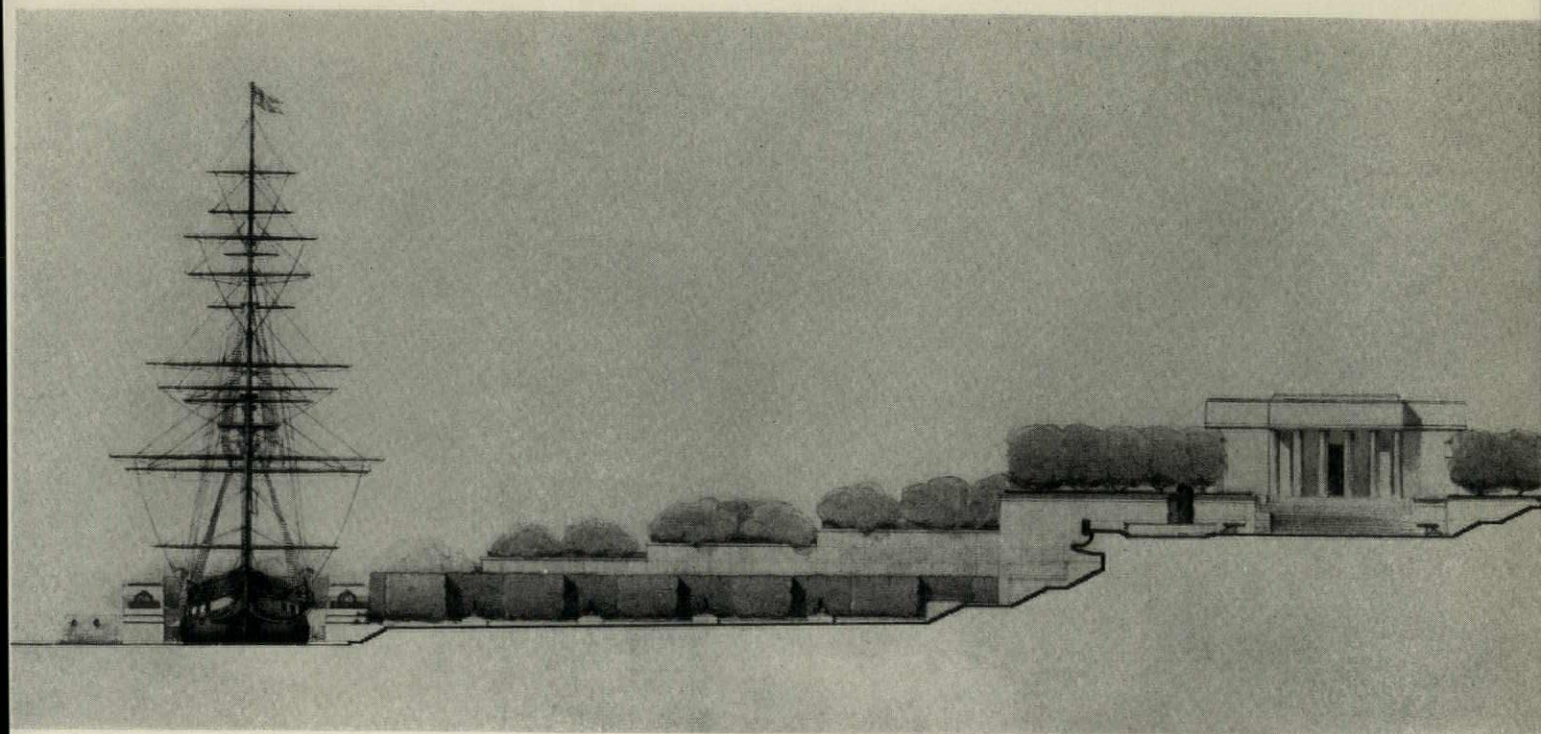




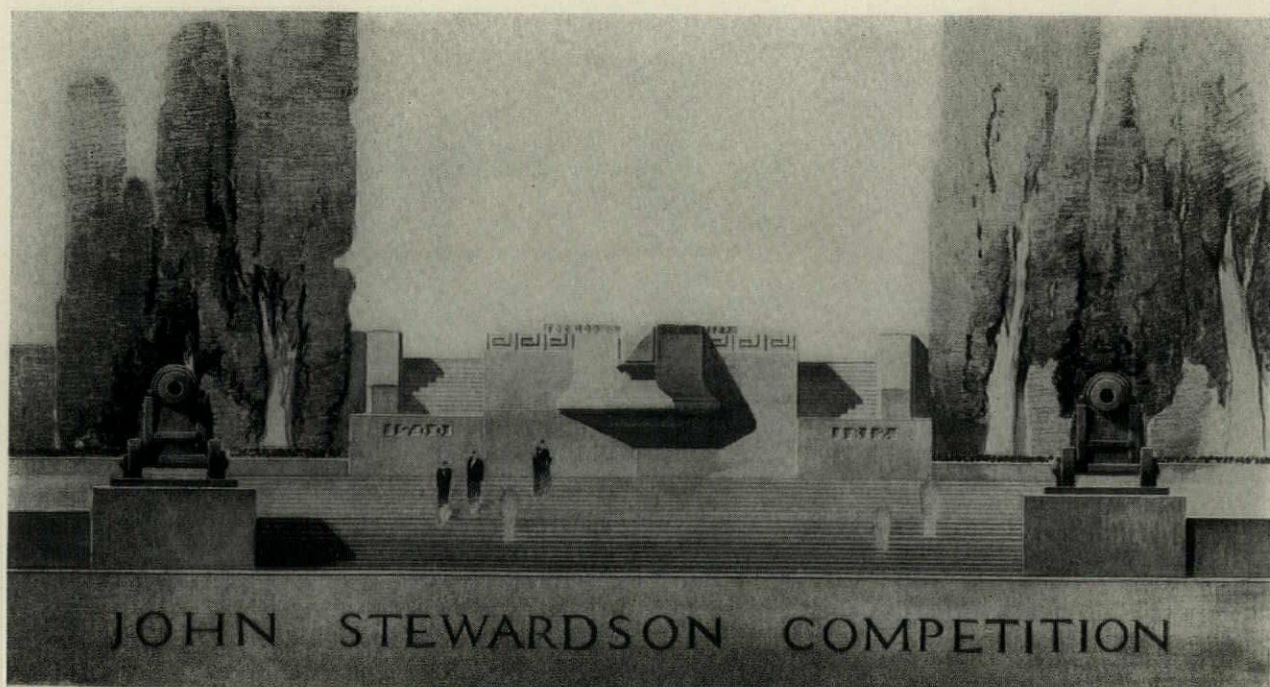
*This design for a monumental setting for the historic frigate, "Constitution," won for David Connor Tatman, of Connorsville, Indiana, the John Stewardson Memorial Scholarship in Architecture for 1938, providing \$1,000 for travel and study in this and foreign countries. A three-day sketch problem was the basis for the selection of five finalists and two alternates, from a group of forty competitors, and the final exercise offered was a five-week problem, "A Memorial to the Navy," for which the program was written by Dr. Paul P. Cret. Tatman, who received his Bachelor's degree in Architecture in June, 1938, from the University of Pennsylvania, has sailed for Europe accompanied by his wife and will extend his travels beyond the limits permitted by the Memorial Scholarship, visiting Egypt and Greece after completing the approved itinerary*







*A section and detail at larger scale of the elevation of Tatman's design, on the opposite page, reveal his imagination and restraint in handling the problem. The program called for a basin within the limits of the memorial plot, to provide for the "Constitution" and allow visitors to see the various aspects of the frigate from three sides, the fourth being open toward a river. The memorial also was to provide porticoes, terraces, and steps as setting for patriotic celebrations; a tribune for orations; a naval museum; and an outdoor display of guns*





Here is a hinge that is really modern, possessing exclusive advantages of beauty and safety . . . . Out of sight. Prevents doors from sagging. Permits unusual treatments in architecture. A size for every type of door, cupboard or lid.



Specify it by name

**SOSS**

INVISIBLE  
HINGE

Write for A. I. A.  
File Catalog

**SOSS MANUFACTURING CO.**  
653 East First Avenue  
Roselle, N. J.

NEVER SEEN - NEVER  
HEARD - NEVER  
TROUBLE

## COMPETITION ANNOUNCEMENTS

The Rotch Traveling Scholarship will be awarded this year for a term of not less than 15 months study and travel abroad, providing \$2,500 payable quarterly beginning October 1, it has been announced by C. H. Blackall, Secretary, 31 West Street, Boston, who will furnish further information to those interested.

Candidates must register before March 15 and fill out application blanks obtainable from the Secretary. They will be examined early in April.

### Columbia Fellowships

The following fellowships for graduate students and special tuition scholarships for students wishing to study architecture have been announced by Dean Leopold Arnaud of the School of Architecture, Columbia University, for the academic year 1939-1940.

*Schermerhorn Traveling Fellowship:* Open to graduates of the School of Architecture who are citizens of the United States, for a period of 10 years following conferring of the degree. For information, write to Dean Arnaud before February 10.

*University Fellowship:* Grant not exceeding \$1,500 awarded annually by the University Council to a graduate student fitted to pursue

higher study. Applications must be submitted on official blanks obtainable from the Secretary of the University, on or before March 1.

*Tuition Fellowships:* Awards of \$400 each offered by the School to holders of the first architectural degree, for graduate study in general subjects, planning, housing, or design correlation.

*Tuition Scholarships:* Available to candidates eligible for entrance to the School.

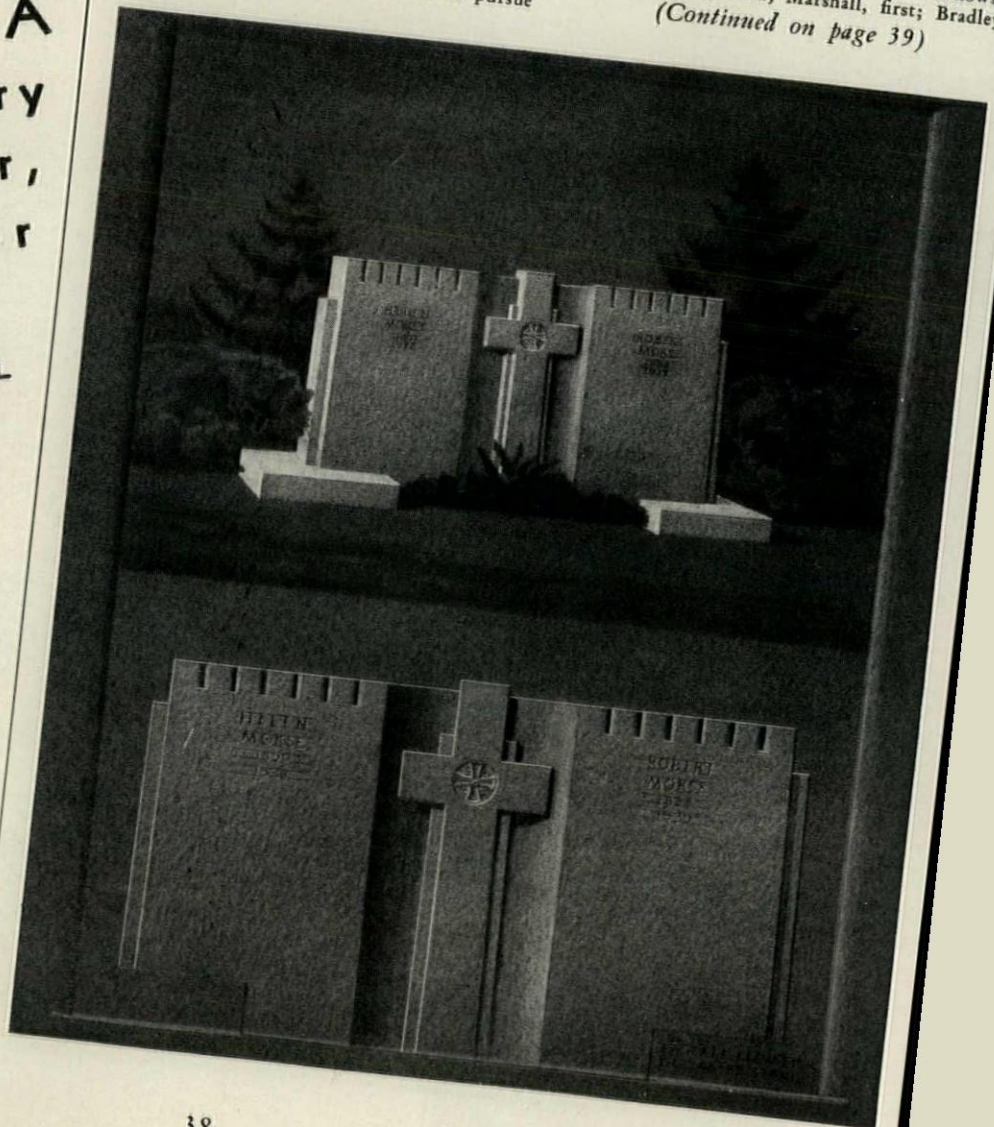
### Select Barre Design

Checks totaling \$1,500 were issued to the winners of the 1938 Select-Barre Design Competition, last month, following balloting on the designs by three organizations — Association of American Cemetery Superintendents, Barre Granite Association of Barre, Vermont, and Memorial Craftsmen of America. Five designers shared the nine prizes given by vote of the three separate organizations.

Robert B. Marshall, Sunnyside, L. I., designer whose design is shown below and who was a winner in the Barre Contest in 1937, and Al Comi, a Barre designer, received the same number of awards and mentions for their drawings.

Results of the three votes were as follows: *Memorial Craftsmen*, Marshall, first; Bradley

(Continued on page 39)





(Continued from page 38)

Ballbeck, Omaha, second; John Jamieson, Cleveland, third.

*Cemetery Superintendents*, Ballbeck first; Kenneth L. Whitaker, Bedford, Ohio, second; Comi, third.

*Barre Association*, Comi, first and second; Marshall, third. Sponsors of the competition considered the general excellence of the designs submitted well above those of the 1937 competition.

### Awards Increased

An increase of \$1,000 in the prize money for the American National Theater and Academy competition for a Festival Theater and Fine Arts Building at the College of William and Mary, Williamsburg, Virginia, has been announced by Kenneth K. Stowell, A.I.A., Editor of *House Beautiful* and Professional Adviser.

The three major prizes are thereby doubled. The winners will receive \$1,000, first prize; \$600, second prize; and \$400, third prize. Five citations of \$100 each remain unchanged.

Stowell also calls attention of PENCIL POINTS readers to the Competition deadline at 5 P. M. January 31.

### No LeBrun Competition

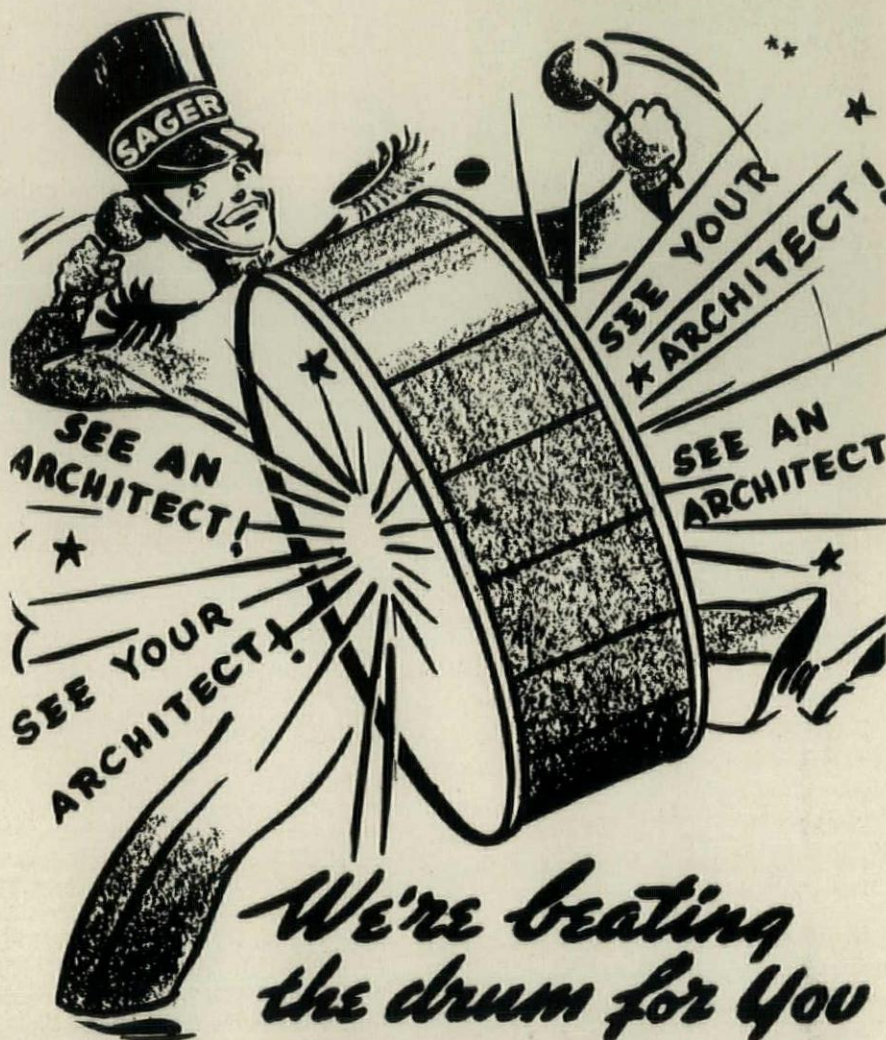
There will be no competition held this year for the Pierre LeBrun Traveling Scholarship, it has been announced by the New York Chapter, A.I.A., which is in charge of the LeBrun fund.

### Productive Homes

Announcement of a Competition "to encourage and stimulate architects in every region of the United States to the fullest consideration of the problems involved in the design of a house fitted to semi-rural living" has been received from Elliot Taylor, New York housing research writer, serving as Competition Manager. Walter B. Sanders, New York Architect, is the Professional Adviser.

Jointly sponsored by the monthly magazine, *Free America*, the School of Living, and the Independence Foundation, this Competition will embrace five regional classes and will be in two stages. All architects in the country may enter the first stage of the Competition and submit designs for any and all regions. There is no residence requirement in this stage. The second stage will be open to 55 architects to be selected from those competing in the first stage. These will submit designs for each region.

Five prizes of \$1000 each and 50 awards of \$100 each are offered competitors in the second stage. The five prize-winners will be required to submit drawings and specifications necessary for conduct of work. Full details and competition programs may be obtained from the Professional Adviser, The Productive Home Architectural Competition, 381 4th Ave., N. Y. C.



This beautifully illustrated brochure has been prepared especially for your use



**SAGER**  
*Locks and Authentic* PERIOD HARDWARE

*We're beating the drum for you*  
**ARCHITECTS**

"SEE AN ARCHITECT" will be urged in all Sager 1939 consumer advertising to arouse more prospective home builders to greater appreciation of the advantages of the Architects' services.

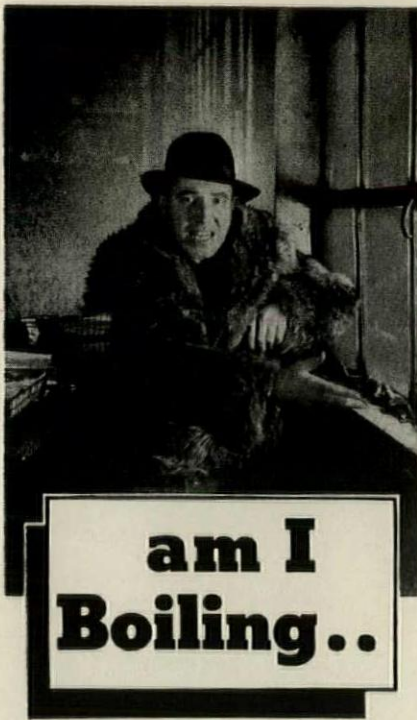
Beautifully illustrated brochures will tell the Architect's message in detail to thousands of interested prospects through better hardware outlets all over the country. In this way we seek to cooperate with you to keep home appointments in harmony with home design, to keep periods authentically followed regardless of home size or budget restrictions.

May we send you copies of the  
New Colonial Brochure?

**SAGER LOCK WORKS—North Chicago, Illinois**

Division of The Yale & Towne Mfg. Co.





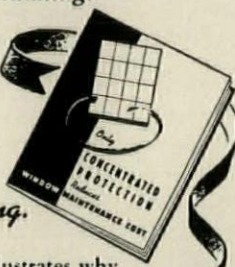
You can bet your hat, this is my last winter in a building that has ordinary windows. No more freezing drafts and snowdrifts coming in at these worn out sills for me.

I'm building a new office next year and equipping it with

**MESKER STEEL SASH**  
with  
**Genuine**  
**Wrought Iron Sills**

and from then on my troubles will be over because Mesker Genuine Wrought Iron Sills effectively resist corrosion and preserve the sash for the life of the building.

*The Booklet,*  
**MESKER**  
**G. W. I.**  
**SILLS**  
*is yours*  
*for the asking.*



It explains and illustrates why window sill members rot and rust away causing premature window failure. It presents an effective way to permanently avoid this ever present window problem.

FOR FURTHER  
INFORMATION  
SEE OUR CATALOG IN  
SWEET'S

**Mesker**  
SINCE 1879  
MESKER BROS., 424 S. SEVENTH ST., ST. LOUIS, MO.

## AT LARGE IN THE LIBRARY

**DESCRIPTIVE GEOMETRY**, by F. A. Smutz and R. F. Gingrich (\$2.50, 227 pages 6" x 9"—D. A. Van Nostrand Company, Inc., 250 Fourth Avenue, New York).

Most architectural men develop their ultimate facility in drawing "by ear." For those who wish to "read notes," this volume will be an extremely useful guide. Descriptive geometry is the scientific foundation of the art of drawing. It has the same relation to the graphic language that grammar has to the spoken or written language. It had its beginning when man first devised a systematic way of making pictorial representations of objects. In this book an attempt has been made to include the methods and theories that are required of a draftsman and to exclude much of the material that is purely mental gymnastics. The book is intended as a text for classroom instruction, but is written with sufficient clarity that the serious student of descriptive geometry would find it valuable in self-teaching. A chapter on the application of geometry to shades and shadows will be of particular interest to the architectural delineator.

D. G.

**A DECADE OF BRIDGES, 1926-1936**, by Wilbur J. Watson (\$4.50, 144 pages 8½" x 11", 110 illustrations—J. H. Jansen, 315 Caxton Building, Cleveland).

The notable bridges of Europe and America constructed in a decade of expansion and arresting projects—climaxed by the George Washington span across the Hudson River at New York and the majestic Golden Gate Bridge at San Francisco—are illustrated in this special volume which was originally intended as a supplement to Watson's "Bridge Architecture" published by the same house in 1937. Measured drawings and text comments on the æsthetic design of the bridges add interest to this survey.

C. M.

**BRIDGES IN HISTORY AND LEGEND**, by Wilbur J. and Sara Ruth Watson (\$3.50, 248 pages 7½" x 10½", 91 illustrations—J. H. Jansen, 315 Caxton Building, Cleveland).

The legends and romance associated with famous bridges throughout the world provide a wealth of material for this fanciful book on a subject too often regarded as prosaic. Pageantry, superstition and folklore—all that has played a part in endowing ancient spans with their rich character has been honored by the authors. C. M.

**STRUCTURAL ALUMINUM HANDBOOK** (\$1.25, 211 pages 5½" x 8¼"—Aluminum Company of America, Pittsburgh).

Just as the automobile gave the fin type radiator to architecture, the airplane and dirigible have given us structural aluminum. The publication of this *Handbook* indicates an acceptance for these metal shapes which is not yet in evidence in modern building. The use of aluminum as a decorative material was a great addition to the architect's palette of materials. With the increasing consciousness of functionalism, we are becoming daily less architecturally bashful about the beauties of structural nakedness—trusses and beams and columns no longer are required to be clothed in a dress of plaster or imitation travertine. If it is found economically feasible to give structural aluminum shapes a satisfactory finished surface, a new and interesting æsthetic field will be opened for exploration. The *Handbook* is a splendid treatment of structural aluminum, in the conventional steel handbook style so that the user will find himself on familiar ground in using it as a reference. It would add a great deal to the usefulness of this publication if a chapter had been included, outlining the possible uses of structural aluminum in modern building from the standpoint of cost, structural advantages, availability and—above all, the limitations.

D. G.

**DESIGN OF STEEL BUILDINGS, 1938**, by Harold Dana Hauf (\$2.75, 232 pages—John Wiley & Sons, Inc., 440 Fourth Avenue, New York).

The excellence of this book as a text on steel design is best attested by the fact that it has now gone into the second edition. The general principles of structural steel design as applied to the more common types of buildings such as apartment houses, schools, offices and institutional buildings are explained with unusual clarity. The illustrations, while not abundant, are adequate and are particularly well-chosen to clear up doubtful points.

It is a curious fact that most teachers of steel design and most authors of textbooks are invariably intrigued by the intricacies of plate girder design. Sometimes some inspired author will write a book on steel design, in which plate girders are not even mentioned—the space being devoted to some such practical subject as more detailed analysis of rafters or lintels or lally columns.

D. G.



*Now*  
**KOH-I-NOOR**  
 Drawing Pencils

**ARE**  
 10¢ each  
 \$1.00 the dozen



KOH-I-NOOR PENCIL CO., Inc.  
 373 Fourth Avenue, New York

## ARCHITECTURAL ENGINEERING

A practical course (HOME STUDY) by mail only

Prepares Architects and Draftsmen  
 for structural portion of

### STATE BOARD EXAMINATIONS

For many this is the most difficult section of the examinations. Qualifies for designing structures in wood, concrete or steel. Successfully conducted for the past six years. Our complete Structural Engineering course well known for twenty-seven years.

Literature without obligation—write **TODAY**

### WILSON ENGINEERING CORPORATION

College House Offices Harvard Square  
 CAMBRIDGE, MASSACHUSETTS, U. S. A.

## SPRING BACK BINDERS

FOR PENCIL POINTS

Two-inch **\$2.00** Capacity

REINHOLD PUBLISHING CORPORATION  
 330 West 42nd Street New York, N. Y.

# THE PRODUCTIVE HOME ARCHITECTURAL COMPETITION

**\$10,000**  
 IN CASH PRIZES

5 Regional First Prizes of \$1,000 each  
 50 Regional Prizes of \$100 each

**PURPOSE**—A new pattern of American life is arousing widespread interest on the part of economists, educators, and sociologists. A Productive Home located on productive land in a semi-rural community, takes precedent over employment in industry or commercial agriculture and is the source of well being in this pattern of living. The urban trend of the past century and a half is collapsing. A new movement landward is taking form, finding its articulate expression in agrarianism, and in the decentralization of population, government, finance, industry, and housing.

The center of the new economic pattern is the family, owning a home on a plot of productive land, and adding to the economic independence and security of its members through production in the home and garden. To date there has been an almost negligible recognition of the specific design problems that this Productive Home implies.

The purpose of this competition is to encourage and stimulate architects in every region of the United States to the fullest consideration of the housing problem of the families developing this pattern of living. It is hoped that competitors will plan homes that are practical in design, indigenous to their locale and expressive of regional values. The competition, intended to encourage unhampered research into the problem of the Productive Home, is free of commercial implications of any kind. The broadest and freest possible plan of competition has been devised and mandatory requirements of the contest are reduced to a minimum.

## SPONSORS

**FREE AMERICA**—A monthly magazine serving as spokesman for a group of economists, sociologists, and educators interested in the advancement of decentralization, cooperation, distribution, land conservation, domestic production, and the spread of small property ownership.

**THE SCHOOL OF LIVING**—A research and educational institution offering published studies in homestead economics, based on actual experiments, for economists, sociologists, agrarian leaders, and educators, as well as city dwellers who desire to establish productive semi-rural homes.

**THE INDEPENDENCE FOUNDATION**—A non-profit credit institution which lends private funds for autonomous homestead communities and helps individual homesteaders to acquire land and build productive homes on a co-operative self-liquidating basis without governmental subsidy or private charity.

Copies of the Program, to be released just prior to February 1, 1939, may be obtained by making application to:

Walter Sanders, A.I.A., Professional Adviser

# THE PRODUCTIVE HOME ARCHITECTURAL COMPETITION

381 4th Avenue, New York City

PENCIL POINTS  
 JANUARY, 1939



# AT SHEET LIBRARY

## indispensable

### Drafting Room Reference

**MATERIALS**  
 Brick Bonds and Mortar Joints  
 2 1/2" Brick Courses  
 2 3/4" Brick Courses  
 2 7/8" Brick Courses  
 3" Brick Courses  
 3 1/4" Brick Courses  
 3 1/2" Brick Courses  
 Widths of Brick Piers  
 Layout Out Pattern Brickwork  
 Brick, Horizontal Dimensions  
 Loads on Limestone Lintels  
 Uncoursed Stonework  
 Coursed Stonework  
 Flashing of Stone Joints  
 Partition Tile  
 Side Construction Tile  
 End Construction Tile  
 Characteristics of Glass  
 Softwood Lumber Standards  
 Hardwood Veneer Plywoods  
 Nomenclature for Lumber  
 Standard Wood Mouldings  
 Woods for Flooring  
 Woods for Trim  
 Woods for Framing, Boarding  
 Joins in Terra Cotta Vases  
 Iron and Steel Sheet Gages  
 Marble Slat over Steel  
 Marble Slat over Concrete  
 Location of Hardware  
 Types of Nails

**STRUCTURAL**  
 Weights of Materials  
 Dead Loads of Materials  
 Live Loads  
 How to Figure Reactions  
 Vertical Shear  
 Bending Moments  
 Concentrated to Uniform Loads  
 Usual Loading Conditions  
 No. 1 Dimensions and Timbers  
 Initial Joint Chart  
 Wood in Horizontal Shear  
 Wood in Bending  
 Wood in Deflection  
 How to Design Wood Rafters  
 Eastern Fir Joists  
 White Fir and Hemlock Joists  
 Eastern and Sitka Spruce Joists  
 Norway Pine Joists  
 Angle Lintels in Brickwork  
 Solid R. C. Slab Table  
 Areas of Reinforcing Rods  
 Concrete Construction  
 Loads for Concrete Columns  
 Gravity Type Retaining Wall  
 Concrete Lintels  
 Concrete Mixes  
 Symbols for Concrete Design  
 Beam and Slab Formulas  
 T-Beam Formulas

**MATHEMATICS**  
 Solution of Right Triangles  
 Sines, Cosines  
 Tangents, Cotangents  
 Secants, Cosecants  
 Decimals of a Foot  
 Decimals of an Inch  
 Capacity of Tanks  
 Arcs, Chords, and Segments  
 The Circle and the Square  
 Areas of Plane Figures  
 Conversion Factors  
 Inch and Foot Equivalents  
 Multiplication and Division

**PLANNING**  
 Double Bed Hotel Room  
 Typical Hotel Guest Room  
 Twin Bed Hotel Rooms  
 Hotel Dining Rooms  
 Tennis Courts  
 Horseshoe Courts  
 Billiard Rooms  
 Squash Courts  
 Baseball Diamond  
 Croquet Courts  
 Lacrosse Field  
 Swimming Pool Dimensions  
 Basketball Courts  
 Ice Hockey Rinks  
 Table Tennis  
 Kitchen Planning  
 Kitchen Routing  
 List of Culinary Equipment  
 Kitchen Cabinet Requirements  
 Sizes of Kitchenware  
 Sizes of Liquor Bottles  
 Sizes of Liquor Glasses, Etc.  
 Sizes of Kitchenware  
 1936 Automobile Dimensions  
 1937 Automobile Dimensions  
 1938 Automobile Dimensions  
 Orientation Chart  
 Aspect of Rooms  
 Angles of Sunlight  
 Metal Toilet Partitions  
 Space-Saving Lavatories  
 Bathroom Planning  
 Freight Train Clearance  
 Area per Seat for Theaters  
 Movie Projection Room Areas  
 Projection Room Plan  
 Projection Room Elevation  
 Projection Room Section  
 First Row Seat Location  
 Main Floor Slope  
 Conventional vs. Ideal Slope  
 Side Seat Limits  
 Theater Chairs for Main Floor  
 Determining the Balcony Slope  
 Theater Chairs for Balcony  
 Screen-to-Seating Proportions  
 Stage Height and Grid Location  
 Lunch Counters  
 Canteen Floors, Walls, Etc.  
 Café Lavatories, Toilets  
 Café Doors, Windows, Etc.  
 Café Equipment, Etc.  
 Barber Shop Plan  
 Average Show Window Depths  
 Average Show Window Floor Heights  
 Store Front Lighting  
 Show Window Lighting  
 Lighted Store Window Attraction  
 Typical Office Building Unit  
 Bookshelves  
 Library Stacks  
 School Seating Schemes  
 Elementary School Classroom  
 Elevations of Classroom  
 Junior or Senior Classroom  
 Planning Classrooms  
 School Building Corridors  
 School Building Libraries  
 Basic Ward Layouts

Average Room Sizes  
 Cedar Closet Lining  
 Cedar Closet Lining  
 House Cleaning Equipment  
 Multiple Housing Living Room  
 Requirements for Closets  
 Kitchens in Multiple Housing  
 Bedrooms in Multiple Housing

**MECHANICAL**  
 Septic Tank Sewage Disposal  
 Standard Plumbing Symbols  
 Cast Iron Soil Pipe  
 Hot Water Storage Tanks  
 To Determine Fixtures  
 Clay Flue Lining  
 Size of Fireplace Flues  
 Fireplace Construction  
 Chimney Construction  
 Heat Loss by Box Method  
 Heat Loss by BTU Method  
 Outside Temperatures  
 Heat Loss thru Glass  
 Heat Loss thru Walls  
 Heat Loss by Infiltration  
 Heat Loss Masonry Walls  
 Heat Loss Interior Partitions  
 Metal Grilles for Heating  
 Electric Bulbs  
 Wattage of Electric Outlets  
 Lightning Protection  
 Electric Wiring Symbols  
 Telephone Booth No. 7  
 Telephone Booths 1 and 6  
 List of Electric Equipment  
 Air Conditioning Essentials

**CONSTRUCTION**  
 Parquet Patterns  
 Oak Flooring Standards  
 Linoleum Flooring  
 Wood Finish Flooring  
 Tile Floors  
 Terrazzo Floors  
 Maple, Birch, and Beech Flooring  
 Linoleum Standards  
 Determination of Roof Leaders  
 Standard Slate Sizes  
 Slate Roofing  
 Wood Shingles  
 Rolled Windows Symbols  
 Linoleum Standards  
 Caseement in Brick Veneer  
 Caseement in Log Cabin  
 Weights of Wood Sash  
 Sizes of Sash Weights  
 Sides of 45° Angle Brays  
 Life of Insect-Screens  
 Hang and Bevel of Doors  
 Wood Door Patterns  
 Dormers in Wood Framing  
 Balloon Framing  
 Scaled Frame  
 Platform Framing  
 Sills in Frame Construction  
 Rat Proofing Frame Buildings  
 How Many Ricks?  
 Risers and Treads  
 Passageway Headroom  
 Stairway Headroom  
 Stairpladders Headroom  
 Echo and Sound Foci  
 Sound Foci  
 Insufficient Loudness  
 Reverberation  
 Sound Frequencies  
 Coefficients of Materials  
 Acoustical Coefficients  
 Facts on Termites Damage  
 Wood for Termite Protection  
 Biology of Termites  
 Termite Control Methods  
 Marble Wainscot  
 Flat Expanded Metal Lath  
 Flat Rib Metal Lath  
 14" Rib Metal Lath  
 14" Rib Metal Lath  
 Sheet Lath  
 Correct Stucco Construction  
 Log Cabin Walls  
 Pole and Siding Log Cabins  
 Log Cabin Intertrimming  
 Horizontal Sundial  
 South Vertical Sundial  
 North Vertical Sundial  
 East Vertical Sundial  
 Steps and Walks of Brick  
 Brick Patterns for walls  
 House-Sidewalk Grades  
 Concrete Sidewalks  
 Concrete Steps  
 Outdoor Grill  
 Slab-Type Concrete Drives  
 Slab-Type Concrete Drives  
 Surface Type Mail Chute  
 Recessed and Twin Chutes  
 Mail Chute Receiving Box  
 Planning Mail Chutes  
 Sidewalk Area Gratings

**DRAFTSMANSHIP**  
 Spell It Right  
 Indication of Materials  
 Lettering for Drawings  
 Dimensioning Pitfalls  
 How to Draw an Ellipse  
 Estimating of Columns  
 Blue Print Ink and Fixatif  
 Mutilled Doric Order  
 Slope of Inclines  
 Three-Centered Arch  
 Drawing Materials  
 Roman Numerals  
 Four-Centered Arch  
 Dividing a Circumference  
 Perspective Layout Made Easy  
 Colonial Lettering  
 Modern Alphabet  
 Old English Lettering  
 Modern Lettering  
 Gothic Alphabet  
 Architectural Periods  
 Owner-Architect Agreements  
 Cable Cost Estimating  
 Cost of Material and Labor  
 Concrete Formwork Estimating  
 Costs of Large Apartment Building  
 Chart for Finding Cubage

**FURNISHINGS**  
 Sizes of Pianos  
 Sizes of Rugs and Carpets  
 Sizes of Dining Tables  
 Sizes of Beds  
 Sizes of Bedroom Furniture  
 Dining Above  
 Period Furniture  
 Standard Steel Locker Sizes

FOR SEVEN YEARS the *Data Sheets* have been a regular feature of PENCIL POINTS. In this time they have attracted more than 12,000 users in all parts of the world! The *Data Sheet Library* is the standard architectural saver of time and temper in furnishing you brief, telegraphic facts for quick fingertip reference. Look at the wealth of valuable information listed at the left. To find complete information on just one of these subjects would cost you many times the price of the complete *Library*! Over 325 sheets crammed with that hard-to-locate information—to speed up working drawings and specifications. Don't be without these indispensable data any longer—fill out the coupon and mail it now for the most useful reference work you ever saw. Available at this special price for a short time only.

(Offer  
 extended to  
 February 15th,  
 1939)

After February 1st  
 price will be \$7.50



## OVER 300 DATA SHEETS FREE

MANY prominent manufacturers have had their products *data-ized*. Manufacturers' free sets of *Data Sheets* consist of information which is identical in format and method of presentation with the PENCIL POINTS series, and in a number of cases direct reading Slide Rules are available, as shown below. Many other manufacturers are having their products *data-ized* and will announce the availability of these sets to the readers of PENCIL POINTS in the advertising pages of the magazine. These manufacturers' *Data Sheets* describe basic principles in typical Don Graf de-bunked style—they contain no sales talk for the products. They are indexed to fit into the filing plan of the *Data Sheet Notebook*.

Do not write to Pencil Points for these manufacturers' free *Data Sheets*; these sets are available only from the companies who have issued them. All you have to do to obtain these free sets is to send a post card on your letter-head to the individual manufacturers and say, "Please send me your Don Graf's PENCIL POINTS *Data Sheets*."



# CONTAINS OVER 325 USEFUL SHEETS

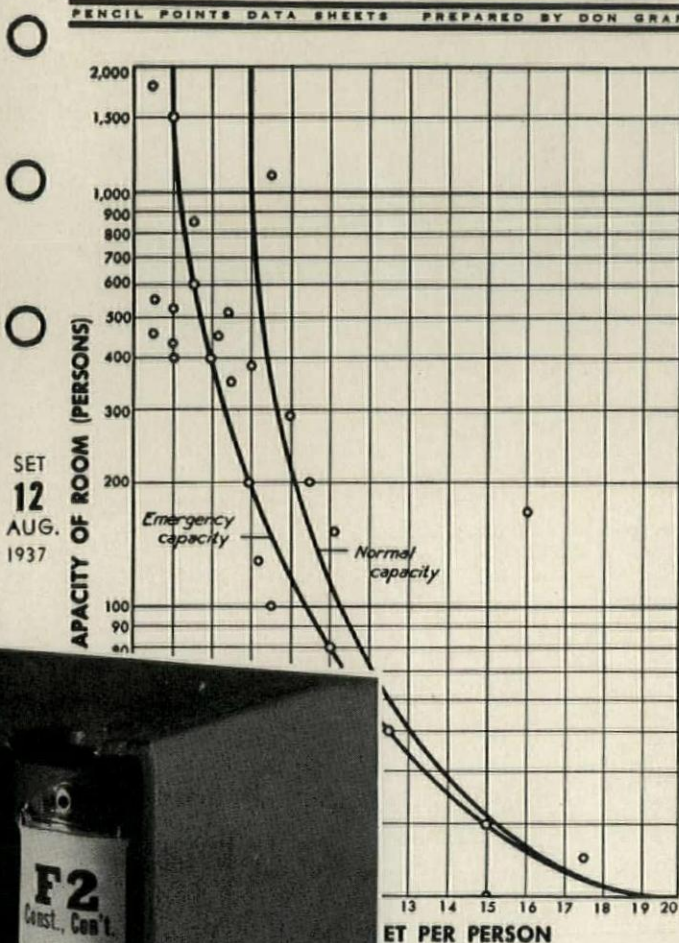
THE DATA SHEETS are filed in four attractive black fiber ring books with the covers stamped in silver colored metallic ink. A new feature of the *Data Sheet Notebooks* is the label holder on the backbone of each book, allowing you to re-apportion the sheets as the *Library* continues to grow — or to add more books for your own notes if you wish. The four loose-leaf books are housed in a permanent desk box. Manila index guides speed up location of facts. A subject index appears on the inside front cover of each book.



## HOTEL DINING ROOMS SQUARE FOOT AREAS

Index No.  
**D 1 d**  
PLANNING

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF



bove, a large number of representa-  
ared. The capacity of these rooms  
ience. Resulting positions on the  
extremely doubtful if  $6\frac{1}{2}$  square  
even under emergency conditions,  
ays be used as a minimum, particu-  
d for meetings at which the diners  
inment following the meal without

Actual Size  
of Data Sheets  
Shown Above

**USE THIS HANDY ORDER FORM**

PENCIL POINTS, Department B • 330 West 42nd Street • New York City

☐ I enclose herewith \$6.00 (plus 12c sales tax, if for delivery in New York City) for the complete *Data Sheet Library*, postpaid.

☐ Please send me complete list of *Data Sheets* and *Data Sheet Slide Rules* that I can obtain free by writing to the manufacturers.

Name..... Address..... City..... State..... Architect..... Draftsman..... or.....



# NEW PRODUCTS

## *Changes in Personnel, etc.*

### WESTINGHOUSE ANNOUNCES NEW HOME HEATING, AIR CONDITIONING EQUIPMENT TO COMPLETE LINE

The Westinghouse Elec. & Mfg., East Pittsburgh, Pa. has just announced the addition of home heating and air conditioning equipment to complete a line including oil, gas, and coal-fired winter air conditioning units suitable for the addition of summer cooling equipment; hand-fired coal gravity warm-air furnaces offering both steel and cast-iron construction; and an automatic gravity gas-fired warm-air furnace. The new Westinghouse line now covers every phase of market requirements from low-price models through to deluxe completely automatic year-around home heating and air conditioning systems and including zone control of temperature for large, unusual heating conditions.

### NEW OZALID WHITE PRINT MACHINE

The Ozalid Corporation, 354 Fourth Ave., New York, N. Y., announces the introduction of the Model E White Print Machine, a new development in equipment for making technical white prints. The machine combines an entirely new Ozalid printer with an advanced type of Ozalid developer in a single, compact, lightweight unit.

The new Ozalid machine, which handles all Ozalid sensitized materials up to and including 42 in. in width, at speeds up to 30 linear inches per minute is only 56 in. wide, 18¼ in. deep and 18 in. high.

Among the features included in the printer of the new machine is a rotating glass cylinder, providing rolling contact instead of sliding static-producing contact,

and insuring maximum utilization of the light rays emitted by a single Cooper Hewitt mercury vapor tube. High printing efficiency is maintained without constant cylinder cleaning by an effective air filter.

The developer unit also

includes many advanced features of design and construction, and typical of these is an automatic electrically-controlled drip feed for the aqua ammonia. As soon as the developer is turned on, ammonia is automatically admitted to the developing tank in the proper metered quantities. A separate switch disconnects the automatic drip feed in case it is desired to vary the flow of aqua ammonia by manual operation.

The auxiliary for the operation of the tube is located inside the machine. The voltage range adjustment is accessible after the removal of a simple case-aluminum cover, located at the right-hand end of the machine. The voltage range, corresponding to the available line

voltage, can be easily chosen by plugging a bridge plug into the proper base openings marked with the voltage ranges.

The developer feed board is located immediately over and behind the print return tray of the printer. The finished prints emerge at the rear of the machine, but when front delivery is desired, a chute is available which automatically returns the prints to the operator at the front of the machine.

The machine is driven by a one-quarter horse power resilient-rubber mounted split phase motor. The speed adjustment of the printer is infinitely variable from one-half inch to thirty inches per minute. A speed indicator for the full speed range is located on the front of the unit.

### NAMES OF TWO CELOTEX PRODUCTS CHANGED

The Celotex Corporation, Chicago, has changed the names of two of its products. What was formerly known as Traffic Board is now called Protection Board, used as protection course for waterproofing membranes, cushioning wood block floors, etc.

The name of another material, Promenade Traffic Top, a resilient, protective surfacing for recreational roofs, has been shortened to Traffic Top. Both products are made of cane fiber board especially impregnated with bitumens.

### AUTOMATIC TRAP PRIMER TO PROTECT AGAINST SEWER GAS

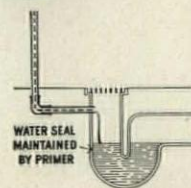
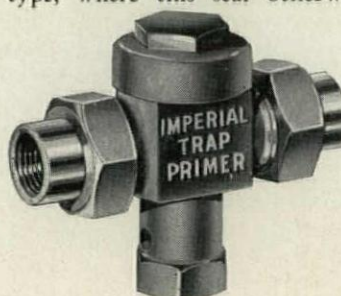
An automatic primer for floor drain traps, which is designed specifically to provide protection against sewer gas and foul odors where such drains are infrequently used or where forced warm air heat is installed, has been announced by The Imperial Brass Mfg. Co., 1200 W. Harrison St., Chicago, Ill.

The function of the primer is to maintain automatically the water seal in seldom-used drain traps of this type, where this seal otherwise frequently would be broken by evaporation. This is said to be particularly important where forced warm-air heating plants are installed and there is danger of foul air being drawn from the sewer and circulated through the building.

The primer is installed in any convenient cold water supply line—such as a line to a lavatory or sink—and every time water is drawn through this line the primer operates,

causing a small amount of water to flow down to the drain trap to which it is connected, thus replenishing the trap seal. Operation of valve is controlled by the action of a vane which is lifted every time water flows through the valve.

The valve is constructed of non-rusting materials throughout, and is said to have no springs or complicated parts to break or get out of order. It is self-cleaning and both its seat and cleanout rod are constructed of monel metal. It has a positive syphon preventer. The primer is tested to a hydraulic pressure of 125 lbs. per sq. in.





### NEW THERMOSTATIC MIXING VALVE

A new line of thermostatic mixing valves which has recently been put on the market by Thermo-Mix, Incorporated, 129 Grand Ave., Brooklyn, N. Y., is built so that the entire action is easily removable from the casing without disturbing the plumbing, as it is secured by only one set screw (two on larger size valves) plus



two stationary lugs. Thus, if it should become necessary to remove the action for any reason, the face plate can be replaced, and operation maintained. The built-in checks and strainers, in turn, can be removed without touching either the action or the piping. Another new feature of the line is the flow control operation, in which

a vane rotates over a small arc inside a slotted bushing. The position of the vane proportions the water entering the slots, and is maintained by movement of the horseshoe type thermostatic element.

The valves are now obtainable in sizes ranging from 6 to 120 gallons per minute output, with corresponding output pipe sizes of  $\frac{1}{2}$ ",  $\frac{3}{4}$ ", 1",  $1\frac{1}{4}$ ",  $1\frac{1}{2}$ ", and 2". The smaller sizes, designed for individual control, are furnished in either the concealed or exposed type, and a choice of face plates is available on the 6 gallon model.

### NEW BRUNSWICK RUBBERCEPTOR

The Brunswick-Balke-Collender Company, Chicago, Ill., recently announced that it has taken over the manufacture and sale of the Rubberceptor, a one-piece prefabricated shower receptor.

The Rubberceptor is claimed to be 100% sanitary due to its rubber composition and easy to clean because



it has no crevices or corners to hold dirt and germs. The whole receptor is molded from one piece of seamless non-oxidizing rubber, hence is both impervious and free from joints.

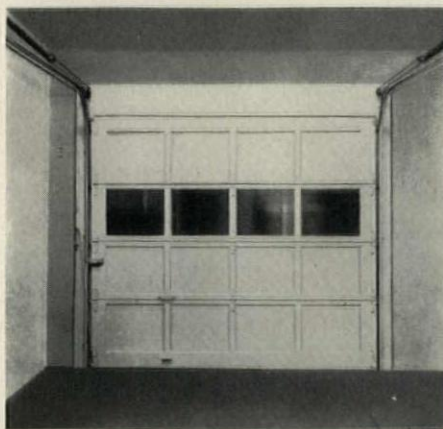
It is stated that the Rubberceptor will not leak or crack because of its permanent flexibility. The waterproof gasket joint is not affected by settling of pipes

(which might ordinarily tilt or move the drain) because the drain, being made up to a flexible rubber floor, forms a perfect compression joint.

The Rubberceptor is said not to compete with marble, glass, asbestos or any other type of wainscoting, but to complement them. The compatibility of the Rubberceptor with any type of shower wall materials, gives the architect a greater range of decorative effects and a free hand in planning his shower stall material.

### NEW LOW COST GARAGE DOORS

To make it further possible for the low cost home to be equipped with the convenience of a good-quality, upward-acting type of garage door, the Kinnear Mfg. Co., Fields Ave., Columbus, O., announces the Junior Model RoL-Top door. Though much lower in cost, this new door operates on the same principle as other models of Kinnear RoL-Top doors, namely being composed of several wood sections, hinged and fitted with ball-bearing rollers which travel up, over and back of the opening by means of vertical tracks, placed at either side of the doorway. Counterbalance is accomplished by two properly pretested tension springs, one placed parallel to each of the horizontal tracks.



Sections are of high grade kiln dried lumber with  $1\frac{3}{8}$ " thick styles and rails which are connected by blind mortise and tendon joints and glued with waterproof glue. The panels are  $\frac{1}{4}$ " three ply fir veneer. Rollers are of Kinnear ball-bearing design and are applied in connection with steel strap hinges of No. 13 U. S. gauge steel. Tracks are formed of .083" thick steel. Horizontal tracks are reinforced at the curve by a structural steel angle. Doors for openings two-cars wide are reinforced with Kinnear's steel truss bars, which minimizes the possibility of deflection. Doors can be provided with or without glass sections.

The new Junior model is offered in six standard sizes for openings one or two-cars wide.

William Griswold Hurlbert has been elected chairman of the board of directors of The Bostwick Steel Lath Company, Niles, O. Mr. Hurlbert has been the active head of his company since its founding in 1891. W. G. Hurlbert, Jr., eldest son of Mr. Hurlbert, succeeds as president.

Avery C. Adams has been appointed vice-president and assistant general manager of sales of Inland Steel Company. He will be in charge of the sale of all Inland's sheet and strip steel products. Mr. Adams has resigned as manager of sales, sheet division, Carnegie-Illinois Steel Corp., Pittsburgh, Pa.

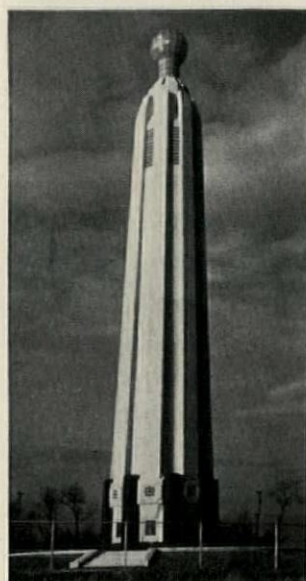


# INDEX TO ADVERTISERS

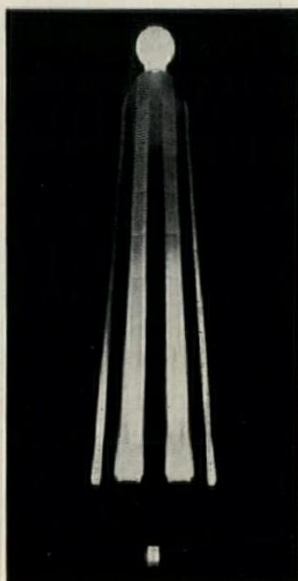
Advertising Offices: 330 West 42nd Street, New York, N. Y. Philip H. Hubbard, Vice-President and Advertising Manager. District Offices: 1133 Leader Building, Cleveland, Roger W. Patterson; 310 South Michigan Avenue, Chicago, John G. Belcher.

|  |            |
|--|------------|
| Alberene Stone Corporation of Virginia ..... | 13         |
| Aluminum Company of America .....            | 2, 3       |
| American Brass Company, The .....            | 2nd Cover  |
| American Institute of Architects .....       | 34         |
| American Pencil Company .....                | 31         |
| Angel, H. Reeve, & Company .....             | 18         |
| Arkansas Soft Pine Bureau .....              | 30         |
| Armstrong Cork Company .....                 | 17         |
| <br>Bruce, E. L., Company .....              | 19         |
| Burnham Boiler Corporation .....             | 16         |
| <br>Celotex Corporation, The .....           | Back Cover |
| Crane Company .....                          | 9          |
| <br>De Witt Operated Hotels .....            | 18         |
| Dixon, Joseph, Crucible Company .....        | 25         |
| <br>Eberhard Faber Pencil Company .....      | 32         |
| Electric Storage Battery Company .....       | 5          |
| <br>Faber, A. W., Incorporated .....         | 28         |

|   |           |
|---|-----------|
| General Bronze Corporation .....                | 10        |
| Hillyard Sales Company .....                    | 14        |
| Koh-I-Noor Pencil Company .....                 | 16, 41    |
| Libbey-Owens-Ford Glass Company .....           | 8         |
| Mesker Brothers Iron Company .....              | 40        |
| Milcor Steel Company .....                      | 48        |
| <br>National Coal Association .....             | 7         |
| National Terrazzo & Mosaic Association .....    | 6         |
| National Tube Company .....                     | 4         |
| <br>Pecora Paint Company, Incorporated .....    | 46        |
| Pittsburgh Plate Glass Company .....            | 20        |
| Post, Frederick, Company .....                  | 33        |
| Productive Home Architectural Competition ..... | 41        |
| <br>Rolscreen Company .....                     | 3rd Cover |
| <br>Sager Lock Works .....                      | 39        |
| Soss Manufacturing Company .....                | 38        |
| Staedtler, J. S., Incorporated .....            | 35        |
| <br>U. S. Building and Loan League .....        | 29        |
| U. S. Gypsum Company .....                      | 11        |
| U. S. Steel Corporation Subsidiaries .....      | 4, 15     |
| Universal Atlas Cement Company .....            | 15        |
| <br>Wilson Engineering Corporation .....        | 41        |
| <br>Youngstown Sheet & Tube Company .....       | 27        |



Day and night views, the Edison Memorial Tower, Menlo Park, N. J. Archts.: Messinna & du Pont, Wilmington, Del. Genl. Ctr.: Walter Kilde, New York. Calking by Ev-Air-Tight Calking Co., Phila., Pa.



## For BETTER Weather Protection

**CALK all Joints**  
WITH **PECORA COMPOUND**

THE Edison Memorial Tower is representative of the present day practice of calking all masonry joints with Pecora. While, for some years, it has been customary to calk all window and exterior door frames, even greater weather protection is now obtained by the use of Pecora Calking Compound for pointing up stonework and sealing every exposed joint. Pecora Calking Compound has demonstrated its dependability for 30 years. Properly applied, it will not dry out, crack or chip. May we send you complete data?

Write for New Folder

### Pecora Paint Company, Inc.

Member of Producers' Council, Inc.  
Established 1862 by Smith Bowen

SEDGLEY AVE. & VENANGO ST., PHILADELPHIA



ALSO MORTAR STAINS • SASH PUTTIES • ROOF COATING • PECOMASTICS FOR STRUCTURAL GLASS INSTALLATION



# THE WHITE PINE & THE MONOGRAPH SERIES

*The Standard Work on Early American Architecture*

Edited by RUSSELL F. WHITEHEAD, A.I.A.

**Number of Monographs devoted to each State  
as follows:**

|    |               |                     |
|----|---------------|---------------------|
| 10 | Monographs on | Connecticut         |
| 2  | "             | " Delaware          |
| 3  | "             | " Maine             |
| 7  | "             | " Maryland          |
| 16 | "             | " Massachusetts     |
| 4  | "             | " New Hampshire     |
| 4  | "             | " New Jersey        |
| 7  | "             | " New York          |
| 4  | "             | " North Carolina    |
| 2  | "             | " Pennsylvania      |
| 15 | "             | " Rhode Island      |
| 5  | "             | " South Carolina    |
| 3  | "             | " Vermont           |
| 3  | "             | " Virginia          |
| 23 | "             | " Comparative Study |
| 6  | Competition   | Monographs          |

**List of Comparative Study Monographs**

A Group of Early American Doorways—Part I  
A Group of Early American Doorways—Part II  
Dependencies of the Old Fashioned House  
Fences and Fence Posts of Colonial Times  
Early American Ornamental Cornices—Part I  
Early American Ornamental Cornices—Part II  
A Review and a Forecast  
Interior Woodwork in New England during the  
17th and 18th Centuries  
Churches in Eight American Colonies  
Early American Windows  
Public Buildings—Part I  
The Builder's Companion—Part I—Reprint of  
the Hand Book by William Pain, London, 1762  
The Builder's Companion—Part II—Reprint of  
the Hand Book by William Pain, London, 1762  
Small Colonial Houses  
Roofs—The Varieties Commonly Used in the  
Architecture of the American Colonies  
Public Buildings—Part II—Late Colonial Times  
in Salem, Massachusetts  
Early Interior Doorways in New England—  
Part I  
Inns and Taverns in New England  
Garrison Houses Along the New England  
Frontier  
Staircases—1670-1770, Some New England  
Early Brickwork in New England  
Vestibules—A Group of Examples in Eastern  
Massachusetts  
Early College Buildings in New England

FOR a short time we are offering the 114 available  
Monographs at the special price of \$34.25.

None of the material in these Monographs has ever been  
published in any other Work. The entire territory, comprising  
the original States formed from the Colonies, has been pains-  
takingly explored and few pleasing examples of American  
Architecture which contain something of particular individ-  
uality have been overlooked.

Each Monograph contains photographs by Julian Buckley,  
Kenneth Clark, and Arthur Haskell, and in Volumes XI  
through XXII there are at least two measured drawings by  
Kenneth Clark or Frank Chouteau Brown.

The six Competition Monographs contain twenty-four full  
page plates reproducing pen and ink renderings, floor plans,  
elevations, and details of the Prize and Mention Designs with  
the Program and Report of the Jury Award. They cover the  
following subjects: A House for a Vacation Season; A Com-  
munity Center Building; A Roadside Tavern; A Three  
Teacher Rural School with Teachers' Cottage; A Country  
Church and Sunday-School Building with Residence for the  
Minister; A Rural Library Building.

Every Architect should have The Monograph Series in his  
Library, so act now and send in your order before those you  
may need, to complete your library, go out of print.

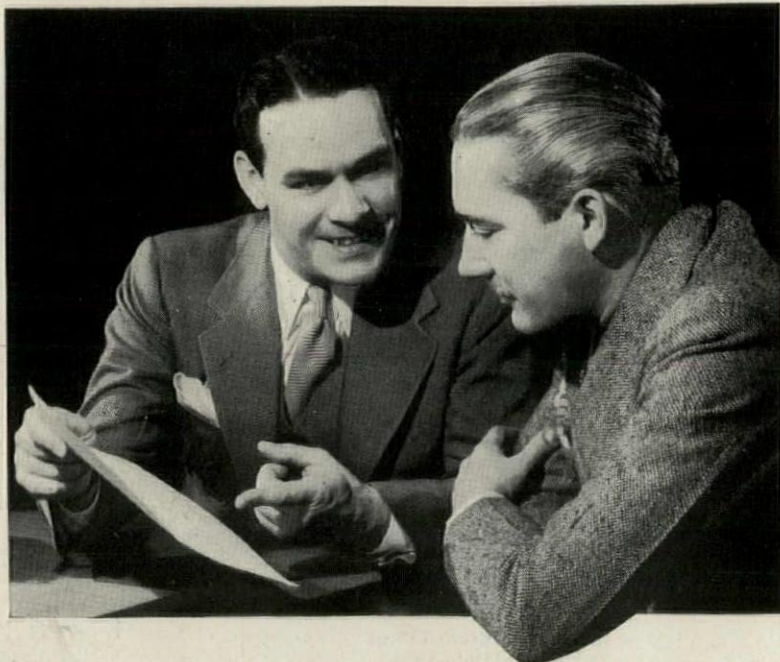
The page size of each Monograph is 8½" x 11". Printed on dull surface paper with non-fading  
ink. The 114 available Monographs, \$34.25.

Single Monographs, 50c each. Twelve or more, ordered at one time, 33c each.

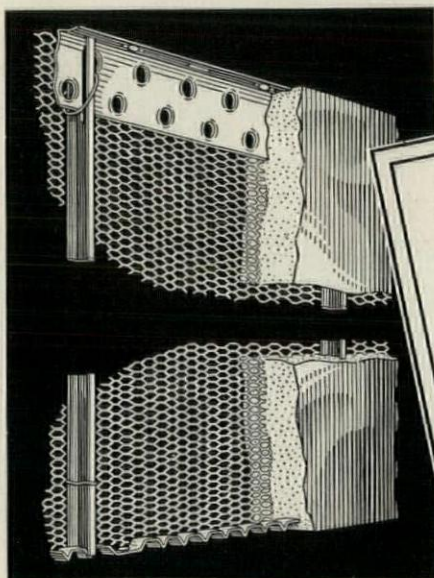
REINHOLD PUBLISHING CORPORATION, 330 West 42nd Street, New York, N. Y.



You give your clients  
a pleasant surprise  
— with the fire-safety,  
space savings, and  
*amazingly low*  
cost of the



# MILCOR Solid Partition and Furring System



• Three simple prefabricated members — Ceiling Angle Runner, continuous Crimped Floor Runner, and Slotted Channel Studs (patents pending)—form a supporting structure for standard Milcor Metal Lath. Used for solid partitions and as a free-standing furring system.

★  
The most important money  
saving introduced into fire-  
proof construction in 20 years  
— making possible new fire-  
safety for housing, new low  
costs for fireproof buildings  
of all types.  
★

By modernizing a type of construction always preferred by the building industry — the solid plaster partition — Milcor has removed the cost hurdle which limited its use in recent years.

Introduced a year ago, this new method has set amazing cost records on large-scale housing projects. Using three simple prefabricated members, one man erects on the average 150 studs per hour. Completion is so fast that the figures seem incredible until you see it done.

You get all the well-known advantages of 2-inch solid plaster partitions at this new low cost: (1) saving of floor space — 4" per partition . . . (2) full 2 hour fire rating . . . (3) increased strength,

especially under impact . . . (4) reduced dead floor load — 1/3 as much as some types . . . (5) reduced sound transmission.

For large or small projects, remodeling or new construction, the Milcor Solid Partition and Furring System is a tested method for economical, enduring construction. Patent No. 2,105,770.

Write for the Milcor Solid Partition Bulletin, today.  
F-47



• The Ten Eyck (Williamsburgh) Housing Project. A 50,000-yard installation, of Milcor Solid Plaster Partitions in Buildings 1, 2, 3, 4, 6, 7, 8. Photo courtesy of FHA.

## MILCOR STEEL COMPANY

MILWAUKEE, WISCONSIN

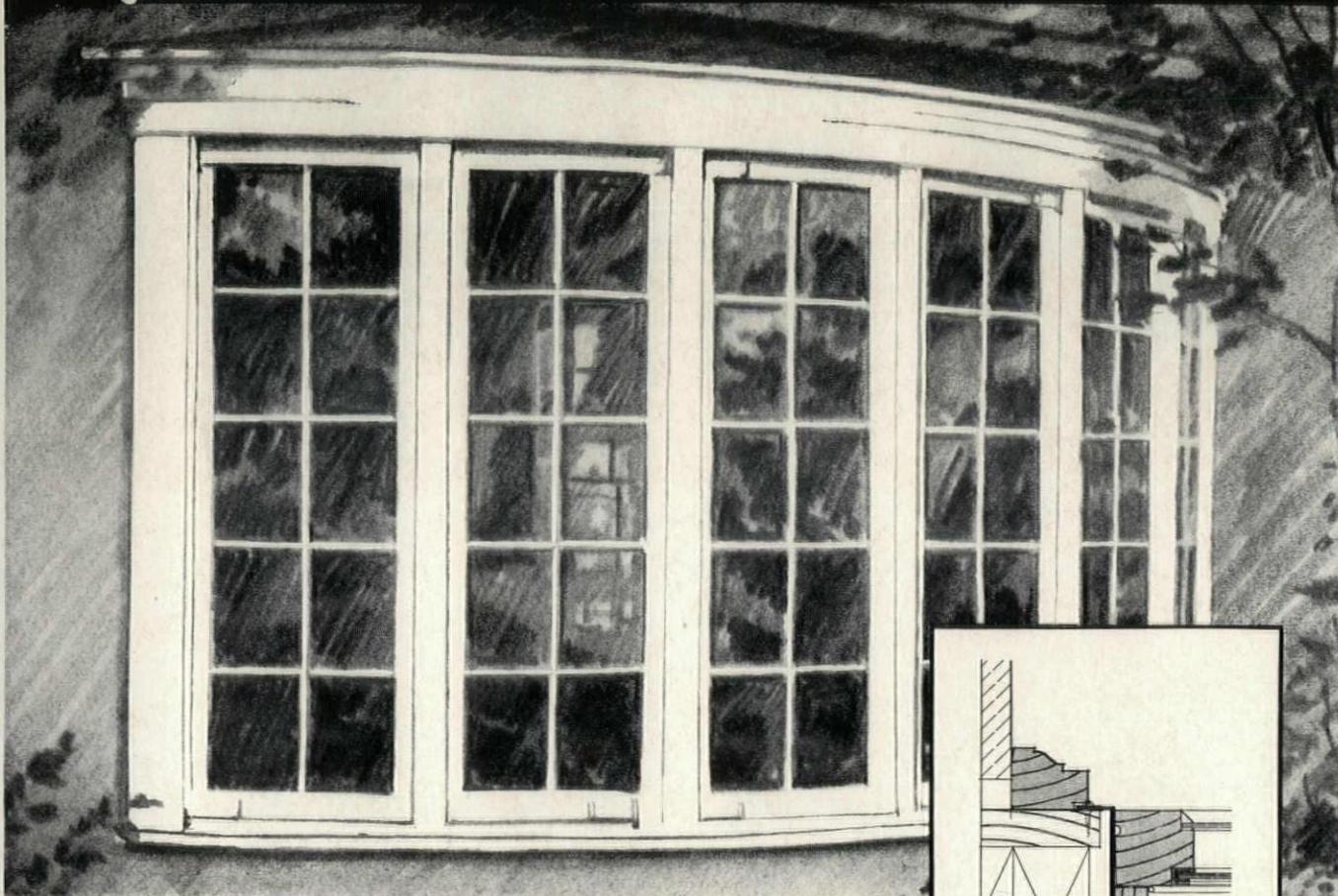
CANTON, OHIO

CHICAGO, ILL. • KANSAS CITY, MO. • LA CROSSE, WIS. •  
ATLANTA, GA. • NEW YORK, N. Y. • ROCHESTER, N. Y.

Sales Offices: Minneapolis, Minn., Little Rock, Ark., Dallas Tex.,  
Denver, Colo., Washington, D. C., Boston, Mass.



# Pella CASEMENTS



—the only complete window  
with a wood lined  
**STEEL FRAME**

Pella Casement Windows have rigid metal frames made of sixteen gauge rustproof, galvanized (zinc impregnated) steel. These frames are full jamb width—5 $\frac{1}{8}$ " wide and they are made to fit all types of wall construction. Clear, genuine white pine (other woods if desired) is used for lining Pella Casement frames.

#### Other Pella Features

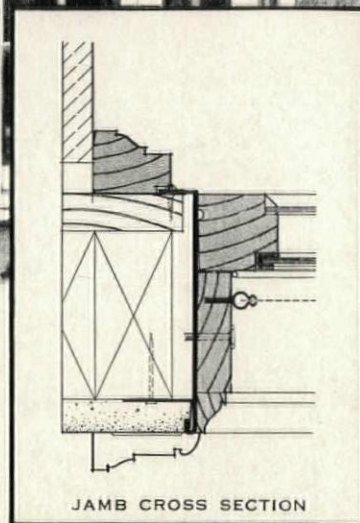
**ROLSCREENED**—with famous Pella ROLSCREENS. Always in place—

no putting up—no taking down. Guaranteed for 10 years.

**DUAL GLASS**—removable, single panel, Libbey-Owens DSA glass protects against winter cold and summer heat. Practically invisible.

**SPRING BRONZE WEATHER-STRIPPING**—compression type—that paint can't clog. Tension easily adjusted. Exclusive Pella design.

**SASH**—Genuine white pine 1 $\frac{1}{4}$ " thick. Hung on non-extension, self-cleaning hinges. Under-screen, worm gear operator built in.



JAMB CROSS SECTION

#### Saves Drafting Time

Pella Casement details can be drawn into your own plans, thus eliminating further drafting on window construction. Authentic designs are available to blend in with and emphasize the character of any style architecture.

#### Structurally Sound

Weather-tight and highly non-conductive to heat and cold, Pella Casements meet the rigid requirements of modern heating, ventilating and air-conditioning. Glass size 9" x 12"—admits 12 $\frac{1}{2}$ % more light. Overall casement dimensions are 20% oversize which saves materially on wall cost.

Write today **FOR FREE BOOK**

This interesting book shows progressive installation photos and complete data. It is file size. Get your **FREE** copy by writing to: ROLSCREEN COMPANY, Dept. P19, Pella, Iowa.



# Pella

CASEMENTS ★ VENETIAN BLINDS ★ ROLSCREENS

#### CUT INSTALLATION COSTS

Pella Casements are 100% factory fitted and completely assembled. After uncrating, they are simply set into rough wall openings, caulked and locked in place by means of inside inter-locking fins. Weathertight installation completed in about 20 minutes.

SEE OUR CATALOG IN SWEET'S





- EFFICIENT INSULATION...
- STRUCTURAL STRENGTH...
- VAPOR SEAL...

# Meet 3 Requirements at a Single Low Cost

## Satisfy Clients' Demands for Bigger Value with Celotex Vapor-seal Products

Architect Llewellyn Young of Placentia, California, has made full use of Celotex savings in this residence for Homer D. Clever, Fullerton, California. C. R. Young, Placentia, is the contractor.

YOU are familiar with the client who says, "I know this gadget is unimportant, but my wife would like to have it built in. Can't we save on something else and include it?" The savings you can make by using Celotex Vapor-seal Products will cover many such "extras"—making the home represent bigger value to your clients.

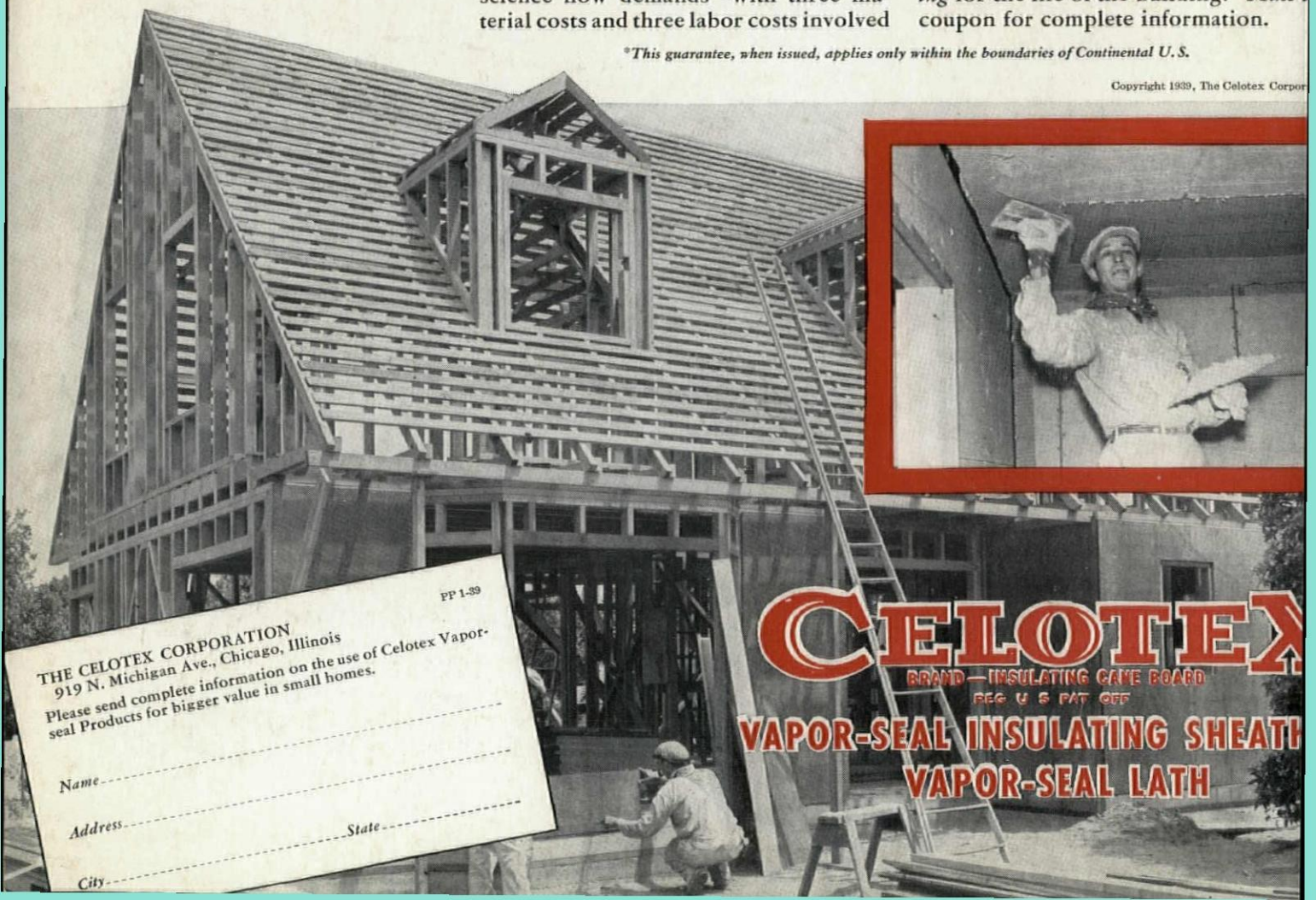
Instead of using one material for structural strength, another for insulation, and a third for the vapor seal which science now demands—with three material costs and three labor costs involved

—do all three jobs with Celotex Vapor-seal Sheathing and Celotex Vapor-seal Lath. Use them together on both sides of the studding for lowest cost efficient insulation—for protection against moisture condensation within walls—for structural strength!

Remember—these products are permanently protected against termites and dry rot by the exclusive, patented Ferrous Process. And they're guaranteed in writing for the life of the building!\* Mail this coupon for complete information.

\*This guarantee, when issued, applies only within the boundaries of Continental U.S.

Copyright 1939, The Celotex Corporation



THE CELOTEX CORPORATION  
919 N. Michigan Ave., Chicago, Illinois  
Please send complete information on the use of Celotex Vapor-seal Products for bigger value in small homes.

Name \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

**CELOTEX**  
BRAND—INSULATING GAGE BOARD  
REG. U. S. PAT. OFF.

**VAPOR-SEAL INSULATING SHEATHING  
VAPOR-SEAL LATH**