

PENCIL
POINTS

FEBRUARY

1942

"Me too, son!"



ANOTHER FIRST FOR CARRIER...THE NAVY "E"

The men and management of Carrier deeply appreciate the Navy's reward for the work we've been doing for defense. We're human enough to feel proud that Carrier is first in the air conditioning industry to earn the Navy "E".

In the submarine, life depends on huge storage batteries preserved by Carrier Air Conditioning. On board the 156 Liberty Fleet ships, ship's food is like home food, thanks to Carrier Refrigeration.

In the sky and on land, Carrier is earning its letter, too. Instruments and bombsights of unmatched accuracy... motors that climb higher, fly faster, stay in action longer... and a thousand more triumphs of American industry depend on Carrier developments... on the microscopic accuracy made possible by the precise control of temperature, humidity, and circulation of air.

Today, air conditioning is a mighty weapon. Tomorrow, it will be a potent

force in building a world of greater abundance for everyone.

Architects Pace The Victory Drive

Across the continent, architects are drawing plans to help speed industrial production. In much of this new, modernizing construction, air conditioning is being incorporated to control essential manufacturing processes.

The value of Carrier Air Conditioning and Refrigeration in America's victory drive is shown by the top pri-

ority ratings given it in today's war-time construction.

Typical examples are: the "dry-blast" furnaces—one stepped up steel production an extra 27%; the air conditioned black-out plants where even temperature, correct humidity and freedom from dust are essential to fast precision machining; the telephone, gunnery, and other military nerve centers which must be guarded against gas attack; the parachute, food and plywood storage spaces which must provide protection against deterioration.

Carrier with its 40 years of air conditioning development offers the cooperation of its engineers and dealers. We offer our experience in serving Army, Navy and war industries with Carrier Air Conditioning, Refrigeration and Heating. You will find complete Carrier data in your Sweets Catalogue, cover shown here.



Carrier Corporation, Syracuse, New York
WEATHERMAKERS TO THE WORLD



This is one of a series of advertisements telling what leading Consulting Engineers think of modern steam heating.



John Paul Jones, head of the organization of John Paul Jones, Cary & Millar, Cleveland Consulting Engineers. Member, American Society of Heating & Ventilating Engineers. M. E., Cornell University.

“The rapid development of primary or central pressure differential control equipment in recent years has done much to keep steam in the position of the most widely used heating medium for larger buildings,” writes John Paul Jones. “This type of equipment has raised the standard insofar as comfort, ease of operation and economy are concerned, to a point not thought possible a few years ago, and has also permitted the modernization of many old and antiquated systems at a very reasonable cost.”

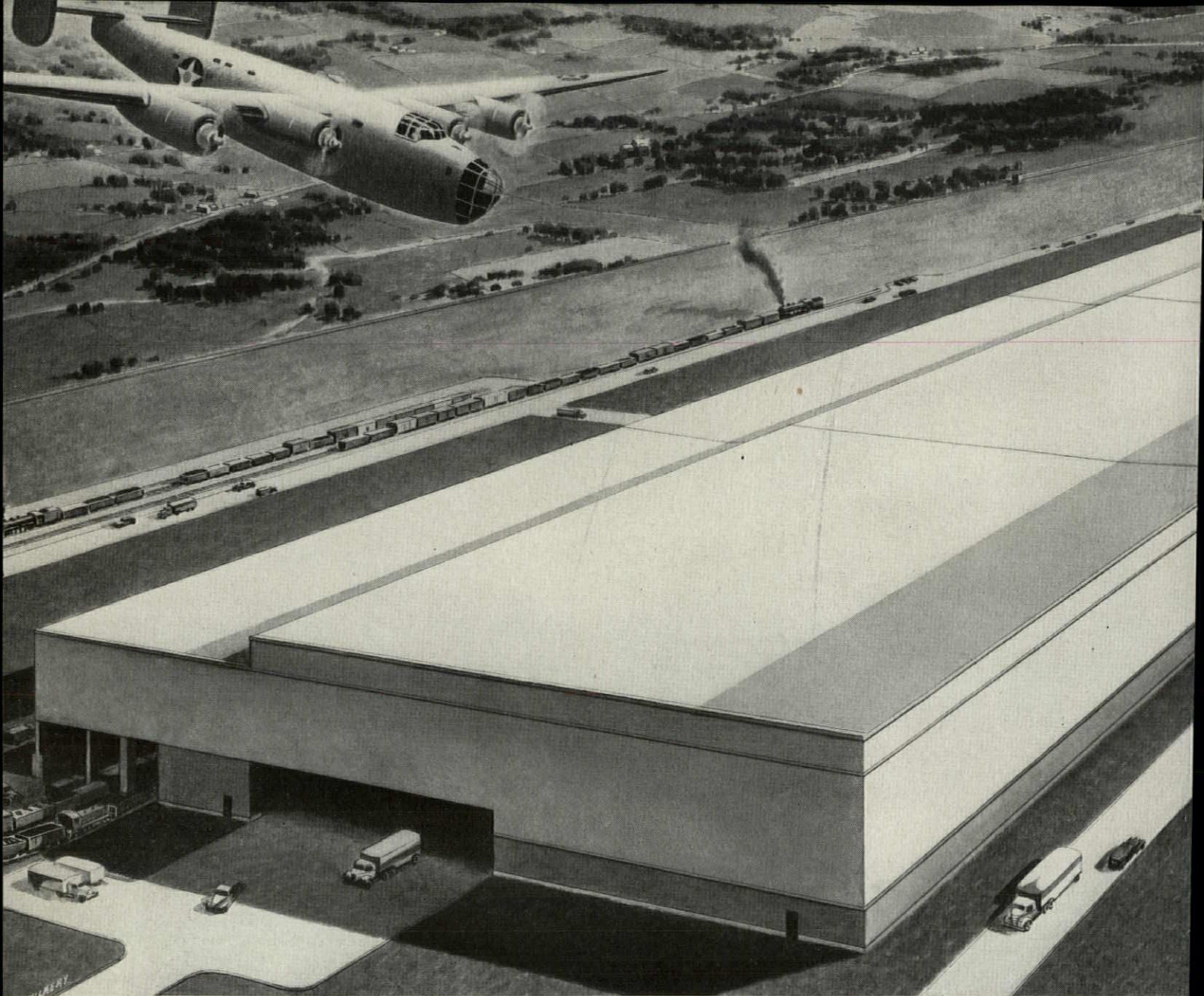


The organization of John Paul Jones, Cary & Millar have specified Webster Moderator Systems of Steam Heating which have proven themselves in operation in the Lakewood Hospital, Lakewood, Ohio, where the control operates in conjunction with Webster System Radiation (non-ferrous convectors); the Convalescent Home for the Toledo Society of Crippled Children, Toledo, Ohio; and in the Champion Avenue U.S.H.A. Housing Project in Columbus, Ohio. This last-named installation employs a 3-zone pulsating flow type of centrally controlled Webster Moderator System.

WARREN WEBSTER & COMPANY, Camden, New Jersey
Pioneers of the Vacuum System of Steam Heating
Est. 1888 : : Representatives in 65 U. S. Cities

STEAM Heats
America

© 1940



Not "how big?" . . . but "how

. . . That's the big news about the Army's huge bomber plants which combine steel and Fiberglas* in a new-type construction and set new performance standards . . .

On January 1st, this year, two new bomber plants were nearly completed. One at Tulsa, Oklahoma. The other at Fort Worth, Texas.

They are two of the largest bomber plants in the world . . . housing two of the largest unobstructed floor areas ever built.

But the almost unbelievable hugeness of these two plants, each nearly a mile long, is only part of this unusual story.

For these bomber plants, specifications never before required were set up. Specifications drawn to quiet the shut-in noise for men busy with hundreds of riveters, rumbling cranes, stamping and drill presses. Specifications to muffle the din of metal on metal, and to provide the mammoth snugness of a controlled

climate and uniform lighting. The problem *had* to be solved. But previously known types of construction could not meet the specifications. And yet they were met! With engineering imagination . . . and the use of two important basic materials of known performance—steel and Fiberglas.

The marriage of these two basic materials produces a *roof* construction and a *wall* construction, each of which combines noise reduction, light reflection, and thermal insulation *in one unit*. Simple as this may appear, this combination of steel and Fiberglas opens up a whole new field of building practice.

Besides reducing pent-up reverberations, this new-type construction provides side walls and roofs that are shat-

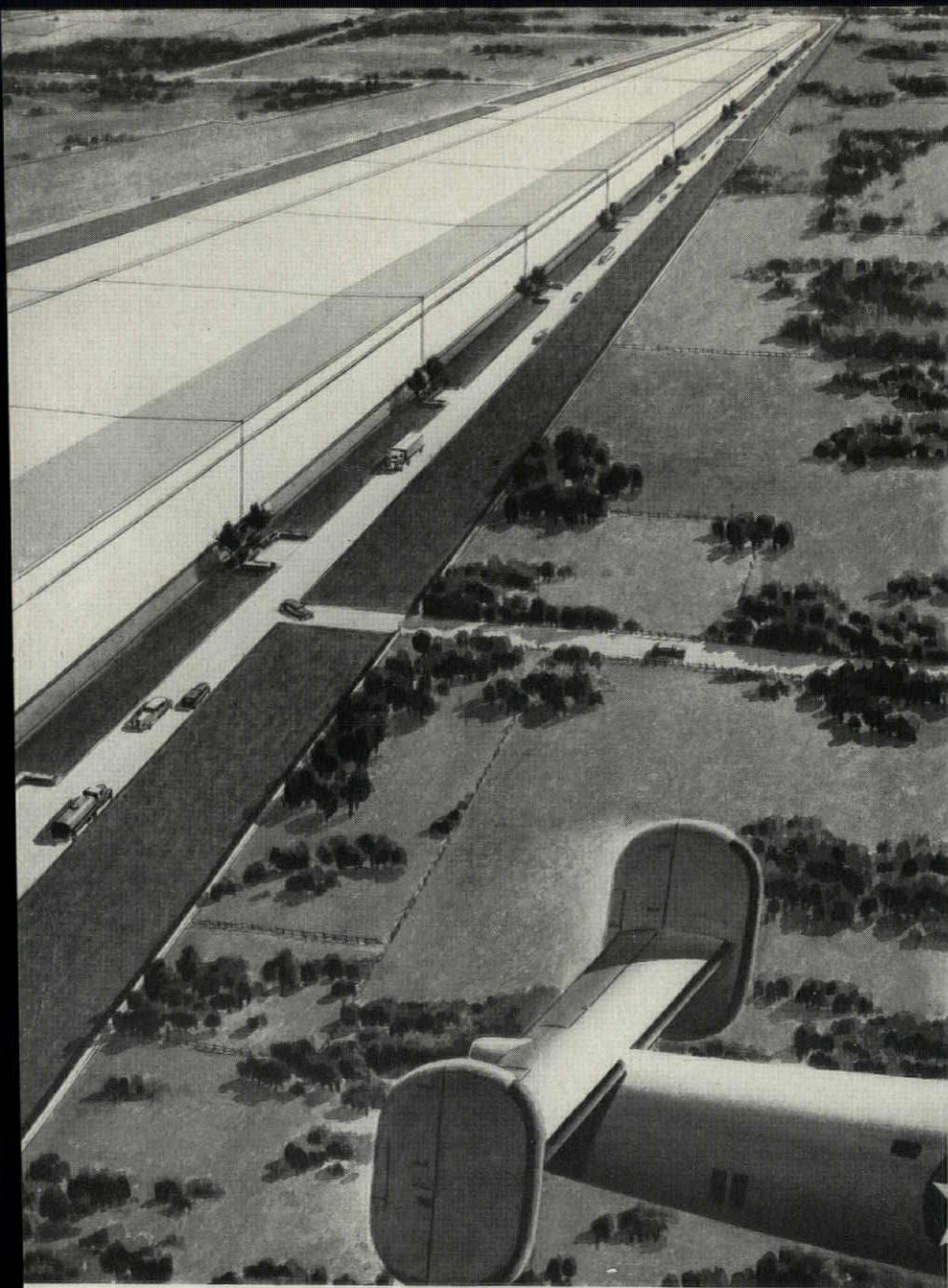
ter-resistant, non-combustible, and enduring. In addition, it gives a highly efficient insulation that will keep heating expense in winter and cooling expense in summer at a minimum. Otherwise the cost of operating the air-conditioning systems in these huge plants would be out of sight.

This construction gives the complete controlled conditions inside these plants . . . even temperatures and humidity . . . high light-reflecting interior surfaces . . . to provide ideal working surroundings for high-speed production and precision manufacture.

Controlled conditions are also necessary to protect costly materials and sensitive instruments in storage and assembly.

Fiberglas and steel lick these tough requirements . . . they do *more!* They give the "plusses" of unusually light weight . . . ease of handling on the premises . . . and very long life.

You may not be interested in bomber



was it built?..."

plants nearly a mile long, but your defense contracts may call for smaller plant units . . . where complete or semi-controlled conditions will aid in making every man-hour count. Perhaps this new-type construction can give these plant units to you cheaper . . . quicker. For it requires a minimum of materials, using each at its maximum efficiency.

Or, you may be interested in remodeling or expanding old plants for increased production.

In this case, this new-type construction may be able to help you. You can increase the size of these plants . . . quickly, cheaply.

Or, if sound-deadening or semi-controlled conditions are called for in an old plant, these same materials are available in ideal forms for these purposes.

Fiberglas itself is made from materials which are available in unlimited quantities right here in continental United States. Let us give you and your engineering staff the benefits of our basic ex-

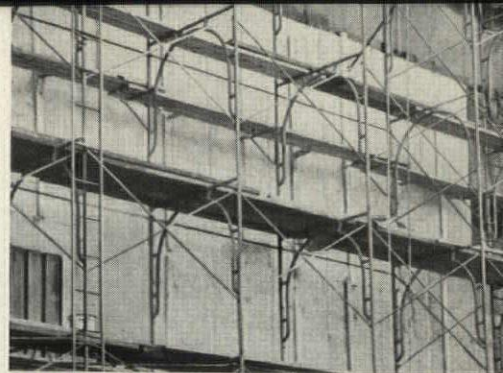
perience with Fiberglas and its properties.

Remember: Fiberglas is *pure* glass in fiber form . . . springy . . . processed into blankets, thread, yarn, bonded sheets, semirigid boards. As a proved basic material Fiberglas is now playing a vitally important part in the production, maintenance, and operation of planes, tanks, warships, and armored cars out on the firing line. For further information write: *Owens-Corning Fiberglas Corporation, Toledo, Ohio. In Canada, Fiberglas Canada, Ltd., Oshawa, Ontario.*

OWENS-CORNING

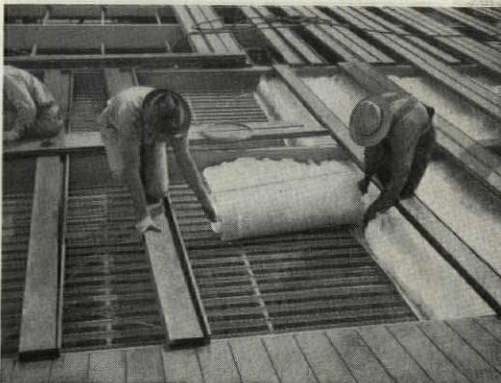
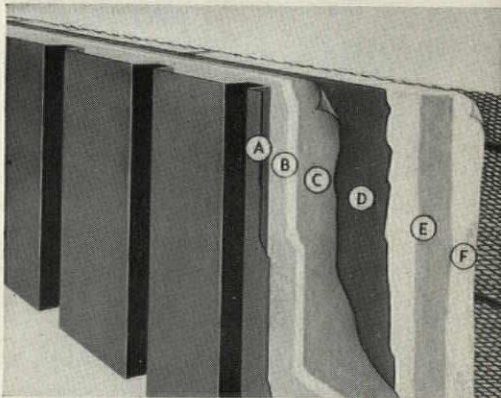
FIBERGLAS

*T. M. Reg. U.S. Pat. Off.



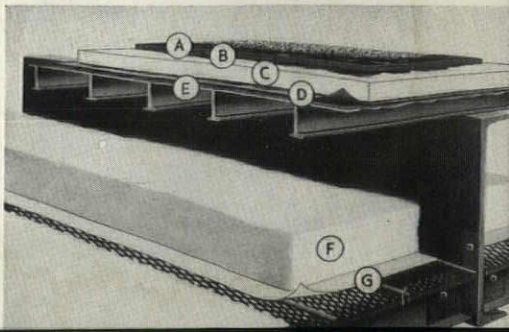
WALL OF STEEL AND FIBERGLAS designed and built by The Austin Company. View shows Truscon steel channel sections and interior Fiberglas insulation already in place in upper sections and at right. In center, semirigid Fiberglas insulating board in place!

DETAIL OF WALL SECTION. "A"—Exterior steel facing. "B"—1-inch-thick semirigid Fiberglas for thermal insulation. "C"—Vapor barrier paper. "D"—Special sheet steel channel section. "E"—4-inch Fiberglas wool compressed to 3-inch thickness for thermal insulation and noise reduction. "F"—Thin, Fiberglas Retainer Mat provides light-reflecting, repaintable surface.



ROOF CONSTRUCTION. Above you see roof nearing completion. Workmen are unrolling Fiberglas blankets. These in turn are covered by Truscon Ferrobord Steeldeck, Fiberglas roof-deck insulation, and finally by waterproof roof material.

DETAIL OF ABOVE. "A"—Tar and Gravel, roof weathering surface. "B"—Heavy, lapped tar paper. "C"—13/16-inch thick, semirigid Fiberglas roof-deck insulation. "D"—Vapor barrier paper. "E"—Ferrobord Steeldeck. "F"—3-inch thickness of Fiberglas wool with dead air space above for thermal insulation and noise reduction. "G"—Thin, Fiberglas Retainer Mat for light reflection, held in place by metal lath. Provides a repaintable surface.



When you plan for HEALTH

New concentrations of population in defense areas create new health problems . . . emphasize the need for well-equipped hospitals. And here, Crane renders special aid to the architect . . . offering him plumbing equipment for every hospital department . . . each fixture designed with a thorough understanding of hospital needs, and embodying latest technical developments. The Crane hospital catalog gives you, in brief form, the results of Crane research . . . provides a dependable guide for the selection of hospital plumbing equipment.



Crane surgeon's washup sinks are available in a variety of styles—each designed in collaboration with surgeons.



Many Crane hospital fixtures are made of Duraclay—an all-ceramic material which does not crack, craze or stain, and which is immune to thermal shocks.



For utility room, examination room, wash room—in fact any department of the hospital—the complete Crane line includes equipment specifically designed for every need.

CRANE

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

If we're only $\frac{3}{5}$ right

here's the best fluorescent buy

YOU'RE interested, we take it, in getting your client the most light for the least money in the long run.

We say Hygrade Fluorescent Lamps give you that for five reasons:

Because of finer coating texture, which you can see for yourself;

Because Hygrade Fluorescent Lamps give more light—more lumens per watt;

Because they are more even in color—every lamp alike, also obvious to the eye—and an assurance of uniformly high quality;

Because Hygrade lamps are "bright to the last inch"—early end-darkening no longer cuts down the light-casting length of the lamp;

Because Hygrade lamps last longer; tests show demonstrably more life than others; ask Hygrade users and see what they say.

If this were so on only three of these points, or even two, your customer will be money ahead, better off, because he'll get *more light and better light than he can get elsewhere.*

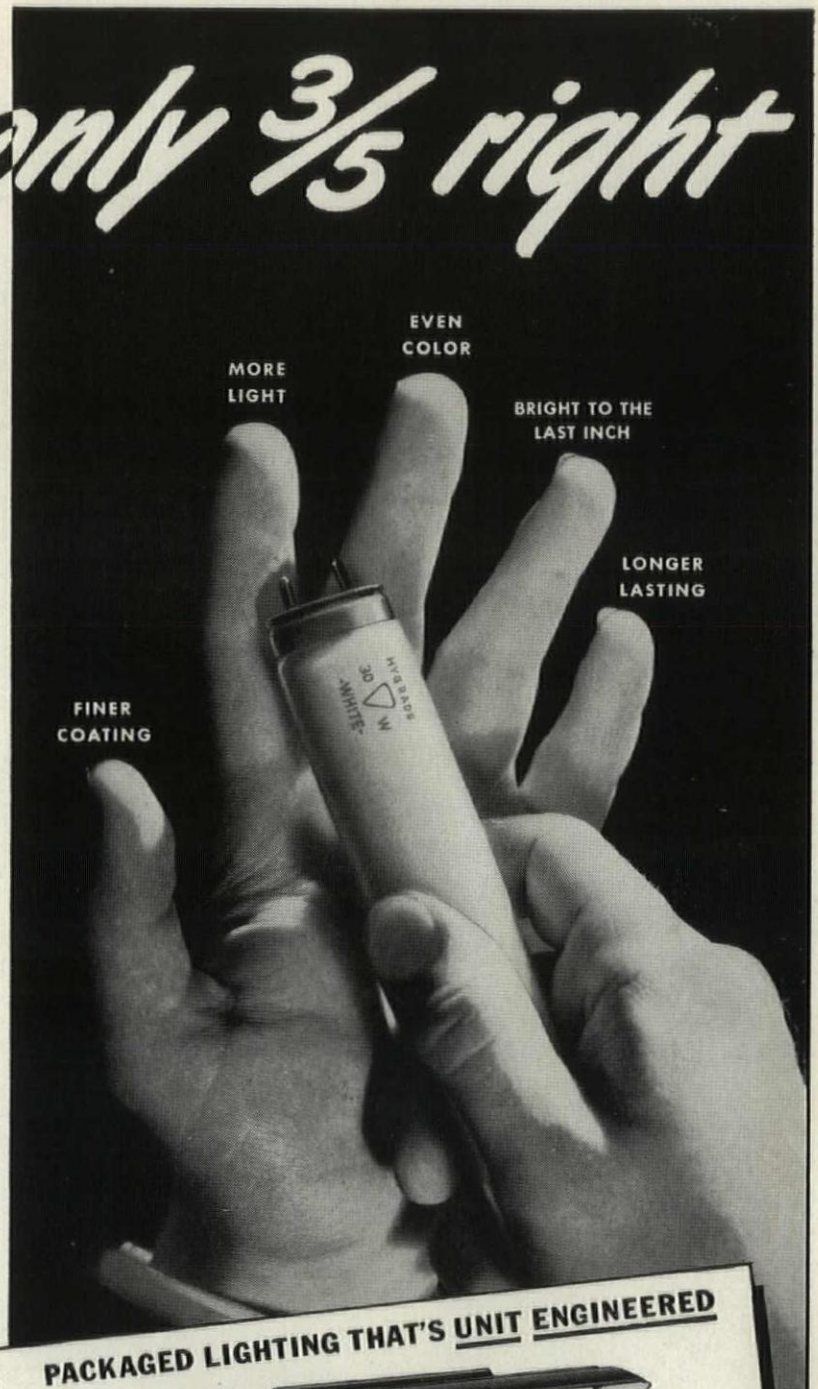
But plenty of Hygrade Fluorescent users say we're right on all five points.

Especially those using Hygrade Packaged Lighting—complete, guaranteed fixtures with all elements unit-engineered to work together—know the superior quality of Hygrade lighting.

That is "fluorescent at its finest"—*better lamps in better fixtures kept performing at their peak by better accessories.*

So you'll find it pays to specify Hygrade when you recommend fluorescent lighting. Your client will be getting the best there is—and not a little of the credit will be reflected on you.

If you haven't yet received our free file-size kit—containing catalogs, prices and complete technical specifications on all Hygrade Fluorescent Lighting Equipment—write for it today. Dept. P2.



MORE
LIGHT

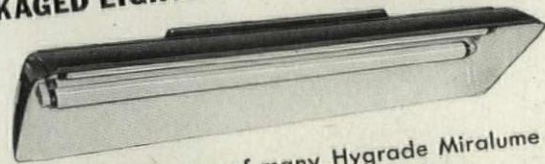
EVEN
COLOR

BRIGHT TO THE
LAST INCH

LONGER
LASTING

FINER
COATING

PACKAGED LIGHTING THAT'S UNIT ENGINEERED



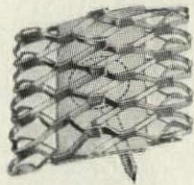
MIRALUME F-240, one of many Hygrade Miralume fixtures for every industrial need.

Good lamps are the heart of good fluorescent lighting. But good HYGRADE lamps are at their best in this Packaged Lighting that is engineered as a unit. Lamp, fixture,

starter and ballast are designed and built to work together, all held to uniformly high standards—there are no "weak spots" anywhere to limit the performance of any part.

HYGRADE SYLVANIA CORPORATION
SALEM, MASS.

Also makers of Hygrade Incandescent Lamps and Sylvania Radio Tubes



PATENT No. 2,208,094

**Guard against
plaster cracking
with this new
Gold Bond
idea**

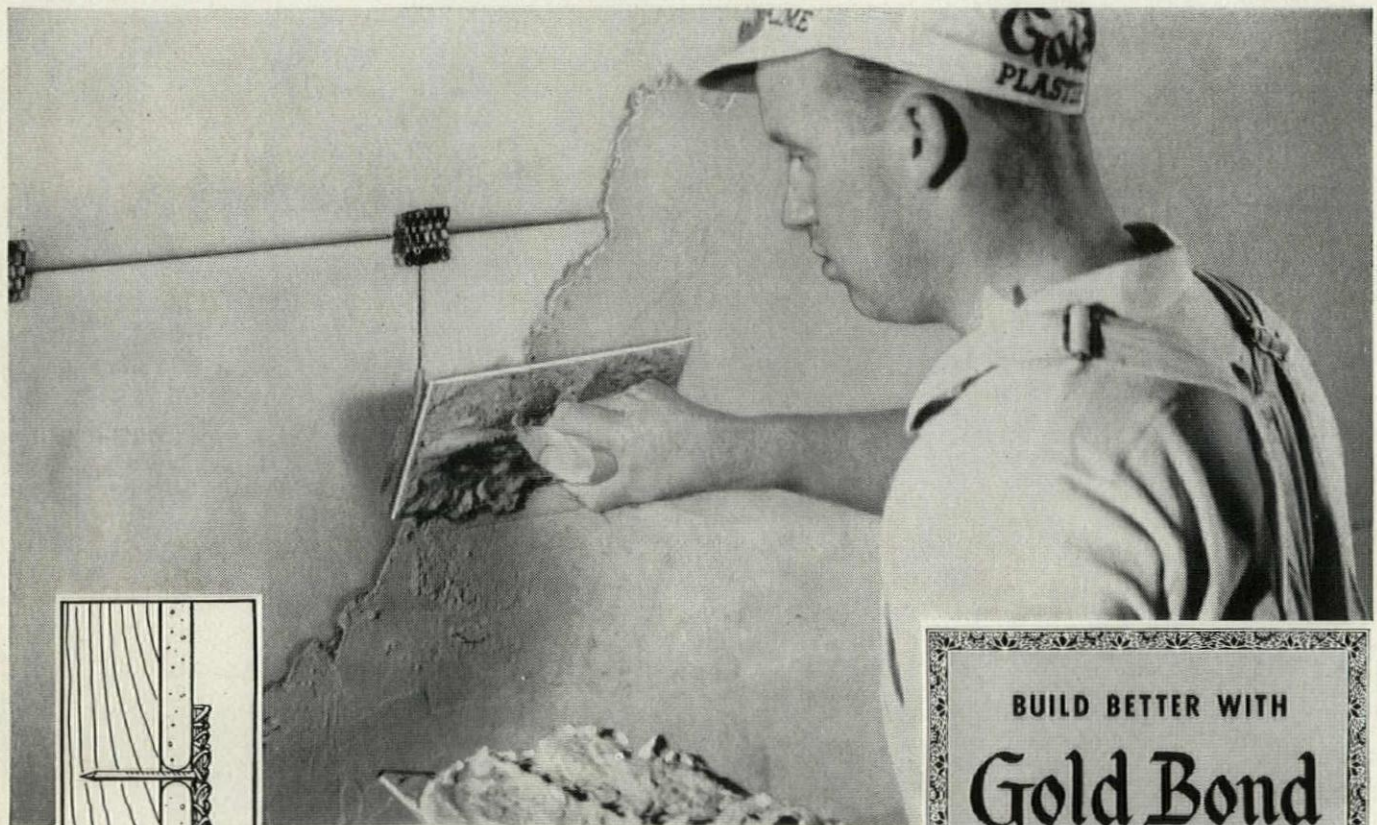
• Walls and ceilings made with Gold Bond Gypsum lath and plaster by the new Floating Wall System are proof against normal expansion, contraction and settling . . . the causes for ninety percent of all plaster cracks.

Besides guarding against cracks, this better system provides walls with a one-hour fire rating, reduces room-to-room noise, and costs so little it can be used even for defense housing and other low cost jobs. No special tools are required. The patented nails are easily driven between panels of standard gypsum lath with an ordinary lather's hatchet, and the wall is ready for plastering.

Gold Bond sets the pace

This better method of wall and ceiling construction is only one example

of how you build better with Gold Bond. National Gypsum research has developed more than 150 better Gold Bond products—including wallboard, lath, lime, plaster, wall paint, insulation and sound control materials. 10,000 Gold Bond dealers and 300 representatives—every one a trained building specialist—are at your service to supply you with materials from 21 strategically-located plants. And when Gold Bond products are used exclusively, *one* reliable manufacturer is responsible for *all* wall and ceiling materials. Write today for detailed specifications on the Gold Bond Floating Wall System and other new and better methods of building walls and ceilings. National Gypsum Company, Buffalo, New York.



NO SPECIAL EQUIPMENT IS NECESSARY to install the Gold Bond Floating Wall System. The patented nails can be driven between panels of gypsum lath by any lather, and provide a resilient tie with the stud as shown in the diagram at the left. Plastering is done in the usual manner.

BUILD BETTER WITH

Gold Bond

Everything - for walls & ceilings

Producing units at:

NEW YORK, N. Y. . . CLARENCE CENTER, N. Y. . . AKRON, N. Y. . . PORTSMOUTH, N. H. . . NATIONAL CITY, MICH. . . FORT DODGE, IA.
 MEDICINE LODGE, KAN. . . ROTAN, TEX. . . SAVANNAH, GA. . . LUCKEY, O. . . BELLEFONTE, PA. . . YORK, PA. . . ORANDA, VA.
 SALTVILLE, VA. . . NILES, O. . . MOBILE, ALA. . . NEWBURGH, N. Y. . . ALEXANDRIA, IND. . . DUBUQUE, IA. . . DOVER, N. J.

MAKE THIS TEST -
Prove **BRIXMENT is BEST!**



Take some Brixment mortar and some 50-50 lime and cement mortar. Try shoving a full head-joint with each mortar. You'll find that with the Brixment mortar



(1), it is much easier to shove the brick accurately into place, with a full head-joint, than it is to do the same thing with the other mortar (2).

BRIXMENT *Makes a More* **PLASTIC Mortar!**

One of the most important characteristics any mortar can possess is *plasticity*. Within certain limits, plasticity is the greatest single factor not only in the *economy* of the brickwork, but also in its strength, its neatness and its resistance to the passage of water.

One of the most outstanding characteristics of Brixment mortar is its unusual plasticity. For nearly twenty-five years, bricklayers all over the United States have agreed that the working qualities of Brixment are comparable to those of straight lime putty. This exceptional plasticity makes it easy for the bricklayer to secure neat, economical brickwork, with the brick properly bedded, and

the joints well filled. And because of this unusual plasticity, a bag of Brixment will carry three full cubic feet of sand and still make an ideally workable mortar.



BRIXMENT

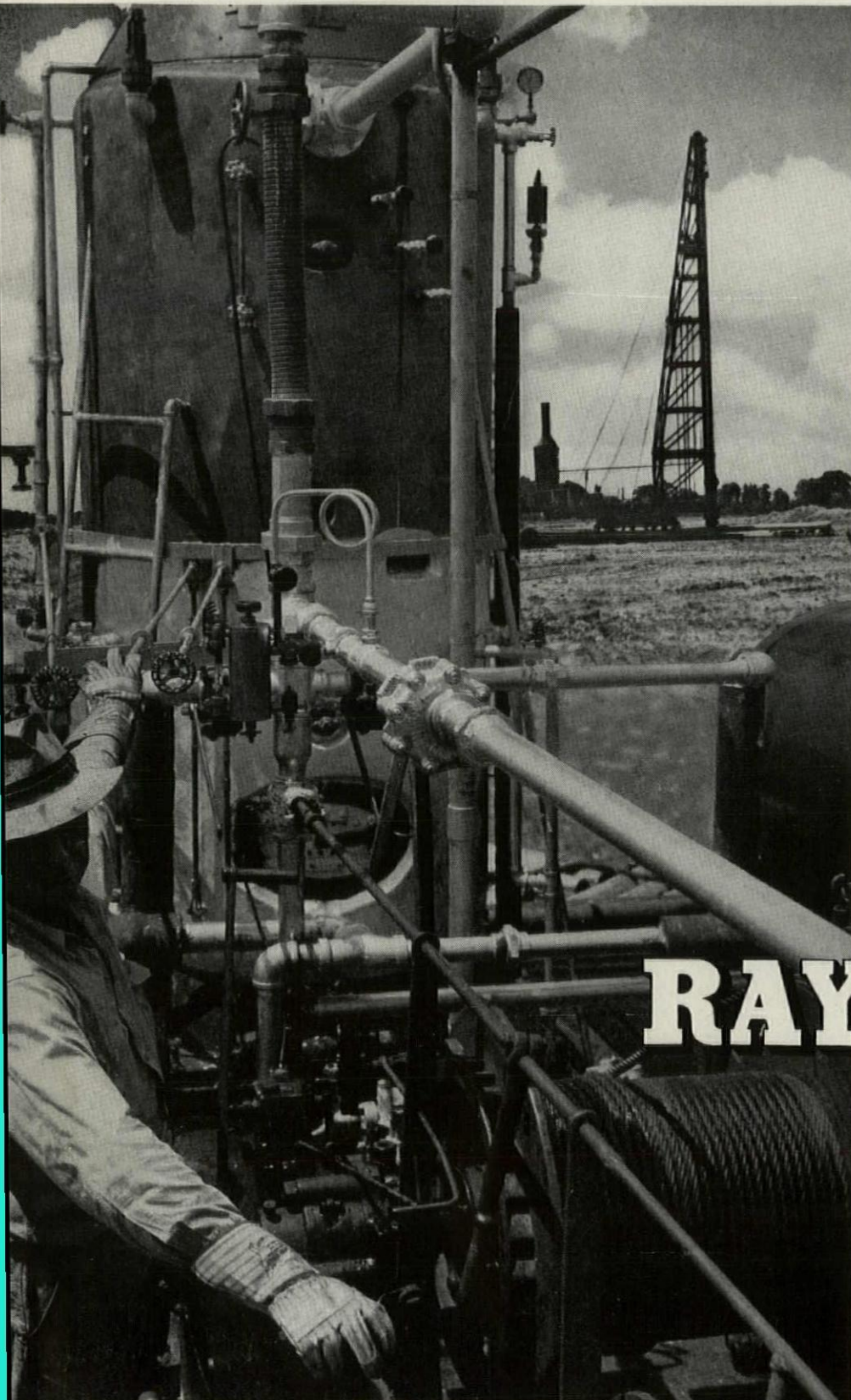
For Mortar and Stucco

Louisville Cement Company, Incorporated, Louisville, Kentucky. Cement Manufacturers for Over a Century.



MEN... EQUIPMENT...

AND MANAGEMENT



• The Raymond personnel consists of men thoroughly trained and experienced. They know their jobs, they know their machines, and they know their responsibility of producing the quality work which assures a satisfactory job for our clients. And Raymond equipment, from the smallest tool to the largest rig, is designed and built for the efficient driving of Raymond Piles. Different equipment is available to meet varying conditions and furthermore Raymond equipment is thoroughly tested and proved satisfactory under various conditions and usage. It is conveniently located for quick shipment to any point in the United States and elsewhere.

Raymond organization, which has completed over 9500 contracts throughout the world, has been one of growth and continuity of management. Its accumulated knowledge, experience and ability are available to serve you today.

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THE SCOPE OF RAYMOND'S ACTIVITIES includes every recognized type of pile foundation — concrete, composite, precast, steel, pipe and wood. Also caissons, construction involving shore protection, ship building facilities, harbor and river improvements and borings for soil investigation.

THE THRESHING FLOOR

Sore point in the profession is the matter of architectural credit on government as well as private construction. EDGAR WILLIAMS, New York Architect, points out that proper architectural credit is just as important as the design of the building itself.

On entering the lobby of the Central Heating Plant at Washington, D. C., one is confronted with a sumptuous tablet which bears the following inscription:

"This building was completed during the administration of Franklin D. Roosevelt, President of the United States of America; William H. Woodin, Secretary of the Treasury; Lawrence W. Robert, Jr., Assistant Secretary of the Treasury; James A. Wetmore, Acting Supervising Architect. 1933"

We architects know that the building was designed by Paul Cret. His creative genius lifted what might have been a sterile structure into a living piece of architecture.

This is important. The intangibles are always the most important attributes of human existence. Paul Cret's contribution to American architectural progress in his design of the Central Heating

Plant is as important as was the building to the solution of the heating problem of Washington's official buildings; more important than the facts which the tablet relates.

We architects should propose the installation of another tablet stating that the building's design is the work of Paul Philippe Cret.

The discussion and interpretation of the work of George Grant Elmslie, by Talbot F. Hamlin in the September issue of PENCIL POINTS, has prompted EDWARD S. GRZYBOWSKI, a draftsman, to write the following comment.

The commentary on "George Grant Elmslie and The Chicago Scene" not only informed the reader of the very lively period in which Elmslie and the courageous group of architects with whom he became associated played a very important role, but the author spoke of the particularities which undoubtedly caused the creation of the resplendent structures that these men had conceived.

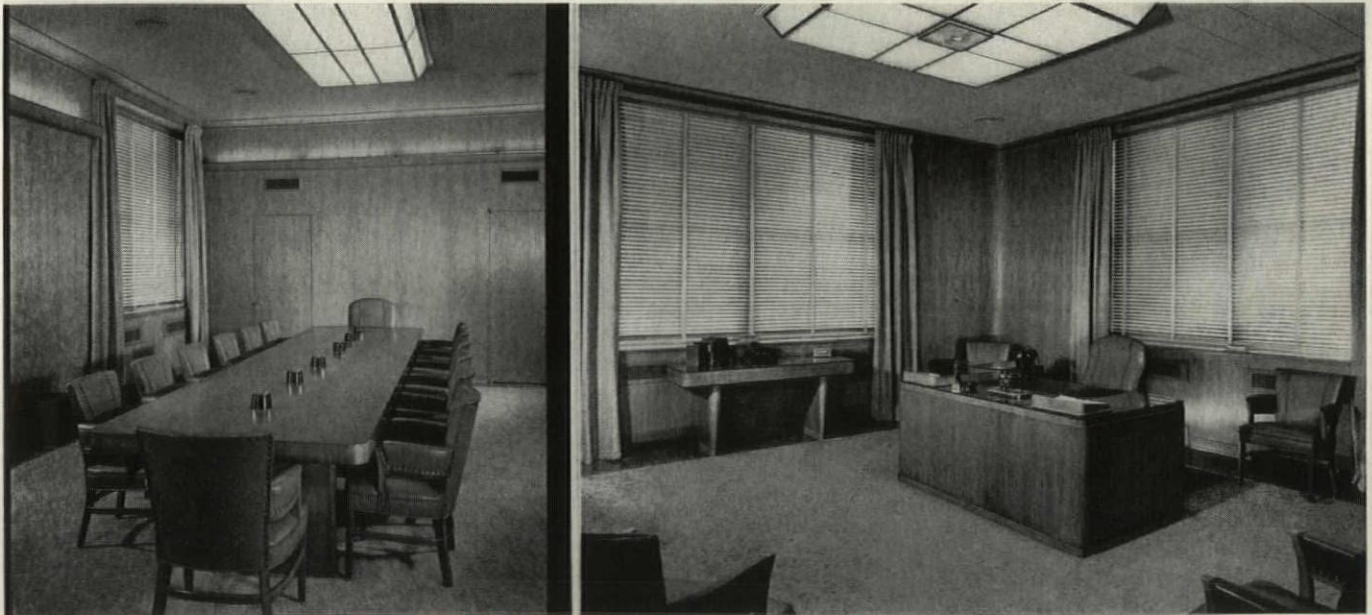
Evidently the quality of Elmslie's work arose through profoundness of imagination, as seemingly

there is that immaculate conception or organic correlation of the spaces enclosed that at once challenges the meaningless and nerve-racking forms done by the ever-raping and hackneyed individuals who always try to imitate good and sincere architectural work.

The commentary reminds one of the true character and purpose of an architect.

A false sense of superiority is detrimental to the architectural profession, points out JAMES C. WHEELER, JR., who is associated with F. W. Stevenson, Architect, in San Diego. Mr. Wheeler's conclusions were written after reading Hal Burnett's article in the September issue of PENCIL POINTS.

I don't know who Hal Burnett is, but I believe we in the architectural profession should be moved enough by his article to see that a new chair in the President's Cabinet be installed, and Mr. Burnett be put there to look out for us poor, shy, cringing, but deserving, humans who have failed to recognize the need of a strong leader to guide us back to and through that era of rebuilding which is bound to come. Most of us are so ego-



It has been called to our attention that the executive offices of the Employers Mutual Insurance Companies, Wausau, Wisconsin, presented on page 12 of the January issue, were incorrectly described as finished with matched plywood. We now learn that the walls in the Directors' Room (above, left) and in the office of the Vice President (above, right) were finished in Figured Teak Flexwood, a flexible cloth-backed veneer. Ten offices, the Board Room, the Lobby, and the Recreation Room also were finished with Flexwood, in accordance with the design of the Architects, Childs & Smith, of Chicago. Other woods used included Figured Paldao, Rift Oak, Red Birch, and Figured Flat-Cut Walnut

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● When the site is beyond urban water mains . . . when a water supply system must be wisely chosen and properly installed before the structure you've designed is usable, let us collaborate with you.

We know the answers to *all* the questions which may arise, whether your problem is supplying water under pressure for a tiny week-end cottage or for a huge factory or housing project. We'd *have* to know, because we manufacture and sell a *complete* line for every imaginable pumping purpose.

Fairbanks-Morse Automatic Home Water Systems are made in all types and in a full range of capacities. There are F-M Pumps for *every* need, large or small. And we know the *power* end of pumping, too; we manufacture all types of Diesel engines, generators, and motors.

Call on us whenever consultation with highly specialized engineers would be helpful. There's no cost, no obligation. Write Fairbanks, Morse & Co., Dept. B188, 600 S. Michigan Ave., Chicago, Illinois.



FAIRBANKS-MORSE & CO.

Manufacturers of Precision
Equipment for 112 Years

tistical that we won't admit there is someone else superior to us in this task, much less someone our equal.

Please, more articles like the September one. Tear the guts out of the whippersnappers who call themselves architects just because their mammas said they could

"draw the nicest pictures." Make them tear down the faded and dust laden perspectives in their office, and throw out those moth eaten rolls of drawings, blueprints, and pitiful specifications. Make them start from scratch or fall by the wayside.

* * *

IN THIS ISSUE

Arthur B. Holmes, B. Arch.—Cornell, 1911, was for many years in private architectural practice in Montclair, New Jersey. He became interested in town planning, studied it and served as a member of the Montclair Town Planning Board, and subsequently as its professional planner. In September, 1941, he went with the Public Work Reserve in Washington as Assistant Consultant on capital improvement and Planning Engineer. He was formerly president of the New Jersey Chapter, A.I.A., and has been active in recent years in national committee activities.

Joseph Hirsh received undergraduate and graduate training in natural and physical sciences, public health, and social sciences. He was formerly Medical and Science Editor of Oxford University Press, and has done research and writing for foundations and for several agencies of the Federal government. At present he is Information Writer and Program Analyst for the Public Work Reserve. He has published articles and studies in the following fields: public health and social insurance problems; education, sociology, and more recently on social planning.

Eugene Weston, Jr. and *Walter L. Reichardt*, associated in the design of the Long Beach Housing Project, page 64, are both in practice in Los Angeles. Weston, one of the pioneers in the housing field, assisted in the preparation of the U. S. Housing Act of 1937 and urged housing legislation for California and Los Angeles City and County. He has been associated with other architects on three important housing projects there: Harbor Hills, Romona Gardens and Aliso Village. This National Director of the A.I.A. and Past President of Southern California Chapter received his architectural training in offices of Los Angeles and New York and had charge, under Bertram Goodhue, of drawings and field work of the National Academy of Sciences. His practice

in Los Angeles over the past 20 years has included schools, residential, and commercial work.

Reichardt, a graduate of the University of Pennsylvania, 1930, traveled for three years in Europe as Rome Prize winner, making a special study of housing. After working in several Los Angeles offices he started his own practice in 1939. This has included residential, institutional, and commercial work.

Paul R. Hunter, who furnished the description of the Long Beach Project, has had a professional career closely paralleling that of Reichardt, as he also graduated from the University of Pennsylvania (1931) and went into practice with Reichardt after several years in important Los Angeles offices. They are co-authors of "Residential Architecture in Southern California" and Hunter has been a contributor to the professional magazines.

Architects for Bonwit Teller—White Plains were *Ely Jacques Kahn* and *Robert Allan Jacobs*, of New York, with *Harry Leonard Miller*, of White Plains, as Associate Architect. The Landscape Architect was *Henry J. Marquardt*, of South Norwalk, Connecticut. Kahn, who is internationally known for his stimulating architecture and creative design, is a Fellow of the A.I.A., President of the Municipal Art Society, former chairman of the Board of Beaux Arts Institute of Design, and former vice president of the Architectural League. Following his graduation from Columbia University with A.B. and B. Arch. degrees, Kahn went abroad for Beaux Arts training and received the *Diplomé* in Paris. He served as Professor of Architecture at Cornell and has had a distinguished architectural practice in New York.

Joining the staff of Ely Jacques Kahn several years ago Jacobs became a member of the firm in 1940. He had formerly worked

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This process is time saving because prints are made in two easy steps, exposure and dry development . . . the finished prints are dry, ready for instant use . . . duplicate originals are made quickly just as whiteprints . . . changes, additions and corrections can be easily made on transparencies without altering the original drawing.

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JOHNSON CITY, N.Y.

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BASIC FACTS ABOUT PRINT MAKING YOU SHOULD KNOW

OZALID STANDARD WHITEPRINTS OFFER A VARIETY OF EITHER BLUE, BLACK OR MAROON LINES ON A WHITE BACKGROUND . . . whereas blue prints offer no choice of color.

This variety of Ozalid color lines enables you to assign an identifying color to the office, another to the field, another for filing . . . distinguish checked prints from unchecked prints . . . lessen the possibility of errors.

These Whiteprints are permanent, true-to-scale of the original, and will not wrinkle or curl. They are easier to read, write on and check than negative prints.



This is the third of a series of facts on modern print making. Watch for Fact No. 4.

FOR BUILDINGS OF TODAY...



**YOU'LL LIKE THIS
SECTIONAL
UPWARD-ACTING
Galvanized
Steel
Door**
BECAUSE IT OFFERS MORE

KINNEAR'S ALL-STEEL ROL-TOP

SETS A NEW PAGE IN ECONOMY, DURABILITY AND EFFICIENCY

Here is a door that gives you all the advantages of a modern, upward-acting, sectional door combined with durable, all-steel construction—an extra value in longer wear under hard, daily service. Its rugged, galvanized steel sections provide lasting resistance to rust and the elements. They offer extra protection against fire, intrusion, weather, wear and accidental damage. And because this door is designed and built by Kinnear, you can be sure that maximum durability has been built into every detail of its space saving, upward-acting design!

The Kinnear Steel Rol-TOP is built in any size, with either motor or manual operation, and with any desired number of light sections. They are easy to install, in old or new buildings. Write today for complete information, or send for latest catalog.



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IN DOORWAYS**

KINNEAR

ROLLING DOORS

with Harrison & Fouilhoux (1935-1938) and for two years prior to that had worked as designer in Paris offices of Le Corbusier, with whom he had first been associated when serving as interpreter for the famous French Architect during a three-month lecture tour of the United States. A graduate of Amherst College and the Architectural School of Columbia University, Jacobs was winner of the Hamlin Prize in 1934. He is an active member of professional organizations including the A.I.A., Architectural League, Beaux Arts Institute of Design, and Fine Arts Federation.

Residential and suburban commercial work have constituted Miller's practice for the past 12 years. His professional preparation began with a study of architecture at Ohio State University followed by employment for a year under Professor Joseph N. Bradford, University Architect. He then worked for construction and engineering concerns; later spending 8 years with Vivian Green, of New York, in development of residential communities in Westchester County (residences of the \$30,000 to \$250,000 class). Just prior to opening his own office at White Plains, Miller traveled for a year in Europe.

The professional practice of Marquardt began in 1926 and has included estates, public works, parks, school grounds, residential communities, site plans, and also services as consultant to architects on large-scale planning. He is a native of New York and received his training as a landscape architect at Syracuse University, Class of 1920.

The two Mobile, Alabama, Housing Projects presented in this issue (one for white families and one for negro families) were designed by *Harry Inge Johnstone*, Chief Architect for Slum Clearance Projects under the Mobile Housing Board. Past President of the Alabama Association of Architects, and member of the Executive Board, Alabama Chapter, A.I.A., Johnstone has practiced in Alabama since 1933 and also has been registered in Mississippi since 1936. A native of Mobile, he attended schools of that city and later Cornell University where he received the degree of Bachelor of Architecture in 1927. This was followed by special courses at Cornell
(Continued on page 58)

Inner defense for war-vital plants



Rugged, reliable Anaconda electrical wires and cables, carriers of vital power, keep steady production in...shut-down losses out!

THERE'S more to war than the equipping of bombers and battleships. The plants and shipyards that make them, the factories and mills turning out thousands of large and small parts, must be powered through wires and cables that can stand the pace of 3-shift operation.

Anaconda research has developed scores of product improvements and many completely new products that are today meeting these critical de-

mands. They are fitted for the job . . . their improved constructions deliver greater capacities with less power loss, their insulations can withstand high heat, corrosion, abrasion.

The research that built these wires and cables continues at a fast pace. Now in addition to delving into experiments for improvements in industrial products, Anaconda is devoting much of its research to wiring for residential and commercial building.

When peace returns, adequate commercial and residential wiring will need your attention

The electrical future will place greater demands than ever before on those in a position to make wiring selections. Anaconda will cooperate with architects with information and with products measuring up to their specifications.

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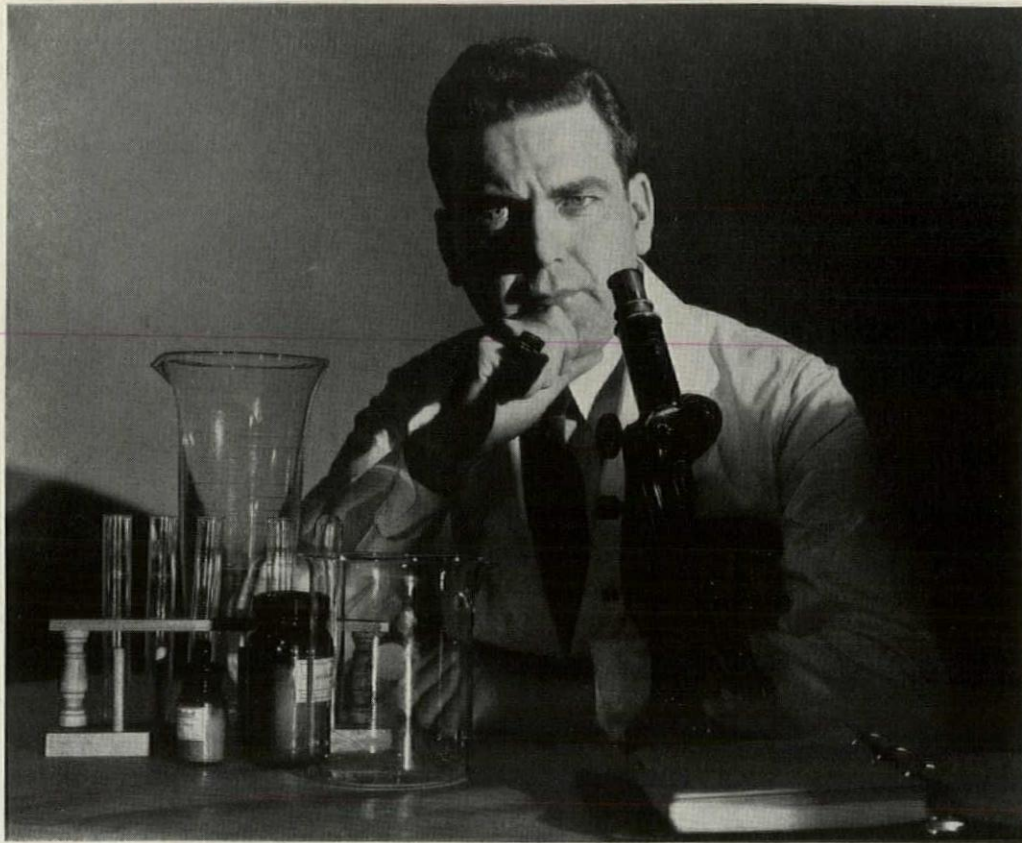
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The price of leadership in any industry is unremitting effort to improve present practices and products . . . and develop new and better ones. Today Tile-Text is tripling its research program to accomplish these objectives.

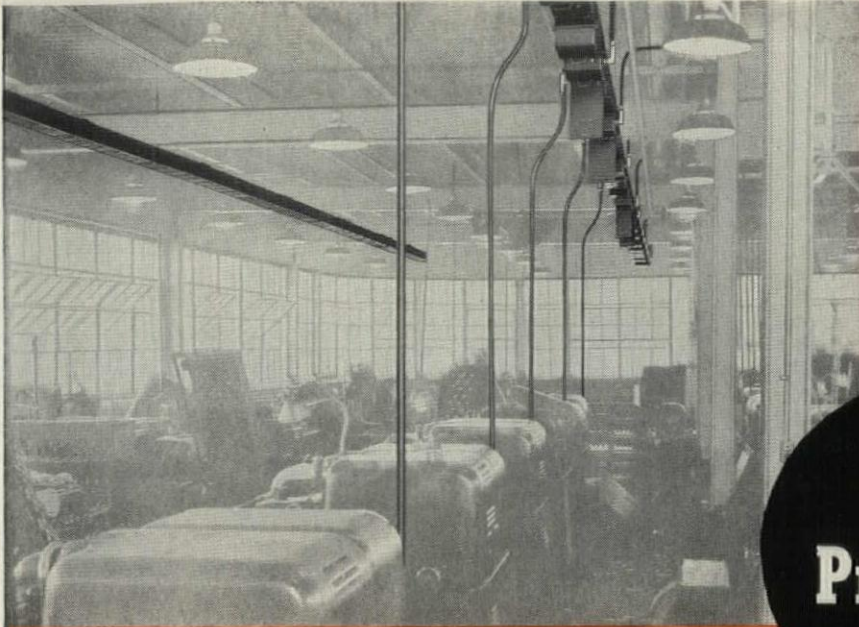
Thanks to research, Tile-Text is shouldering arms in today's Victory program. Tile-Text floors

are widely specified and used in manufacturing plants devoted to defense work, in essential defense housing projects, in U. S. O. recreational buildings, and in many classes of military and naval establishments. Tile-Text welcomes any opportunity to fit its facilities and personnel into the service of this country.

Problems of today spur the improvements of tomorrow. Inevitably, out of Tile-Text's new research program will come a finer, better asphalt tile.

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★ *Our constant objective is to furnish the architect with an honest, steadily improved product that will enable him to design architecturally correct floors which can be installed and maintained properly at minimum cost.* ★



This **FA** Busduct installation in a Michigan defense project shows how simple it is to place the machines, to plug in, and to start operation without delay.

Save Production Hours when moving machines

With **FA** Busduct for the distribution of power, it's a simple matter to "move the machine — plug in — go!" The easily accessible outlets of Plug-in **FA** Busduct, conveniently spaced, make it possible to move the machines to any desired location — to plug in quickly — and to resume operations with a minimum loss of productive time.

This is the Modern Way!

Compact and flexible, it is the convenient method for distribution of Electric Service . . . It is ideal when changes are necessary in machine layout. And it is economical from every standpoint, as installations in numerous plants have proved.

FA Busduct—both feeder and plugin types—are made in standard 10-foot sections. Each standard section of the Plugin type is arranged with nine plug-in outlets on 12-inch centers. (Other spacing optional.) Suitable elbows,

tees, cross-connections, expansion joints, transposition joints, end boxes, intermediate feed-in and feed-out boxes and reducing capacity sections, are supplied to fit required space or position — whether on wall or ceiling.

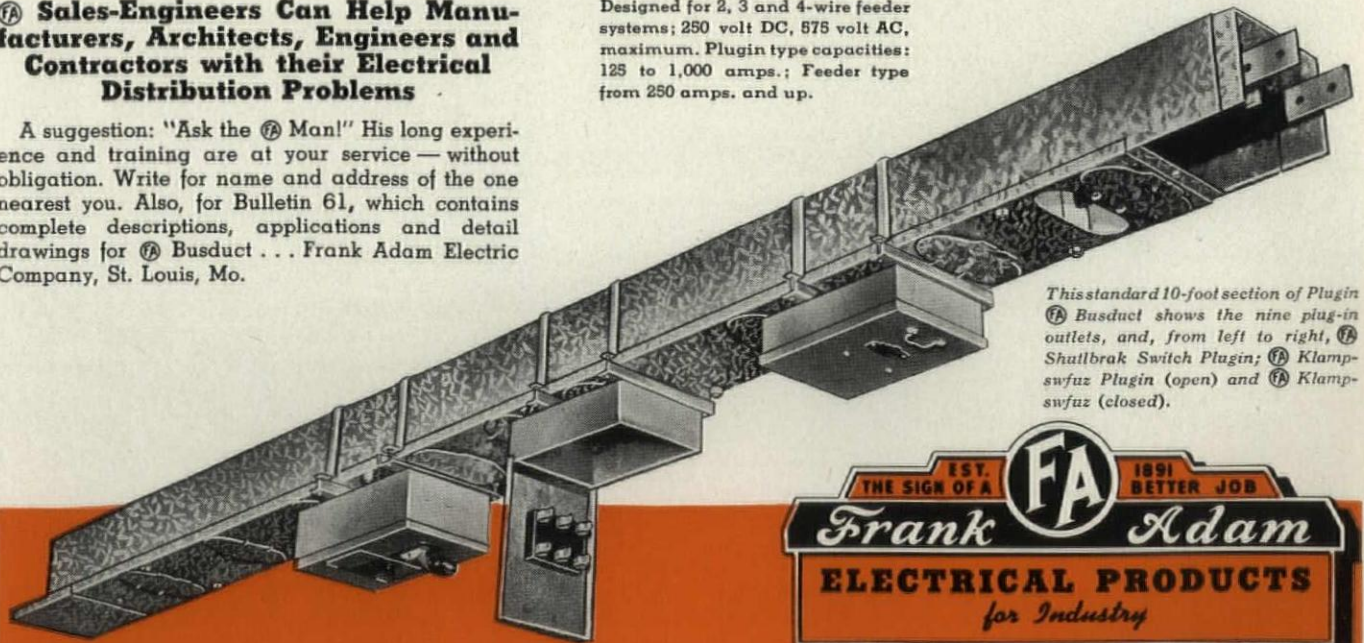
The copper busbars are contained in enclosures of steel or aluminum. They are rigidly supported at proper intervals by specially designed insulators that insure correct spacing — to meet the requirements of the National Electrical Code. Contact surfaces of connecting bars are silver-plated, to insure low resistance joints. This is further assured by specially engineered spring pressure bolts which hold the joints under even compression.

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FA Sales-Engineers Can Help Manufacturers, Architects, Engineers and Contractors with their Electrical Distribution Problems

A suggestion: "Ask the **FA** Man!" His long experience and training are at your service — without obligation. Write for name and address of the one nearest you. Also, for Bulletin 61, which contains complete descriptions, applications and detail drawings for **FA** Busduct . . . Frank Adam Electric Company, St. Louis, Mo.

Designed for 2, 3 and 4-wire feeder systems; 250 volt DC, 575 volt AC, maximum. Plugin type capacities: 125 to 1,000 amps.; Feeder type from 250 amps. and up.



This standard 10-foot section of Plugin **FA** Busduct shows the nine plug-in outlets, and, from left to right, **FA** Shullbrak Switch Plugin; **FA** Klampswfuz Plugin (open) and **FA** Klampswfuz (closed).

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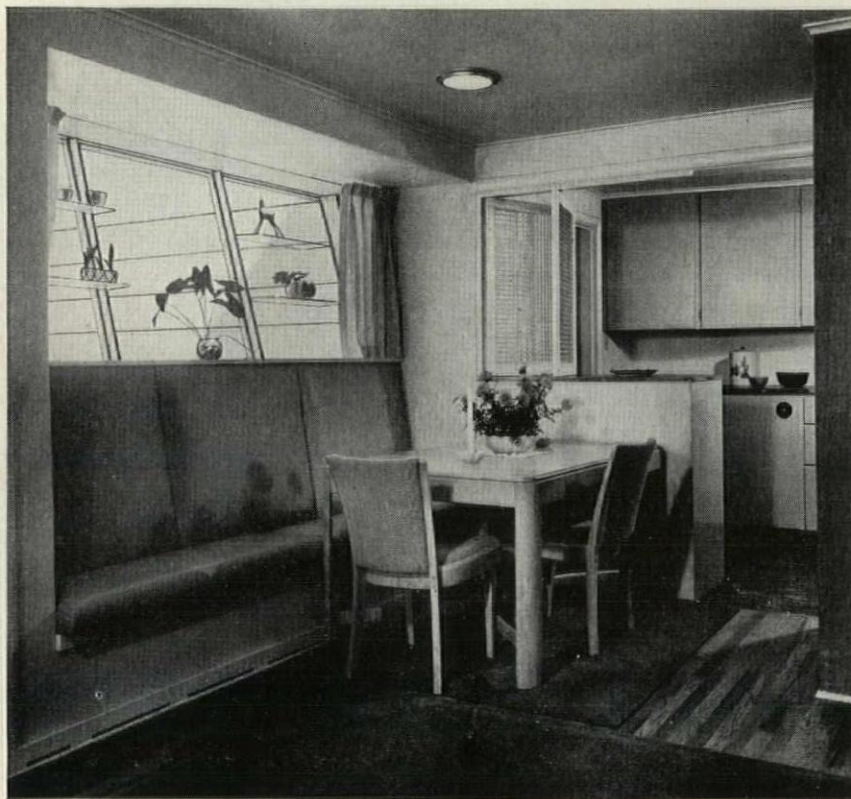


9 WAYS to brighten A \$4,200 HOME!

● Generous window areas are a pleasing feature of this \$4,200 home designed by Architect D. Kenneth Sargent for Milo D. Folley, Syracuse, N. Y. Note the slanting window treatment.

HOW ARCHITECT SARGENT DID IT

WITH  *Glass*



● Folding doors of decorative Flutex Glass are used over service counter between dining wing and kitchen. Plate glass shelves break up the window area without obstructing light.

- 1 Used large window areas for abundant natural light.
- 2 Placed a plate glass mirror over mantle.
- 3 Framed the fireplace with mirror panels.
- 4 Used Flutex decorative glass folding doors between dining wing and kitchen.
- 5 Placed plate glass shelves in windows.
- 6 Used Vitrolite on walls over bathtub.
- 7 Used fixed lights of Flutex above bathtub.
- 8 Placed generous size mirror over wash bowl.
- 9 Put full-length mirror on bedroom closet door.

When designing small homes or defense housing projects, remember that flat glass products can brighten them in many ways... add to comfort and convenience... actually help build morale.

The fact that glass is thoroughly in keeping with modern architecture is another point to keep in mind.

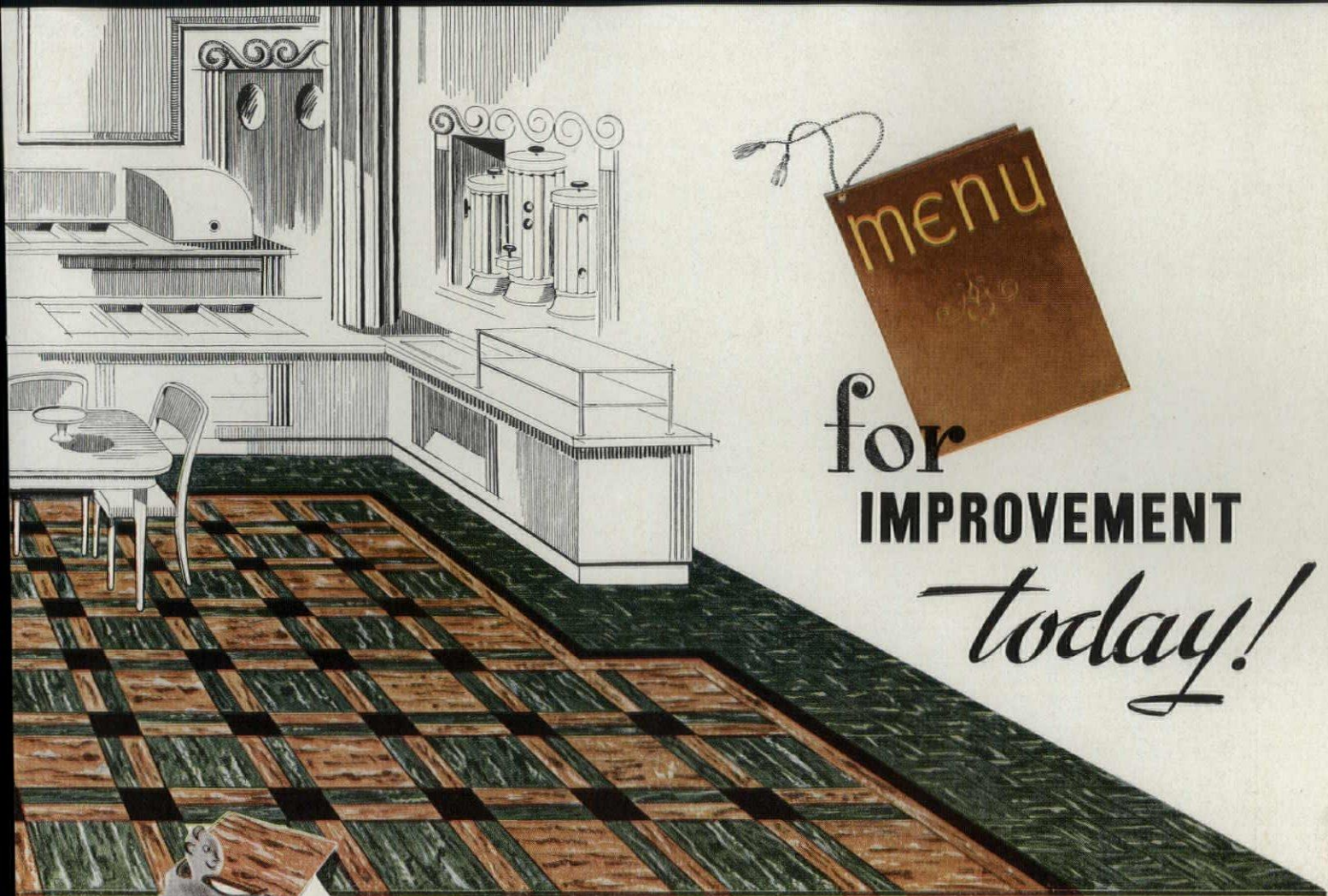
An important consideration these days is the ready availability of practically all types of Libbey-Owens-Ford flat glass. No priority headaches.

See Sweet's for full information or write for architect's catalog. Libbey-Owens-Ford Glass Company, 1246 Nicholas Building, Toledo, Ohio.

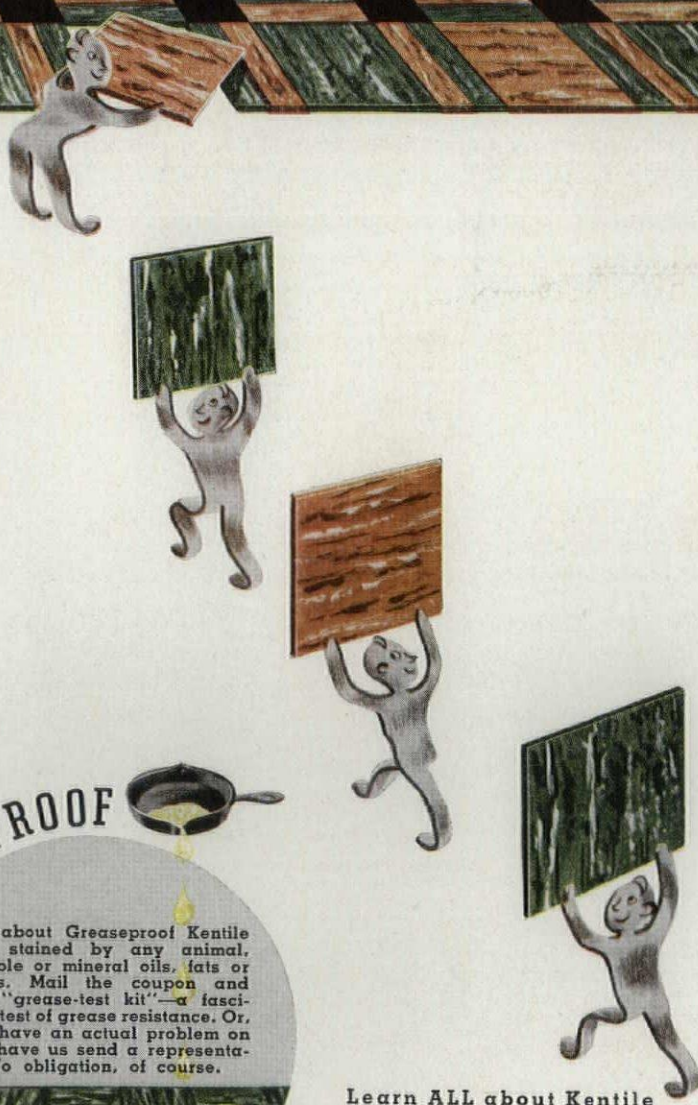
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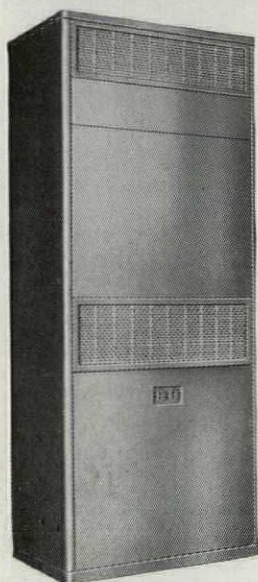
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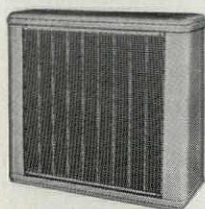
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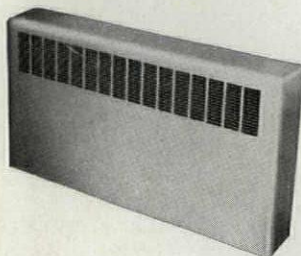
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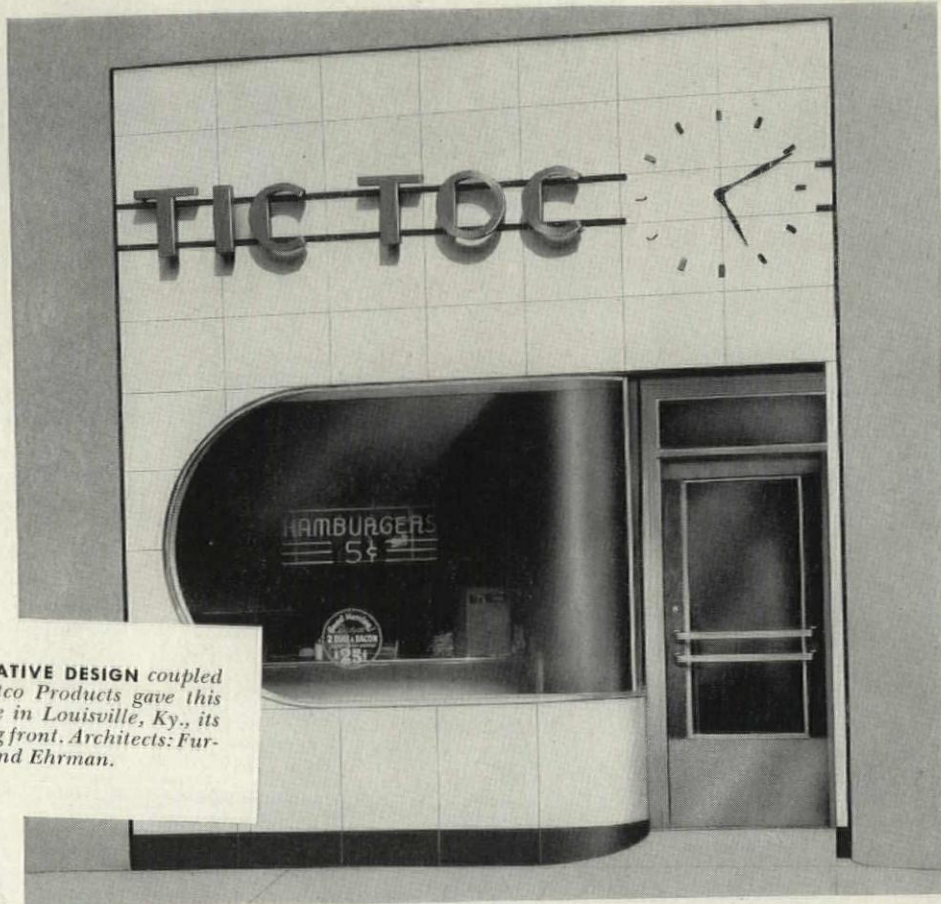
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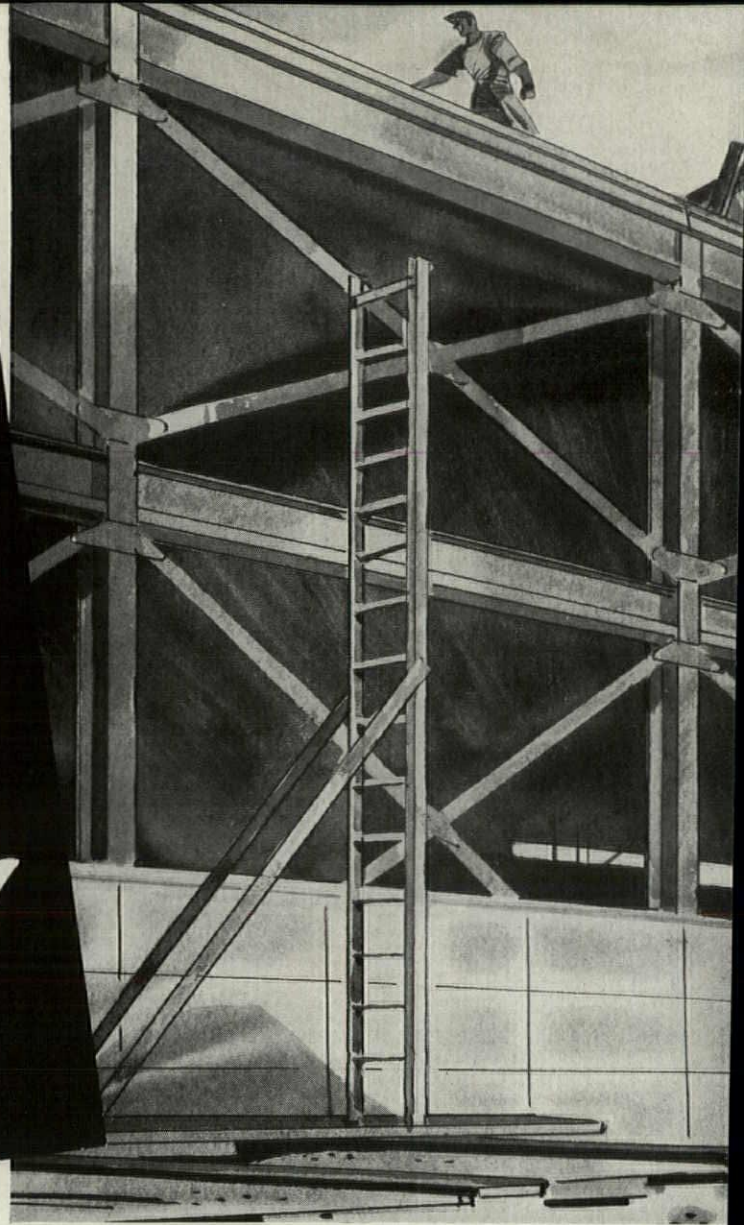
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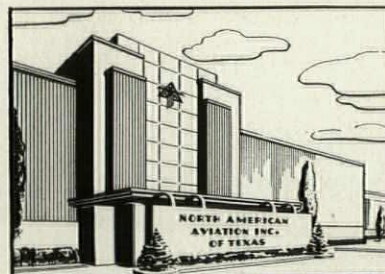


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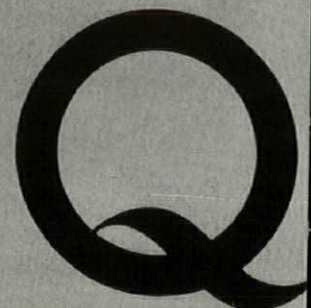
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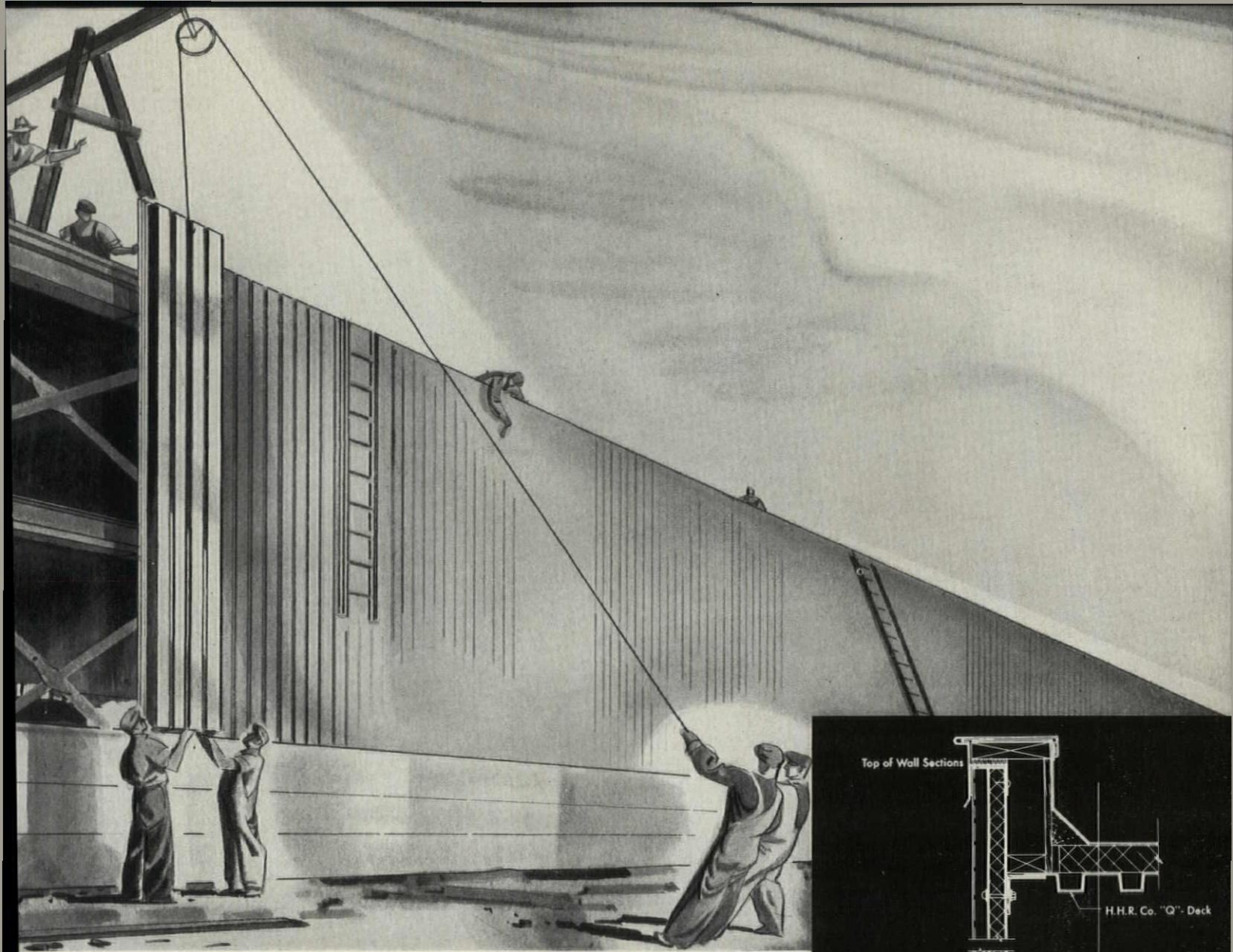
gether when fastened to the structural framework of the building. Q-Units for floors, roofs and partitions are placed with equal speed. For each of these uses they provide a permanent and most durable form of construction.



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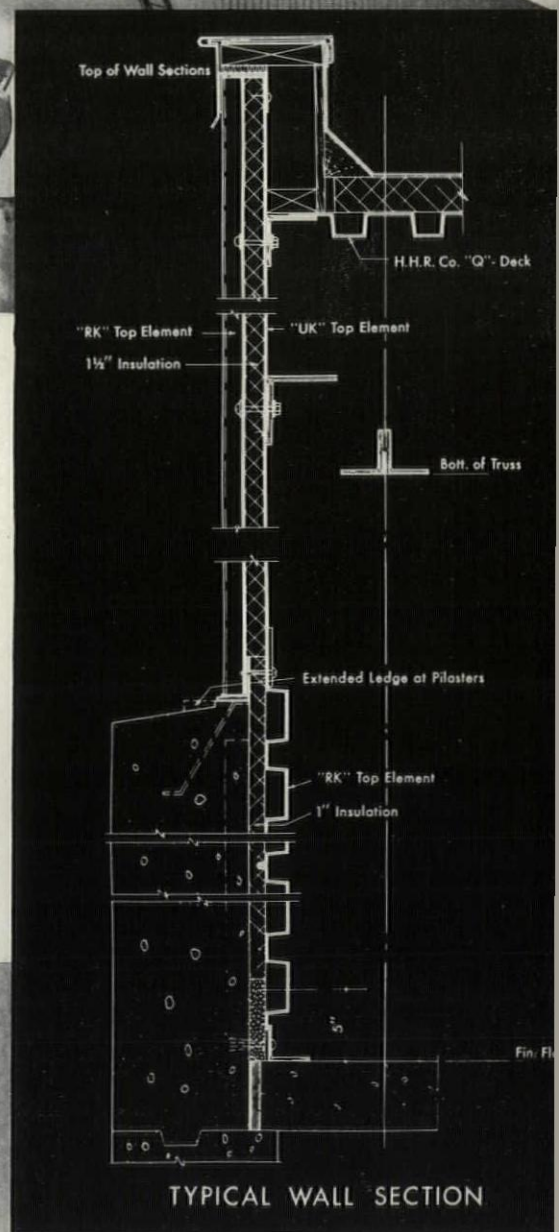


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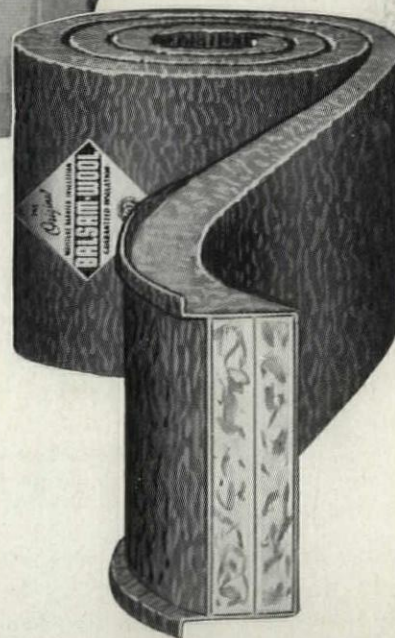
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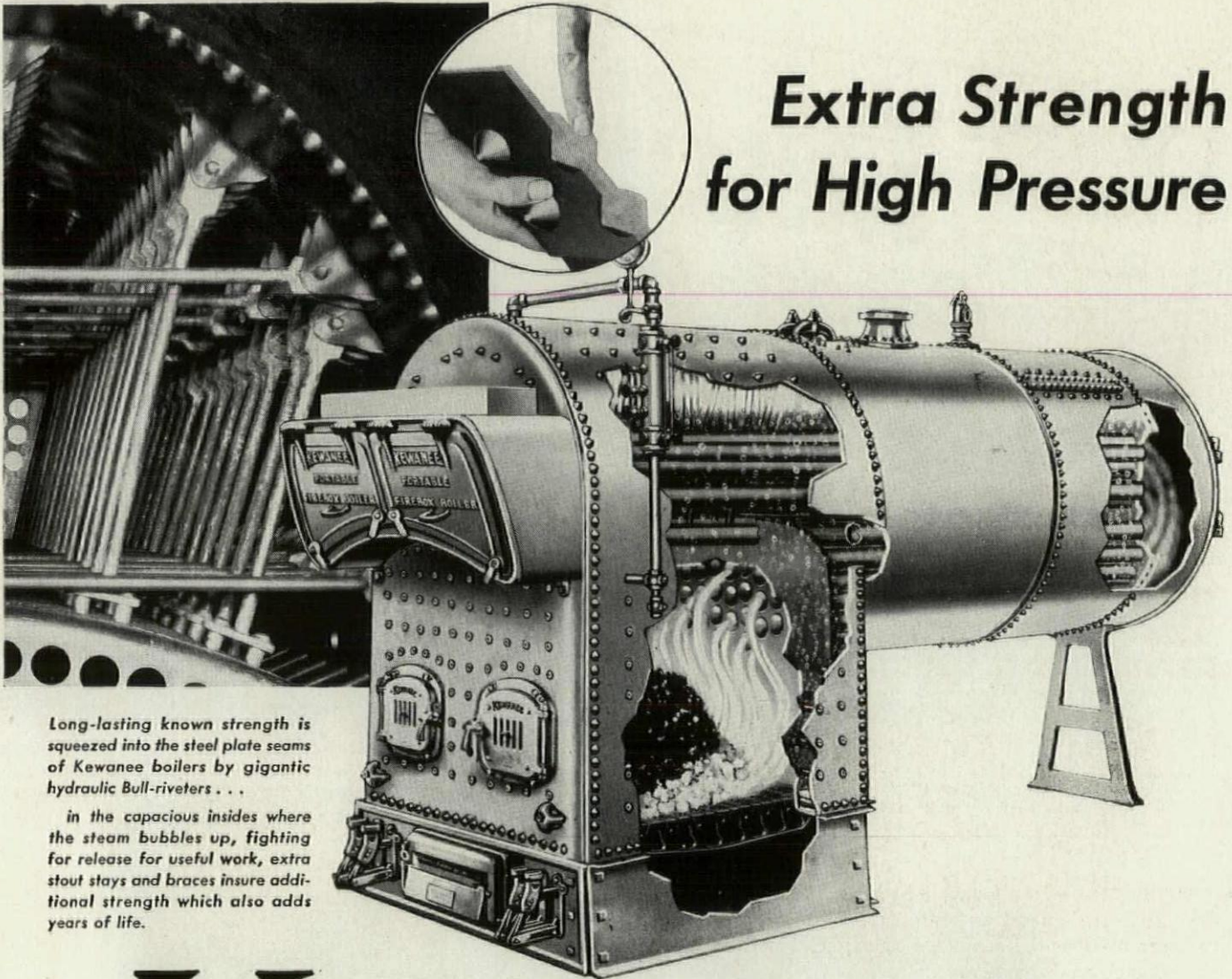
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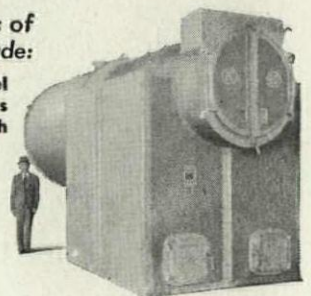
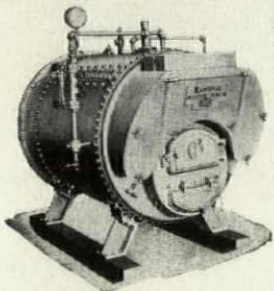
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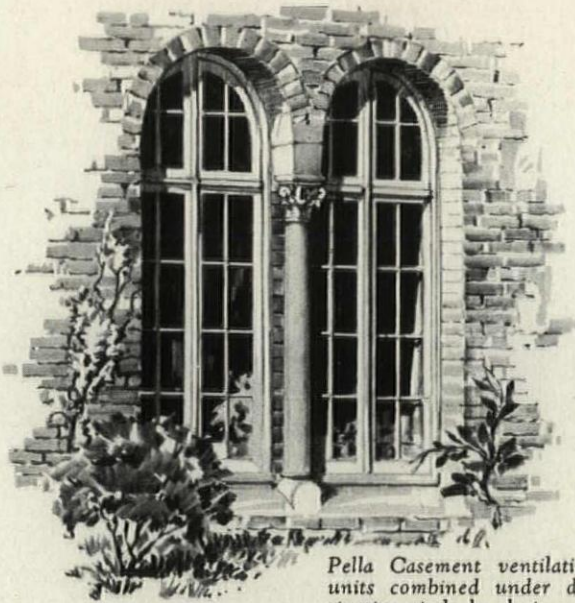
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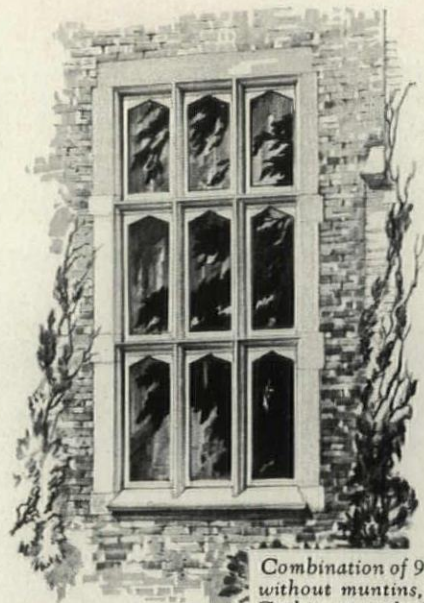
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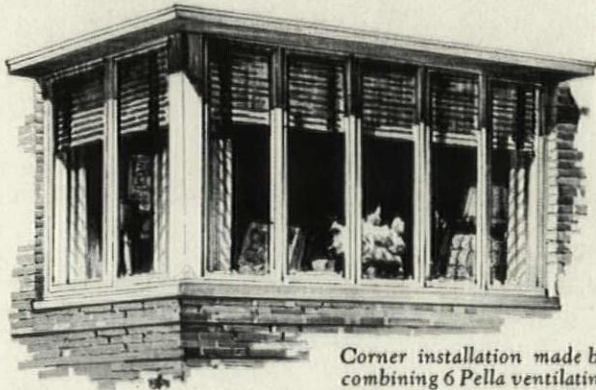




Pella Casement ventilating units combined under distinctive circle heads in new rectory located in Midwest.



Combination of 9 Pella units, without muntins, fitted with Gothic top rails. Devised for college chapel installation.



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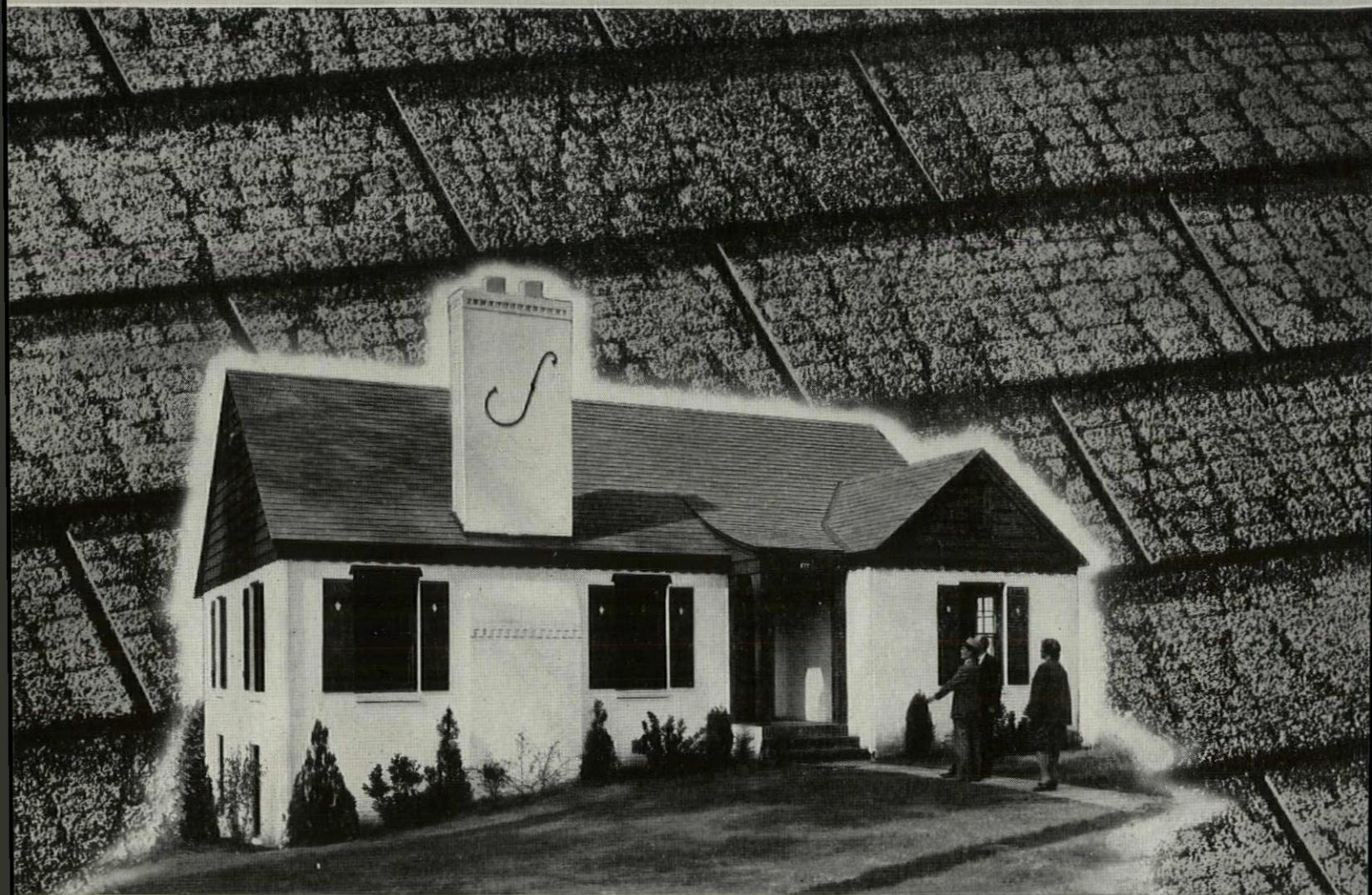
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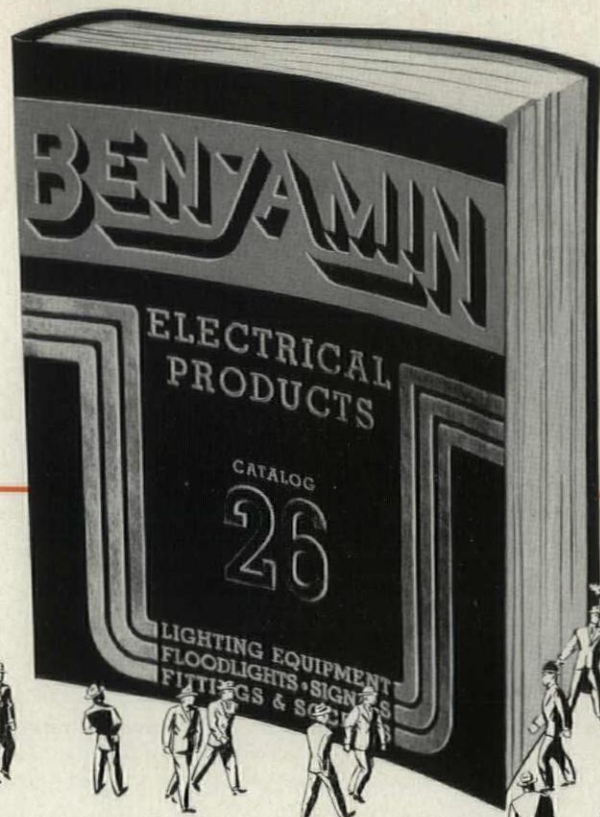


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TODAY as never before you require a quick, sure source of information on industrial equipment for Fluorescent, Incandescent and Mercury-Vapor lighting. For Victory production demands have made MORE LIGHT and BETTER LIGHT a vital necessity to conserve the eyesight of the workers, to improve seeing ability and to minimize fatigue. These things plus the use of Better Lighting to insure maximum utilization of floor area, and the construction of windowless "black-out" factories are essential to maximum production and maintenance of product quality.

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In preparing specifications for lighting equipment to be employed in plants engaged in Victory production of war materials and essential civilian goods, you will save time and insure proper specifications by using the Benjamin Catalog. This 400

page reference book on industrial lighting contains the basic illumination tables which enable you to make rapid foot-candle calculations of lighting to be provided on working surfaces. It gives data on light out-put efficiencies, angle of cut-off, shielding angles and all other necessary data on size, construction, design, type, etc., required to prepare complete lighting equipment specifications and requisitions.

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You may obtain a complimentary copy of this helpful, complete, fully up-to-date, catalog by return mail, without cost or obligation, by requesting it on your letterhead or by filling out the coupon below and mailing it to the Benjamin Electric Mfg. Co., Dept. ZZ, Des Plaines, Illinois. With your catalog will also be sent a copy of Benjamin's Manual of Factory Lighting Practice containing detailed solutions to 29 most frequently occurring industrial lighting problems.

**A REAL
REFERENCE BOOK
ON INDUSTRIAL
LIGHTING EQUIPMENT**

CONTAINS

Solutions to illumination problems, specifications and engineering recommendations, floor layout plans, recommended footcandles, intensity tables, typical distribution curves, etc.

SHOWS HOW TO

- ... lay out an economical and efficient lighting system.
- ... light specific operations.
- ... select the correct lighting unit.
- ... make calculations for various type reflectors.
- ... use supplementary lighting.
- ... light for color correction.

PARTIAL LIST OF CONTENTS

Sec. 1. Illumination Design Data. Sec. 2. General Industrial Lighting Equipment. Sec. 3. Specialized Lighting Equipment. Sec. 4. Outdoor, Yard, Viaduct and High Lighting Units. Sec. 5. Suspension Fittings, Stands, Covers and Guards. Sec. 6. Explosion Proof, Dust-Tight and Vapor Proof Equipment. Sec. 7. Industrial Lighting "Vapolets" and Heavy Duty Water-Tight Fixtures and Wiring Devices. Sec. 8. Floodlighting Equipment. Sec. 12. Fluorescent Lighting Equipment.

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Name

Firm

Address

City State

... What is ... Formica Plastic Finishing Material Being Used For?

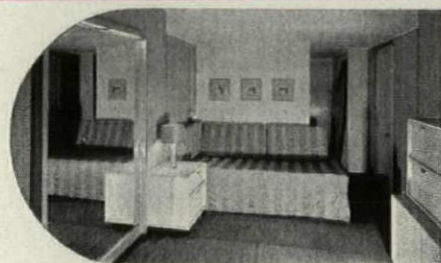


COUNTERS

FORMICA has been used by architects and decorators for a very wide range of purposes, where a more than ordinarily pleasing effect had to be combined with a sturdy durability.

Deep sparkling plastic surfaces in Formica are also unusually hard and durable, non-porous and spot proof, chemically inert and stain proof. The colors are stable. The material is easily cleaned by the simplest methods. For horizontal surfaces a grade is available that resists cigarette burns.

These genuine values account for the wide application of the material. Here are a few of the many common applications.



SHIPS

COUNTERS

Formica is used for counter tops where wear is severe, and for die panels and baseboard. There are 70 colors and many "Realwood" finishes.

FOOD SERVICE

Counter tops, counter panels and table tops in restaurants are among the most widespread uses of Formica. Restaurants in hundreds of new defense plants are equipped with Formica.

SHIPS

In ships Formica is used for finished surfaces of stateroom bulkheads, for tops of stateroom furniture, and for table tops in restaurants and public rooms.



STORE FIXTURES

RAILWAY CARS

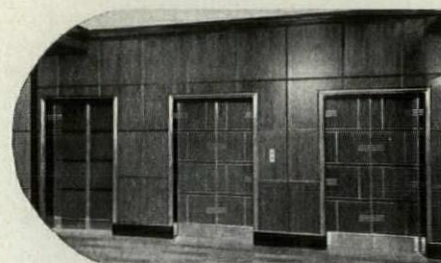
Formica has been used by all the leading car builders for table tops that must stand cigarettes and alcohol, for shelving in toilet rooms, for window stools and similar uses.

STORE FIXTURES

Formica is used for baseboard where it stands mopping indefinitely for die panels and for selling and display surfaces. It is easy to keep clean and inviting.

ELEVATOR INTERIORS

Many very handsome elevator interiors have been installed in Formica "Realwood" a grade in which an actual wood veneer is incorporated in a plastic sheet.



DOORS

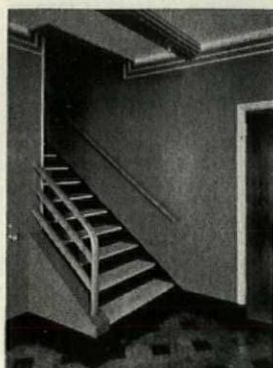
DOORS

Striking colors and inlays of metal and color make Formica doors most attractive. No laborious polishing to keep them in perfect shape. They stand the severe wear.

WAINSCOT

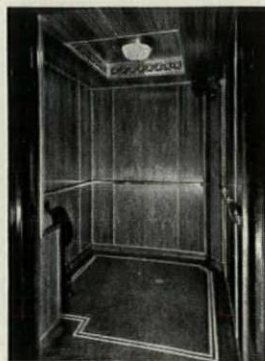
In hotels, public buildings, bus, airplane and railway stations Formica has been used for wall covering, because of its good looks, permanence, and the ease with which it is cleaned.

FORMICA



WAINSCOT

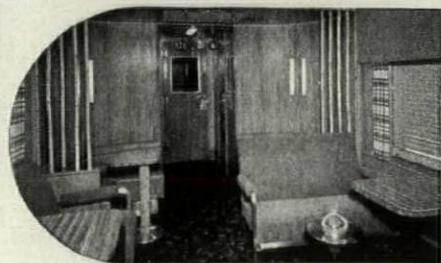
**THE FORMICA
INSULATION CO.
4621 Spring Grove Ave.
CINCINNATI, OHIO**



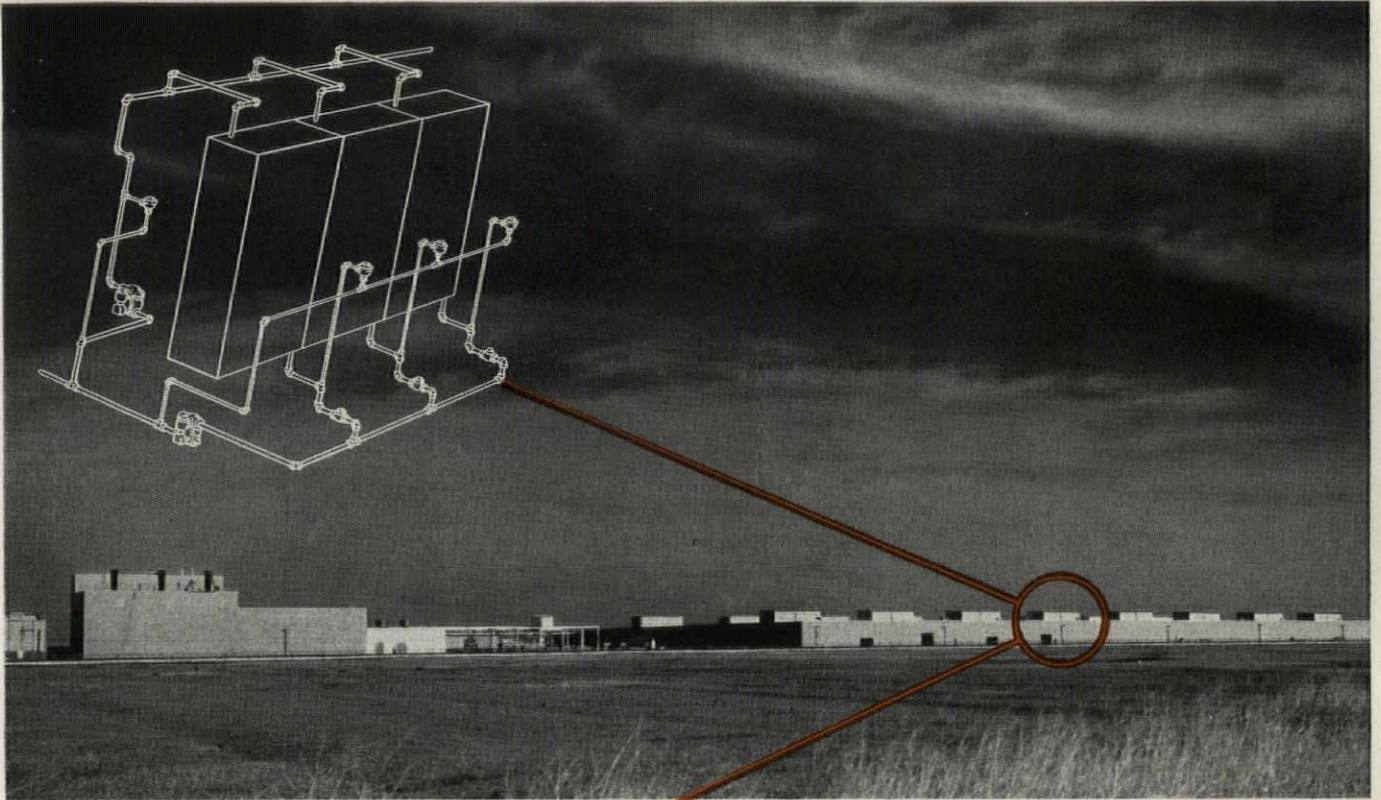
**ELEVATOR
INTERIORS**



FOOD SERVICE



RAILWAY CARS



The new plant of the Studebaker Corp.—Aviation Division.
Arch. & Engrs., Giffels & Vallet, Inc.—L. Rossetti

Upside-Down HEATING

CLEAR S THE PATH FOR DEFENSE PROGRESS

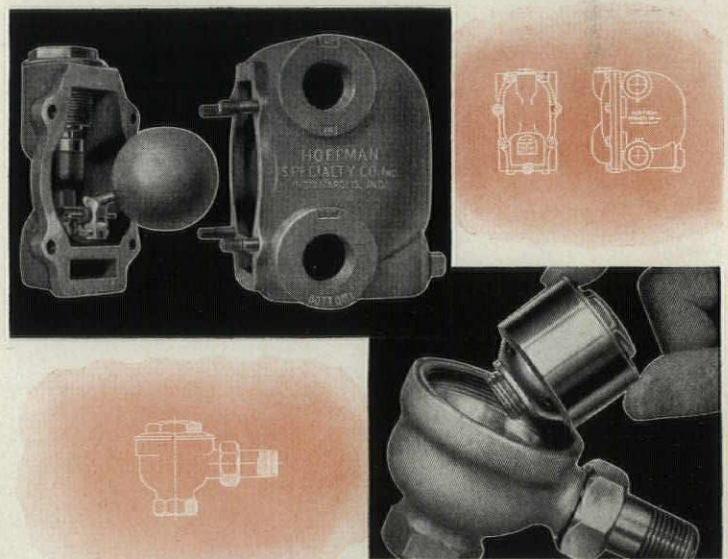
As important a defense conservation as any other is that of manufacturing *space*! Here at the new Studebaker airplane motor plant is a notable example... engineering skill in providing clear spans and unobstructed floors is ably seconded by a heating method which wastes not an inch of productive area.

Each of the penthouses on the roof of this modern factory conceals a heating unit of novel design. Air is directed over steam heated coils and passed through ducts to the shops below. *Upside-down heating*, in the interests of space conservation!

Hoffman Steam Specialties play a strong part in this ultra-modern application of a soundly practical heating idea. Hoffman High Pressure Traps keep the heating coils at top efficiency by assuring thorough drainage of the large volumes of water created by condensing steam. The known quality of Hoffman Specialties dictated their selection for this job, where any equipment failure means slowing up the flow of vital war material!

Many similar defense projects today depend upon Hoffman Valves, Traps and Pumps for *more heat from less fuel!*

If you are now planning enlargement or modernization of your manufacturing facilities, ask your engineers about Hoffman Controlled Steam or Hot Water Heating Systems. Or write to us for counsel on your particular heating problem. Hoffman Specialty Company, Dept. PP-2, Indianapolis, Ind.



Hoffman 50 Series Heavy Duty and No. 20H High Pressure Traps are used to drain and vent the huge heating units of the Studebaker plant. Both are distinguished by constructions which give easy access to all working parts.

HOFFMAN

Controlled Heating

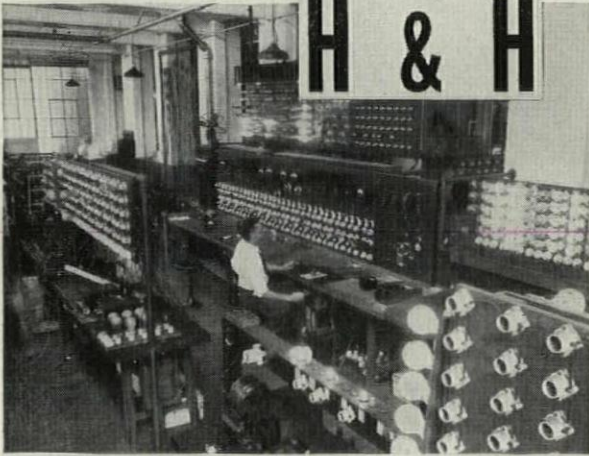
VALVES, TRAPS, VACUUM AND
CONDENSATION PUMPS, FORCED
HOT WATER HEATING SYSTEMS



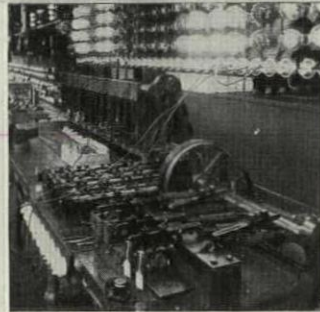
STEAM / HOT WATER

TIME-TESTED 51 YEARS; LABORATORY TESTED EVERY DAY

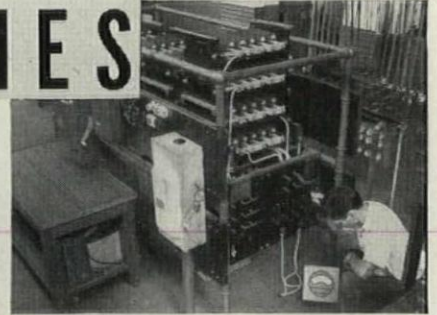
H & H SWITCHES



Engineer making insulation or dielectric tests. 750 V. Snap Switches tested at 900 V., A. C.; 600 V. Switches tested at 1500 V., A. C.

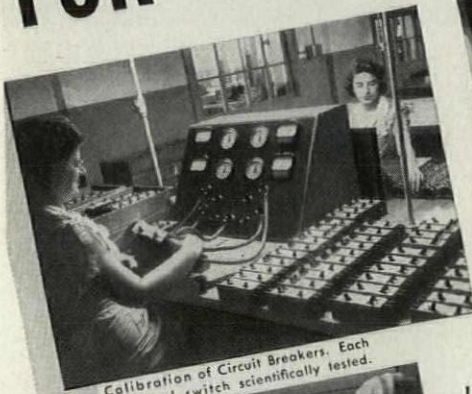


Life-testing machines for Tumbler Switches.



Non-inductive resistance load equipment. For testing higher-rated switches up to 600 Amps., 250 V.

FOR PRE-DETERMINED PERFORMANCE



Calibration of Circuit Breakers. Each individual switch scientifically tested.



Synthetic load equipment for testing the load limit of T-rated Switches.



Left: Electric oven for temperature tests. Right: Calibrating first production samples of Circuit Breakers.



Calibration of Overload Relays. Each individual switch tested and inspected.



Inspection and production-testing of Magnetic Switches, for perfect operating efficiency.

If you look for **RELIABILITY** in Switches, look for it first in the records of testing machines! Here, Reliability is measured in terms of load limits, cycles of operation with load, mechanical life-tests.

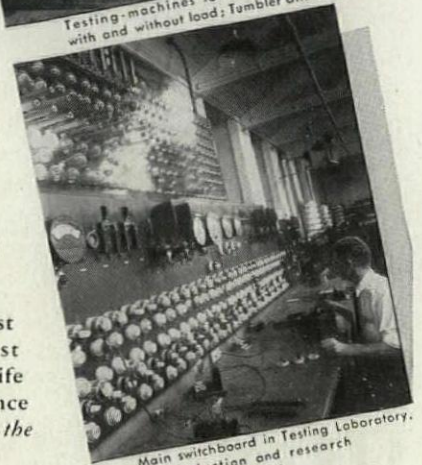
Reputation is built on the tests of *USE*. But these tests of the Laboratory are still more severe; more exacting than any Underwriters or Federal requirements.

Just as the *past* reputation of H & H Switches is a known quantity to you, here its *future* is a known quantity too, predictable from our test findings. Your complete satisfaction with every switch is pre-established by overload, heating, insulation and mechanical life-tests.

H & H Switches, you see, are not just sent out into the world with our best wishes for a long life. Their long life is **PRE-DETERMINED**, as your confidence in them is assured in-advance, *in the laboratory.*



Testing-machines for endurance and life tests, with and without load; Tumbler and Snap Switches.

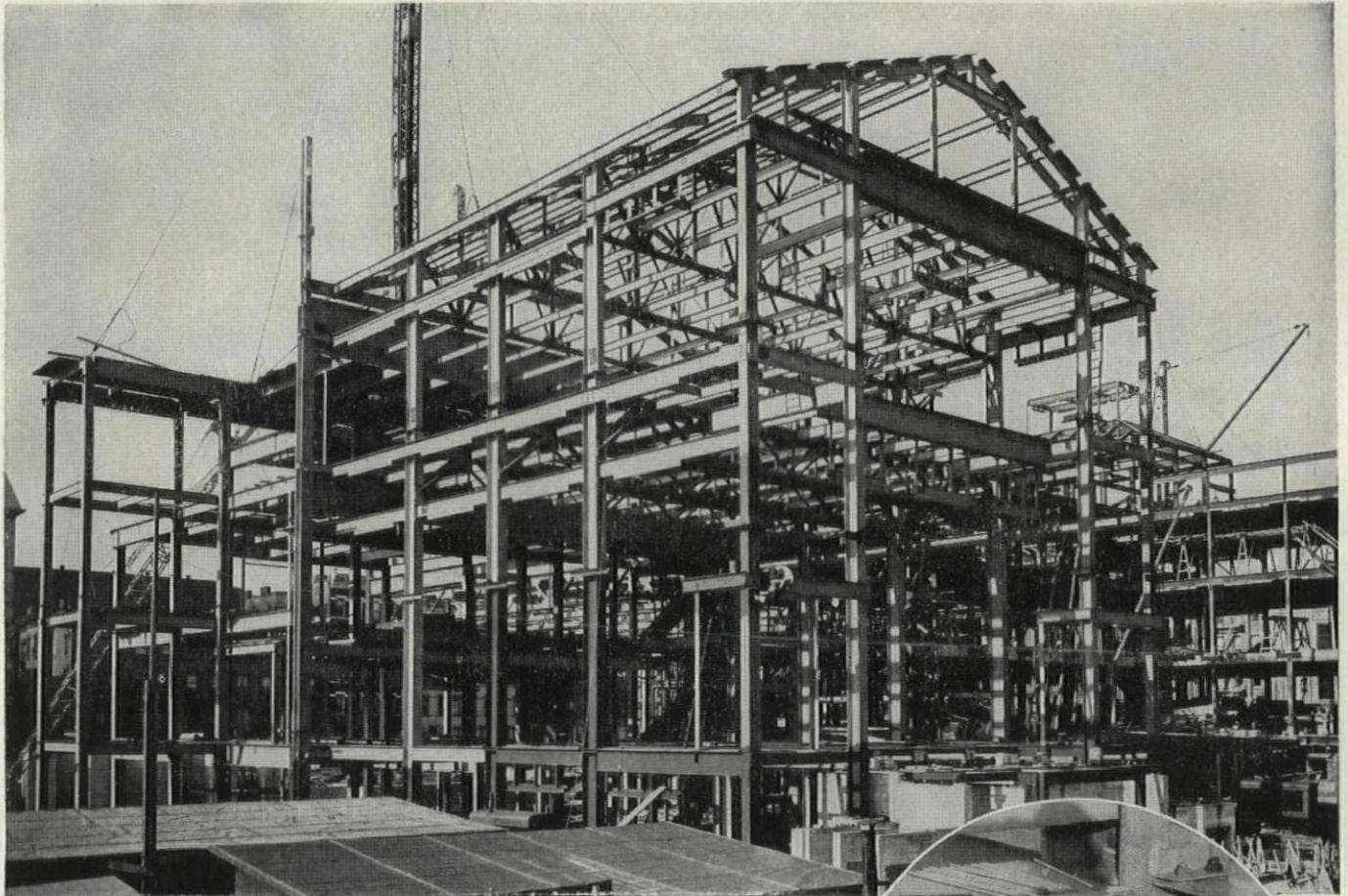


Main switchboard in Testing Laboratory, for production and research tests under overload.

HART & HEGEMAN DIVISION
THE ARROW-HART & HEGEMAN ELECTRIC COMPANY, HARTFORD, CONN.

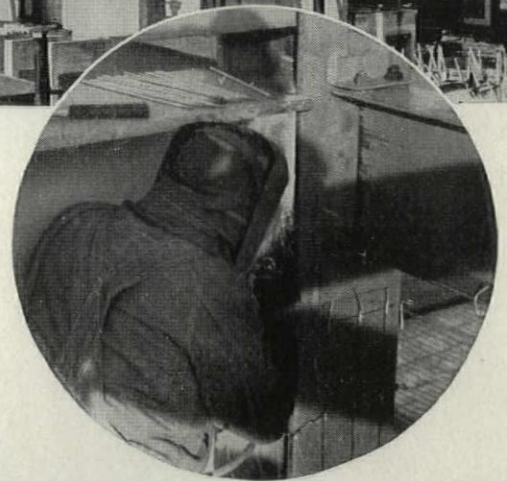


TO SATISFIED CLIENTS AND SELF PROTECTION



Welded construction — that's the direct route to stronger, lighter structures. This modern method of erecting buildings is more economical . . . it saves material . . . eliminates punching and drilling costs . . . speeds up erection time . . . reduces handling of heavy pieces in the shop. Welded surfaces are smooth, therefore easy to clean and paint. They leave less area exposed to corrosion.

Architects and designers should feel free to consult Air Reduction on all problems involving welded construction. Write for full details.



Air Reduction

General Offices: 60 EAST 42nd ST., NEW YORK, N. Y.

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Anything and Everything for **GAS WELDING or CUTTING and ARC WELDING**

The only *complete* line

THAT'S WHY ARMSTRONG CAN RECOMMEND



SUITABLE for a store, a bakery . . . wherever a decorative, durable flooring is desired for installation above grade . . . that's the story on Armstrong's Linoleum. In Glaser's Bakery, Baltimore, Md., above, Marbelle Linoleum No. 019, with Linostrips of black and Chinese red, creates a floor that will give long years of good service, plus a smart, sales-making appearance. And in Martin's Men's Shop, top, Louisville, Ky., a field of Marbelle No. 012, with insets of cadet blue and fawn, makes a floor that's high in eye-appeal.

Designing a restaurant? Building a home? Remodeling a store? No matter what your problem, there's an Armstrong Floor to fit the job.

YOU know your flooring problems. We know what every type of resilient floor has to offer toward the solution of those problems. Because we manufacture *all* types of resilient floorings, we believe we can give you unbiased advice.

Armstrong's Linoleum

Whether you're working on new construction or remodeling, you'll find Armstrong's Linoleum is a versatile flooring for any installation above grade. First of all, because it is available in such a wide range of patterns and colorings, this flooring lends itself to almost any interior treatment you want to carry out. Secondly, Armstrong's Linoleum is practical. It can be specified for areas where long years of service are required. It never requires costly refinishing. Finally, it is easily installed and inexpensively maintained.

Armstrong's Asphalt Tile

This floor offers definite advantages for commercial interiors and some residential applications. *Permanently* moisture-resistant, Armstrong's Asphalt Tile may be used on concrete subfloors in direct contact with the ground—either on or below grade. The wide variety of colors, shapes, and sizes gives almost unlimited freedom in design. Maintenance is at a minimum; expensive refinishing is never needed. Arm-

of Resilient Floors

THE RIGHT FLOOR FOR EVERY INTERIOR



strong's Asphalt Tile gives years of trouble-free service, even under severe, continuous traffic.

Other Armstrong Floors

Armstrong's *Greaseproof* Asphalt Tile is available for areas where fats or greases are apt to be spilled. Armstrong's Industrial Asphalt Tile is ideal for most factory areas and work rooms. Armstrong-Stedman Reinforced Rubber Tile and Armstrong's Linotile (Oil-Bonded) are wise selections wherever unusually high resistance to wear, low-cost maintenance, and attractive appearance are required. Another Armstrong flooring material is Cork Tile—especially suitable for areas where an extra degree of quiet is desired.

See *Sweet's*, or write for free, color-illustrated booklets that give complete facts on all of Armstrong's Floors. Armstrong Cork Company, 1260 State St., Lancaster, Pa.

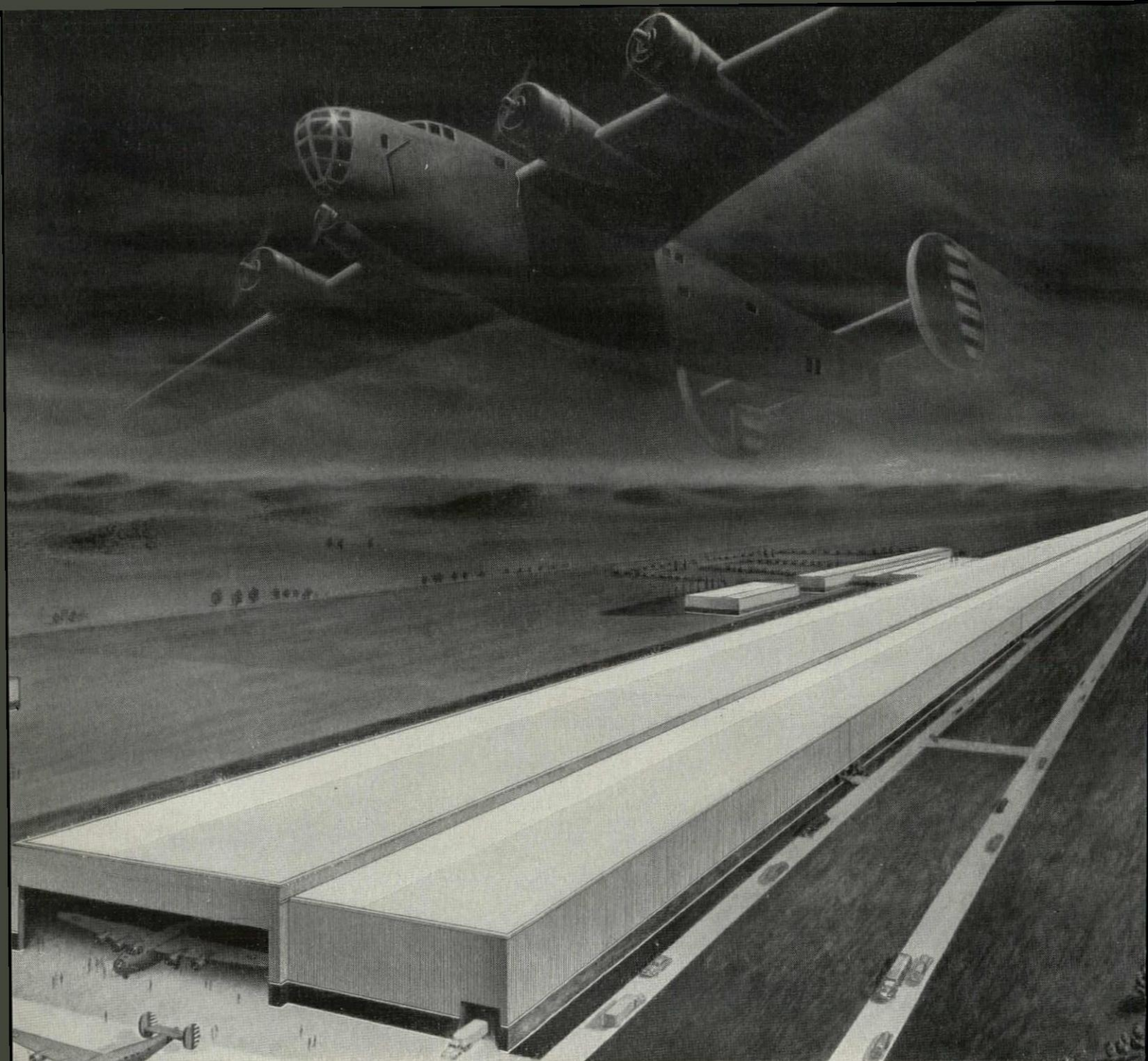


RIGHT FOR A PUBLIC BUILDING OR A PLAYROOM . . . wherever a permanently moisture-resistant flooring is needed . . . that's the story on Armstrong's Asphalt Tile. This restaurant is in the Witherill Hotel, Plattsburg, N. Y.—note the handsome drum-and-fife inset in regal blue—in a field of Tennessee Marble No. 312. And the playroom floor, installed on a concrete subfloor in direct contact with the ground, is in the home of Harry Wagner, architect, Kansas City, Mo. Spanish Red No. 205 was chosen for the field, with a feature strip of white.

LINOLEUM • ASPHALT TILE

ARMSTRONG'S FLOORS

LINOTILE (OIL-BONDED) • RUBBER TILE • CORK TILE • INDUSTRIAL FLOORS



WHERE BOMBERS ARE BORN . . .

The World's First Structures of Revolutionary Ferroglas!

Streamlined giants are these new, completely air-conditioned bomber plants at Fort Worth, Texas and Tulsa, Oklahoma.

Safeguards for democracy . . . operated by the Consolidated and Douglas Aircraft corporations for super-aircraft production in our nation's great armament program.

Each nearly a mile long and a city block wide, these enormous buildings were completed in record time with the help of Truscon Ferroglas . . . an outstanding product of Truscon's well-known engineering skill and production facilities.

Fundamentally, Ferroglas panels are built-up laminations of Truscon formed steel sheets and Fiberglas insulation. *In the essential qualities of insulation, sound absorption, fire resistance, interior light reflection and diffusion, Truscon Ferroglas panel construction excels any previous specification requirements!*

As America's largest manufacturer of steel building products, Truscon is an important factor in speeding wartime construction . . . and is ready to help plan for a greater, more powerful America tomorrow. Truscon Steel Co., Youngstown, Ohio.

The Austin Company. Designers of both plants, and builders of the Fort Worth, Texas plant. • Manhattan-Long Construction Company. Builders of the Tulsa, Oklahoma plant.

TRUSCON STEEL COMPANY

SUBSIDIARY OF REPUBLIC STEEL CORPORATION

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PENCIL POINTS

KENNETH REID, EDITOR, CHARLES MAGRUDER, MANAGING EDITOR
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J O B S F O R T R A I N E D M E N

The emergency building so vital to Victory should require the services of many architectural men. Not all of these jobs have been filled and it is the present aim of PENCIL POINTS to *stimulate the employment of architectural men* in the War Effort. Trained workers must not be left idle when their planning knowledge and skills could bring Victory closer!

How to do this quickly and most effectively? PENCIL POINTS has asked the A.I.A. (See letter across-page) to furnish desk space in the Octagon House for a full time man to be paid by PENCIL POINTS. He *will* seek to stimulate the employment of architectural men. We hope to have their answer shortly, but in the meantime our man will be working in Washington on behalf of *every architectural man who really wants a war job.*

To tackle this we must have ammunition! A letter has been addressed to every member of the profession, enclosing a card to be returned immediately, so that we may create an active file of employment information. Our letter reads as follows:

"All through this land there are architects, draftsmen, designers, etc.—able, experienced, and anxious to serve their country. Many of them are already engaged one way or another in Government service. But there are many others who are troubled because they have not yet found a place in the program. They are being frustrated in two respects—they are not being permitted to serve and they are denied the opportunity to earn a living.

"The skills and potential energies of these men must not be wasted. Eleven and a quarter billions of dollars worth of construction needs qualified men to accomplish it. An architect is a man of *many* skills which are of value to his country today—skills which may be useful in many fields. In various phases of supervision, of inspection, of procurement, of ordnance and supply, the broad training of the profession can be utilized.

"PENCIL POINTS believes that a fight must be made to secure for these men a place in the Victory Program. PENCIL POINTS wants to make that fight shoulder to shoulder with the A.I.A. and whatever other agencies may join in. We believe this fight must be carried to Washington. We want to go to Washington and say, 'Here is a group of men whose skills are not being utilized while the nation is occupied with the most gigantic construction, material, and shipbuilding program in World History. Tell us where there is work to be done and we can tell you how the architectural profession of the United States can do the job.'

"In order to do this we must have facts. We must be armed with the knowledge, with information

as to what members of the profession are not being used, how many, who and where they are and what their professional experience has been. Enclosed is a card asking a few questions. Answer them and send the card back at once in the enclosed postpaid envelope.

"We will assemble the answers geographically, file them by special skills and experience and say to the proper authority, 'Are you looking for skilled men? We can tell you where they are and what they can do. And we can tell you a lot of things they can do in their own communities or elsewhere which you don't realize.' This is not a promise of a job for you, if you want one, but it is a promise to do battle on your behalf. Furnish us the information and we will go to the Washington Front for you."

The questions asked on the enclosed card are:

PENCIL POINTS EMPLOYMENT CENSUS Washington Office

ACTIVE FILE

Name DATE

(Please Print) Age

Street

City State U. S. Citizen?

1. Registered in what States?

2. Professional education

3. How long in practice?

4. Range of experience (Please check types):

<input type="checkbox"/> Group Housing	<input type="checkbox"/> Transportation and Storage
<input type="checkbox"/> Residential	<input type="checkbox"/> Industrial Plants
<input type="checkbox"/> Club, etc.	<input type="checkbox"/> Hospitals, Asylums
<input type="checkbox"/> Educational	<input type="checkbox"/> Administrative, Governmental
<input type="checkbox"/> Religious	<input type="checkbox"/> Other Buildings
<input type="checkbox"/> Recreational	
<input type="checkbox"/> Business and Commercial	

5. Special skills—engineering, shipbuilding, etc.

6. What military experience?

7. Must you remain in your own locality? Yes No

8. Are you willing to go anywhere in the United States? Yes No

9. Anywhere outside of the United States? Yes No

10. Is your health such as to permit you to live anywhere?

11. What are your monthly income requirements?

12. In case of a salaried job, please check the work for which you believe you are best qualified. (Please check types):

<input type="checkbox"/> Administrative	<input type="checkbox"/> Heating and Vent. Design
<input type="checkbox"/> Architectural Design	<input type="checkbox"/> Research
<input type="checkbox"/> Drafting and Detailing	<input type="checkbox"/> Plumbing Design
<input type="checkbox"/> Specifications	<input type="checkbox"/> Electrical Design
<input type="checkbox"/> Superintendence or Inspection	<input type="checkbox"/> Structural Design

13. When would you be available for work?

IF YOU HAVE NOT RECEIVED YOUR CARD WRITE IN YOUR ANSWERS HERE AND SEND TO THE EDITOR NOW!

P E N C I L P O I N T S

PUBLISHED MONTHLY FOR
THE ARCHITECTURAL PROFESSION
BY REINHOLD PUBLISHING CORP.
330 WEST 42ND STREET, NEW YORK

EDITORIAL OFFICE

Mr. Richmond H. Shreve, President
American Institute of Architects
1741 New York Avenue, N. W.
Washington, D. C.

February 5, 1942

Dear Dick:

The need of the moment, I think we can agree, is to reorganize as speedily as possible the productive forces of this country. This reorganization is going on every day, steadily, but still perhaps too slowly. Anything that can speed the process is obviously desirable.

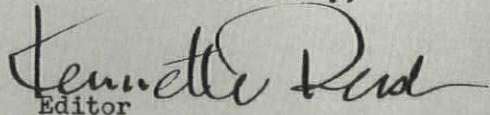
One of the details of the whole picture is the architectural field. It seems to me vital that no usable talent and energy possessed by any architectural man should be left idle while there are things to be done that he could do. It seems to me to be the responsibility of our only national organization - the A.I.A., with its State Association affiliates - to help vigorously in finding places where architects can serve and finding the architectural workers to fill those places. The Institute Board recognized this need and has put Ned Purves, of Philadelphia, in its Washington offices at the Octagon House. He is faithfully performing his duties, but no matter how able or faithful he is, there are limitations of time and energy to which he is subject.

PENCIL POINTS wants to help. As our first step, we are this week taking a nationwide census of available and willing architects, draftsmen, specification writers, etc. With the facts in hand, WE PROPOSE to put an able, energetic man in Washington to do as much as possible to establish and maintain liaison between the needs of Government and the men who can satisfy those needs.

Wishing no wasteful duplication of effort or working at cross purposes it has occurred to us that we might help most effectively if our man could work side by side with Ned Purves, supplementing his efforts. We'll agree to supply and pay the man, if you will let him use desk room in the Octagon House as his base of operations. The facts we accumulate can be pooled so that the whole activity may be carried forward more intensively than might be possible for either the A.I.A. or PENCIL POINTS working alone.

If you find this proposal basically acceptable we will be glad to work out the details with you right away.

Yours most sincerely,


Editor

KR:GL

D E S I G N

EDITOR'S NOTE — Recognizing Long-range Planning as one of the essentials of an enduring peace, the Planning Engineer and the Program Analyst of the Public Work Reserve have sought to define, in the article below, the part that the Planning Professions should play in preparing for the Post-War Period. They believe, with Dr. Luther Gulick, of the National Resources Planning Board that, "if there is anything that the future holds, however this war comes out, if there is anything that is certain, it is that this will be the beginning of a great era of redesigning of cities to make them better places for men to live in." It is contemplated that the staff of the Public Work Reserve will serve throughout the program only in an advisory capacity, local political administrators exercising the controlling power in the vast reconstruction program projected for the nation.

The war is not only accentuating old problems but is creating new ones. We have before us the continuing problems of conservation and effective utilization of natural resources—of land, of water, and of energy resources. Despite planned and unplanned efforts, individual and collective efforts, we still have with us the multifarious problems concerning human resources—of housing and public works, of employment and health, of welfare and recreation—just to name a few. And these will grow as the war progresses.

When the war is over, there will be, in addition, a complex and highly-g geared machine which will have to be demobilized. Defense industries will have to be adjusted to peace-time needs and peace-time production. Employment will have to be found for workers in defense industries, for youths entering the labor market, and for demobilized soldiers. Provision will have to be made to prevent cities which flourished in the sun of the defense effort from falling into decay. Something will have to be done to prevent uncontrolled labor migrations which may reach—or exceed—the rural migration of farmless families of a few years ago. Taxation and fiscal policies generally will have to be readjusted. Assistance in terms of men, money, and material will have to be furnished for the reconstruction of a prostrate Europe.

These and countless other social and economic problems of tomorrow call for *direct action* now if we are to avoid the chaos of 1920 and of the early 1930's. In those latter days, just as today, there was an urgent need to meet a critical situation. So we resorted to "made" work. Criticism naturally and inevitably followed. What the critics—and those on the sidelines too—failed to recognize was that something had to be done; it had to be done fast, and there were no guides, no precedents to go by.

Well, today we have some guides, plus the challenge of past mistakes and the stimulus of national

W E M U S T

AN ANALYSIS OF THE

BY ARTHUR B. HOLMES

crisis to do something about these problems. In current long-range planning, moreover, we have the opportunity to take a forward step toward establishing an improved economy and a more secure society, rather than to merely re-establish the pre-war order.

Happily, some effort is already being made in this direction. Long before we entered the war, the President directed many governmental agencies—old-line as well as new—to lend their efforts to long-range planning. At the present time there are more than fifteen Federal agencies and scores of private groups devoting attention to specific post-war problems. Included among this number is the Public Work Reserve.

Early in the summer of 1941, the Public Work Reserve was established under Presidential authorization to build a national "shelf" or reserve of work programs which *local* and *State* agencies feel are needed in the public interest. The organization was set up under Federal Works Agency, receives counsel from National Resources Planning Board, and operating funds from WPA.

Today, there is a tremendous amount of public work which needs to be prosecuted in the public's interest. Preliminary estimates indicate that such work alone would exceed \$4,000,000,000 a year and would require the services of hundreds of thousands of professional, skilled, semi-skilled, and even unskilled workers. Much of this work is as vital to the war effort as to our post-war life, such as the building of needed roads, housing, industrial buildings, hospitals, and vocational schools. And whether such work is undertaken by government or private industry—and both have a place in so gigantic an undertaking—the architect, on the public pay-roll or in a private or consulting capacity, can play an increasingly important role, *if he, in turn, will plan his professional future.* This point was driven home forcefully by your editor in his December 8th supplement to PENCIL POINTS, when he called upon the architects of the Nation to "Get whatever part of this program . . . [they] . . . can", as private practitioners, as assistants to other architects, or as salaried employees in governmental work.

Important as public work is, however, it alone cannot employ all those thrown out of work as a result of the curtailment in war activities. The

LOOK AHEAD

PUBLIC WORK RESERVE

AND JOSEPH HIRSH

problem of maintaining an even social and economic keel after the war is over involves many factors beside public work. These factors are receiving special consideration by the numerous Federal agencies as well as by private organizations engaged in long-range planning.

As an agency interested in public work, however, the Public Work Reserve has *two express purposes*. One is to secure from all local and State governmental agencies a program of work which they consider necessary to the public good for the next five or six years. Of course, when these projects are undertaken, they will require the employment of hundreds of thousands of workers all over the country. The second purpose is to assist these governmental agencies in the development and maintenance program for a long-range period.

The Public Reserve thus will assist State and local communities to prepare for peace by having them list their needs, continually analyzing their present and probable future revenues and expenditures, and laying comprehensive programs. The program will include needed construction work, such as roads, schools, hospitals, sewage disposal and water supply systems, and new or expanded public services in the fields of recreation and education, health and welfare, police and administration—just to name a few. The translation of these programs into actual operation will then mean two things—an enrichment of community life in the best tradition of American democracy, and the employment of large numbers of people over a period of many years before actually catching up with existing needs. The fulfillment of these objectives calls for the development by local governmental agencies of plans which will make work available for immediate and delayed operation (or the telescoping of several years' work into a shorter period) as the need for increased employment becomes apparent and the funds available.

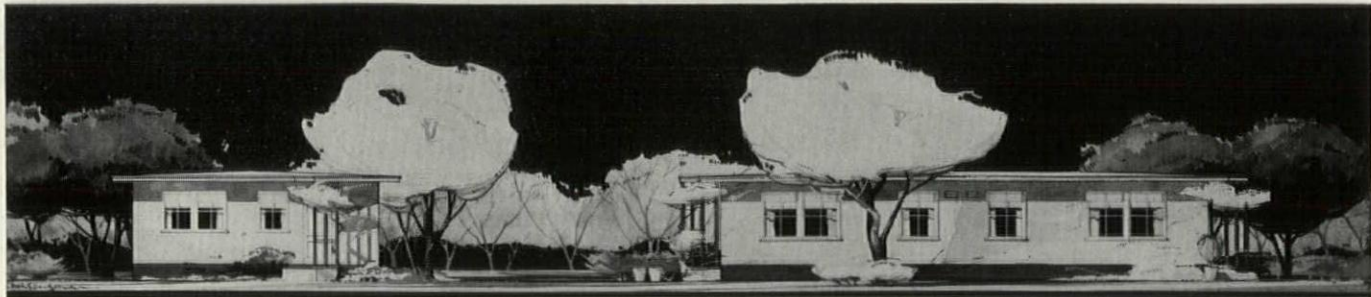
Since the major sphere of operations of the Public Work Reserve lies in the local communities themselves, it has established four regional offices, each in charge of a Field Representative, in New York, New Orleans, Chicago, and San Francisco. Every State is represented by a State Director (in the case of smaller States there is one Director for two or three States) and a staff of assistants—engineers, public services experts, and financial analysts—

who will assist local officials in the development of their programs. In addition to planning and programming of needs, the Public Work Reserve staffs plan to aid in: the development of studies, surveys, and designs necessary to the translation into operation of every project listed with the Reserve; encouraging and assisting governmental agencies in comprehensive planning—in relating one project to another, in establishing priorities of work to be undertaken, and in the development and periodic revision of long-range programs based upon the financial resources of local governments themselves; and finally, annually reviewing and revising the planned projects so as to keep them up-to-date. Obviously such a program has important implications so far as architects are concerned. In a sense their position with regard to the Public Work Reserve program as well as to public works programs generally is similar to that of the engineers. Viewing this position in the light of recent developments in Washington, it would not be amiss to refer to S. 1617, a bill now before the U. S. Senate, which was proposed to amend the Employment Stabilization Act of 1931. The bill calls for the appropriation of certain sums of money (through the Federal Works Agency or other agencies) to the States to make examinations, surveys, investigations, *architectural and engineering* plans and specifications, and comprehensive plans and programs to facilitate and expedite the selection, financing, and inauguration of public improvements, public works, and related activities. Hearings on the bill were held before the subcommittee of the Committee on Education and Labor during November 1941. At these hearings, the Secretary of the American Society of Civil Engineers, George T. Seabury, submitted:

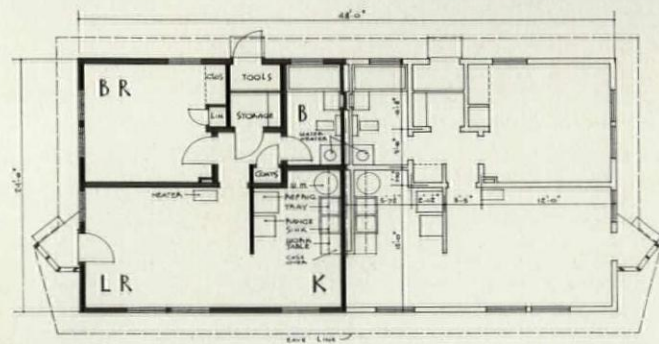
"that local agencies be made responsible for the actual planning and work on approved projects. The engineering planning also should be decentralized to the locality in which the projects are to be built. Plans for approved projects must be prepared by qualified, competent, and experienced engineers selected by the local agencies which are responsible for the execution of the work, and should be carried out by the already existing technical staffs of State, county, and city departments, public utilities, and by those engineers in private practice in the locality.

"It is believed that the country be served best by the use of engineers in private practice, in State and county departments, and in the utilities; it will not be served best by the assemblage of these engineers into Federal service on a salary basis. Engineers resident in the locality are best informed concerning local physical conditions, such as soil, floods and terrain."

By substituting *architectural* for *engineering* in this, you could approximate the position that architects can play in public works programs during the war period and afterwards. Frankly, it now rests with architects themselves as to how much or how little of the job they are prepared to and willing to undertake.



A



HOUSING LONG BEACH,

COMMENTS BY

In the metropolitan area of Los Angeles are concentrated fifty percent of the nation's aircraft industry and twenty-five percent of the shipbuilding activity of the Pacific Coast. During the past year these two industries have increased their number of employees by 74,000, while other large and small manufacturing concerns engaged in defense work have also been steadily expanding their facilities for production. Since more than half of the new employees have come from without the area, there has been created a housing shortage of such magnitude and character as to exceed the capacities and objectives of privately financed building enterprises.

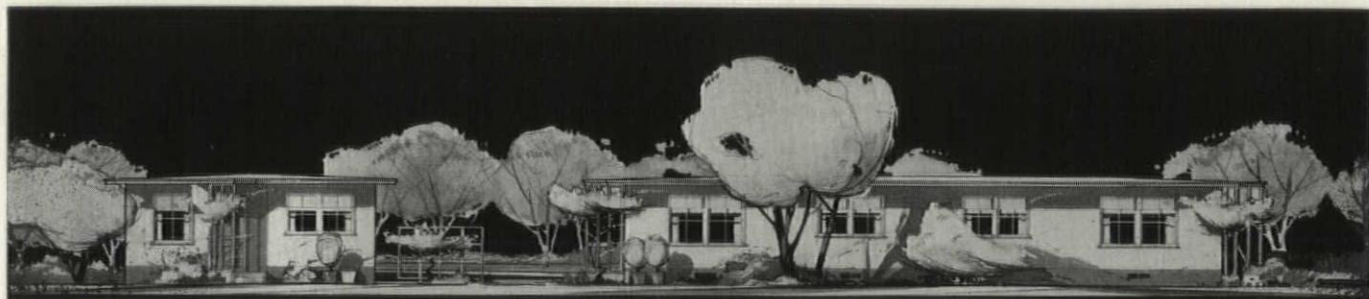
The first of several large housing projects in this area for the Division of Defense Housing of the Federal Works Agency is now under construction. The project is located on eighty acres of unimproved land, approximately four miles from the west basin of the Los Angeles Harbor, about which lie the principal shipbuilding yards. As the property is situated at the intersection of two of the major highways in the regional traffic plan, the buildings have been given protection from the noise and danger of the highways by buffer strips of planting and parallel service roads. The project may be entered at only a limited number of points. In the early studies for the site plan the 180 buildings were faced upon a gridiron type of street layout, similar to that used in neighboring subdivisions. This arrangement not only lacked interest, but opened the roads of the project to traffic from the north, and forced children going to the large community playground to cross several streets. The drainage of the property also offered

a problem, as there is a fall of but a few feet from the northeast to the southwest corners. By developing a scheme with diagonal roads an air of freshness and movement has been given to the plan, and the practical considerations of drainage and of pedestrian and automobile traffic have been skillfully handled.

Throughout the project, off-street automobile parking space has been provided at the end of each service court, so that no unit is more than 200 feet distant from a parking compound. These compounds are 36 feet in width and are separated from the interior roads by planting islands, and automobiles can be backed and turned about without danger from passing motorists.

In arranging the buildings on the site an east-west module of 175 feet was suggested by three existing sanitary sewers at the western end of the property. The buildings are grouped about service courts 60 feet wide. There is a minimum of spacing of 20 feet between two one-story houses and 35 feet between a one-story house and a row house. Most of the walks pass through the service court, connecting the units with a screened-in enclosure for trash, garbage pails, and an incinerator, located at the end of the court and adjacent to the parking compound. The living rooms of the units face out upon the garden areas which separate the groups and which are landscaped with lawn and trees. Several groups of buildings form courts large enough for paved play yards, with spray pools, playground equipment, pergolas, and benches. In addition to nine such courts, the project has an area 280' x 440', which has been set aside for a Community Building and for a large playground.

FWA DEFENSE HOUSING PROJECT—EUGENE WESTON, JR., ARCHITECT

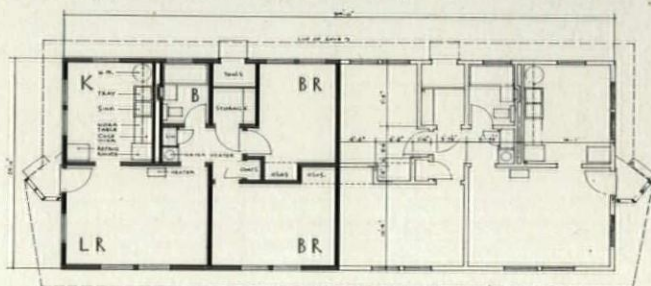


B

The "A" unit (across-page) has one Bedroom; the "B" unit (plan and elevation here) has two Bedrooms

PROJECT CALIFORNIA

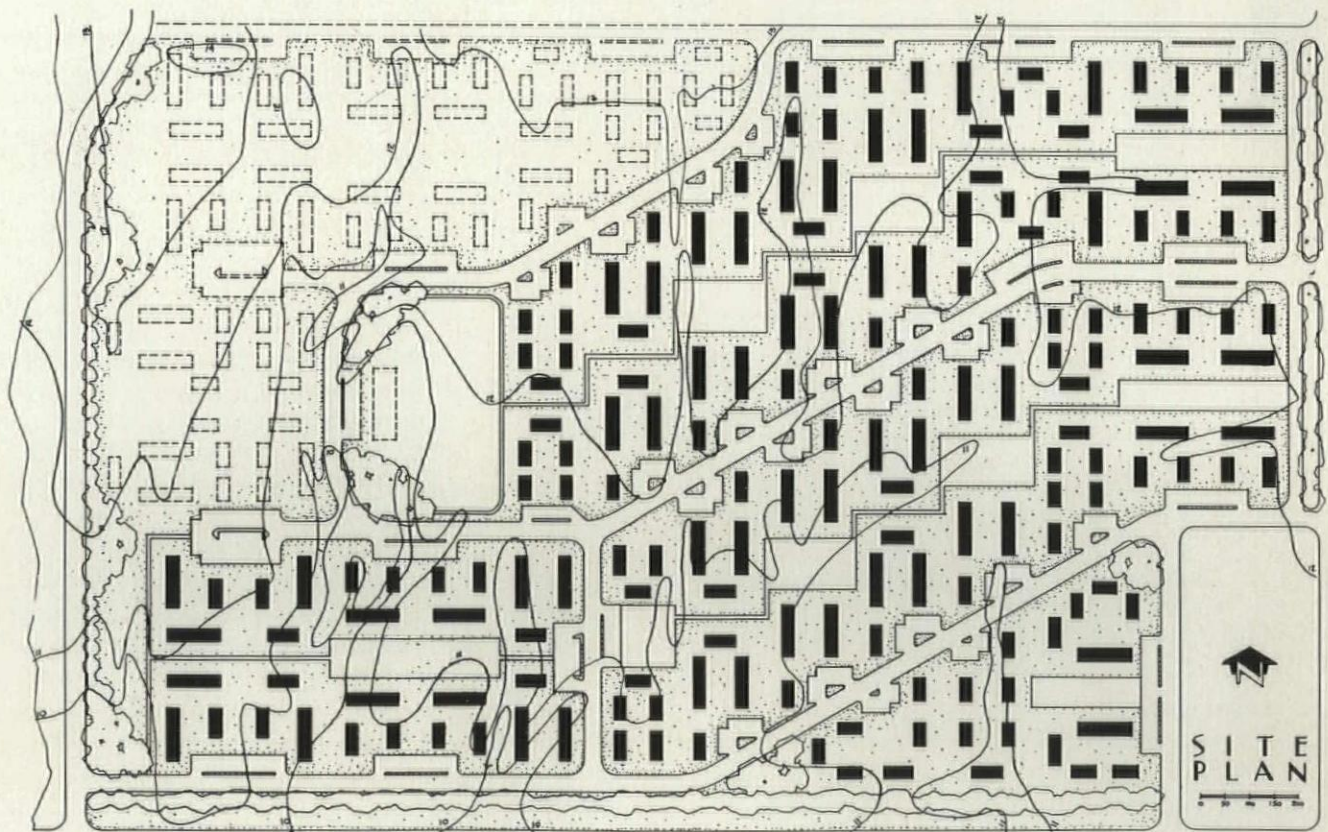
PAUL R. HUNTER



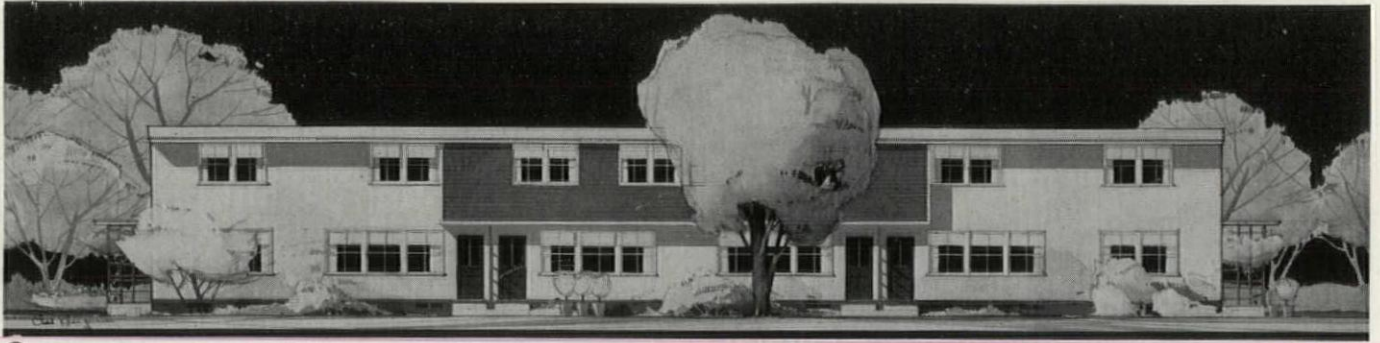
The program of the Division of Defense Housing required units of one, two, and three bedrooms in the ratio of 20 percent one bedroom, 60 percent two bedrooms and 20 percent three bedroom units. In this project there are 60 one-story twin one-

bedroom houses, 60 one-story twin two-bedroom houses, and 60 two-story row houses, each row house containing four two-bedroom units and two three-bedroom units. A total of 600 units is thus provided. The project has been planned to allow

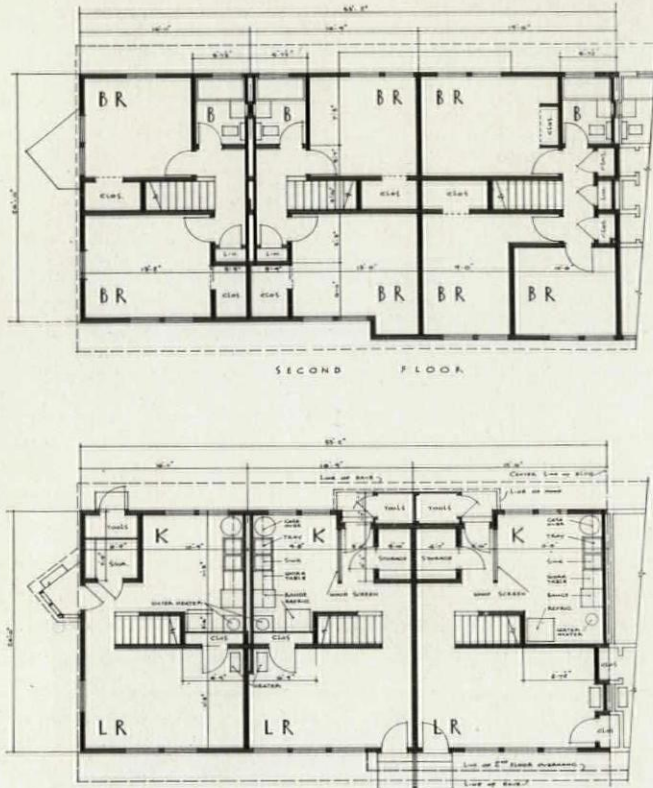
The site was developed so that the Living Rooms of the various units face the garden areas which separate the groups, and which will be landscaped. Some of the buildings form courts large enough for paved play yards



AND WALTER L. REICHARDT, ASSOCIATE ARCHITECT, LOS ANGELES



C



The "C" type row houses (plan and elevation above) have either two or three Bedrooms. All units are of wood frame construction. Exterior effect is obtained through the spacing of the large double-hung windows, overhang of the roof, and through the use of color. There are 600 units in this housing project

for an addition of 200 more units, which when completed will give an average density of ten families per gross acre.

The dimensions of each unit of the twin one-bedroom "A" houses are 24' x 24', and each unit of the twin two-bedroom "B" houses 24' x 29', standard lumber lengths determining the widths. The "C" type row houses are 24' wide, with 16' for the two-bedroom units and 20' for the three-bedroom units. The buildings are of wood frame construction, with wood floor joists over continuous footings, plaster inside and out, and composition roofs,

conforming in general to the minimum construction requirements of the FHA.

In the sizes of rooms and the type of equipment provided the project follows closely the standards developed by the USHA for this region. In addition to the usual number of rooms each unit has a tool room for garden tools, hose, and the like, approximately 2' x 4', with access by a door on the outside. All plumbing is located back to back in pipe spaces, and in the two-story houses the baths are placed directly over the kitchens below. Heat is provided by means of a vented gas console for each unit, located in the living room.

Interest in the exterior design of such simple, direct buildings is dependent upon the spacing of the large double-hung windows, in the overhang of the roof, and in the use of color. About each building is a low dark-colored dado to take care of the dirt splashed up by rainwater. The walls are painted in shades of ochre, tan, terra cotta, and warm grey, with light-colored trim. The roof has a white surfaced cap sheet. At the entrance doors of the twin houses the roof projects to form a hood. Large open lattice work is used at the entrances of the row houses and in the supports for the clothes lines. All interior woodwork, except certain cases in the kitchens and baths, is stained in shades of light brown. The walls of the interiors have integral color in the last coat of stucco.

Of particular interest in this project is the net construction cost per dwelling unit, exclusive of stoves and refrigerators, which is the surprisingly low amount of \$2,220. The contract for the construction of the 600 units, including stoves and refrigerators, is \$1,414,420. The contract for the site development is \$302,654.03.

Construction was started November 1 and the first unit was to be completed in a period of 120 calendar days. The project will soon offer to the defense workers in the shipyards good housing at reasonable rentals. Families will live in well designed units in a carefully planned community, where there is plenty of sunlight, air, and space, and where children may play free from the restrictions of congested areas and safe from traffic hazards.

FWA DEFENSE HOUSING PROJECT AT LONG BEACH, CALIFORNIA

DESIGN STANDARDS

IN WAR TIME

BY TALBOT F. HAMLIN

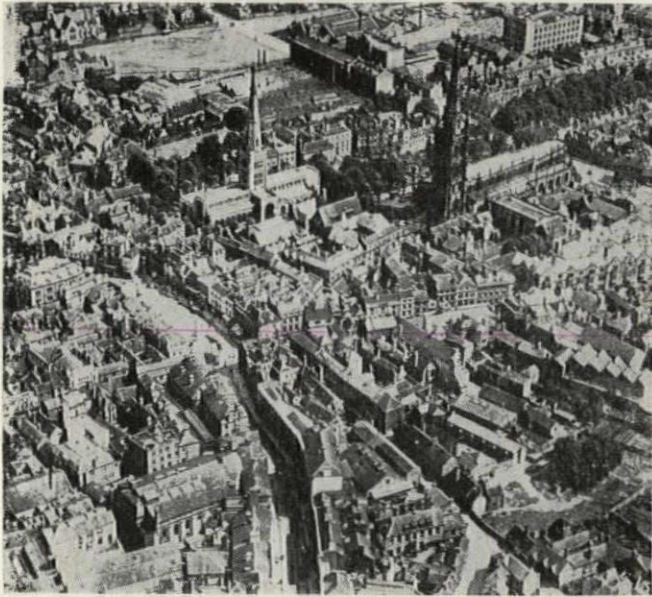
One of the most important tasks facing the architectural profession in America today is the preservation of standards—standards of all kinds—standards of construction, standards of detailing, standards of design, standards of practice, and especially standards of thinking. The *temptation* to lower standards is terrific. With ordinary practice cut to the bone, with the need for speed and cheapness becoming more and more demanding, it is so easy to design sloppily; and for many who have not been able to get professional work of defense importance or are prevented by age or some disability from more direct participation in the country's national activities, who see ahead of them only a forced inactivity of uncertain duration, there is a tremendous temptation to forget the continuing problems the profession holds out, or to think of them and of architecture with only a sort of cynical disappointment.

The problem of the preservation of material standards in design and construction is easier to meet than the problem of intellectual standards, for the forces making for the let-down of material standards are more obvious and more easily countered. The architect with conscience, whether he is designing temporary or permanent buildings, factories or housing or camps, will necessarily bring to bear upon his problem the best thought and the greatest imagination of which he is capable, even though he realizes that low cost and speed are parts of his problem. He must be prepared, however, to fight ignorance and false thinking in order to make his thought and his imagination effective. He must not under-estimate the enormous pressures toward shortsightedness and false values that unfortunately have developed in this time of emergency.

The fact that the House of Representatives even considered the Lanham Act in the form in which it was first passed by them is significant of much more than personal pique against the USHA; it is

significant of the power of the forces which aim to destroy standards carefully built up over a period of years. The passage of that Act by the House has at least the merit of showing to the architectural profession the power of the forces it must combat in order to preserve for the nation standards of elementary common sense as well as standards of amenity in design. For it was conditioned by but two things: (1) the shack-and-barracks psychology, and (2) the effort to recreate real estate speculation as a controlling element in long-term planning. The Lanham Act houses were to be both temporary and permanent; yet the result of the Act as the House passed it originally would have been not only to insure that they were designed and built by people who knew next to nothing about the larger elements of city planning and housing, but also to lead to a financial chaos that would almost assure the degeneration of the community, besides penalizing the defense workers who were forced to pay high rents for or to purchase these shelters.

The quality of some of the defense housing groups already constructed (not the few good examples which have been wide published, but many others which have been shown, if at all, only in advertising and trade leaflets) is so bad, so stupid, so ill-considered, both architecturally and from the larger planning points of view, as to show how dangerous this whole pressure to relax standards is. To be sure, they furnish a roof and the minimum elements of shelter necessary for some kind of family living; but of those greater advantages of community amenity, even of community efficiency, which a trained imagination could have furnished *at no extra cost* there is not a sign. These are shelters in stupid clusters—drab, discouraging, and ugly. I do not think it is fantastic to imagine that community pride and community affection have something to do with the morale and the efficiency of workers. In order to pay the great

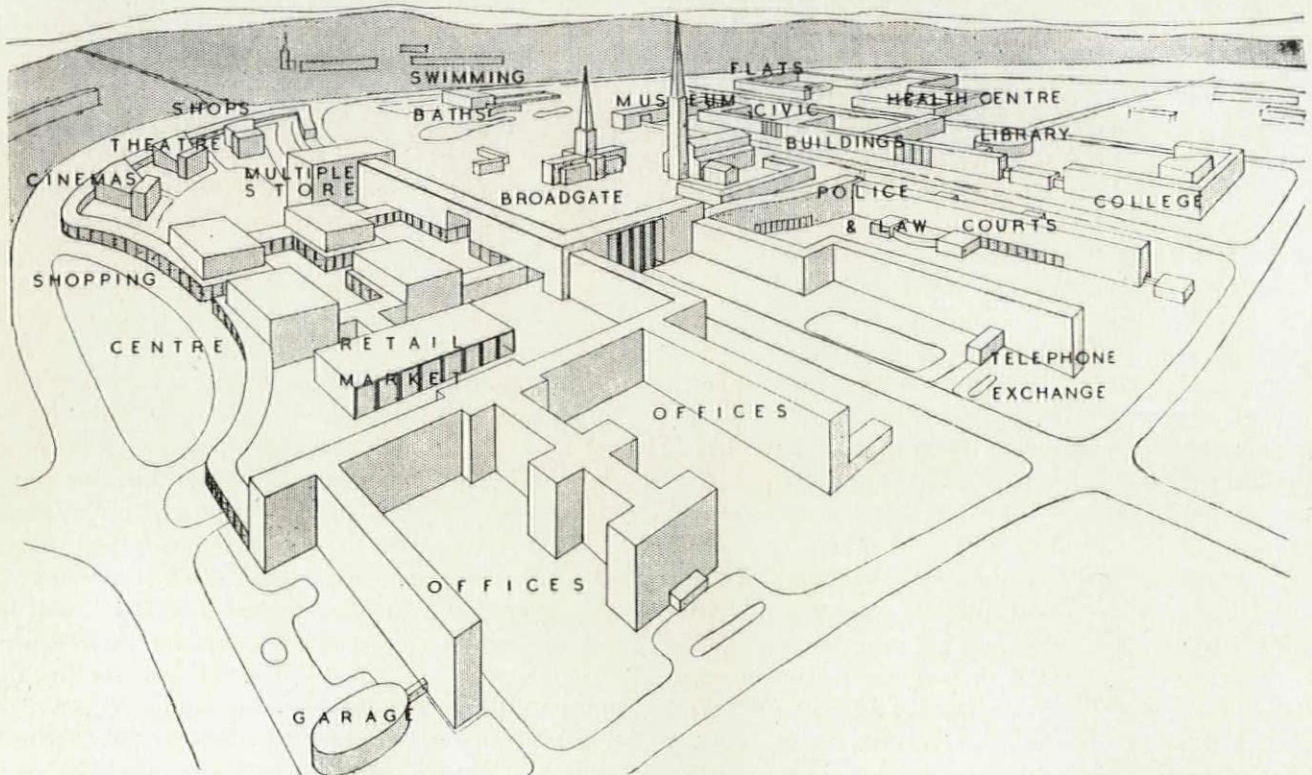


THIS MUST NOT HAPPEN AGAIN

"When the entire central area of Coventry was blasted there rose on the ruins . . . carefully planned and designed rows of temporary shops." (See across-page.) "Coventry saw the emergency both as an immediate challenge and in relation to the entire future, and at once set about developing a general scheme for building a central part of the town more decent, more beautiful, and more efficient than the old had been . . . used the terror of its destruction as an opportunity for thinking about a better Coventry." Above: a pre-war air view of the historic City Center. Below: perspective of proposed ultimate plan. (Both photos from "The Architect & Building News," London.)

debt the nation owes to its hundreds of thousands of workers should it not furnish them more than mere shelter—with places where a pleasant and inspiring community life can develop? To place a thousand shacks crowded together on an ill-conceived community plan without facilities for education, recreation, or in some cases even decent local shopping possibilities, is not enough. It is destructive of the very ideals we are supposedly supporting with our entire power, and it is to create vast and immediate slum areas, after the emergency is over. We must preserve community standards, and only the architects are in a position to see that this is done.

Around every camp and many new defense communities there is growing up a shack settlement, a sort of new Hooverville, the result not of the depression but of industrial and military activity. These manifestly temporary and thoughtless aggregations of nails, timber, and building paper are perhaps inevitable; but they, too, like some of the ill-considered camp and defense housing structures, show the pressures at work. What the architect must demonstrate is that even cheapness and speed are not necessarily of themselves destructive of design or detail standards. Seven-eighths-inch boards *can* be used with thought, and windows and doors, however cheap, *can* be placed in a designed relationship. Schindler once designed at Richmond Shores, in California, a summer house with an exterior entirely of exposed building paper. Forms *per se* have their qualities of proportion and effect, even when developed in the cheapest of materials. Details for the connections between different materials, for the handling of



eaves, and for the jambs and heads and sills of openings *can* be thoughtful and efficient, neat and good-looking, even if the materials are of the most temporary types.

The work of the San Francisco architectural office of the Farm Security Administration, which was commented on in *PENCIL POINTS* (November, 1941), shows how the preservation of real design standards may serve not only to produce buildings that are a credit to their community as well as a delight to those who live in them, but also to lower costs by reducing the amounts of material or the complications of the usual thoughtless detail. No, speed and low cost do not necessarily mean the abandonment of architectural standards. Quite the reverse.

There are plenty of examples of the value of preserving standards even in emergency architectural work. In our own country there is Yorkship, for instance, that lovely community near Camden built for shipyard workers during the last war; it has been a national asset ever since its construction. There is much of the housing which the British built during the last war too—places like Well Hall, near Greenwich, or some of the work around Bristol and Birmingham, now twenty-five years old. Of course those were permanent communities. The supporters of shack psychology point to our vast need for temporary structures and say, "Why worry about standards in them?" Yet it is even more necessary to preserve standards in temporary work, for temporary structures have a strange way of becoming permanent or of lasting years after the emergency that gave rise to them. And permanent structures without design, without care, inevitably become slums or sore spots as devastating sociologically as they are distressing aesthetically.

Even in temporary structures we have excellent examples of the value of preserving standards, in countries much more unhappily situated than our own; in countries where the physical devastation has been terrible and the need for immediate and temporary structures to preserve even a modicum of civic life has been compelling. The temporary shops the Dutch have erected in various destroyed areas have been excellent in form and interesting in detail; in these the architectural mind has seized upon the opportunity which the necessity furnished. In Rotterdam and elsewhere, timber buildings have arisen that are not simply adequate but beautiful. What could be more enheartening to a harassed population than this immediate reappearance of beauty, of efficiency, of design, even though in the most temporary, makeshift elements?

When the entire central area of Coventry was blasted there rose on the ruins not ugly shanties hysterically extemporized, to be a continual impetus to disgust and even despair, but carefully planned and designed rows of temporary shops



Temporary shops in Coventry are built of 2" x 4" wall studs covered on the outside with corrugated asbestos-cement sheets, inside with wallboard. Shops are designed back to back with roofs falling to a center-line box gutter. Remodeling by D. E. E. Gibson, City Architect. Photos from "The Builder," and "The Architect & Building News," London

and all the little buildings necessary to house the reborn civic life. Their decency of proportion and careful detail were an eloquent expression of the determination to live again; for the city architect's office accepted the challenge, not by saying that "an emergency is no time for design," but rather by realizing that it was an opportunity for the best and most careful design.

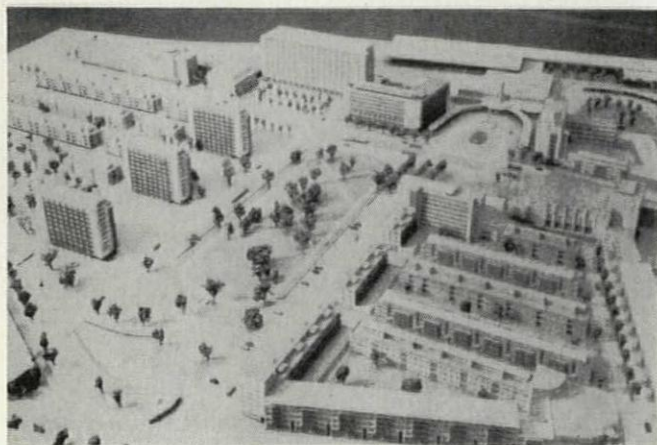
And more. Coventry saw the emergency both as an immediate challenge and in relation to the entire future, and at once set about developing a general scheme for building a central part of town more decent, more beautiful, and more efficient than the old had been. And just here, I think, comes the second great lesson for American architects. Our emergency construction today must be seen in the light of the needs of tomorrow. In other words, we must preserve our standards of architectural thinking so that when the great opportunity comes we will be ready to face the problems of planning and reconstruction for the tre-

mendous public improvements that will be our main defense against economic prostration.

This, it seems to me, is in the long run an even more important side of the problem. To preserve at a time when immediate prospects are dark the ability to think creatively is a duty that requires the maximum of our will. Now, when ordinary construction is at a standstill, we must not cease to think. Is it not rather that we are given an extraordinary opportunity to examine what we have accomplished so far, to evaluate its real gains, to see its real failings?

The fact that at the present time the architectural profession stands low in the minds of the House of Representatives ought to be an incentive to a more careful examination of the position of the profession in American life. If architects frequently have taken housing jobs, for instance, as a mere machine for keeping an office open and have attacked this most fascinating and rewarding of problems in a listless and routine manner, can we blame others for not being impressed with the results? If we have let the initiative in the attack on the great problems of community betterment slip from our hands, can we blame businessmen and legislators and government authorities for not coming to us eagerly? If again and again we have failed to make the most of scientific building development, need we be surprised that frequently industry turns its back on us?

There is opportunity for the most constructive thought. Just as Coventry used the terror of its destruction as an opportunity for thinking about a better Coventry, so the architects of America, confronted with the emergency that faces them, must concentrate their thought upon a better America. They must sharpen every weapon they possess for the future battle to create integrated, beautiful, livable communities. They must learn the forces that create communities. They must continue to think creatively, to keep their design ability fresh and alert even if it is only by drawing

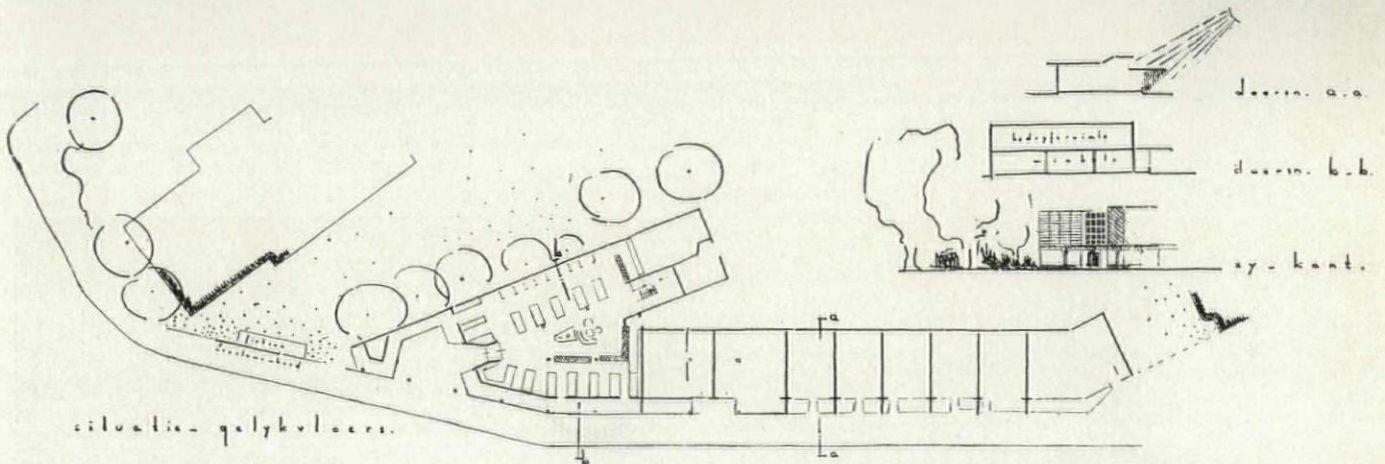
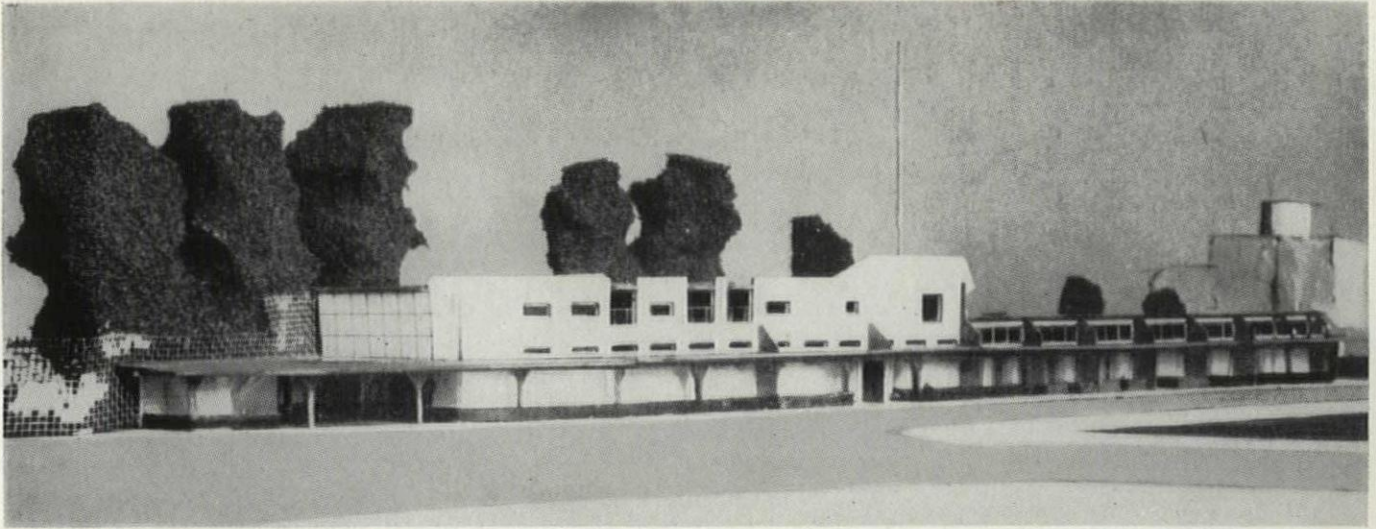


Suggested model by Architect Jan Wils for the reconstruction of Rotterdam, Holland, shows an openness of plan, a feeling of spaciousness, and a sense of unity

pipe-dreams. They must stimulate their critical abilities. They must have put continually before them examples of the best current architectural achievements. They must never be allowed to forget the true function of the architect as artist.

Only so will they be ready for the opportunity which the future is bound to bring them. Only so will they today bring to their present emergency jobs the necessary qualities of imagination, enthusiasm, and devotion. The secret of efficient and creative emergency work must lie in the existence in the creator's mind of a passion for an ideal to which he makes his emergency work, however temporary, an approximation. In order to do his best work an architect must always be thinking of more than he is allowed to do, of better solutions than the times permit; he must always have the passion for conferring upon any work, no matter how humble, the total sum of his technical knowledge and his æsthetic imagination.

There is still another reason, perhaps even more important, why even in an emergency an architect should not forget architecture any more than the doctor today should forget the problems of ordinary civilian medicine. Just as the doctor for the sake of the future of the world must keep alive the spirit of research and study, so the architect must keep alive not only a similar spirit of research but also a living vision of the beauty and the efficiency that architecture can bring to a tortured world. He must keep the spirit alive even if circumstances prevent his own immediate use of it. He must preserve it to be an inspiration to the young architects—the students, the young men on whose skill and imagination much of the quality of the postwar world is going to depend. They above all need today the ideal of architecture as the great creative ferment that will shape a more beautiful universe. They need the assurance that just as architecture in the past has created order out of chaos, harmony out of confusion, and has made cities and towns, churches and farmhouses, and public buildings that people have loved—things that have enriched the whole living quality of mankind—so in the future world that is coming to birth, the world to which these young architects will be responsible and to which their contributions will come, architecture can again vindicate itself as inspiration, help, and servant of mankind. There is too much whining today about the “twilight of the architectural profession,” about the industrial designers and the engineers and the public bodies that are “replacing the architect.” Fundamentally this kind of defeatism is as unfounded as it is dangerous. Building is going to be done in the world ahead—more building than has been done for many years. That building is going to be designed. It is going to require imagination to arrange, technical skill to construct; it is going to express willy-nilly the quality of the



life of that world ahead. And the people who design that building are going to be *architects* whatever they may be called or under whatever system they may be paid. They are the men in the architectural schools today—the young men in camps or on ships, taken temporarily away from their chosen field and perhaps homesick for a chance to exercise their special abilities. They are the young men in the architectural offices, full of doubt in many cases, full of questionings as to what the future is to bring. One thing we can be sure of—the future is going to bring enormous amounts of work for all of these young people. It is going to furnish an extraordinary scope for whatever imagination and whatever skill they possess. And it behooves us today, it seems to me, to see to it that during this period of national emergency their vision of the potential value of architecture, their ability to continue designing, their faith in the validity of architecture as designed building, and their trust in the contribution a trained imagination can bring to a world's community problems be not stultified or forgotten, but be stimulated and kept alive in every possible manner.

Through its architectural schools and its architectural periodicals England has risen to this inspiring opportunity. Holland, Finland, and Den-

The ingenuity of Dutch architects is revealed in this plan and model for rebuilding the Noordblaak shopping center, after the Nazi devastation of Rotterdam. Architects for the reconstruction were Ir. W. Van Tijen, H. A. Maaskant, J. en A. Margry. (Photos on these pages from "De 8 en Opbouw", Rotterdam)

mark, judging by their architectural papers so far received, seem all—however different, however tragic their histories—to be maintaining the same high aim. The lesson seems clear that we must do the same here in America. To relapse into a state of professional hopelessness, to give to each job that comes our way anything less than the highest qualities of technical skill and imagination—this would be a betrayal not only of the present but of the future, and unthinkable. The future is in our hands. Strangely enough we cannot even do our present jobs as well as they can be done unless our minds are fixed on the future; we must not produce even cheap temporary work by cheap and careless methods of thought, nor can we afford to make our least contribution to work today without a full realization of the great contribution tomorrow will demand. No, this is not the time for relaxation of standards.

BONWIT-TELLER WHITE PLAINS

A SUBURBAN SPECIALTY SHOP

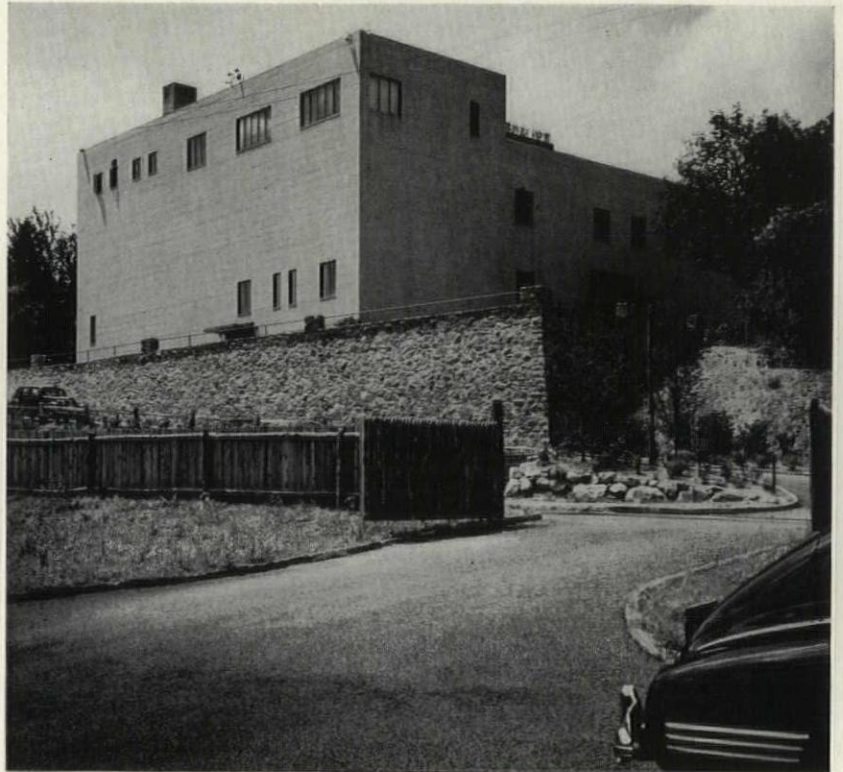
WHITE PLAINS, NEW YORK



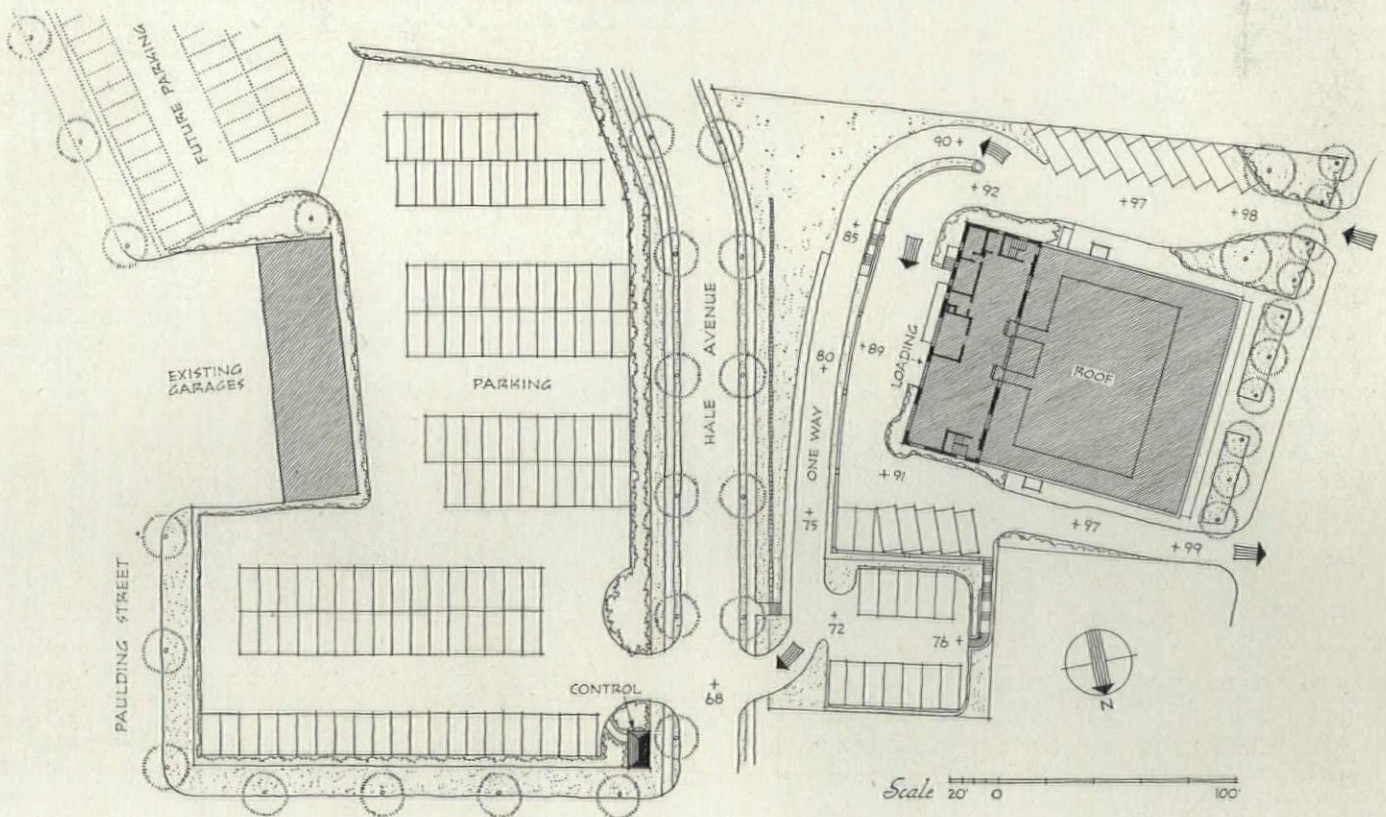
HARRY LEONARD MILLER, WHITE PLAINS, ASSOCIATE ARCHITECT

ELY JACQUES KAHN AND ROBERT ALLAN JACOBS, ARCHITECTS

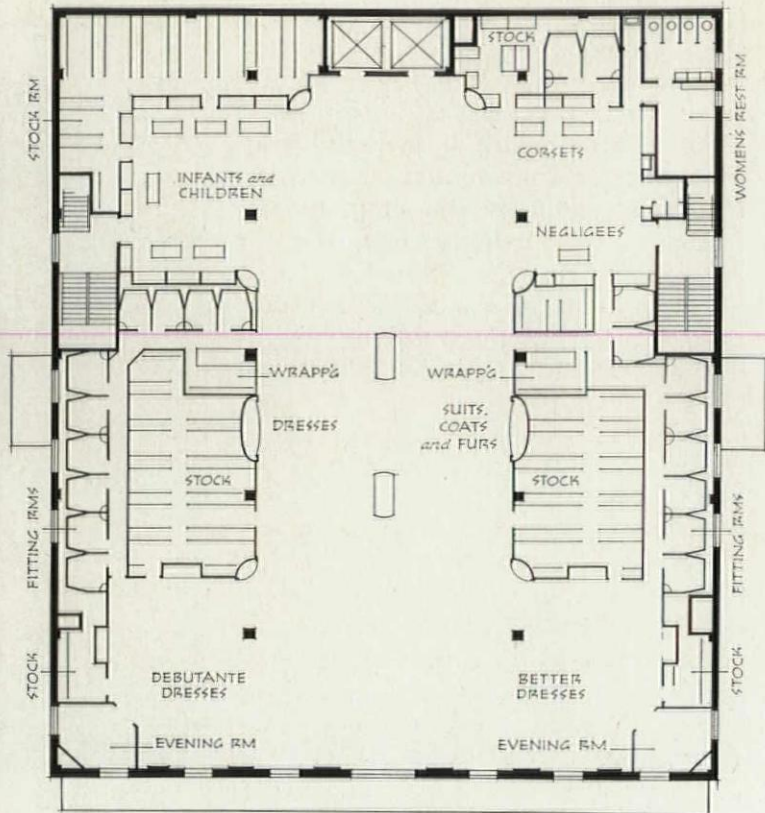
In designing a suburban specialty shop intended to attract customers who motor into the town, the architect takes into consideration the provision of ample parking facilities and some system of convenient operation that will encourage the shoppers to visit and buy. In this presentation of *Bonwit-Teller White Plains*, latest addition to the shopping center that has been developed to show top-flight merchandise to the residents of New York's wealthy Westchester County and near-by counties of Connecticut the plot plan below is more than usually significant. The photograph across-page shows the street front of the shop, the severe limestone façade relieved only by simple bronze trim on the show windows and entrance; and the photograph at the right shows the rear of the building from which a ramp leads down to the parking area. (Photographs by Sigurd Fischer)



The shopper's car is driven to the motor entrance on the south side of the store where an attendant gives her a receipt check for the car, takes charge of it, and drives it down to the parking area. When the shopper is ready for her car she goes to the motor entrance on the north side of the store, an attendant telephones to the control house below and the car is brought up the ramp to the north entrance. There is parking for 145 cars, with room for expansion

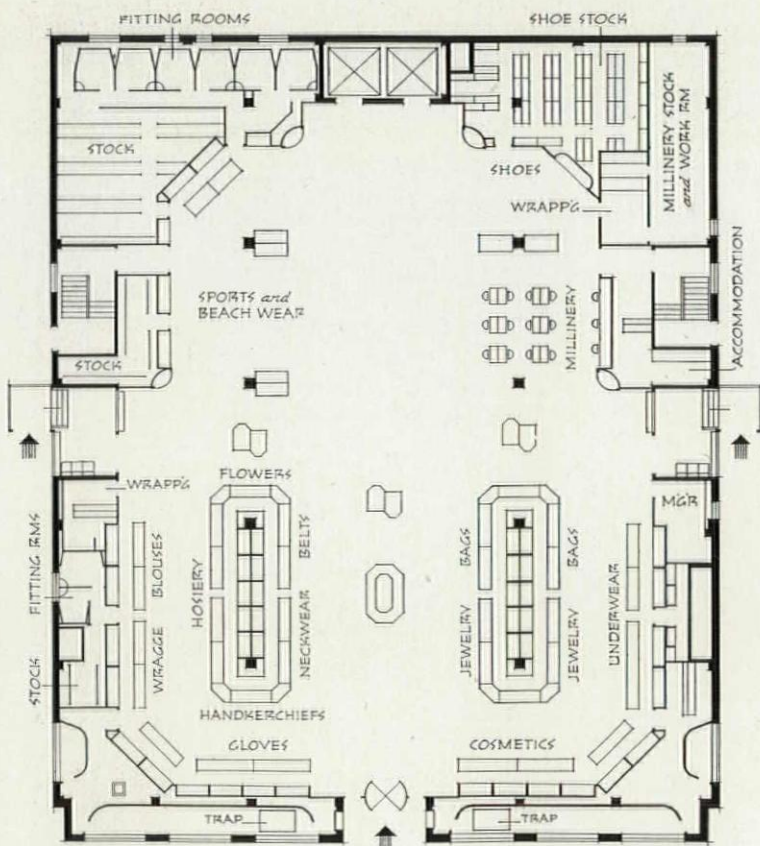


HENRY J. MARQUARDT, SOUTH NORWALK, LANDSCAPE ARCHITECT



Second floor

Placement of fixtures was planned by Ammann-Goertz Co., in collaboration with Tom Lee, Display Director, and the executive management of Bonwit-Teller Inc.

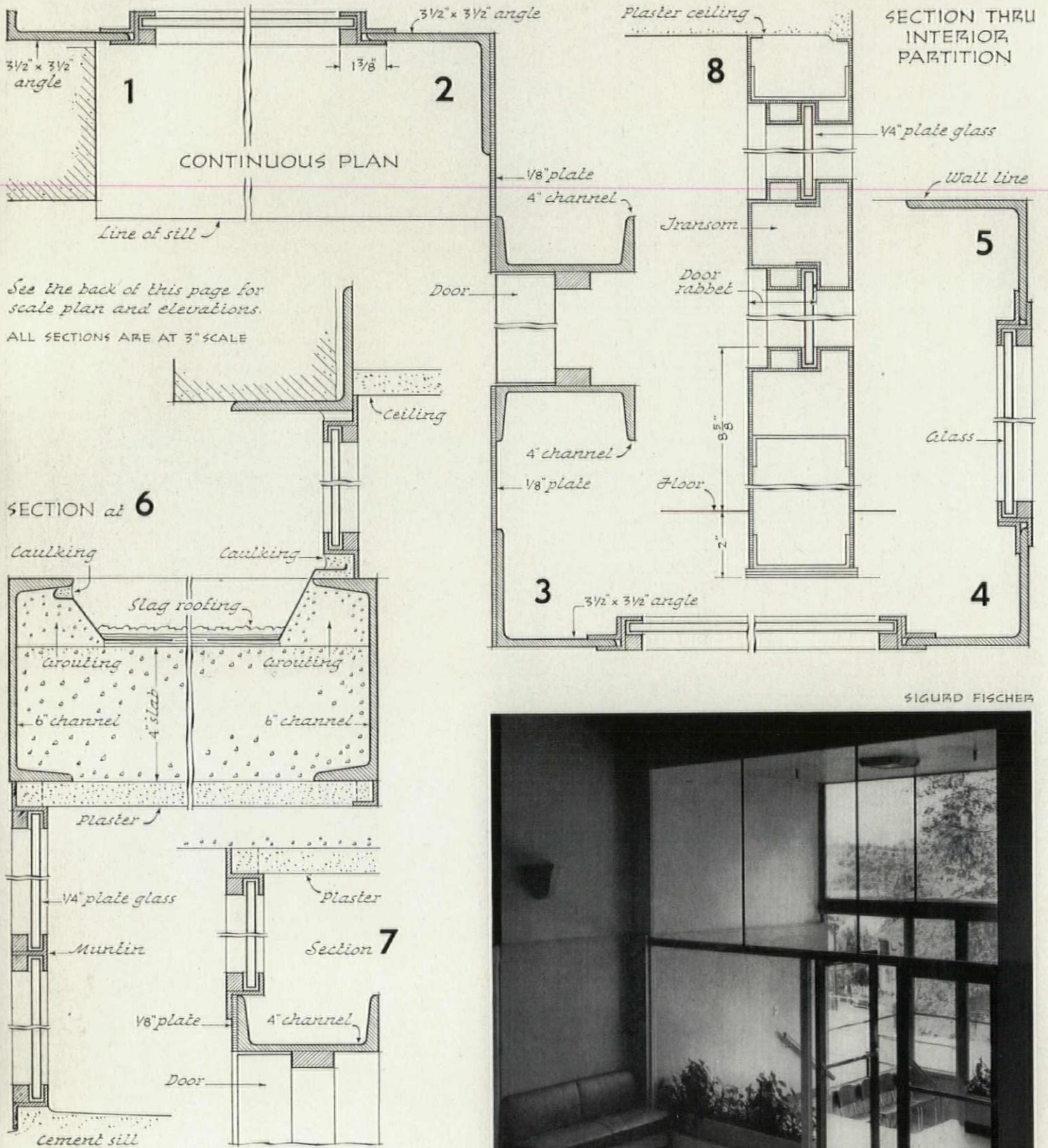


First floor

Scale 5' 0" 25'

BONWIT-TELLER WHITE PLAINS — DESIGNED BY ELY JACQUES KAHN

USES OF GLASS



See the back of this page for scale plan and elevations.
ALL SECTIONS ARE AT 3" SCALE

SIGURD FISCHER

ELY JACQUES KAHN
ROBERT ALLEN JACOBS
Architects
HARRY LEONARD MILLER... ASSOCIATED



The interior of the shop is characterized by an openness of plan (see page 74) with a predominant effect of space and light. Wide aisles, mirrored pillars and green plants banked inside the store accent this. Bleached rift-sawn oak was used for cases and counters, furniture, and paneling. Carpeting is café-au-lait on the main floor, taupe-gray on the second floor and in the penthouse (photo at right), which is used for fashion shows, receptions, and employee rest periods. This opens on a landscaped roof terrace. Interior walls range in color from a copper tone to warm brown, providing a rich merchandising background. The indirect lighting on the main floor is supplemented by warm-hued Zeon lighting in the show cases. Chair fabrics are keyed with window draperies of various departments. The photograph below shows the Debutante Dress Shop

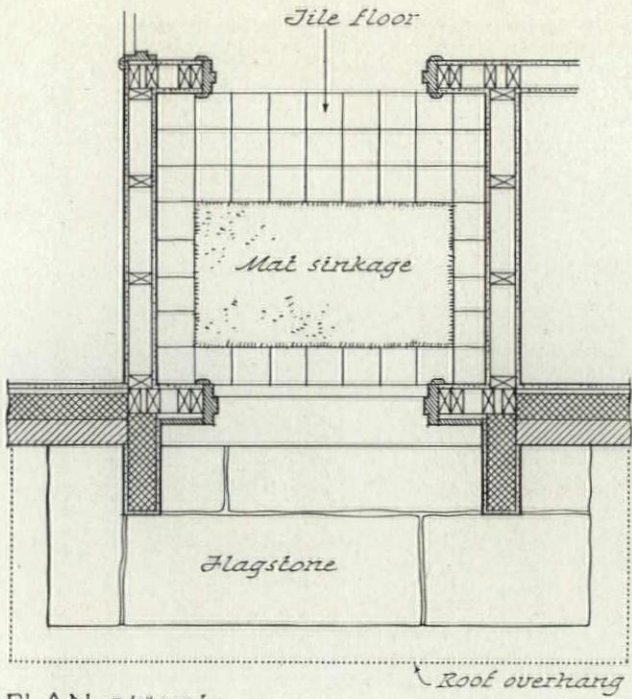


BONWIT-TELLER WHITE PLAINS — DESIGNED BY ELY JACQUES KAHN

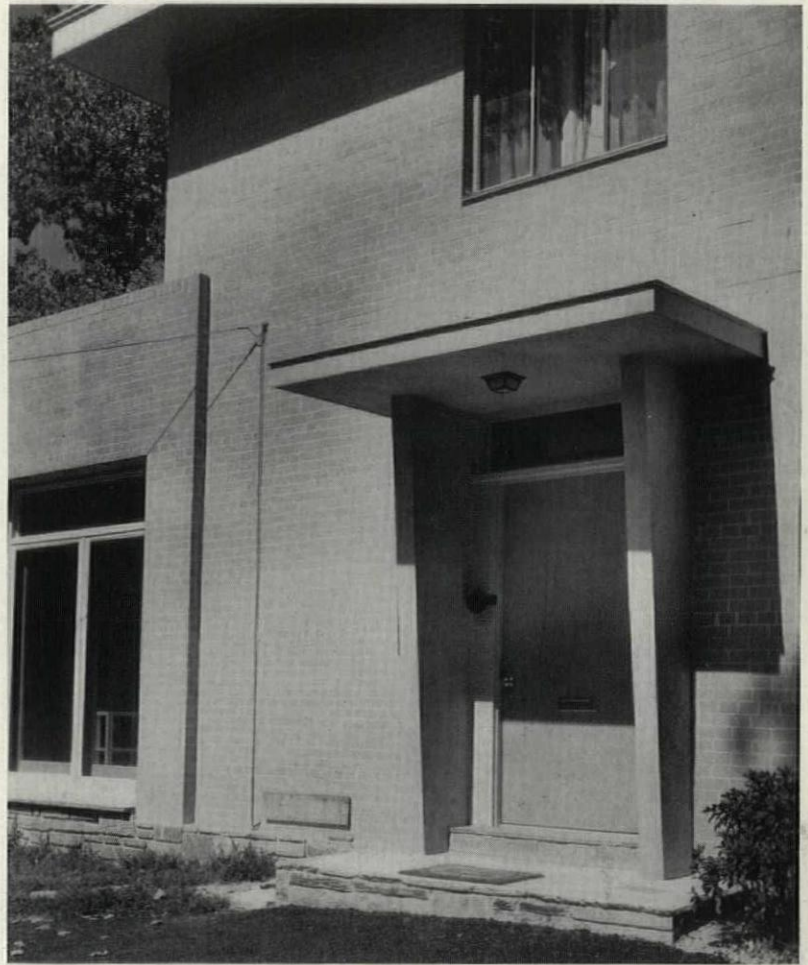


A wooded hillside site allowed, within the building lines, only limited possibilities for placing the relatively large Teichmann residence, near Washington, D. C. The plan developed provides a striking breadth of living area on the main floor, with all the major rooms given advantageous orientation. Dr. Teichmann intended to build a residence along contemporary lines, but had bought property subject to the customary real estate restrictions requiring traditional design types. The architect describes the house as a "compromise of both types." An interesting feature is the Game Porch with sliding French doors. (See detail photo at left.) The stucco used around the entrance door (see detail across-page) contrasts with the light buff brick exterior walls and green roof of Vermont slate. (All photographs by Walter Van Durand)

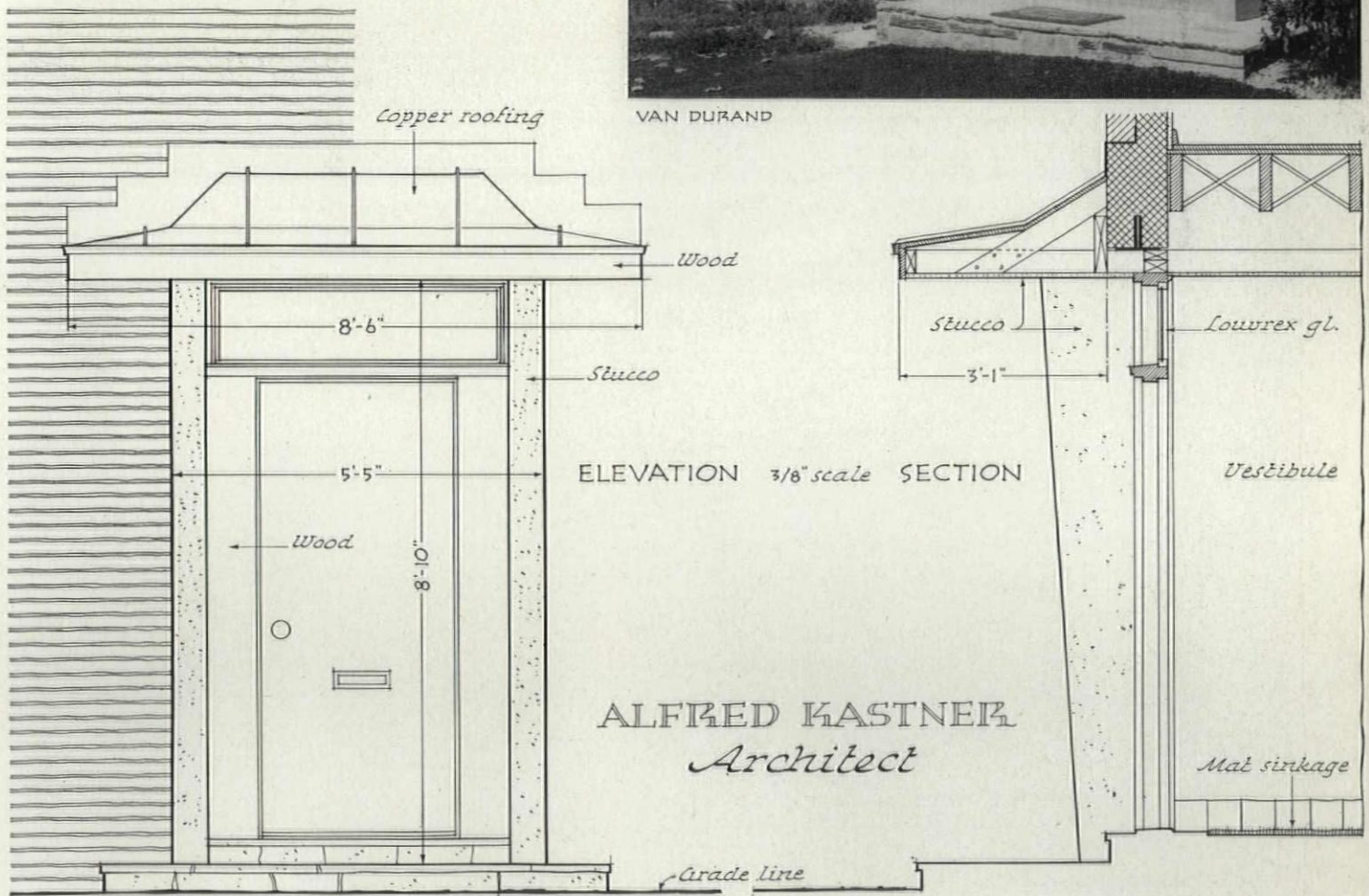
RESIDENCE FOR DR. AND MRS. WALTER TEICHMANN, KENWOOD,



PLAN 3/8" scale



VAN DURAND

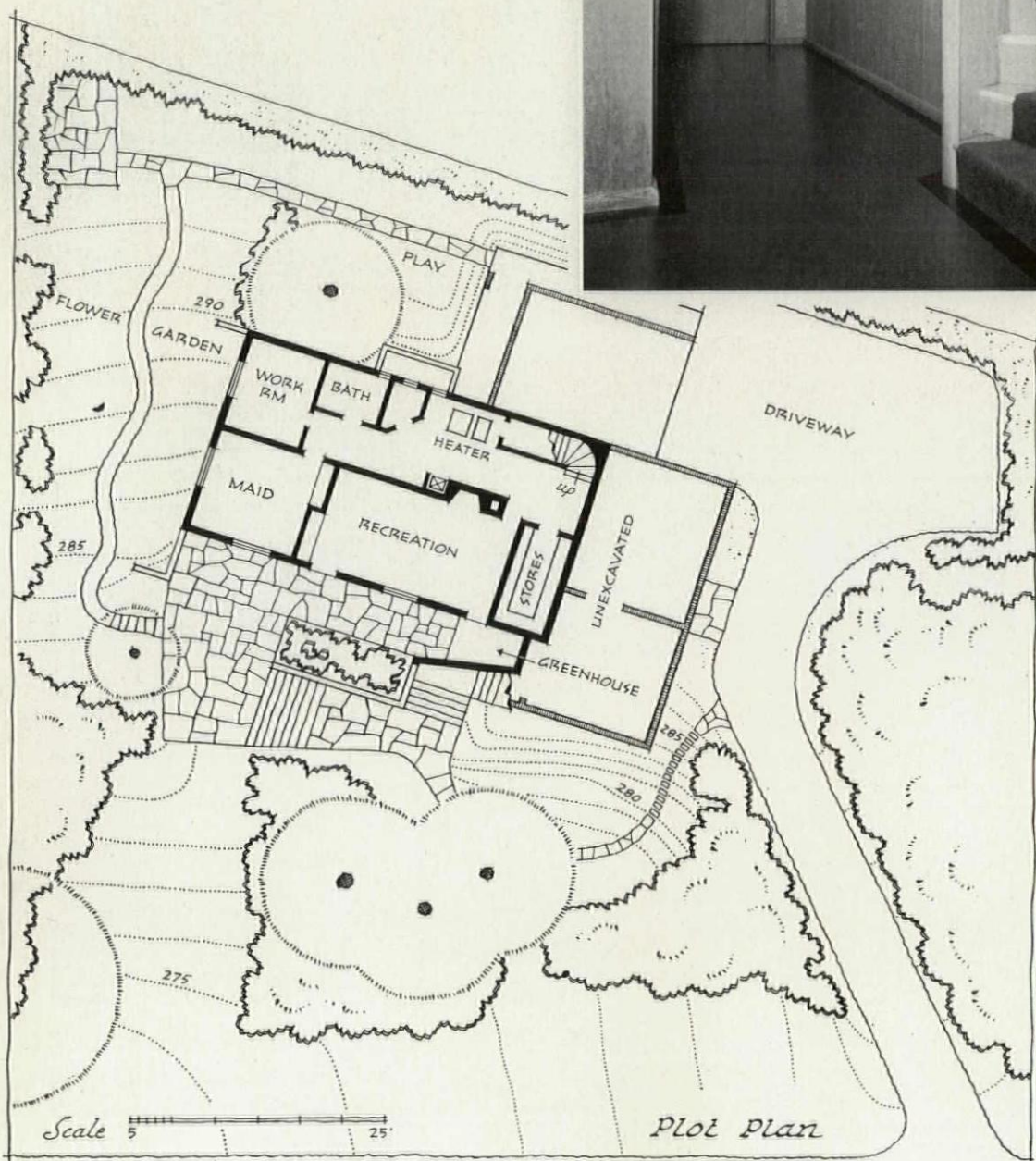
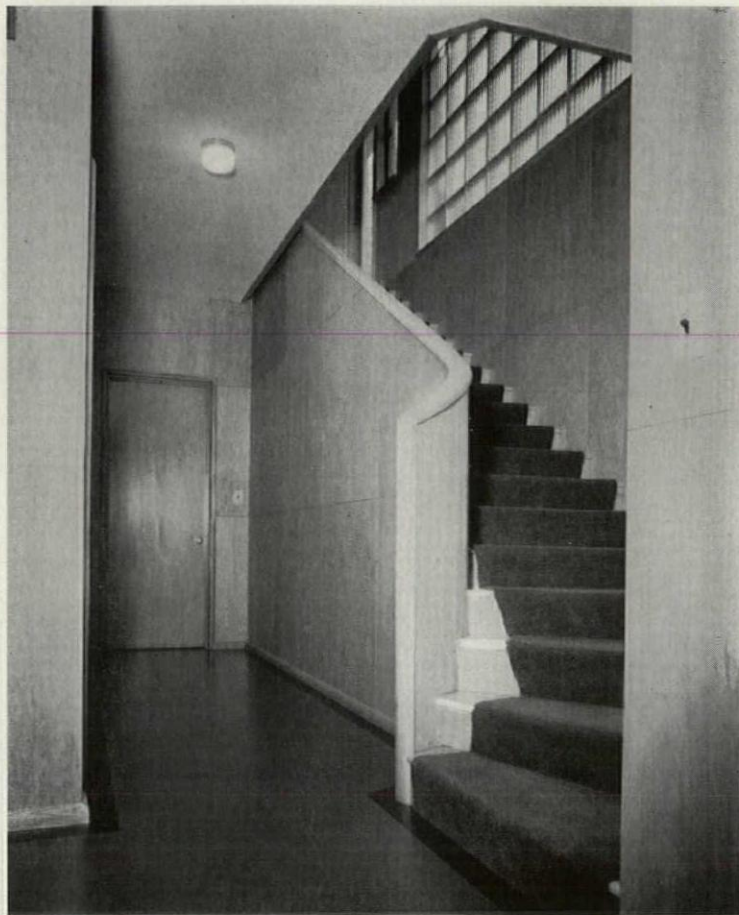


ELEVATION 3/8" scale SECTION

ALFRED KASTNER
Architect

MARYLAND - BY ALFRED KASTNER, ARCHITECT, WASHINGTON, D. C.

Natural finish woods were used for interior wall surfaces. The first floor Entrance and Stair Hall has oak plywood paneling. Fir plywood paneling was used throughout the second floor, as well as for the Recreation Room at ground level. This room opens onto a flagstone terrace and is used as a secondary living room, convenient for the outdoor and gardening activities of the family. The Maid's Bedroom at the ground level was designed in connection with the Service Passage, Utility Room, and Work Shop. (See landscape plan below). A ceiling-height mirror treatment around the fireplace (across-page) and opposite the large living room window helps to project the landscape into the room, adding a contrasting dimension to the living area arrangement.

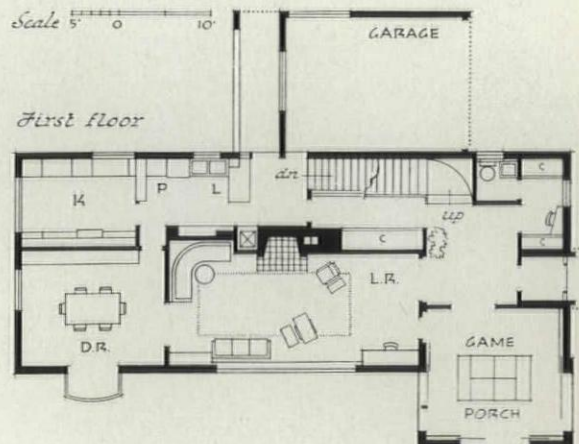
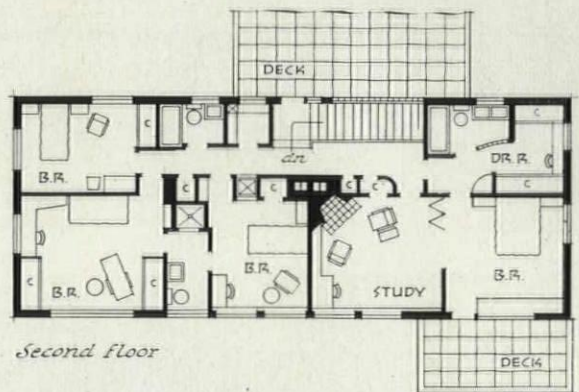


RESIDENCE FOR DR. AND MRS. WALTER TEICHMANN, IN KENWOOD,

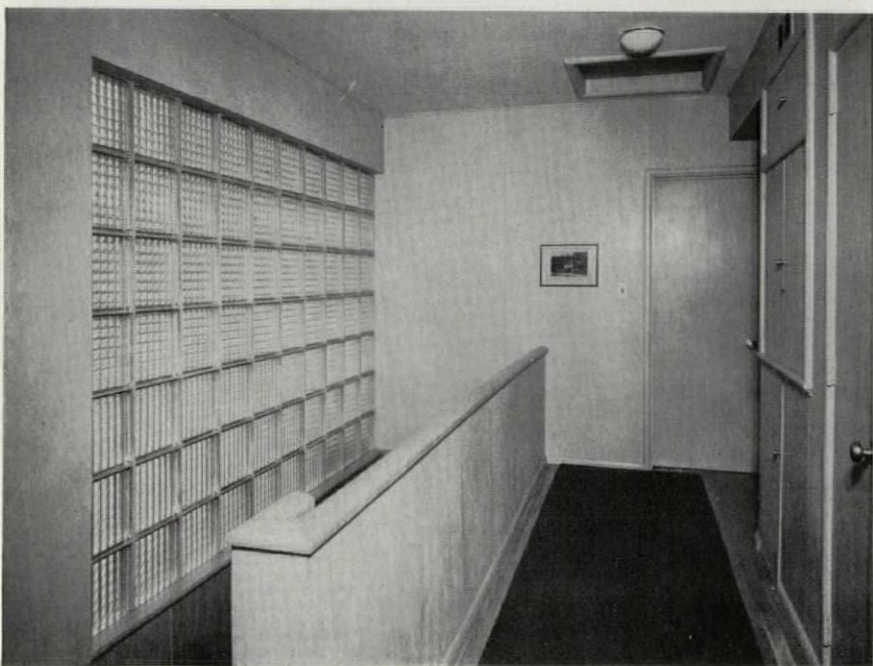


MATERIALS AND EQUIPMENT

- FOOTINGS1:2½:5 Concrete
 FOUNDATION WALLS8" Concrete Blocks faced with local Coursed Rubble, "quarry face" to view
 TERRACES2" Flagstone
 WATERPROOFINGHot coated Asphalt on ¾" parging
 WALLS.....4" Face Brick on 4" Cinder Block Backing
 WALL INSULATION½" Vapor-barrier type Insulation Board
 FLOORSAsphalt Tile (Basement); Cherry Wood (Living Room); Linoleum (Dining Room, Entrance Hall, Kitchen, Pantry, Bathrooms); Oak (Second Floor Areas); Canvas Decks
 ROOFVermont Green Slate
 ROOF INSULATION4" Rock-wool
 WINDOWS.....Residential Type Steel Sash with Bronze Screens; Double strength "A" glass throughout, except in Basement; 12" x 12" Glass Blocks in Stair Hall; Wood French Doors in First Floor Porch
 INTERIOR FINISH.....Chestnut Paneling (Study); Canvas on Plaster (Living Room); Painted Plaster (Dining Room, Game Porch); Master Bedroom (Paper on Plaster); Linoleum (Bathrooms); Natural Finish Fir Plywood (Basement Rooms); Natural Finish Oak Plywood (Entrance Hall and Stairway and other Bedrooms)
 PLUMBING.....Cast Iron and Wrought Iron (Drainage); Copper Tubing (Supply)
 HEATING.....Split system Forced Hot Air Model Oil Burner; Summer-Winter Operation Hot Water system
 LIGHTINGVersen fixtures
 HARDWAREDull chrome
 OTHER EQUIPMENT.....2 Electric Refrigerators; Electric Range; Washing Machine; Dishwasher-Sink Combination; Steel Kitchen Cabinets



MARYLAND — BY ALFRED KASTNER, ARCHITECT, WASHINGTON, D. C.



Natural finish fir plywood is used on the walls of the Children's Room (top photograph), and in the second floor Stair Hall (photograph at left) in the Teichmann residence. The Master Bedroom (center) may be opened into the Library-Study as a private suite in conjunction with the Balcony, Dressing Room, and Master's Bath, thus giving the owners a certain amount of freedom and independence from the growing family. In this bedroom the walls are papered. A pleasant daylight is admitted to the stairway and adjoining halls through a glass block panel which opens onto the Roof Terrace over the Garage

CAMOUFLAGE DATA IS CORRELATED

PRATT INSTITUTE TO PUBLISH RESULTS OF STUDIES

Because those in charge of activities at Pratt Institute, Brooklyn, early recognized the significant part that planning technicians can play in America's war effort, it now becomes apparent that the Camouflage Program undertaken last year by the Art School has created an Information Center of the first importance. Findings of the Pratt Camouflage Staff of 15 experts can be "ammunition" for civilian forces engaged in the present war! James C. Boudreau, Director of the Art School, eager to supply these camouflage facts wherever needed with all speed possible, has progressively broadened the scope of the Camouflage Program through a lecture series, visits of staff members to other educational institutions, seminars for representatives of other schools and universities, and through field work, testing laboratories, analyses of camouflage techniques and sharply-increased activity within the program itself.

While there has been no official relationship between Pratt Institute's Camouflage Program and the corresponding activities of the Army, Navy, and Office of Civilian Defense, nevertheless the "co-operative guidance and assistance when sought (and) the interest and encouragement of these three important organizations has been most stimulating," Boudreau assures us.

BOOK FORTHCOMING

The school's studies in camouflage techniques are being advanced rapidly and it will be the privilege of Reinhold Publishing Corporation, publisher of PENCIL POINTS, to print within the *shortest time possible* a book presenting the findings of the Pratt Institute Camouflage Staff. Those concerned with the protection of industrial facilities, military objectives, civilian communities, etc., will thus be furnished, without unnecessary delay, a handbook that may be regarded as authoritative. In view of a good deal of confusion regarding the effectiveness of techniques based on earlier experi-

ments, some dating before the World War (1914-18), the publication of this book is undertaken as a technical service to the nation.

Since it is obviously impossible to print a book within the pages of a magazine the Editors of PENCIL POINTS have taken the opportunity to include in this issue (pages 84-89) a typical Work-Program from the book now in preparation. This happens to be devoted to Industrial Protection. It should be understood as an approach to a *specific problem*. After analysis of the merits and demerits of an industrial area (from a camouflage standpoint) a sequence of improvements is suggested.

DON'T WAIT FOR BOMBS!

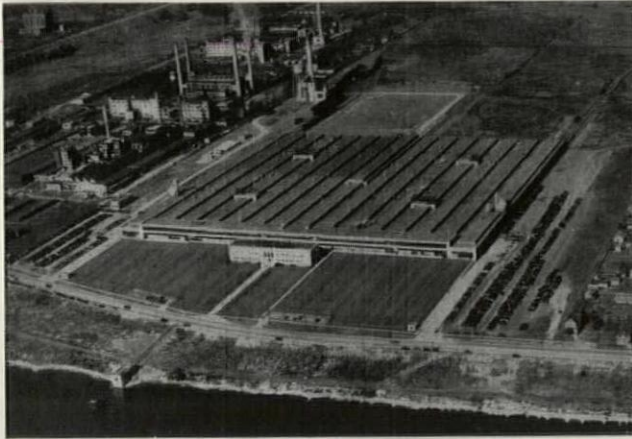
It cannot be urged too strongly that design *now* will provide protection *when needed*. The Office of Civilian Defense, established last May, provides an organizational framework for voluntary efforts of the civilian population. It has assembled a staff of experts on air raid protection, published O.C.D. pamphlets and handbooks, and distributed more than 5,000,000 copies. This Governmental service, however, does *not absolve* the technical planner of the *responsibility* of knowing what to provide for protection of the nation's industrial plants and other vital objectives.

As an introduction to the Work-Program on the following pages, Konrad Wittmann writes: "The techniques of protection are so complex and relatively new—and an industrial plant is such a complicated organism—that a plant manager may find it difficult to learn where and how to start.

"All precautionary activities can be easily summarized in two groups:

First—*measures to prevent bombing*, through making bombing too difficult, too risky, or too unprofitable.

Second—*precautions to reduce danger and localize damage*, when and after bombardment has occurred."



This aerial photograph is used only as an example to demonstrate general requirements of factory concealment and protection.

ANALYSIS AND SYNTHESIS
A Work-program in Stages

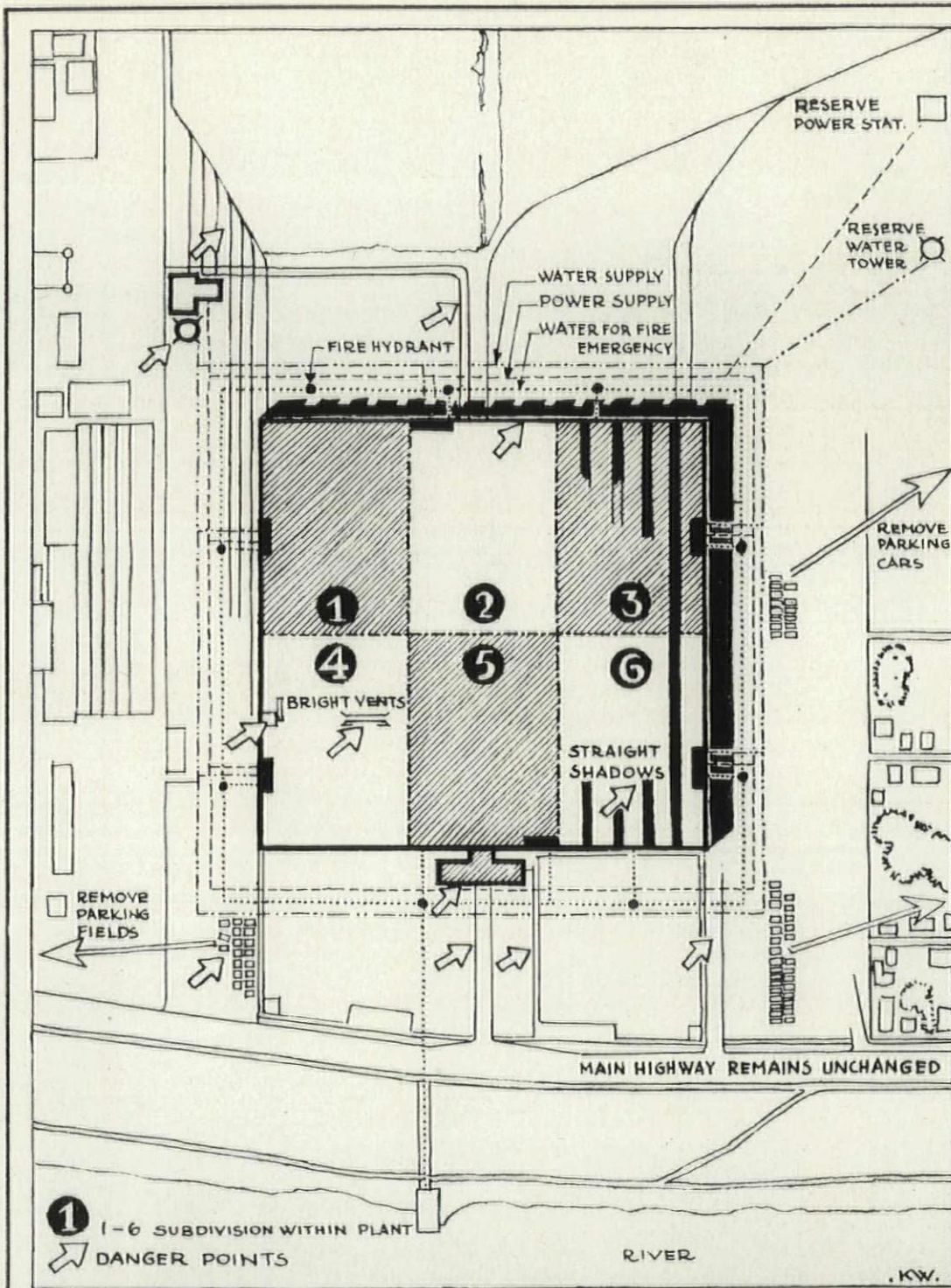
Developed by Konrad F. Wittmann
Architect A.I.A.

Analysis of Merits and Demerits:

- 1- The picture shows relative merits of one-story buildings compared with multi-story buildings. The roofs blend relatively well with surrounding landscape.
- 2- Factory is too centralized, i.e. great damage will be incurred by direct hit.
- 3- Access to plant from three sides is good, but roads and parking areas are too conspicuous. Whole area around factory is devoid of trees.
- 4- Location near river helps to locate the plant from the air, but additional water supply from the river is an advantage for fire-fighting.
- 5- Power station and water tower are at some distance from plant, which is good, but they are bright and tall and therefore easily detected.
- 6- Extension is possible without overcrowding the area. Office building is separate although not far enough distant from plant.
- 7- Even and straight lines and shadows are very conspicuous.

Sequence of necessary improvements:

- 1- Immediate improvements to reduce visibility and reflections.
 - a. Darken white driveways and walks and parking areas.
 - b. Decentralize parking cars to avoid long, conspicuous rows of cars.
 - c. Darken the white vents and other pipes on roof and the shining water tank.
 - d. Avoid regularity in mowing lawn.
- 2- Immediate improvements to reduce vulnerability.
 - a. Subdivision of plant and plant installations to localize damage.
 - b. Extended installations of supply lines to secure supply after bombardment.
 - c. Extension of water supply for fire fighting.
 - d. Additional power station or connection with power station of other factory.
- 3- Protection of workmen and machinery under aerial bombardment.
 - a. Decentralized shelter buildings for workmen, valuable machinery, blueprints.
 - b. Emergency exits -- Duplicates of vital tools and blueprints in safe places.
- 4- Camouflage of plant to blend with surrounding landscape.
 - a. Irregular slabs on roof, dazzle painting and use of nets.
 - b. Special roof over railroad siding and parked cars.
 - c. Avoid smoke from vents or smoke stacks with artificial draft.
- 5- Provision for future improvement to secure better natural protection and easier
 - a. Planting of trees in irregular groups around factories. /camouflage.
 - b. Eliminate smoke stacks and give better protection to water tower.
- 6- Planning for future additions and for the relationship of plant to adjacent residential sections and other plants.



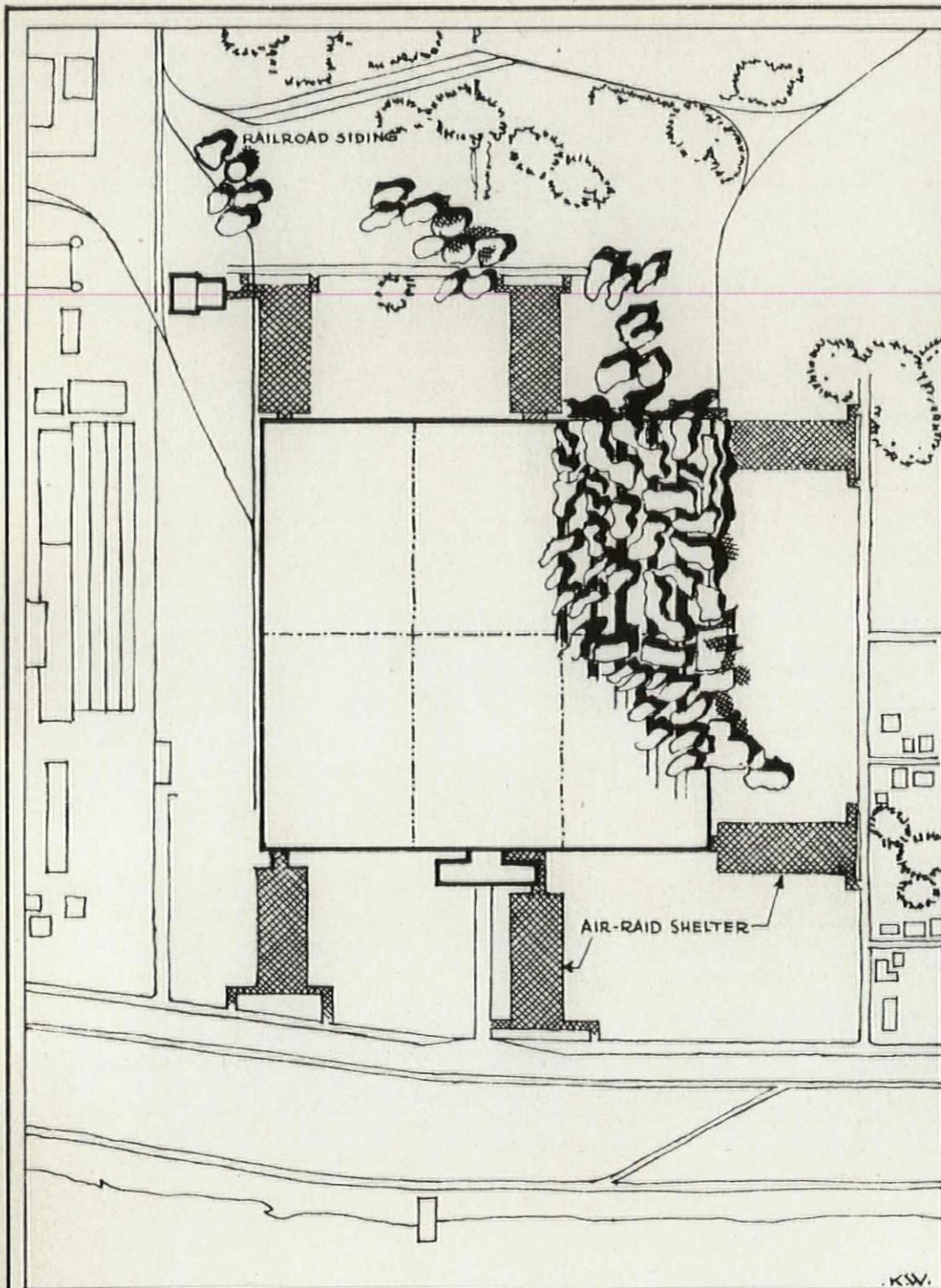
Existing utilities have to be checked and eventually doubled to assure uninterrupted supply if some of the main lines are damaged.

Parking fields have to be removed and parking decentralized as long as protective landscaping is impossible or ineffective.

Before anything else can be done, a general check-up has to be made from an aeroplane and by means of aerial photography, to detect the objectionable points which might be used by the flier as a guide or as a mark for his bombardment. Ground observation is not sufficient to reveal weak points, and aerial observation should be made under varying light conditions.

To reduce visibility at long distances all reflections (of roofs, windows, tanks, etc.) should be eliminated.

A general check-up of all plant buildings and installations including machinery and utilities must be made to investigate how every structure and every detail would be affected by aerial attack or force of explosions. Large buildings should be divided into several units, as subdivision within the buildings, with separate switches and supply lines for each unit operating individually.



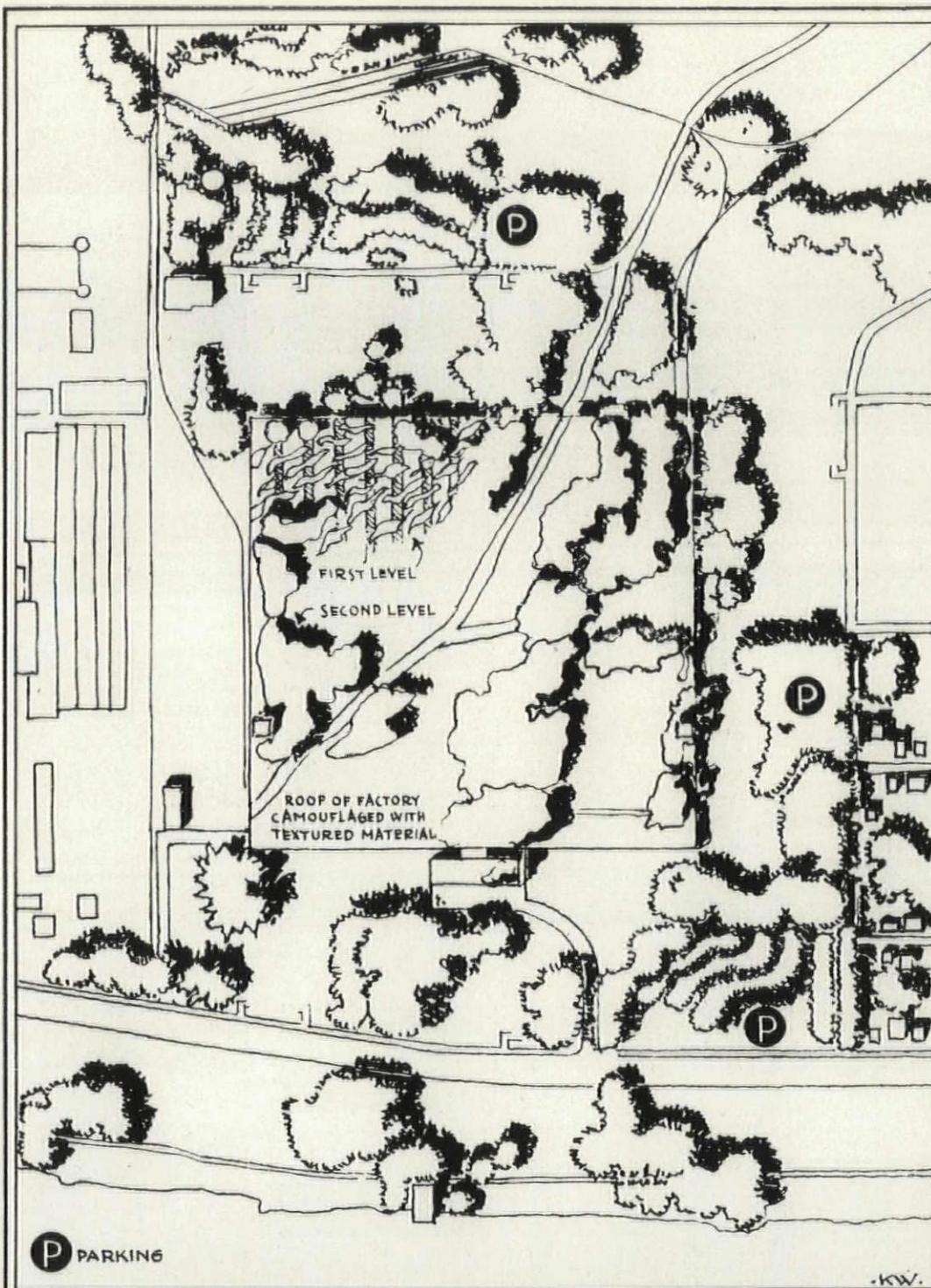
Air - raid shelters should be decentralized also, with exits on opposite corners, preferably leading to parking fields to guarantee quick dispersion of workmen in different directions.

Camouflage of roofs by adopting the texture of adjacent terrain and without use of trees as long as there are no trees in the surrounding area Nets spanned to cover shadow and to break up long lines of windows.

This subdivision applies to workmen as well as installations. Shelters for workmen should be in sufficient numbers, preferably separate for each separate unit; not so big as to make supervision difficult, nor so small as to cause overcrowding. Exits from shelter to parking fields or onto streets is valuable.

Accessibility of all factory buildings has to be checked; connecting links between roads or railroads considered, and conspicuous tracks or railroad sidings removed to a safer place away from the factory proper.

A scheme for camouflage under present conditions of surroundings and according to season has to be marked out. These propositions have to consider: 1. Immediate concealment with the best available materials, and 2. Long-range planning of camouflage to make better concealment in the future possible.



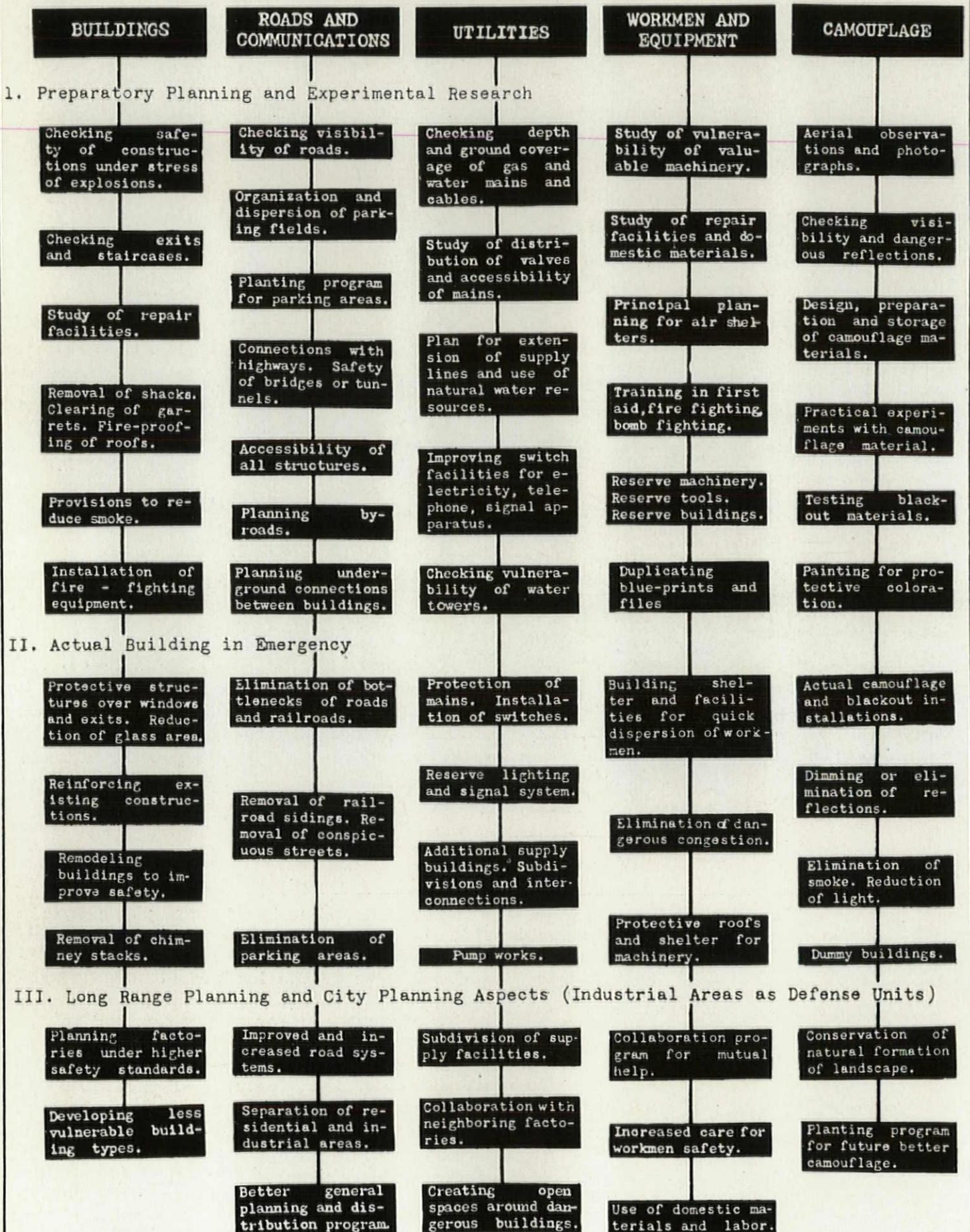
R.R. sidings removed from plant and so placed that tracks are inconspicuous and not parallel to lines of plant.

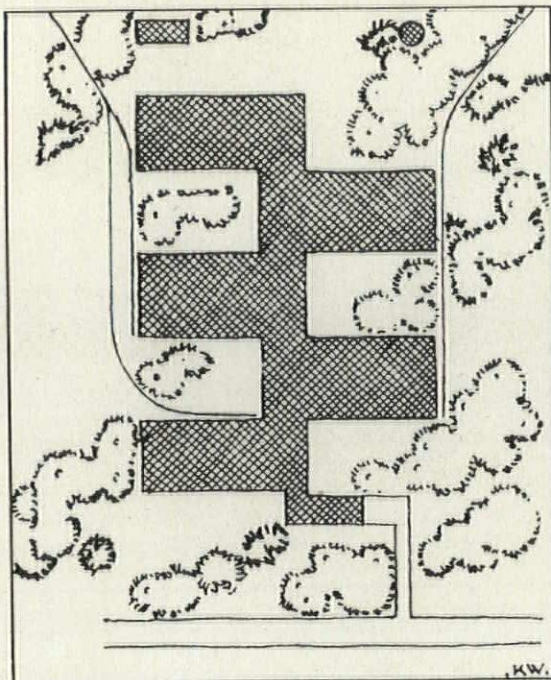
Landscaping with trees should be in harmony with surrounding landscape, favoring fast growing and tall trees.

Planning for lasting improvements has to consider not only the factory itself, but its relation to the surroundings--to nearby streets, railroads, and bridges, to other factories, and to general features of the landscape. Gradual removal of dangerous points, elimination of bottlenecks, replacement of unfit buildings, safer arrangement of supply lines, underground placement of tanks characterize this stage of improvements. An extensive tree-planting program can help to restore the original features of the landscape and to make future camouflage easier.

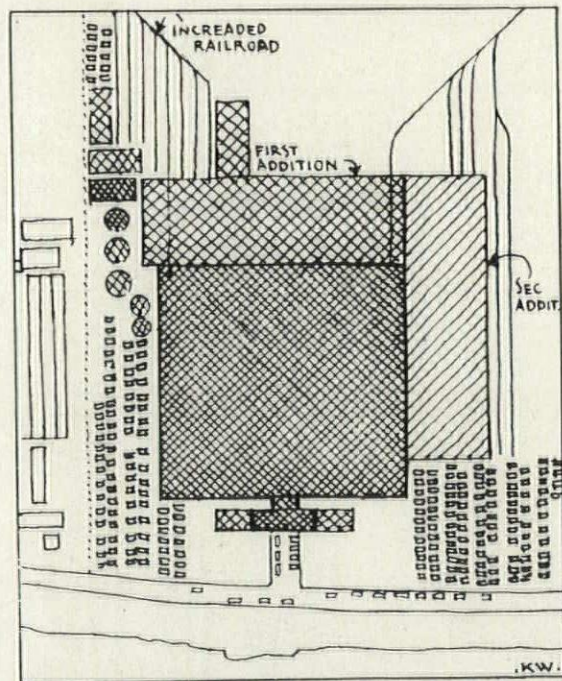
The practical and, at the same time, less obvious arrangement of parking fields is a very important, and, until now, mostly neglected task for the landscape architect. The tree-planting program is not effective if not projected on a wide scope, as part of a program for the entire industrial area.

**SUCCESSIVE STEPS OF FACTORY IMPROVEMENT
AND PREPARATION FOR AERIAL SAFETY**



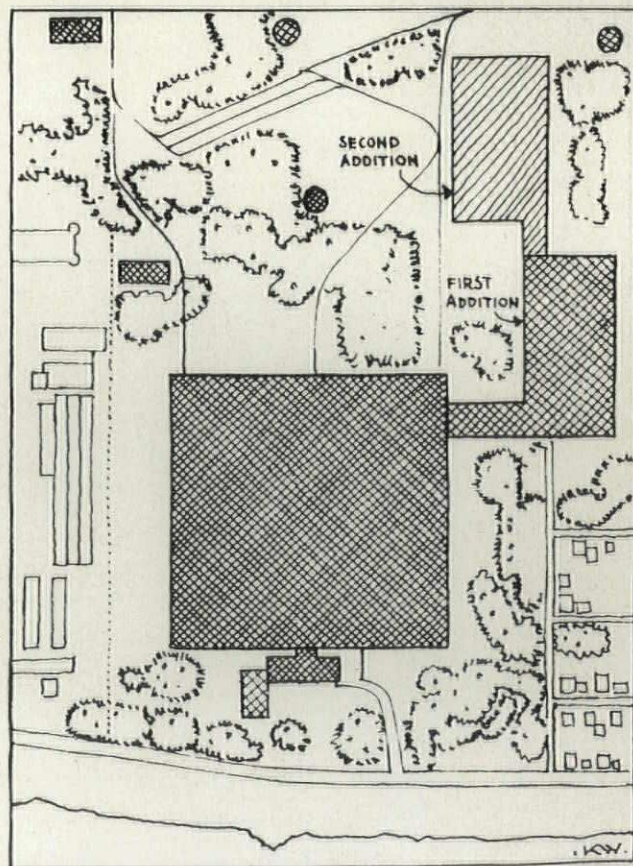


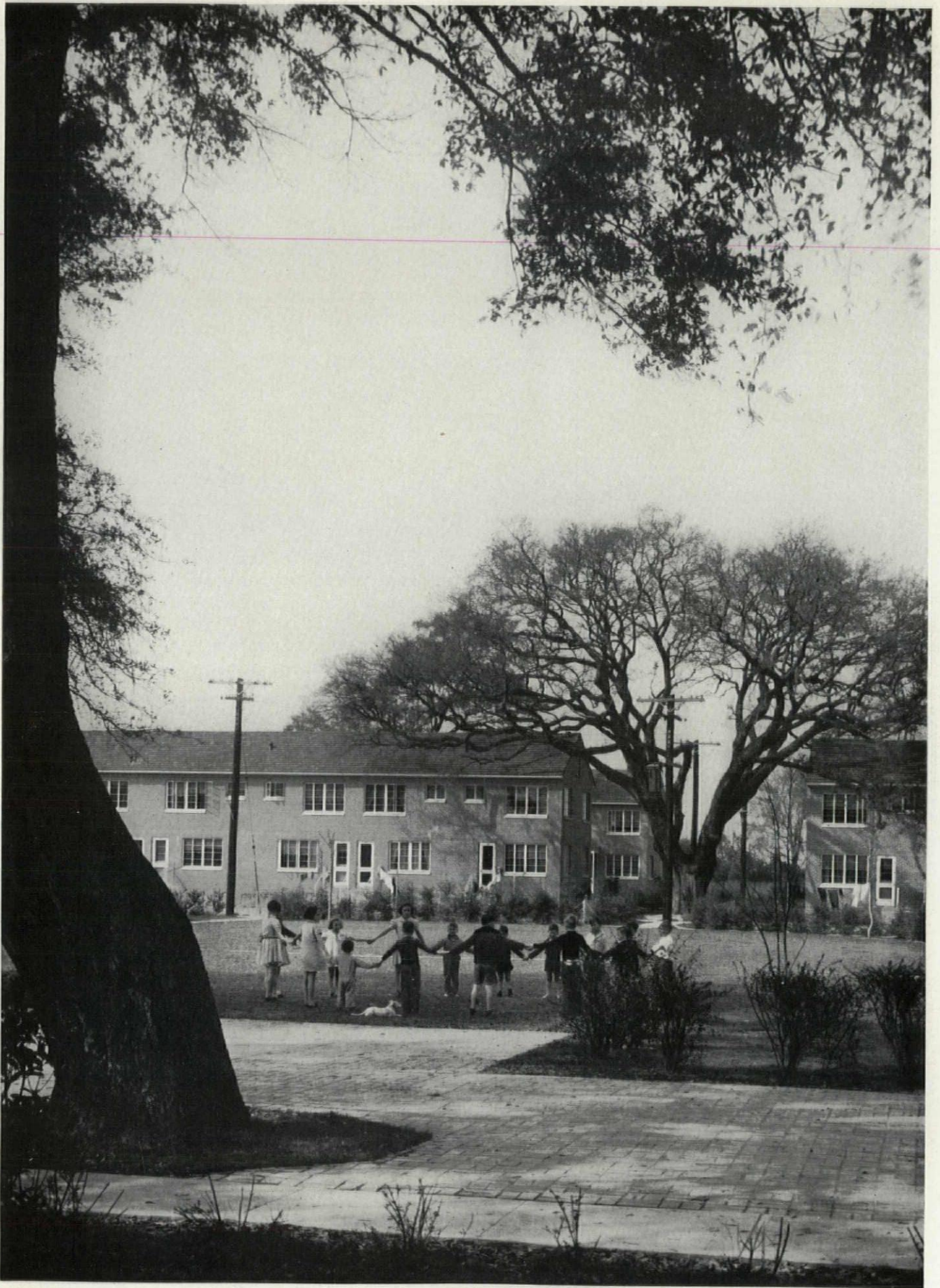
The ideal scheme for an air-worthy factory avoids buildings that are too large and where all manufacturing processes are huddled under one roof. Subdivision into several smaller units dispersed over a large area, or connected, has the advantage of reduced vulnerability, improved accessibility, and easier repairability. This "open layout" is possible without impairing the assembly line.



Future additions should follow these new principles of design and avoid the present practice of bringing more and more workshops under one roof. This sketch represents dangerous practice in design of factory extensions.

Safe practice of designing new additions produces an open layout with large distances from building to building and separate supply installations. A state of maximum ground coverage should be established for each factory to avoid dangerous congestion.

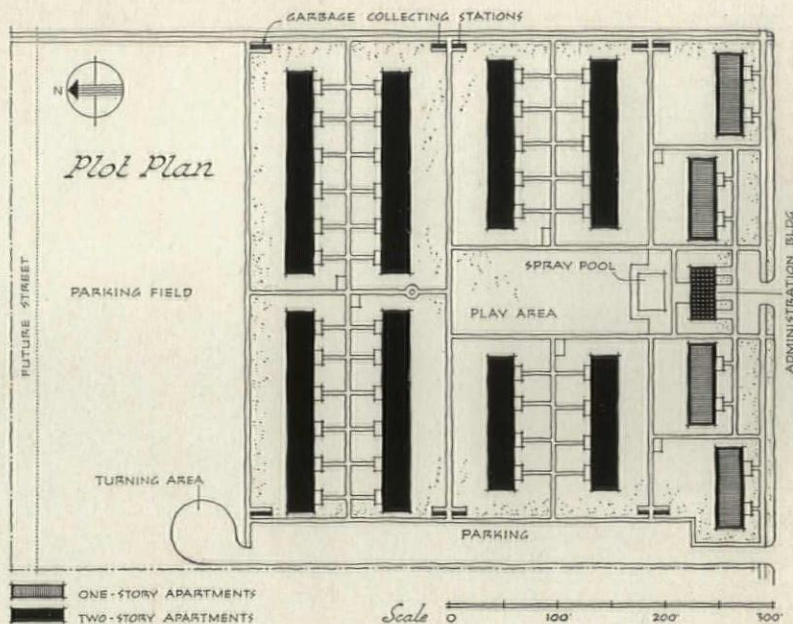




“OAK LAWN HOMES”, MOBILE, USHA HOUSING PROJECT – DESIGNED

MATERIALS AND EQUIPMENT

- FOOTINGS**Reinforced Concrete
FOUNDATION WALLSSolid Brick
WATERPROOFING.....Copper membrane bonded to reinforced waterproof paper or fabrics; or copper membrane coated both sides with flexible waterproof compound
WALL CONSTRUCTION.....Face Brick backed with Terra Cotta Hollow Tile
ROOFING.....Built-up, and Asbestos Shingles
ROOF INSULATION.....Felted Vegetable Fiber, and Asphalt Concrete Primer on Concrete Roofs
WINDOWS.....Casement type Steel Sash, with D.S.-"B" window glass; fixed type screens (oxidized bronze wire)
FLOORS.....Concrete covered with waterproof paper and cement finished
INTERIOR PARTITIONS.....Terra Cotta Hollow Tile (Non-load bearing type)
FLOOR TILE.....Unglazed, basket weave pattern ceramic mosaic of porcelain type
PAINT.....Cement water paint for interior concrete, masonry; lead-zinc-oil paint for exterior woodwork; lead-in-oil primer for interior woodwork.
HARDWARE.....Light statuary bronze, except in bathrooms
HEATING.....Gas space heaters
PLUMBING.....Copper tube water piping; vitreous china water closets; built-in enameled iron bath tub; enameled iron lavatories; enameled iron combination sinks; 20-gallon automatic type hot water heater
ELECTRICAL.....Pull chain and wall switch type ceiling and bracket fixtures
SHADES..Pyroxylin muslin impregnated shade cloth
OTHER EQUIPMENT....Gas refrigerators, gas stoves, floor furnaces



Located on the Gulf Coast of Alabama are the two housing projects presented here, designed by Harry Inge Johnstone, Chief Architect; C. L. Hutchisson, Jr., Wm. H. March, and Thomas Cooper Van Antwerp, Architects. Buildings of both projects are constructed of brick on structural tile, and include 3-room, 4½-room, and 5½-room units. Because of excessive rains, and a hurricane tide condition at one of the projects, the first floors of both projects were placed about three feet above grade. The architects felt, however, that raising the floors also would help to make the units livable because of the added privacy



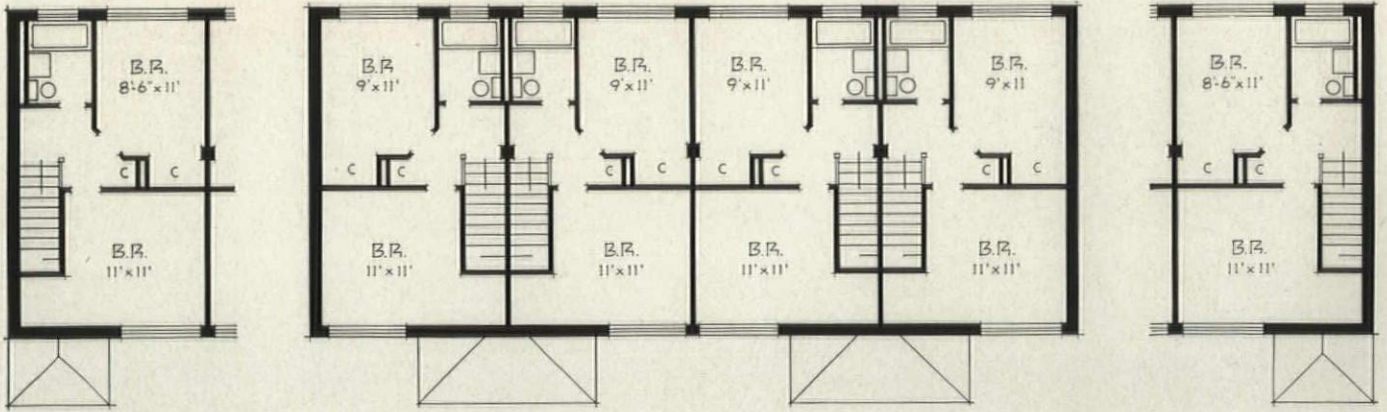
BY HARRY INGE JOHNSTONE, ARCHITECT, OF MOBILE, ALABAMA



The "Oak Lawn Homes" units are constructed of brick on structural tile. Included in this project are four one-story buildings containing three-room apartments, and eight two-story buildings containing 4½- and 5½-room apartments, all grouped about the play area behind the Administration Building. (Richard W. Tebbs photos)

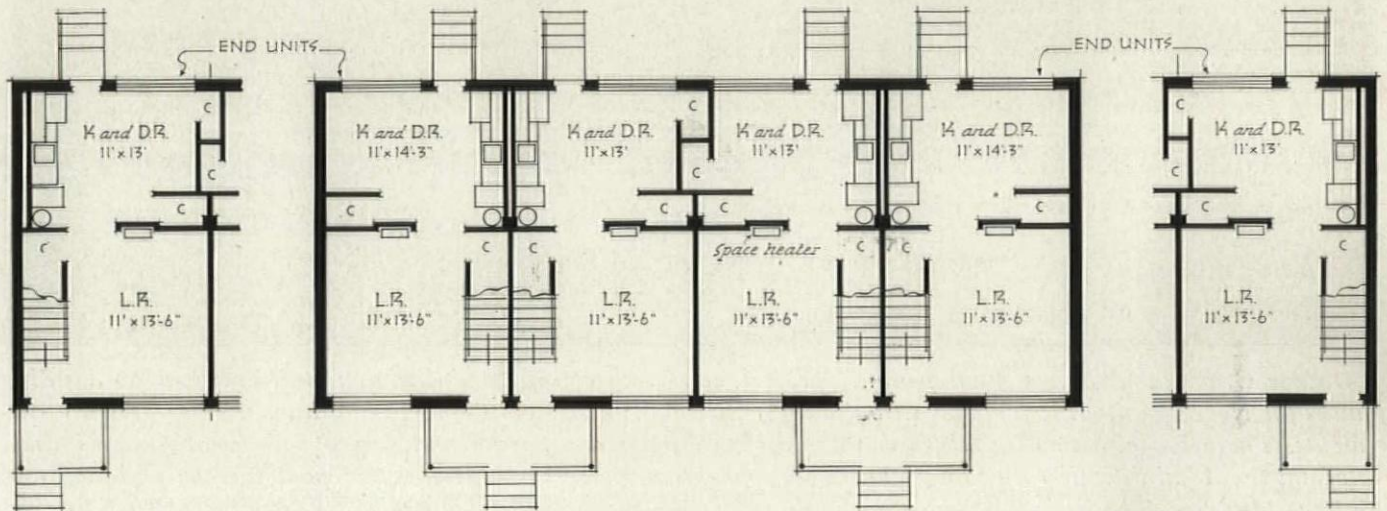


"OAK LAWN HOMES", MOBILE, USHA HOUSING PROJECT - DESIGNED



Second floor

THE VARIOUS LENGTHS OF ALL TWO STORY APARTMENT BLOCKS ARE BUILT UP FROM THESE 6 BASIC UNITS

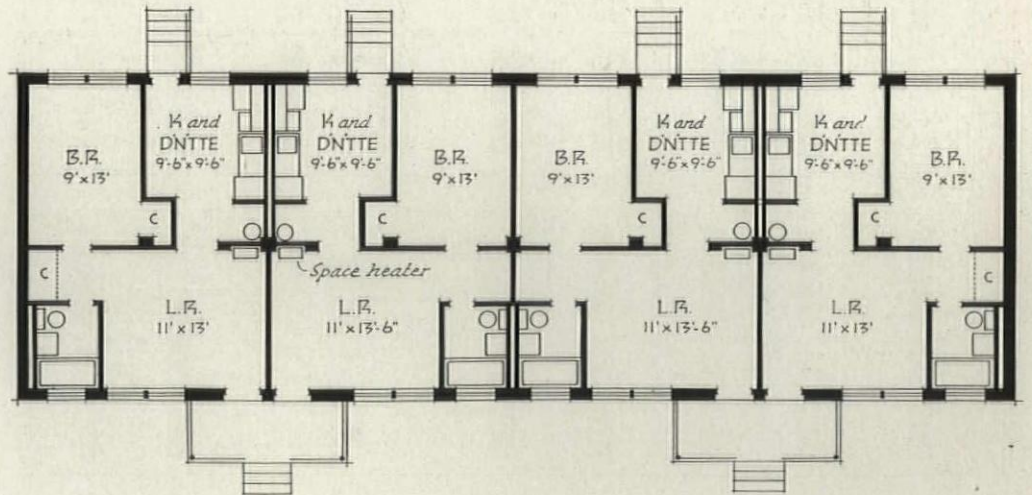


First floor

Scale 5' 0 20'

Shown here are basic unit plans for the "Oak Lawn Homes" housing units. Actual construction costs were under the original estimate of \$3,493.76 a unit and \$783.35 a room. The unit expenditure permitted by the USHA in a city the size of Mobile; \$4,000 a unit, \$1,000 a room. The actual rentals were \$2.47 a room in 1941, and will be \$2.77 a room in 1942. The application for USHA assistance was aimed at a rental of \$3 a room

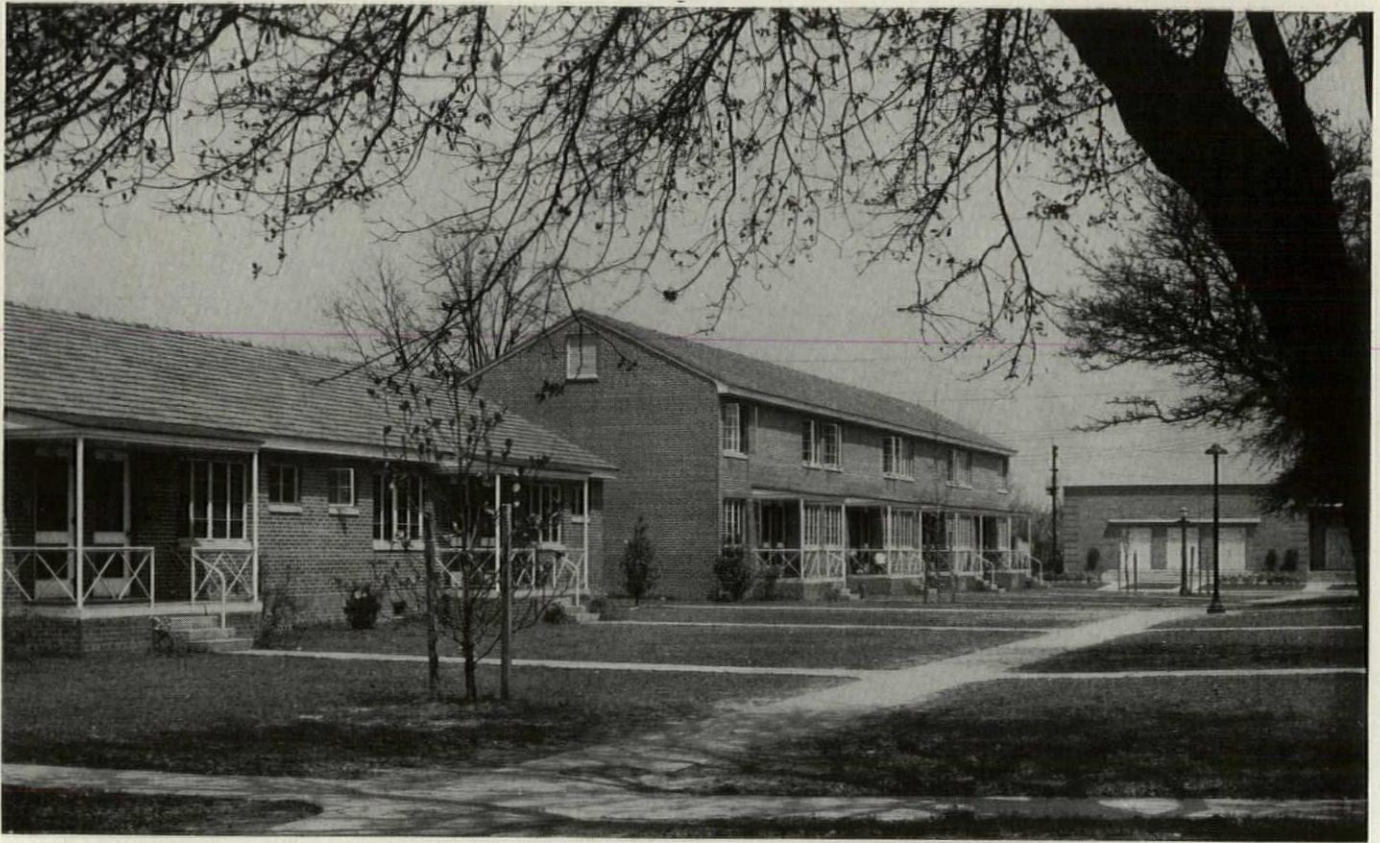
THE VARIOUS LENGTHS OF ALL ONE STORY APARTMENT BLOCKS ARE BUILT UP FROM THESE 4 BASIC UNITS



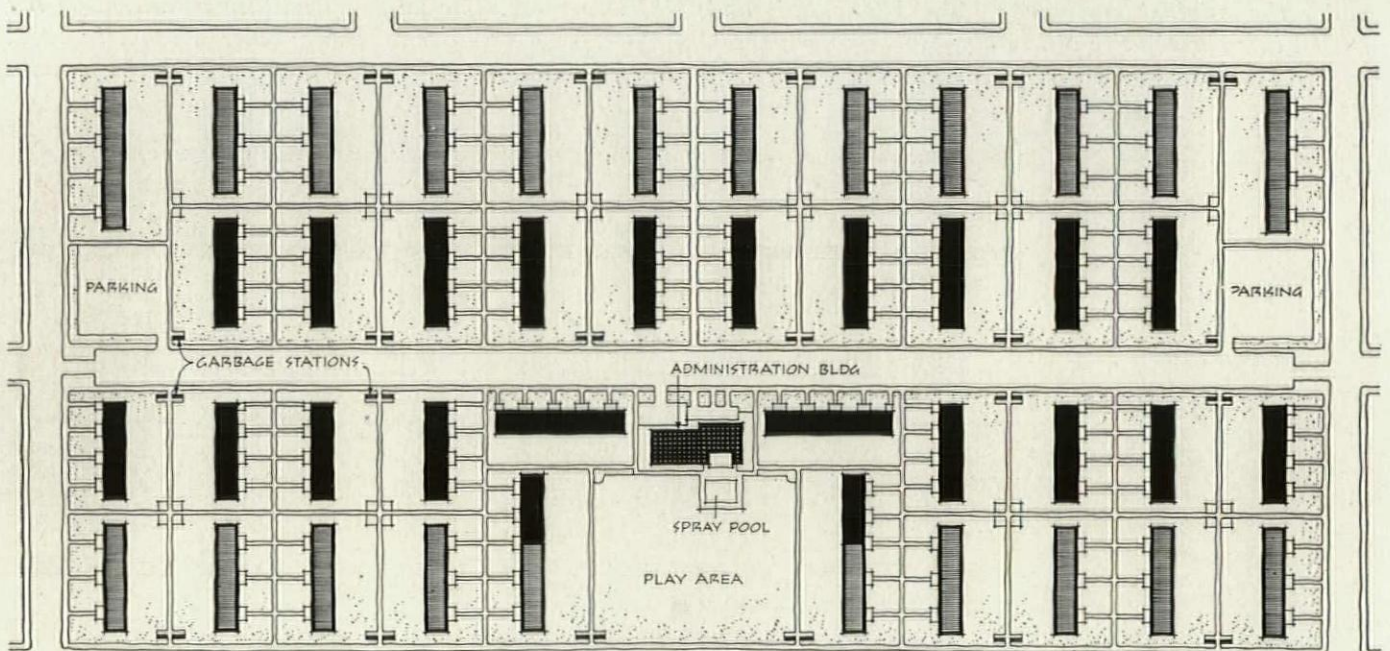
Floor Plan

Scale 5' 0 20'

BY HARRY INGE JOHNSTONE, ARCHITECT, OF MOBILE, ALABAMA



"Orange Grove Homes" is a slum clearance project, consisting of an Administration Building and 42 dwelling units for Negro families. It includes 20 buildings with 3-room apartments, and 20 buildings with 4½-room apartments. There are also two buildings containing five 3-room apartments and five 4½-room apartments each. Beyond the Administration Building (shown above right and across-page) is a spray pool for the children, and a large play area. The basic unit plans shown on page 93 also apply to this project. Actual construction costs were slightly under the original estimate of \$3,166.25 a unit and \$826.70 a room. The actual rentals for 1941 were \$2.16 a room, and will be \$2.32 a room for 1942. In the application for USHA funds the architects based their estimate on a unit cost of \$2.50 a room. (Photographs of both projects by Richard W. Tebbs)



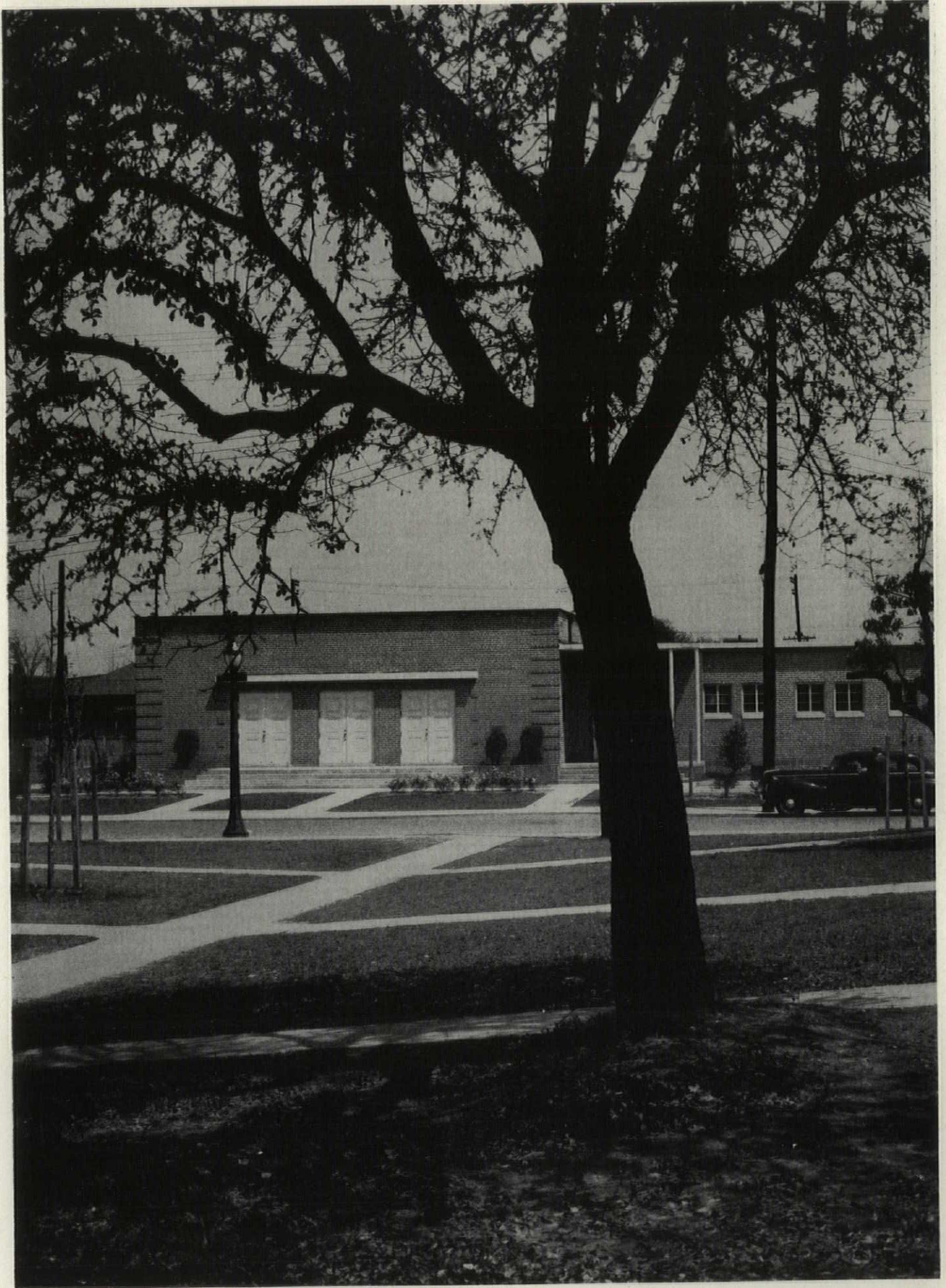
Scale 0 500'

■ TWO-STORY APARTMENTS
 ▨ ONE-STORY APARTMENTS

Plot Plan

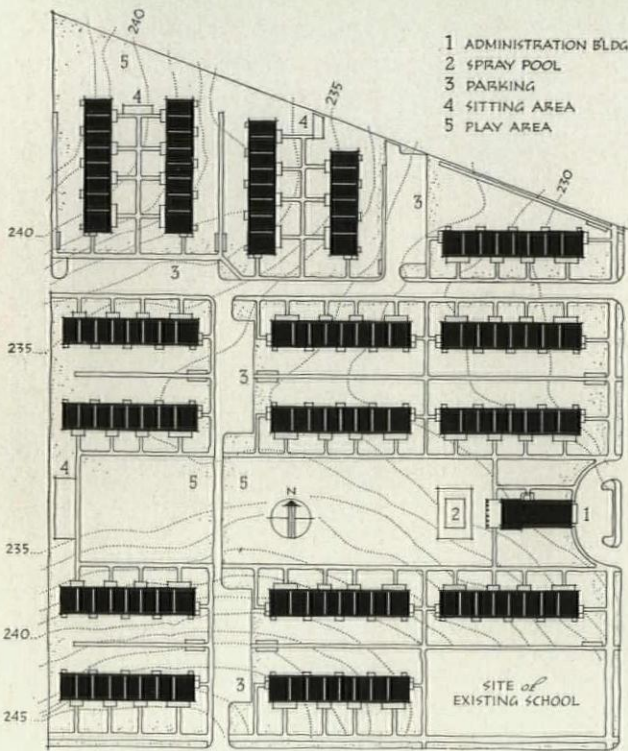


'ORANGE GROVE HOMES', MOBILE, USHA HOUSING PROJECT -



BY HARRY INGE JOHNSTONE, ARCHITECT, OF MOBILE, ALABAMA

FEBRUARY 1942

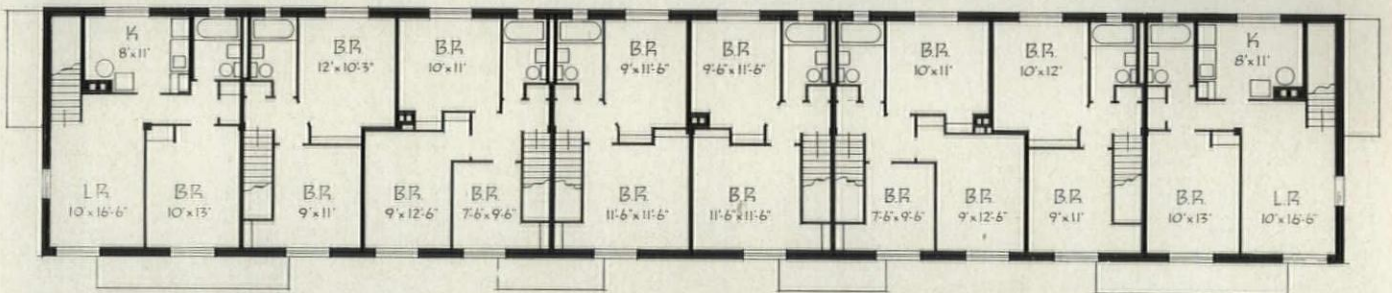


Sixteen brick buildings, containing 3-, 4½-, and 5½-room apartments comprise this slum clearance project for 150 low-income Negro families in Montgomery, Alabama. The unit plans (across-page) are typical for all three types of buildings. (F. S. Lincoln photos)

MATERIALS AND EQUIPMENT

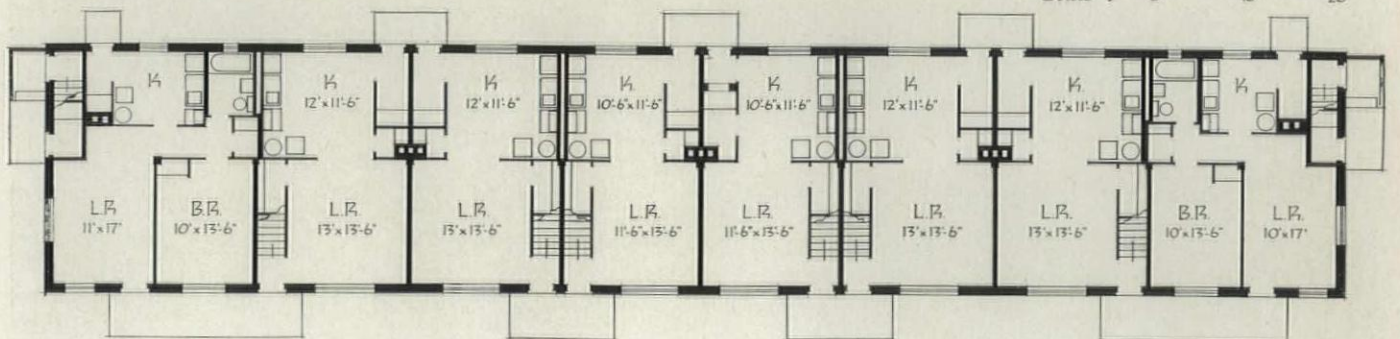
FOOTINGS	Concrete
FOUNDATION WALLS	Load-Bearing Tile
WALLS	4" Brick Facing with 6" Tile Backing
ROOF	Concrete Slab, Built-up Roof
FLOORS	Cement Finished Concrete Slabs
PARTITIONS	Hollow Tile and 2" Solid Plaster
WINDOWS	Housing Type Steel Casements
EXTERIOR	Red and Black Brick
INTERIOR FINISH	Casein Painted Plaster Walls and Concrete Ceilings
HARDWARE	Governmental Specifications
LIGHTING FIXTURES	Porcelain
PLUMBING	Typical Housing Fixtures, Copper Tubing
HEATING	Natural Gas Space Heaters

CLEVELAND COURTS, USHA HOUSING PROJECT — DESIGNED BY



TYPICAL SECOND FLOOR

TYPICAL FIRST FLOOR

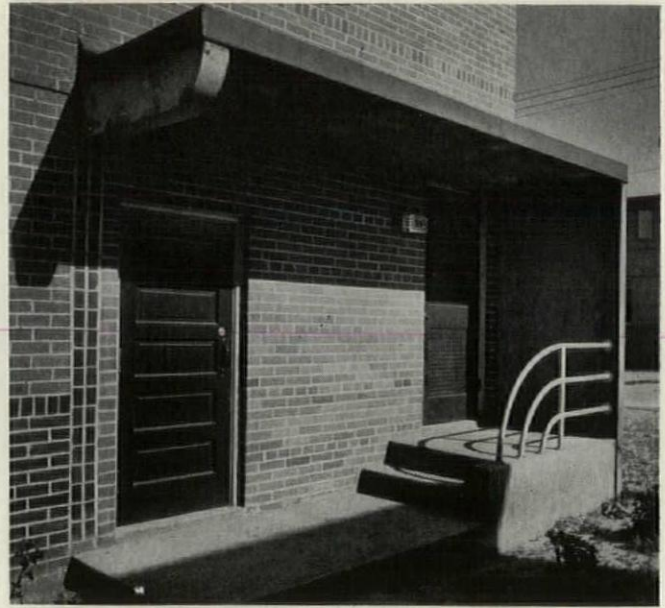


Scale 5' 0' 10' 20'

MORELAND G. SMITH, ARCHITECT, OF MONTGOMERY, ALABAMA



ENTRANCE DETAIL



ENTRANCE DETAIL

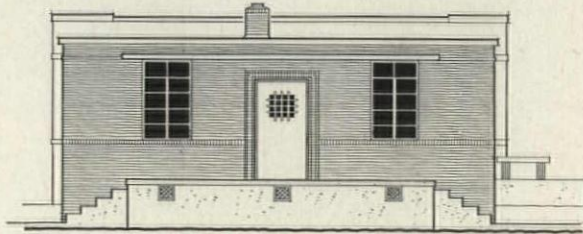
The base courses, trim around doors, and ornamental bands of black brick contrast effectively with the red brick walls. Shown above are two typical entrances, the one at right being used for end units. At the end of every row of dwelling units is a garbage collection station (below). Approximate construction cost for each unit was \$2,466; average monthly rental is \$13.77



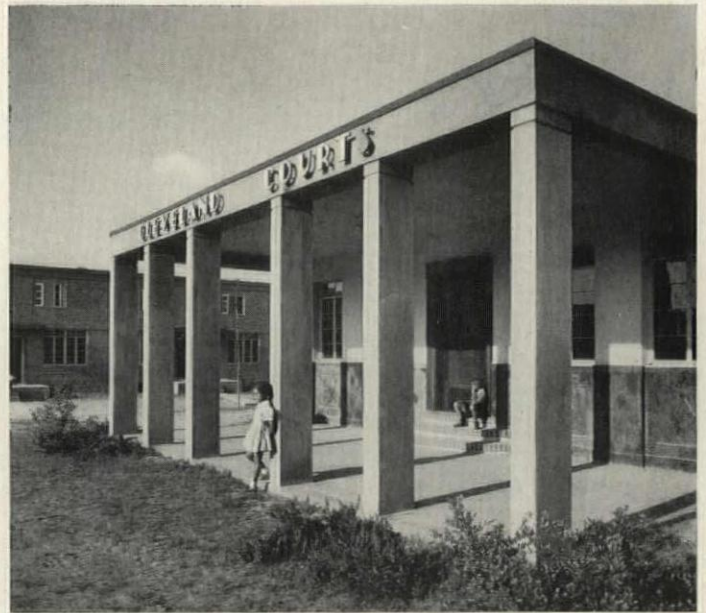
CLEVELAND COURTS, USHA HOUSING PROJECT — DESIGNED BY



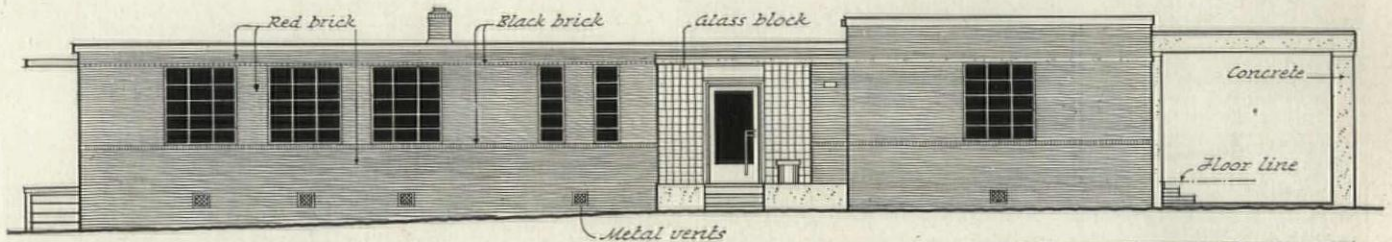
WEST ELEVATION



EAST ELEVATION



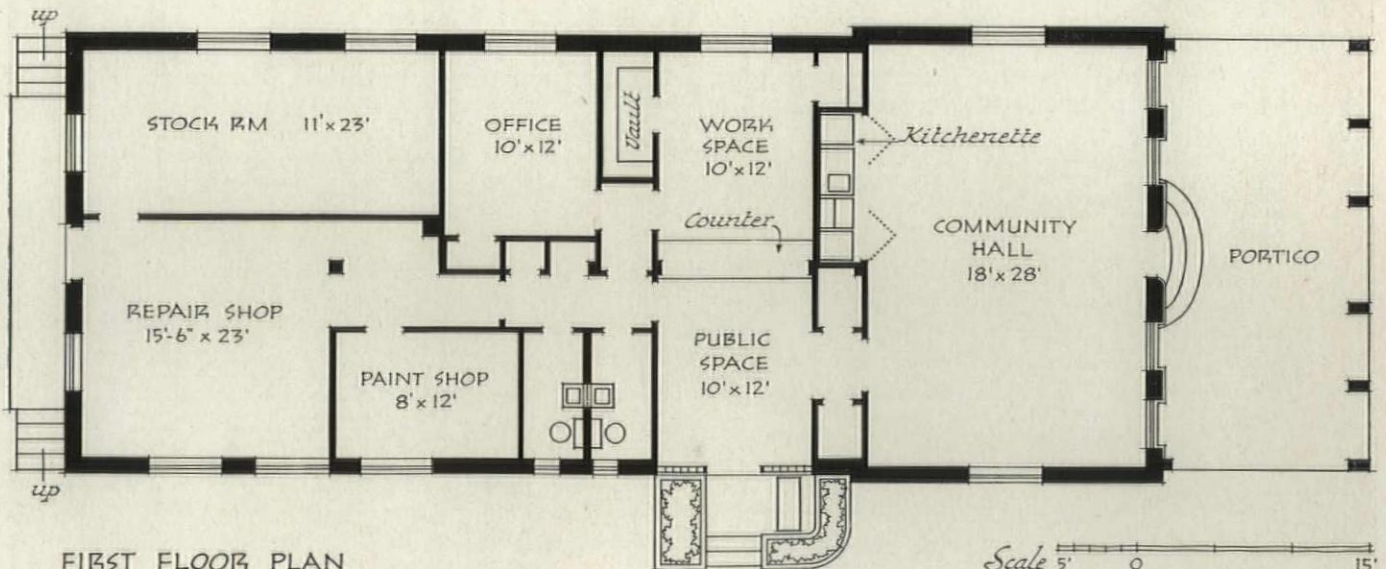
ADMINISTRATION BUILDING PORTICO



NORTH ELEVATION

Scale 5' 0 20'

The Administration Building is designed to serve various needs of the tenants of a slum clearance project. It faces a spray pool for the children, and a broad expanse of play area. Within the building are provided work rooms for painting, repairing, storage, together with an office and a Community Hall. Folding doors conceal a Kitchenette along one wall of this room



FIRST FLOOR PLAN

Scale 5' 0 15'

MORELAND G. SMITH, ARCHITECT, OF MONTGOMERY, ALABAMA



A typical kitchen unit at Cleveland Courts is shown at left. All the kitchens are large enough to include a dining table and chairs. Below is shown the Living Room of a typical end unit, as seen from the kitchen. The door opens into a closet. Each apartment has a linen closet, utility closet, and several hanging closets. The equipment of each kitchen includes a range, refrigerator, water heater, laundry tray, and sink



CLEVELAND COURTS - DESIGNED BY MORELAND G. SMITH

PENCIL POINTS DATA SHEETS

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

DISREGARD OF THE OBVIOUS

The following excerpts are from the New York Times, in the year 1923.

SUNDAY, SEPTEMBER 2 . . . Great earthquake and fire ravage Tokio and Yokohama . . . Tremendous loss of life and property indicated . . . Many boats sink in tidal wave . . . Nearly all of Tokio ablaze.

MONDAY, SEPTEMBER 3 . . . One hundred thousand dead in Japanese earthquake . . . Tokio, Yokohama, Nagoya in ruins . . . Millions destitute . . . Fires still raging . . . Score of smaller cities almost wiped out . . . Survivors are without food or water . . . *President Coolidge was prompt to express the sympathy of the United States and to offer every relief which we can extend.*

TUESDAY, SEPTEMBER 4 . . . 250,000 Japanese dead

. . . Terror spreads in new earthquakes . . . Fires and famine . . . *Coolidge appeals for American relief . . . American Red Cross opens fund by giving \$110,000 for Japanese aid . . . U. S. Asiatic fleet steaming at full speed from Port Arthur with supplies for sufferers . . . Martial law prevails in devastated area . . . Outside relief is needed badly . . . Surviving citizens half starved . . . League of Nations Assembly passes resolution expressing sorrow and sympathy . . . The usually imperturbable Ishii, in the name of his Government, declared (not without emotion) that this expression would touch his people as a "striking manifestation of international brotherhood and fraternity between peoples."*

WEDNESDAY, SEPTEMBER 5 . . . Japanese death toll may reach 300,000 . . . *America is raising millions for*

GENERAL A. R. P. REQUIREMENTS

Index No.

F19 c

CONSTRUCTION

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SHELTERS. Air raid shelters fall into 2 general classes. Since it is not economically feasible to construct shelters which are completely safe from direct hits for small numbers of people, we have:

1. *Splinter-proof Shelters*, for smaller groups; feasible in relatively less dangerous localities.
2. *Bomb-resistant Shelters*, for larger groups of persons as required in dangerous localities.

GENERAL REQUIREMENTS FOR ANY SHELTER. *Entrances* should be of sufficient capacity to permit the ingress of all for whom the shelter is designed to enter in the interval between the alarm and the start of the bombardment.

Egress should be provided by at least 2 means, remote from each other, so that the stoppage of one from debris will not trap the occupants.

Ventilation must be provided since all shelters should be gas tight. The duration of any attack CANNOT BE PREDETERMINED, so that statements like this (appearing in an Air Raid Publication) are stupid and potentially tragic, "The importance of ventilation in shelters depends on . . . the probable duration of a raid."

Placement of Shelters in groups should be at least 25'-0" apart, preferably in a scattered pattern. See *Data Sheet F19e*.

Capacities of shelters depend on the general population requirements of the district they are intended for, whether public, industrial or private. Further physical requirements relative to capacities are noted on *Data Sheet F19d*.

Sanitation. Water closets and lavatories are necessary. For shelters below sewer level, disposal must be obtained by means of chemical closets, septic tanks or special sewers.

Water Supply may be from city mains but suitable valving must be provided at point of entry. Water should be available for drinking and if the size of shelter warrants it, for washing and showers.

Electricity is necessary for lighting and operation of ventilating equipment. Since this may be cut off, an independent source of power should be provided from auxiliary generators or storage batteries. Generators should be separated from the main part of the shelter and the exhaust piped outdoors.

Flood danger must be controlled in the case of underground shelters by raising curbs or parapets around the shelter or entrances, to prevent surface drainage or water from broken main from entering. Drainage from the shelter is advisable.

Gas Proofing is essential. Only the small and trench type shelters should rely on personal gas masks for protection. Generally, shelters should have gas locks and maintain a slight pressure in the shelter to prevent the entrance of toxic gases. Larger shelters should provide for decontamination of person and clothing.

First Aid, from kits in small shelters to wards with beds and trained personnel in larger shelters, is essential.

Communication with the outside varies from battery or voice powered telephones to battery radios, to commercial telephones, depending on the size and importance of the shelter. In large shelters public address systems may be needed.

Tools which may be necessary for forcing an exist if occupants are trapped, such as crowbars, picks, axes and shovels, should be provided.

Food should be stored in airtight containers.

CAPACITIES OF UNDERGROUND SHELTERS

Index No.

F19 d

CONSTRUCTION

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

1. RISE IN TEMPERATURE. The human body at rest emits heat at the average rate of 400 Btu per hour. With an increase in the temperature of the shelter the absolute humidity value increases. The temperature of the shelter will tend to approach body temperature of 98.6° F. At 100°, 1 cubic foot of air will hold .00285 pounds of vapor. At 70°, 1 cubic foot will contain .03115 pounds of vapor. As the humidity increases with the temperature, the rate of loss of bodily heat approaches zero and extreme discomfort results. This effect occurs usually before the exhaustion of the oxygen in the air.

2. INCREASED HUMIDITY. The capacity of an unventilated shelter may depend upon the ability of the cold wall surface to condense the respiratory moisture in the air. In a subterranean shelter where the walls, floor and ceiling are surrounded by earth, the initial wall surface temperature will be approximately that of the earth, or 50° F. At 70° dry-bulb temperature the dewpoint is about 50° for a 50% relative humidity. It is for this reason that the number of persons to be accommodated by the shelter must bear a relation to the square footage of interior surface available for condensing respiratory moisture.

The ability of the cold wall to condense moisture will decrease as droplets form upon the surface. British handbooks require 75 square feet of surface area per person for 3-hour occupation, and 100 square feet per person for 12-hour occupation, in unventilated subterranean gas-tight shelters.

It should be obvious that with proper dehumidification a gas-tight room would be tenable for an indefinite period limited only by other factors than humidity. However, dehumidification equipment is expensive, may be damaged by bombing, and requires outside energy and attention for lengthy periods of operation. Therefore, shelters rarely contemplate the installation of dehumidification equipment for indefinite periods.

3. OXYGEN FAMINE. The waste product of respiration is carbon dioxide which takes the place of the consumed oxygen. Tanks of compressed oxygen may be used as a source of supply, or mechanical ventilation with suitable gas filters may be used in larger shelters. The mere supply of sufficient oxygen does not overcome the discomfort caused by humidity or rise in temperature.

With mechanical ventilation air is brought in thru gas filters and discharged by means of a non-return escape valve. This current of air will remove part but not all of the respiratory moisture. For this reason air is brought in at rates far in excess of the actual needs to supply oxygen to the occupants who would normally breathe at the rate of 20 cubic feet per hour. The removal of body odors is also a factor. The former belief that the discomfort experienced in confined spaces was due to some toxic volatile matter in the expired air is now limited by the fact that numerous researches have not demonstrated it. The only certain fact is that expired and transpired air may be odorous and offensive. Whether esthetic or psychological, these facts call for the introduction of clean air to dilute the vitiated air to a concentration which is not objectionable.

British authorities have found that for a 3-hour occupancy 150 cubic feet of air per person per hour should be introduced, and for 12-hour occupancy not less than 450 cubic feet of air per person per hour is required. The condensing interior surfaces are reduced from those required by unventilated shelters to 20 square feet and 25 square feet per person, respectively.

4. FLOOR AREA AND VOLUME. The floor area necessary so that occupants will have sufficient room in which to move varies between 3½ and 6 square feet per person — depending upon the ventilation, number of persons in the shelter and the expected time of occupancy. In the same manner the volume requirements are suggested as a minimum of 50 cubic feet per person.

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1942

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1942

relief . . . Hordes of Japanese are starving or dying of exposure . . . *American Red Cross asks \$5,000,000* . . . Whole of Yokohama burned to the ground . . . Corpses lie piled in the streets . . . *Governor Templeton of Connecticut appeals for Red Cross funds to save our "suffering brothers across the Pacific"* . . . *Local Chamber of Commerce of Springfield, Mass., starts Red Cross fund* . . . *Governor Pinchot of Pennsylvania appeals for contributions* . . . *City Council of Detroit, Michigan, votes \$25,000 for Red Cross* . . . *Omaha Chamber of Commerce starts movement for getting grain to stricken area* . . . *At Baton Rouge, Japanese Consul asks for rice and Governor Parker takes steps to avert Japanese famine* . . . *Prominent New York architects announce their willingness to serve in any capacity to the Japanese Government in the rebuilding of Japanese cities.*

THURSDAY, SEPTEMBER 6 . . . Estimates place Japanese dead as high as half a million . . . *American army transports are first to reach Yokohama, having sailed from MANILA with food, medical supplies, tentage,*

bedding and cots . . . 45,000 square miles devastated . . . Stench from decomposing bodies is unbearable . . . Food problem is most serious.

FRIDAY, SEPTEMBER 7 . . . Pestilence reported in Yokohama . . . *New York City exceeds its \$1,000,000 Japanese relief quota in one day!* . . . Hunger lines 2 miles long . . . Crazy parents seek children.

SATURDAY, SEPTEMBER 8 . . . Tokio fighting famine . . . Untold millions of money saved from earthquake destruction by American-made bank vaults . . . Churches expected to swell relief fund on Sunday . . . Army burying uncounted dead.

MONDAY, SEPTEMBER 10 . . . Prime Minister Yamamoto of Japan cables that "American generosity has sunk deep into the heart of the Japanese nation, and will ever be remembered with undying gratitude" . . . "The earthquake will do more to bring about friendship between Japan and other nations than a score of disarmament conferences," said the Rev. Dr. William Carter, pastor of the Throop Avenue Presbyterian

SPLINTERPROOF AIR RAID SHELTERS

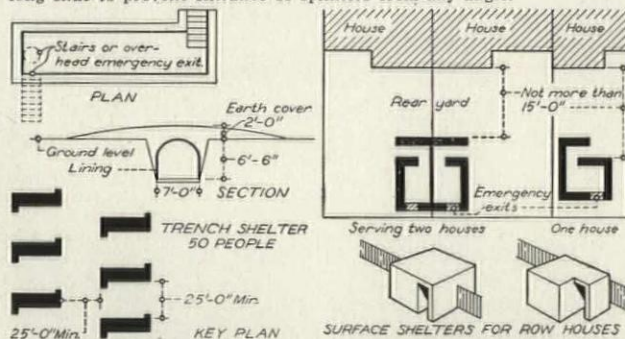
Index No.
F19 e
CONSTRUCTION

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

SPLINTER-PROOF SHELTERS. Shelters range in size and accommodation, depending on the location and use. Protection from the following should be provided:

1. Blast and splinters of a 500-pound bomb bursting not nearer than 25'-0".
2. Direct hit from a light incendiary bomb.
3. Weight and impact from falling debris from adjacent buildings.
4. Earth shock from a 500-pound bomb exploding not nearer than 25'-0".
5. Gas.

Outdoor Types vary from simple trench shelters which are not gas proof to elaborate, large reinforced concrete structures which may be above or below grade. Since these are usually located away from surrounding buildings damage or blocking from debris is minimized. Those above ground must have the entrances shielded by baffle walls long enough to prevent entrance of splinters from any angle.



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FEB
1942

Splinter-proof walls and roofs are to be proof against splinters of a 500-pound bomb bursting 50'-0" or more away, are as follows:

OVERHEAD PROTECTION THICKNESSES

- 1/4" of mild steel plate
- 4" of reinforced concrete
- 6" of ordinary concrete
- 8 1/2" crown thickness of brick-work or masonry arches
- 18" to 24" of earth, sandbags, ballast or broken stone

LATERAL PROTECTION THICKNESSES

- 1 1/2" of mild steel plate
- 10" of specially rein. conc.
- 12" of reinforced concrete
- 13 1/2" of brick wall
- 15" of plain concrete
- 2'-0" of gravel or stones between wood sheathing or corr. iron
- 2'-6" of sand or earth revetment

Debris Loads and their impact from collapsing buildings require the strengthening of the roof of the shelter space, by the use of additional timbers, posts, girders of steel or concrete, and the necessary columns. The following assumed loads must be carried in addition to the normal live and dead loads.

The additional load per square foot on the shelter roof, in wall bearing buildings shall be:

- 2 stories above shelter 200 pounds
- 3 or 4 stories above shelter 300 pounds
- Over 4 stories above shelter 400 pounds

Steel or reinforced concrete frame buildings may be assumed at 200 pounds per square foot regardless of the number of stories above the shelter.

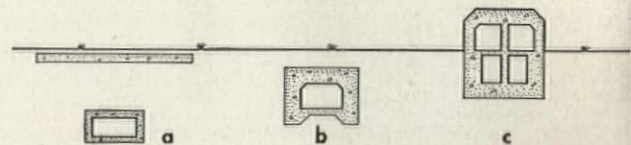
BOMB RESISTANT AIR RAID SHELTERS

Index No.
F19 f
CONSTRUCTION

PENCIL POINTS DATA SHEETS PREPARED BY DON GRAF

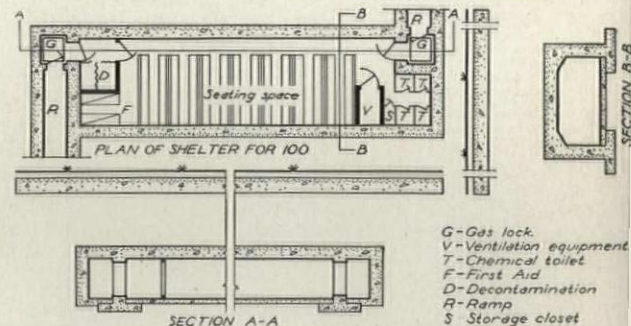
BOMB RESISTANT SHELTERS. Bomb Resistant Shelters are bomb-proof but only up to the size bomb for which they have been designed to resist. It is recommended to design such structures to withstand a 500-pound bomb. Shelters on this *Data Sheet* are of this type and fall into 2 general classes, all being built of heavily reinforced concrete:

1. (a) Those having a burster slab separate from and above the shelter, this slab being thick enough to offer complete resistance (penetration and explosion) to the bomb. These are built underground.
2. (c) Those in which the roof and walls of a surface shelter are designed thick enough to offer complete resistance to the bomb, and (b) those shelters built underground where the resistance is given by the roof of the shelter plus the amount of earth cover over the roof.



Indoor Types may be located in the basements of low buildings, or on intermediate levels of multi-storied buildings which are usually above the level of gases, the danger of splinters from ground level explosions is lessened and the weight and impact of debris would be less than on a basement shelter in the same building.

Existing windows must be bricked up and any weak walls thickened or protected to reach the degree of protection indicated for lateral protection. Basement shelters afford better lateral protection, especially if entirely below the ground level, but this is offset by greater debris loads, and the possibility of gas concentrations, flood from bursting water mains and fire in the case of non-fireproof buildings.



Penetration of a 500-pound bomb in earth varies, depending on the soil, from 12'-0" to 25'-0". In 3400-pound reinforced concrete, the penetration as recommended by British authorities is 2'-7" and to give proof thickness this is doubled to give a roof of 5'-2" thickness. Locating the shelter beneath the surface allows the roof to be less thick depending on the amount of earth cover.

Earth Blast requires that the walls of shelters below ground level be thicker than walls above in order to resist tamped explosion of a near hit. Protection may also be given by use of a trench, adjacent to the wall, filled with brush or similar material.

Church, Brooklyn, in his sermon yesterday morning.

THURSDAY, SEPTEMBER 13 . . . Jap ambassador says, "The Japanese people are being apprised of the splendid generosity of America and it is making a deep impression, arousing their heartfelt gratitude. The magnanimous and great-hearted action of the whole American nation is making of this calamity a means to bind even closer the two nations with the firm ties of humanity and mutual trust."

* * *

ED. NOTE—A male Japanese who, as an infant in 1923, was saved from death by American food and medical aid, would now be of the right age for the

Japanese army—stationed at Manila, Wake, Guam, Pearl Harbor, or the Dutch East Indies.

EPILOGUE

From the New York Times, WEDNESDAY, SEPTEMBER 5, 1923—The Italian Admiral was notified formally by the Greek Prefect that the town of Corfu was incapable of resistance and that the fort was occupied solely by refugees. The Italians riddle with machine gun fire and shrapnel a large group of Near East orphans taking their sea bath in the waters below the old fort, which was heavily bombarded with 5-inch explosive shells. Sixteen of the dead are orphaned Armenian boys and girls. Italian troops wildly cheered during the bombardment.

WASHINGTON REPORT

COMPILED BY A. D. TAYLOR OF CLEVELAND

GENERAL TREND

The situation in Washington concerned with Defense Housing and Major Defense Projects, in connection with which representatives of the Technical Planning Professions are employed on a salary basis or on a contract basis as Architect-Engineer to prepare plans and specifications and, in some cases, to supervise construction, is being crystallized. The methods of employment, as well as the revision of fees to be paid for technical planning services, are being definitely determined. Additional information concerning the extent of the program of Defense Housing, and of Major Defense Projects, is available in a limited way. There is increasing evidence that unemployment among members of the Technical Planning Professions, especially for those members who are willing to accept employment on a salary basis, to serve in this emergency in this country or abroad, will be very slight during the months immediately ahead.

★

CORPS OF ENGINEERS

The Corps of Engineers has made important changes in procedure since the work of design and construction for Defense Projects relating directly to Army activities was transferred to this branch of the Army.

In conformity with the decentralization of organization in the Corps of Engineers, the responsibility for selection of members of the Technical Planning Professions to provide planning services has been largely transferred to the District Engineers' Offices. The Prime Contractors on major Ordnance Projects and on Cantonments are largely selected by the Construction Advisory Committee, which continues to function under the Corps of Engineers in the same way that it functioned under the office of Quartermaster General. There is a tendency to negotiate all contracts directly through the District Engineers' Offices.

For those who may be interested in

communicating with Division Engineers' Offices and with the more important District Engineers' Offices for employment in some part of this program of planning for Defense Projects, the following list of addresses is made available:

NORTH ATLANTIC DIVISION—1216 Federal Office Bldg., 90 Church St., New York.

District Offices

Baltimore—332 Post Office Building
Binghamton—Security Mutual Life Insurance Building.
Boston—3rd Floor, Park Square Bldg., 31 St., James Ave.
Newfoundland—A. P. A. 801D
New York—Room 420, 17 Battery Place
Philadelphia—Room 900, Customhouse, 2nd & Chestnut Sts.
Providence—Industrial Trust Bldg.
Washington—1st and Douglas Sts., N.W.

SOUTH ATLANTIC DIVISION—(P. O. Box 1337) Main & Laurel Sts., Richmond

District Offices

Charleston—29 Customhouse
Jacksonville—U. S. Courthouse & Customhouse (P. O. Box 4970)
Mobile—409 U. S. Courthouse and Customhouse (P. O. Box 1169)
Norfolk—415 Post Office & Courthouse.
Savannah—Post Office Bldg.
Wilmington—308 Customhouse
Atlanta—494 Spring St., N.W.

UPPER MISSISSIPPI VALLEY DIVISION—831 U. S. Courthouse & Customhouse, St. Louis

District Offices

Chicago—932 New Post Office Bldg., (Canal & Van Buren Sts.)
Rock Island—Clock Tower Bldg.
St. Louis—816 U. S. Courthouse & Customhouse
St. Paul—1217 U. S. Courthouse & Customhouse

LOWER MISSISSIPPI VALLEY DIVISION—P. O. Box 80, Vicksburg, Miss.

District Offices

Memphis—U. S. Engineer Bldg., West Memphis, Ark.
New Orleans—Foot of Prytania St.
Vicksburg—U. S. Post Office & Courthouse

MISSOURI RIVER DIVISION—1201 Davidson Bldg., 10 E. 17th St., Kansas City, Mo.

District Offices

Fort Peck—Administration Bldg., Fort Peck, Montana

Kansas City—601 Davidson Bldg., 10 E. 17th St.

Omaha—1709 Jackson St.

OHIO RIVER DIVISION—1420 Enquirer Bldg., Cincinnati

District Offices

Cincinnati—522 U. S. Post Office & Courthouse
Huntington—Chesapeake & Ohio Bldg.
Louisville—Room 612, Federal Bldg.
Nashville—306 U. S. Courthouse
Pittsburgh—925 New Federal Bldg.
Wright Field—U. S. Engr. Office, Wright Field, Ohio
Columbus—232 N. High St.

SOUTHWESTERN DIVISION—Cotton Exchange Bldg., Dallas

District Offices

Caddo, Colo.—U. S. Engineer Office, Caddo Dam
Denison, Texas.—Citizens National Bank Bldg.
Galveston—U.S.P.O., Customhouse & Courthouse Bldg.
Little Rock—Gay Bldg., 300 Broadway
Tulsa—416 Wright Bldg.
San Antonio—Fort Sam. Houston, Texas

GREAT LAKES DIVISION—419 Federal Bldg., Cleveland

District Offices

Buffalo—960 Ellicott Square Bldg.
Chicago—932 New Post Office Bldg.
Detroit—613 Federal Bldg.
Duluth—Engineer Bldg., Canal Park
Milwaukee—408 Federal Bldg.
U. S. Lake Survey—649 Federal Bldg., Detroit, Michigan

NORTH PACIFIC DIVISION—500 Pittock Block, Portland, Oregon

District Offices

Portland—628 Pittock Block
Seattle—700 Central Bldg., 800 Third Ave.

SOUTH PACIFIC DIVISION—1200 Balfour Bldg., 351 California St., San Francisco.

District Offices

Honolulu—Alexander Young Bldg.
Los Angeles—751 S. Figueroa St.
Sacramento—(P. O. Box 1739) Wright Bldg., 1209 8th St.
San Francisco—401 Customhouse

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USE OF PRIVATE OFFICES ON PBA HOUSING PROJECTS

It is reported that the future policy of the Public Buildings Administration, in Defense Housing Work, will be to employ to an increasing degree the offices of Architects and

Engineers engaged in private practice to prepare plans and specifications for these projects. It is very likely that the supervision of construction will be handled by the personnel of the PBA Office.

★

CAMOUFLAGE AND CONCEALMENT

Camouflage and Concealment in the Army is in the hands of Camouflage Battalions of regular Army men. Camouflage and Concealment for Civilian Defense, in connection with establishments producing matériel for Army use, will be in the hands of the District Engineer's Office in the respective areas where these industrial establishments* are located. Members of the Technical Planning Professions interested in this kind of work ought to make application through the nearest District Engineer's Office as shown in the foregoing list. Camouflage in the Navy is largely in the hands of the War Plans Division, Passive Defense Section, Bureau of Yards & Docks. A number of Architects and Engineers have been considered for definite commissions to serve in this branch of the Navy in camouflage work. Bulletins on Passive Defense and Protective Concealment have been published by the Office of Civilian Defense in the New War Dept. Bldg., Washington, D. C.

★

DEFENSE HOUSING

A very extensive program of Defense Housing, administered through the Federal Works Agency, Division of Defense Housing, has been announced. This program is reported to involve the construction of approximately 40,000 prefabricated housing units for de-

fense workers, prior to July, 1942, and an additional 35,000 to 40,000 units prior to December, 1942.

This construction program is being financed from funds made available to the President under the Third Supplemental National Defense Bill (H.R. 6159). A period of approximately 40 to 50 days will be allowed for the preparation of plans, specifications, and awarding of contracts. A period of approximately three months will be allowed for the actual construction, to the point of occupancy.

The entire program of work, from present indications, will be performed by members of the Technical Planning Professions, in private practice, engaged for such services on a lump sum basis. The extent of this program, and the speed with which it must be accomplished, will require the services of offices properly organized with engineering, site planning, and architectural abilities.

This work program, through the Division of Defense Housing in the Federal Works Agency, also requires additional personnel which is being added rapidly for work in the Washington office, and for inspection work in the field, as well as for the work of site selection.

FWA field men are now engaged in selecting sites for 23,728 demountable houses in 47 localities where the Agency has been authorized to erect them. Location of the remainder of the 42,000 units is expected to be announced shortly. In addition to the 6,428 units in 34 localities announced by FWA on January 8, the 13 areas selected by the Defense Housing Coordinator, in which the latest group of 17,300 demountable homes will be erected, are as follows:

Locality	No. of Family Dwelling Units
Bremerton, Wash.	1,000
Burlington, Iowa	400
Crab Orchard, Ill.	400
Joliet, Ill.	500
Mineral Wells, Texas	100
Norfolk, Va.	11,500
(including Portsmouth)	
Ogden, Utah	2,000
Radford-Pulaski, Va.	500
Rockford, Ill.	200
Sandusky, Ohio	200
Sturgeon Bay, Wisc.	100
Weldon Springs, Mo.	300
Whidbey Island, Wash.	100

The United States Housing Authority will, in all probability, administer an extensive program of Defense Housing as soon as the Lanham Bill is reported out from the Conference Committee, to

which it was referred some days ago because of the amendments made in the House of Representatives and in the Senate.

★

EMPLOYMENT

The restrictions imposed upon the publication of information regarding the location and extent of many of the major projects requiring the services of members of the Technical Planning Professions, create increasing difficulty for those who are desirous of making application for employment on these projects. Many Engineers and Architects, employed to prepare plans and specifications for these projects, are handicapped in procuring personnel for this technical planning work because no satisfactory way has been developed to date to make available to those individuals desiring employment the names and locations of projects, as well as the names of the Architect-Engineers. Furthermore, no procedure has been adopted whereby the names of those men desirous of procuring this temporary employment, can be easily located by the Architect-Engineer.

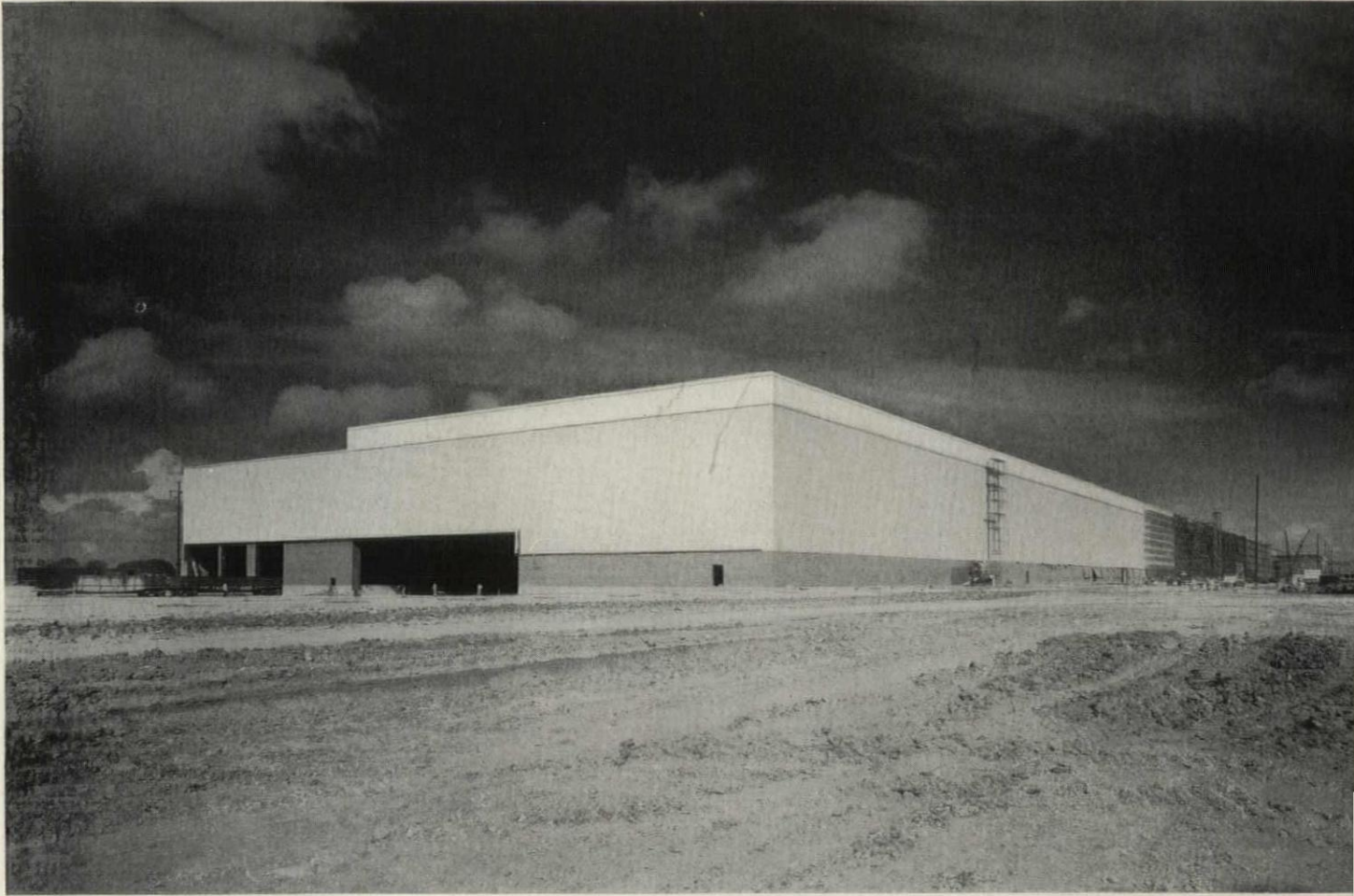
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SCHEDULE OF FEES

As a result of the records procured concerning Architect's costs in preparing plans and specifications (but not including supervision) on USHA-Aided Projects, subsequent to January, 1941, an amount equal to the Architect's fixed fee as determined under the schedule which prevailed during the major part of the year 1941 will be added to the fixed fee in new USHA contracts. The fees, generally understood to be established to date for the new program of Defense Housing where prefabricated houses are used under the Division of Defense Housing, range from approximately \$100 per unit in developments of 100 units, to approximately \$55 per unit on projects approximating 1,000 and more units. This schedule covers the complete services of the Architect-Engineer for making the topographic map, preparing the Site Plan, making adjustments of the foundations of the prefabricated buildings, staking house locations, completing detailed plans and specifications for utilities and site improvements, and for supervision services during the construction. A complete schedule may soon be available to Technical Planning men who are interested.

January 16, 1942

* *A Manual on industrial camouflage, embodying the methods elaborated at the Experimental Laboratory of Industrial Camouflage at the Pratt Institute under the direction of Mr. James C. Boudreau and Mr. Konrad F. Wittmann, is now being rushed through the press and will be published in the very near future by the Reinhold Publishing Corporation. This book will be available for both military and civilian use. The work on industrial camouflage at the Pratt Institute has been carried out in collaboration with high military and naval officials and is also interlocked with the activities of the Office of Civilian Defense.*



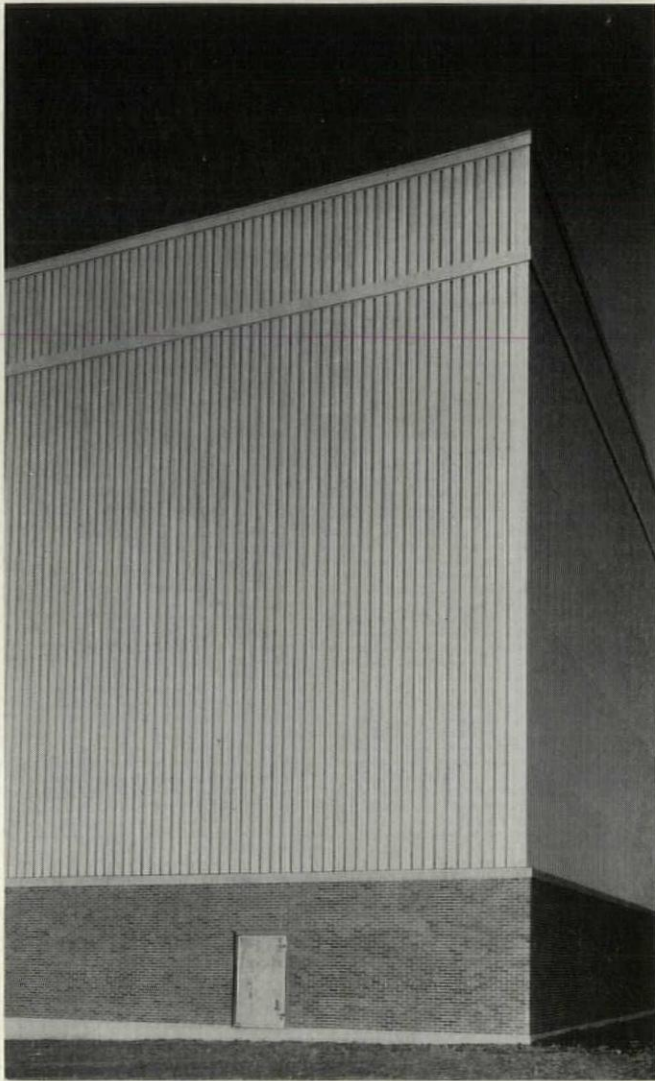
WINDOWLESS DEFENSE PLANT

THE AUSTIN COMPANY—ENGINEERS & BUILDERS

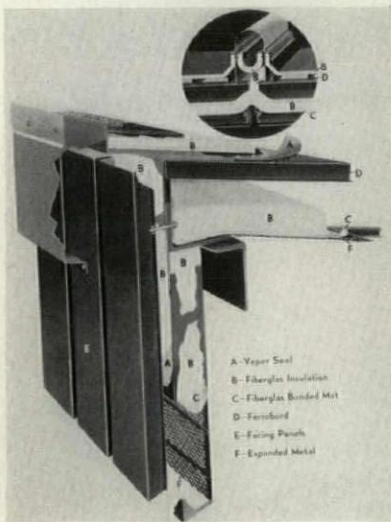
Prefabricated steel panels and three types of glass fiber are the components of a new type of fireproof shatter-resistant wall and roof construction originated and developed by the combined efforts of The Austin Company, Owens-Corning Fiberglas Corporation, Truscon Steel Company, and United States Gypsum Company, and demonstrated in the vast windowless structure shown here—one of two identical plants erected for the assembly of long-range bomber planes. The design of this building represents a new approach to the problem of insulation for efficient control of sound, light and temperature on the interior of an industrial plant. It was built for the War Department under direction of the U. S. Corps of Engineers. (Photos courtesy of The Austin Company)



CONTROLLED CONDITIONS

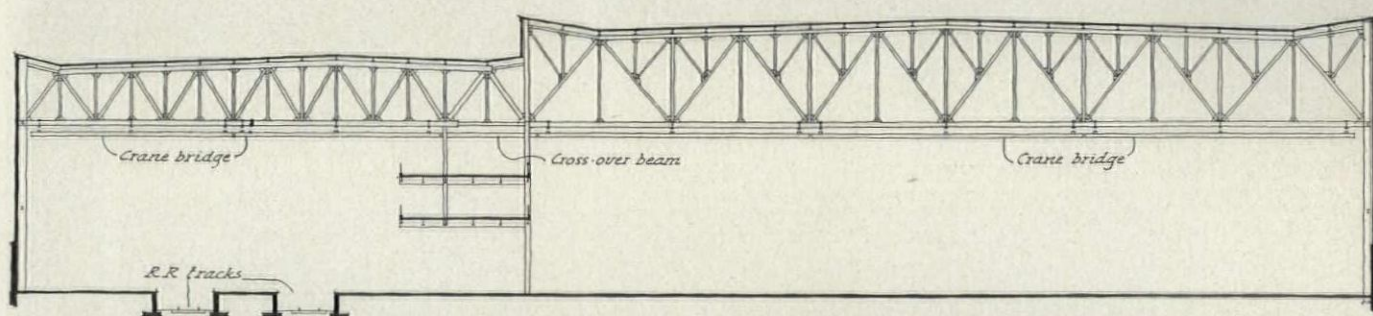
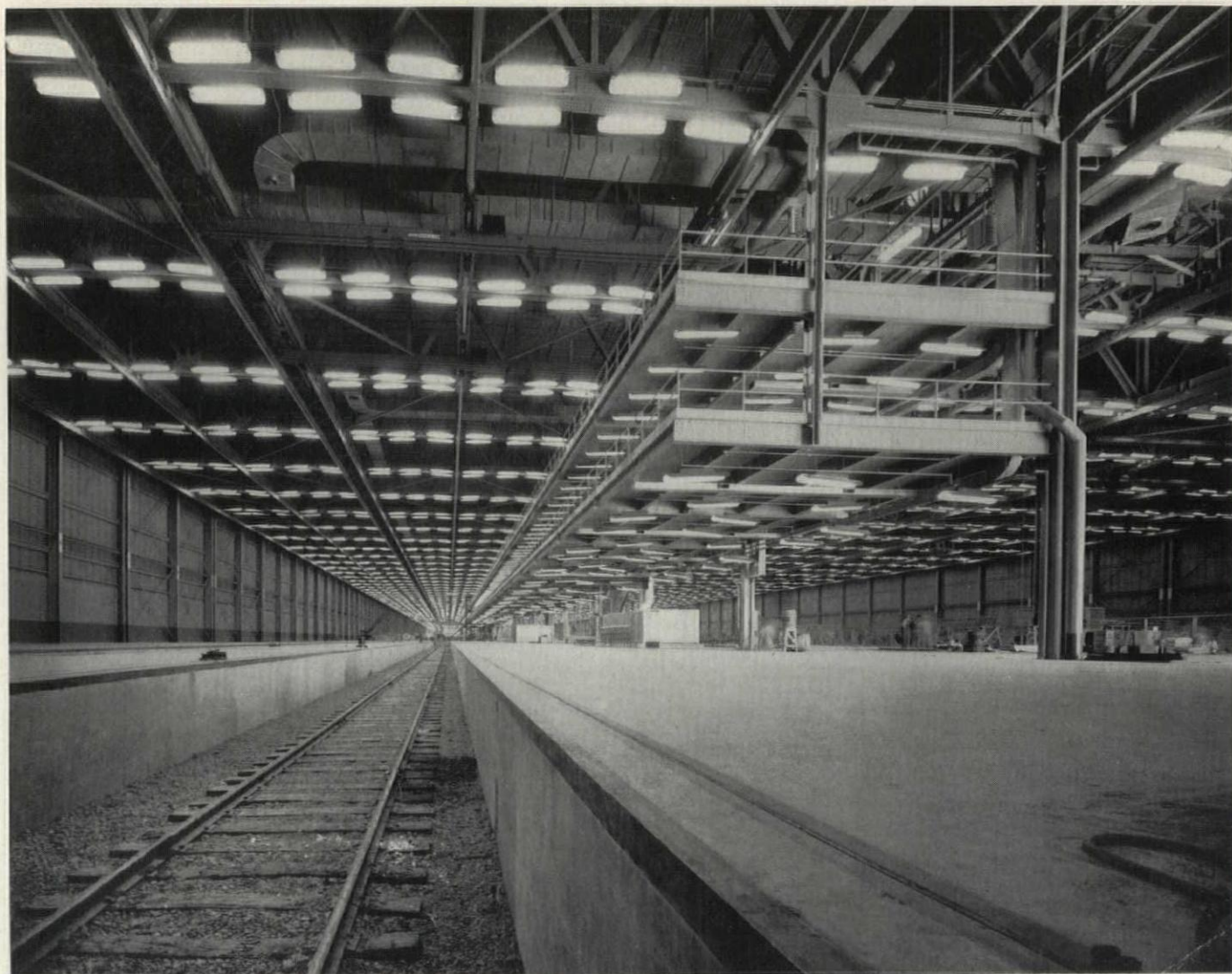


Entirely windowless, this plant required as much glass as the average daylight factory type since 203 carloads of Fiberglas were used to blanket the interiors of walls and roof—layers of insulation calculated to eliminate or control condensation and to reduce heat transference to a minimum, so that the cooling load would be correspondingly lightened. The receiving doors shown on page 107, and a 200-foot hangar door at the far end are the only large openings. Except for the problem of sound absorption, the requirements were about the same as those for a refrigerator! These were controllable temperature and humidity within minimum cost limits for construction maintainance and operation. The requirement of maximum light reflection on the interior, supplementing the light of 17,000 fluorescent units, is admirably solved by the white glass wool blanket, held in place by painted expanded metal guards (see detail photo below). As this plant was built under direction of U. S. Corps of Engineers for the War Department it should be noted that the designers were asked officially to meet two exacting conditions: 1. the proper working environment, so important now when man-hours count as never before; 2. the proper



FERROGLAS is the name given to the new construction unit, which serves as a basic factor in air-conditioning, shadowless lighting, effective sound absorption, and fireproofing. It is equally suitable for roofs or walls as it is both strong and light-weight

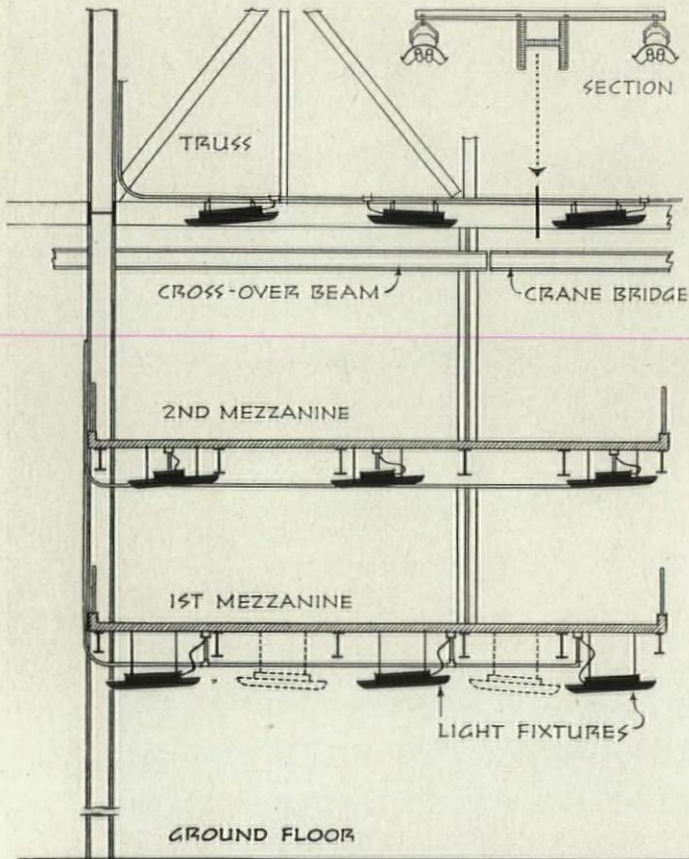




conditions to protect costly materials including sensitive instruments, both in storage and assembly.

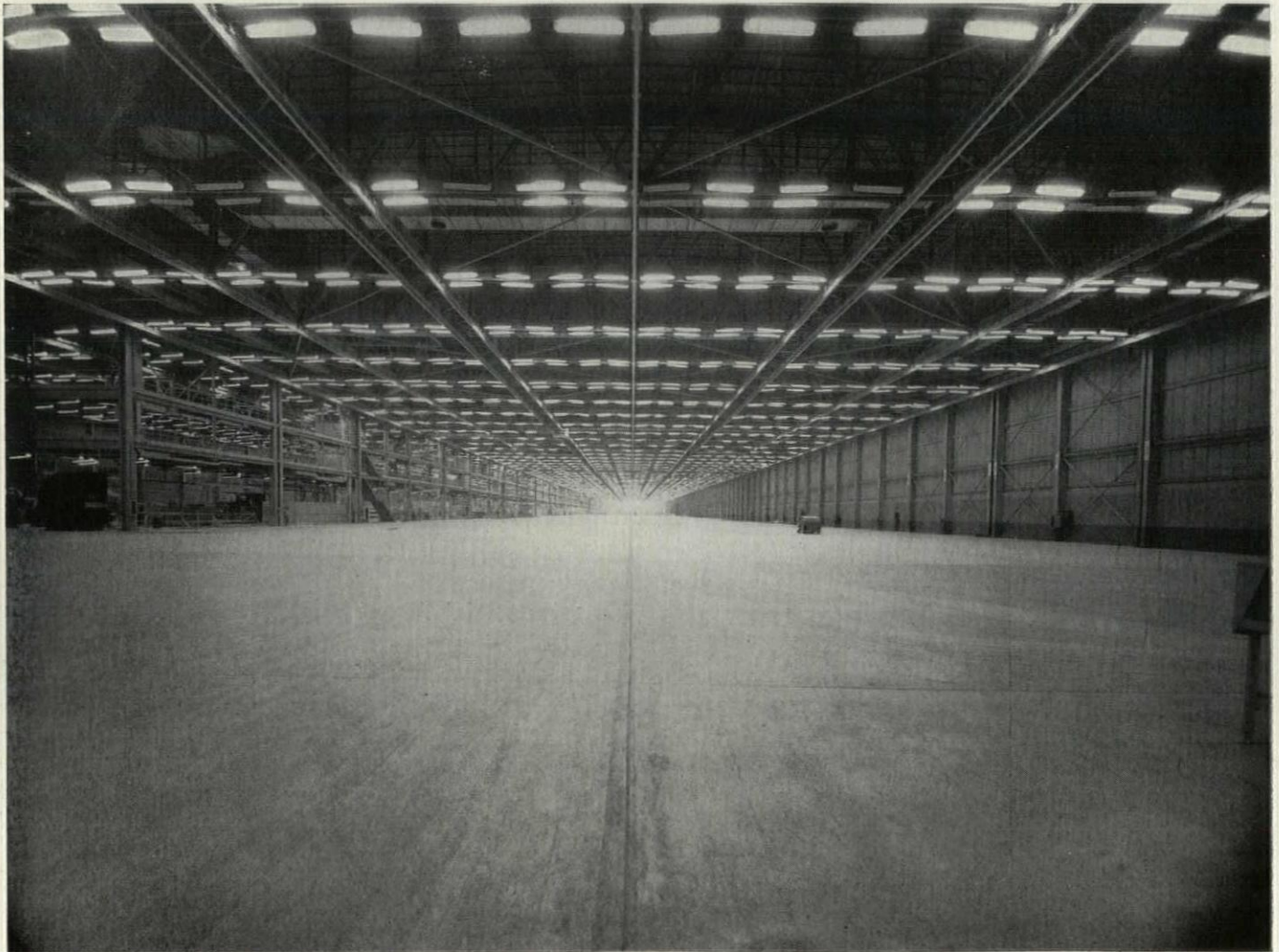
In addition, the construction unit was designed to provide fire safety, shatter-resistance and permanence. Experience in England suggested the elimination of masonry for walls or roof construction above an allowable 12-foot height. Therefore the upper walls and the roof deck of prefabricated steel and glass wool units—attached directly to the structural frame of steel and adequately protected from weather by an additional Ferrobord roof deck topped with Vaporseal, waterproofing, and sun and

wind proof gravel surface—answer a multiple need. As industrial America expands, calls for “specific buildings” may be expected to increase and a structural unit adapted to many of these specialized types seems worthy of investigation by designers. Those interested in understanding more thoroughly the principles of this unit and the structural section (suggested by the photograph and sketch above) may refer to the *Engineering News-Record* for October 23, 1941 or to the manufacturers’ publications, “*Ferroglas*” by Truscon Steel Company and “*Controlled Conditions*” by Owens-Corning Fiberglas Corporation.



An important factor in the diffusion of working light throughout this windowless plant is the white Portland concrete topping of the floor (see photograph below) which measurably contributes to the effectiveness of the lighting system. In an aircraft assembly plant light reflected from the floor is highly desirable because a good deal of work must be done on the under side of wings and fuselage. This use of white concrete floors, so far restricted to the aircraft assembly plants, suggests that they might be used in conjunction with lighting systems in other types of buildings.

The mezzanines (see detail at left and photo below) are suspended from the trusses spanning the secondary aisles parallel to the main aisles pictured on this page, and supported on one side by the center columns. They are used for storage of parts and sub-assemblies convenient to the various assembly stations. The mezzanines are interrupted at seven points by transfer aisles for the monorail connections between the principal aisles of the plant. Each of the mezzanine sections is equipped with rotary lift hydraulic elevators large enough to handle all but heaviest parts. Food wagons, first aid stations, tool cribs wash rooms and toilets are all located on or directly under the mezzanines to keep the principal aisles and cross aisles clear.



WHAT IS A LANDSCAPE ARCHITECT?

BY DOROTHY MAY ANDERSON

I am a landscape architect and can cast stones from inside the vulnerable house of our profession, while denying and defying many of the criticisms that come from without. In his recent article (PENCIL POINTS, November 1941) Carlton K. Matson accuses the architectural profession of talking to itself in a jargon the prospective client cannot understand.

If this challenge to architecture is valid, and I think it is, then the same can be said and underscored in the case of landscape architecture. The layman may well ask, "What's in a name?" and receive a different answer from each landscape architect approached, to say nothing of the answers he would receive from art critic, architect, engineer, and nurseryman.

Too long we've been saying—"But ours is a young profession; we must educate the people till they understand its meaning." What we really mean is that the title is young. The work—for which that title is no more than a cumbersome handle—is old indeed, and will exist as long as man in any way seeks to alter his natural environment. The term landscape architecture has been given a fair trial (half a century) and because all but a few initiates have found it wanting—wanting in concise meaning, wanting in the associative ideas it should quite naturally inspire—the profession has greatly suffered. If the public does not understand our language, is it any wonder that the amazing changes in the physical aspect of our whole countryside today are being accomplished as much in spite of as because of us? We are doing ourselves much harm and are serving our fellowmen badly if we sit back and complain of not having jobs, not being understood by our colleagues in related fields, or not getting credit for what we really do.

Terms and titles are only partially responsible for the present situation (let someone else condemn us for other faults) but in a world of speed and mobility even an ambiguous word can be con-

fusing enough to create a "bottle-neck." I maintain that to leaders in most fields today "landscape architecture" is almost, if not entirely, meaningless.

Do we present, to those who try to understand us, a petty picture of self-conscious die-hards, fighting to see that our names and professional rankings are included on all architect's photographs, even though the pictured area shows no more than half an existing elm tree?—a picture of jealousy and insecurity as we fight to hold our own in the worlds of art, architecture, and engineering—and fight to keep the nurseryman and contractor from presuming upon our hallowed ground? Is it possible we've been guarding with this dog-in-manger attitude no more than a hollow shell, a word with no meaning?

No. What we are trying to defend is real, though intangible. It is too general to be easily defined; too vital a part of the whole to need the stimulant of a "pep talk." A short, honest, and intelligible sales talk would do more good. For I hope what we are trying to say is not that landscape architecture is an art, period; but that, stripped to the barest functional bones, site and shelter are inseparable, integral parts of one design. I hope we

are not insisting that landscape architecture and civil engineering are entirely synonymous, just because we recognize that all patterns of overland transportation must conform, in general, to the natural contours of the earth's surface. I hope we can keep both feet on the ground while we analyze the factors that contribute to that fundamental relationship between the community and the growth of the soil, instead of going off the deep end of philosophy and sociology.

We landscape architects see the whole picture—I feel quite sure of that—its component parts, its rightness. We even have faith in the ultimate goal. But we are explaining it so badly. The last few years have made us acutely aware that words are tools in all professions, and our word-tools are not suited to the age in which we live or to the work which we have done and will do. We need simpler, sharper means of conveying our ideas to the runner who reads—and also works. New words like "contour-scaping" and "contourscapist" (if they can be called words) are certainly no help; "landscaper" is little, if any, better. Substitute terms may have fewer letters, but not one of the many I have heard is any more concise or clear in cov-

THE PUBLIC RELATIONS SECTION

With our January issue we rounded out a complete year of publishing each month a Public Relations Section under the able editorship of D. Knickerbacker Boyd. During that year Mr. Boyd has described and documented a wide range of Public Relations activities that can be undertaken by architects or groups of architects. During that year also, we made much progress in convincing architects and groups of architects that Public Relations activities are an essential means of regaining ground lost by the profession through previous years of neglect.

With the advent of war the Public Relations picture has changed somewhat, and, although we propose to continue to print helpful material on this subject, we are discontinuing the regular month by month forum. We regret to lose the valued services of Mr. Boyd as guide and counsellor. He will, of course, continue to carry on his activities on behalf of the architectural profession and has arranged to conduct a section in the Empire State Architect, official publication of New York State Association of Architects.

ering the activities of the field than is the solid mouthful "landscape architecture". Perhaps the mere fact that they spring up like mushrooms indicates the desire for more vivid language is as widespread as the need for better landscape architecture.

In a recent report on "Linda Vista—America's Largest Defense Housing Project" (PENCIL POINTS, November 1941)—the words *landscape architecture* occur not once, although this project simply could not have been realized without benefit of landscape architect as I interpret the title. The substitute term in this case is "site planning" and since the method of design is exactly the same, I should welcome this ray of light but for one thing. If *SITE PLANNING* is to be the streamlined version of *LANDSCAPE ARCHITECTURE* it must include planting; one cannot lop off this part of the unified whole just because the most visible part of its execution, of necessity, comes last. I consider the following sentences, hidden in the body of the report, most damning to the conception of that project and to the profes-

sion as a whole: "Planting plans, now completed, will provide colorful landscaping for both house and park areas at an estimated cost per unit of less than \$30, including street, park and yard trees, and foundation planting. As the site was devoid of trees, except for an olive orchard covering nine acres, it is proposed to plant nearly 11,000 young trees and 60,000 shrubs and vines." *Planting* and *landscaping* are not synonymous. Planting plans when carried out (if they are good) will provide good planting, nothing more; most of the "landscaping" (of which planting is only a part) has been carried out long since. We have failed indeed, even with our colleagues, if we have tolerated "landscaping" as a slangy synonym for designing, only to find it used to mean bigger and better collections of plants. Does "foundation planting" actually convey some meaning to the architect—some abstract decoration laid on by the linear foot?

Again I mistrust the words more than the designer or the writer who uses them. You architects can help us greatly in your surveys to

determine the true nature of public criticism and demand. And I trust we shall have the wisdom to read through and beyond the answers to such surveys. Meantime, in order to talk intelligently to our fellowmen, the terms we must find should mean more than the "save money" and "safeguard investment" of Mr. Matson's article; they must mean much more than the "make money" truth of other recent articles comparing realtor's statistics and nurserymen's advice. Appeals to the average home owner to consider the increased financial value of his property in direct relation to the number of plants he buys (expressed sometimes as the "amount of landscaping") undermine the very fundamentals in the design of outdoor areas, and contribute to the living junk yards that line our suburban streets.

This is no time to be smug about our historical record and professional traditions, or about ambiguous words that happen to mean something to us. It is, instead, a time to examine the job to be done and to state simply and clearly how we mean to do it.

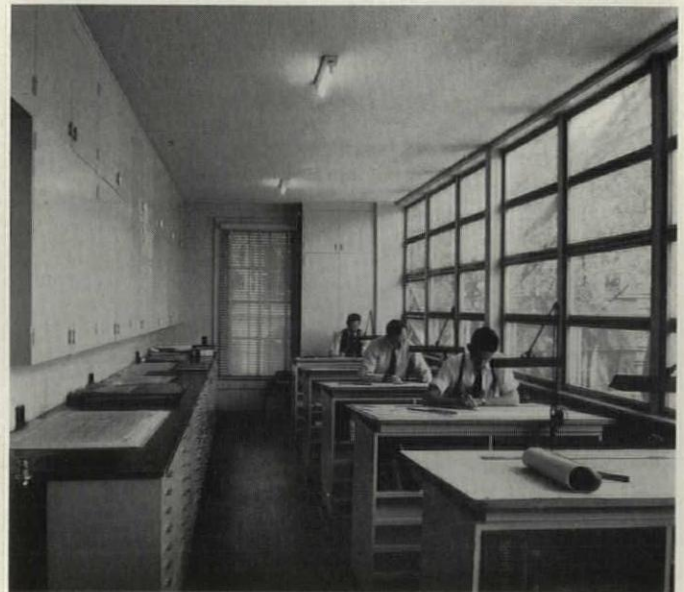
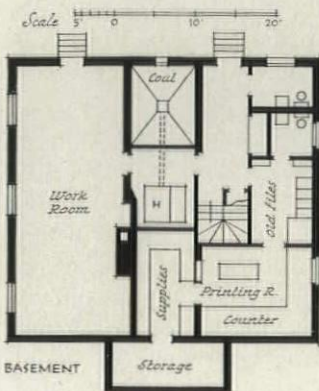
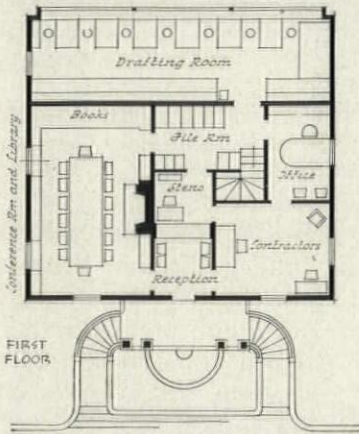


The Office of
MORELAND GRIFFITH SMITH
Architect

This architect has, by taking thought, contrived to make his office premises into an attractive, unobtrusive and continuously effective means of engaging the attention of potential clients. There is nothing about this display that smacks of commercialism. It is good Public Relations technique of a sort any architect can apply



The small building used by Moreland Griffith Smith as an architectural workshop and office was formerly a residence of a type popular along the Gulf Coast 100 years ago. The extensively-remodeled interior provides complete architectural facilities,—drafting room, conference room-library, office, and a contractors' room. A work room, printing room, files, and heating unit also are provided in the basement. The exterior of the house has been unaltered except for the addition of front steps and fountain. (Photos by F. S. Lincoln)



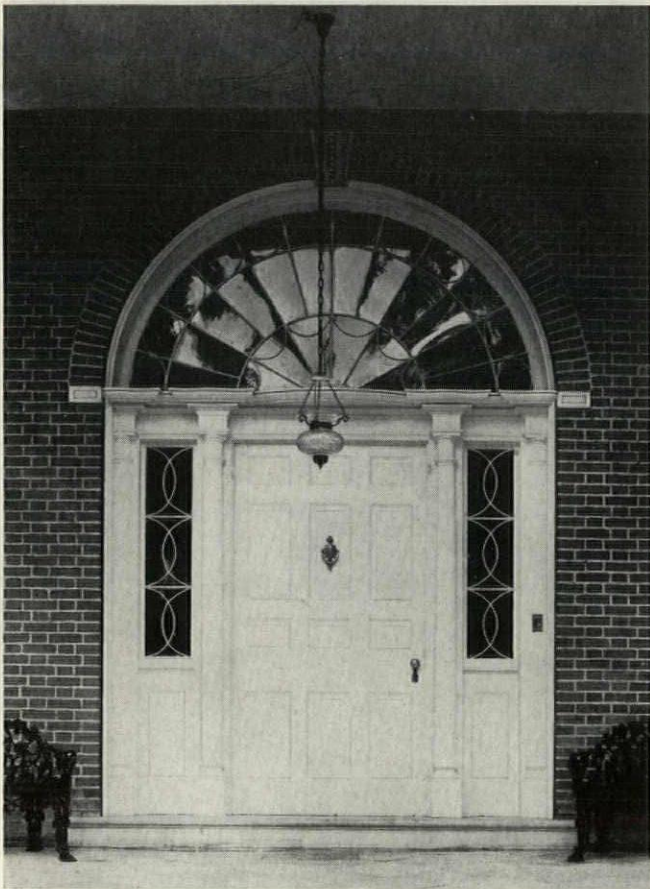
OFFICE OF MORELAND G. SMITH, OF MONTGOMERY, ALABAMA

THE DOORWAYS OF OLD NATCHEZ

BY NOLA NANCE OLIVER

EDITOR'S NOTE—Some of the attractions of Natchez, Mississippi, that would appeal to Architects are described here by Mrs. Oliver, author, newspaper woman, lecturer in psychology, and authority on ante-bellum homes of the lower Mississippi Valley, on the occasion of the 11th Annual Pilgrimage (March 1 through April 7) conducted by the Natchez Garden Club. Those visiting the historic town during the Pilgrimage will be welcomed in 22 homes of historic and architectural interest, most of them retaining their old furnishings and family heirlooms

The doorways of the historic homes of Natchez awaken romantic memories of a glorious past. They are links with the days when celebrities from the four corners of the world crossed these portals to be greeted by the gracious hosts and hostesses



The front door suggests the elegance of "Arlington," completed in 1820: home of Mrs. Hubert Barnum

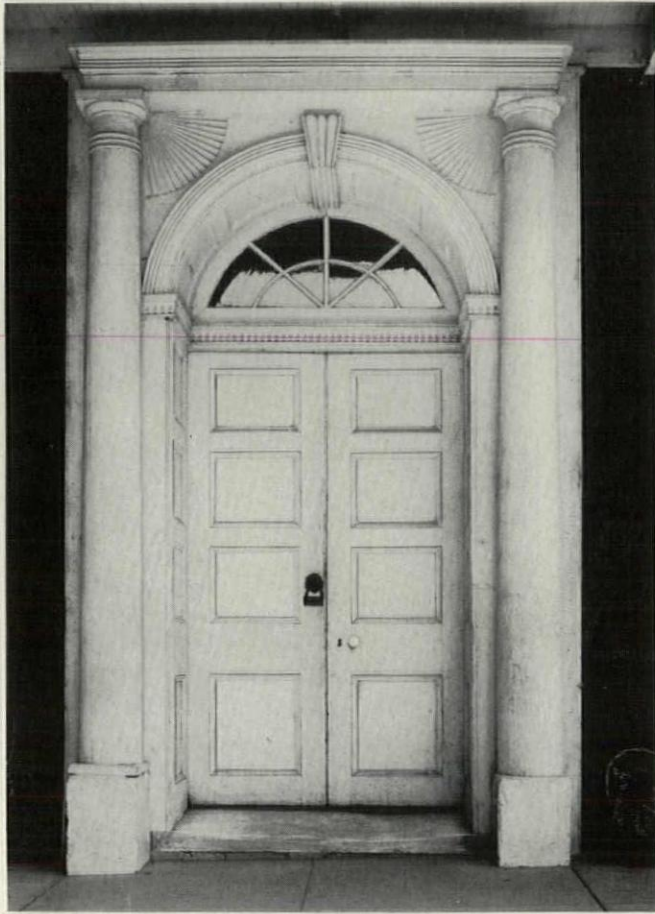
of the Old South. They are thus more than entrances—being enriched through the years by their association with successive generations. Unquestionably the most interesting external feature of each of these old houses is the doorway, expressive of the taste and personality of the 18th or Early 19th Century planters.

Many of the old doorways of Natchez, indicative of wealth, good taste, and dignity of the home, are adorned with pilasters in the Corinthian or Doric modes, supporting classic pediments. Many have beautifully-carved examples of the Pineapple—symbol of hospitality—or of the traditional Rose—symbol of domesticity and joviality. The hardwood sills have been worn to a high polish by the feet of those who have crossed these thresholds throughout the years; because in some of these homes are living the fifth and sixth generations of the families that built them. Characteristic of older Natchez are the doors with slatted shutters which afford privacy, repel the glare of the summer sun, but admit breezes to the central halls that are so essential to the ventilation of the plantation home—that practical early method of "air conditioning."

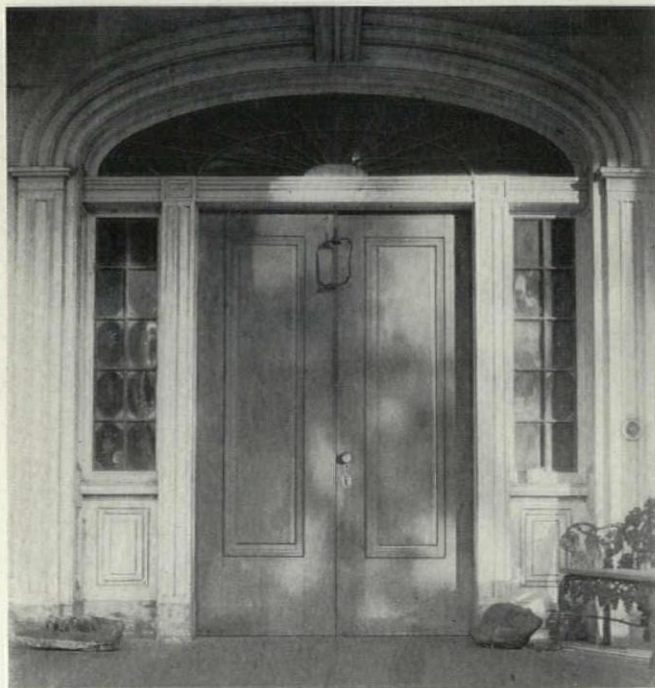
It is said that the magnificent doorways of "Rosalie" were the attraction that caused the Daughters of the American Revolution to purchase that fine old home as the Mississippi Shrine of the D.A.R. The wide, welcoming doors of the house, front and rear, downstairs and upstairs, are all of the same design and open on galleries supported by tall Tuscan columns. These elegant doors of massive mahogany are enriched by leaded-glass side-lights of intricate design and wide spread fan-



Now in the heart of Natchez, "Magnolia Hall" was a country mansion when built in 1858. It was shelled in 1862. The present owners are Judge and Mrs. George W. Armstrong. (Natchez Photos by Earl M. Norman)



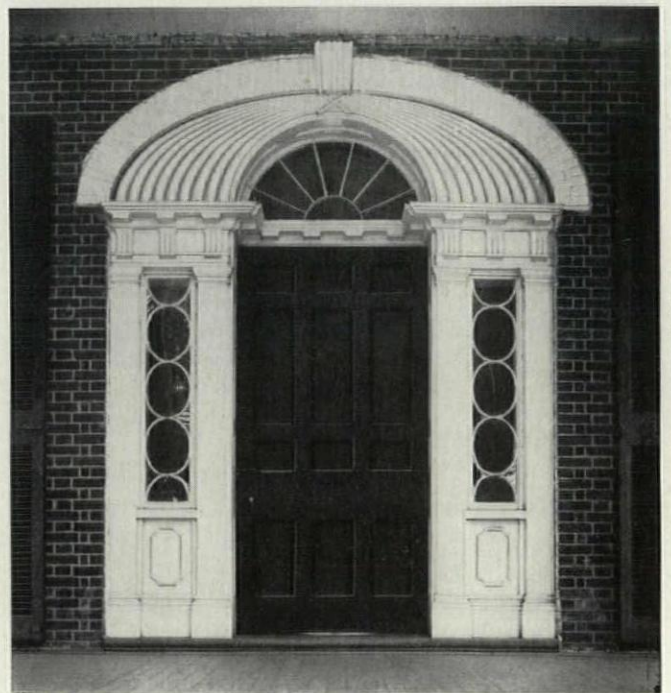
Seven generations of Southern school boys have worn thin the threshold of Jefferson College (above), beneath whose oaks Aaron Burr dreamed of Mississippi Empire. The gracious, more delicately-detailed doorways below are at "Windy Hill Manor" (left) and at "Auburn" (right) built in 1812 and famous for its handsome architectural features, notably its spiral stairway. It is the property of the City of Natchez



lights. "Rosalie" was built between 1820 and 1823 of brick burned on the plantation. It is on the site of the colonial stronghold from which the plantation inherited its name, a fortification built by the French and used successively by the British and Spanish authorities until it fell to the American troops during the Revolution. The present house served General U. S. Grant as headquarters during his advance on New Orleans.

At "Auburn" the exterior and interior doors are each of different design. This house was built in 1812. Even the glass used in the house was made on the plantation by slave labor and is today easily identified by its wavy surface. The dignity and grace of the entrance at "Auburn" have made it famous. (See photo below). The hand-carved door frame is fitted with a fan-light and side-lights of exceptional beauty. Here, as in many of the old homes recalling Classic monuments, the door to the upper gallery is a replica of the principal entrance; and this upper door opens on an iron-grilled balcony. The home is owned by the City of Natchez—gift of the Duncan family which owned the house from 1812 until 1911.

The home of the Natchez Garden Club, sponsor of the Annual Pilgrimage, is "Ellicott," which was built in 1795, the year of the Spanish-American Treaty that precipitated a land boom in this Spanish territory. The house is constructed of timbers salvaged from sailing vessels, put together with wood pegs and fitted with doors strong and broad—to receive the friendly visitor and to stand firm against the enemy. Several of the earlier doors of this house also are fitted with the heavy wood bars that were necessary for protection against hostile Indians and the river pirates. Built as a hilltop residence, the house long served as an inn and Aaron Burr conferred here with Blennerhasset.



THE SCIENTIFIC USE OF COLOR

BY FRANK J. BLANK

EDITOR'S NOTE—Mr. Blank is an executive (since 1924) of Frederic Blank & Company, North American associates of Salubra, S. A., Basle, Switzerland, manufacturers and internationally-known specialists in modern interior wall and ceiling decoration, also pioneers in institutional decoration—hospitals, sanatoria, schools.

How many Architects realize that their professional intention of constructing a really good building is not completely achieved until the appearance—interior and exterior—is acceptable and pleasing to those the building must serve? Intelligent planning is fundamental, of course, and sound materials are relied upon to insure structural safety. But there are those in the profession who recognize an added obligation to endow a building with qualities that will enhance its function. A potent factor, although one that is little understood and often ignored, is the *scientific* use of color.

Probably one of the major reasons why we in America use so little color in buildings lies in the frequency with which attempts at such use, when executed without benefit of scientific advice, have produced effects far from pleasing. Second, while color research definitely demonstrates certain fundamental principles of the effect of color on man, no treatise on this science is available as yet. The scientific color reaction of the average individual is a subject still in its embryo stage. Science does tell us that the human eye can differentiate between thousands of different hues—shades and tints—of green, for example. Thus it is easy to realize how a shade of green pleasing to one person could be disagreeable to another.

A NEW SCIENCE

We know colors create their own wave lengths. Now science graphs each, registering it under its own index number. Perfected in 1935 for practical commercial use, the

recording photo-electric spectrophotometer, requiring a specially-trained technical expert to operate it, is the most accurate color-measuring machine that science has devised. The trained human eye can discern only about one hundred thousand color variations. But the photo-electric spectrophotometer can distinguish between millions of different colors.¹ For manufacturers interested in turning out products with unvarying color uniformity, this machine provides the only reliable control of perfect matching. It analyzes the *physical* characteristics of a color, detecting the most trifling variations. Color production controlled by this machine will match under any light. We all know colors that appear to match in daylight but are quite different in artificial light. This illustrates the more-commonly accepted use of "color match"—the *visual* appearance of a color.

In 1931, four years before the spectrophotometer made possible the 100 percent accurate matching of a given color by analyzing its physical characteristics, the International Commission on Illumination, meeting in Cambridge, England, established a standard method for computing the sensation produced by a given physical stimulus. If two colors have the same dominant wave length, brightness and purity, they will match *visually* under the standard viewing conditions, but not match necessarily under other sets of conditions. On the other hand, if they match *physically*, as indicated by identical reflectance curves, they will always match under any conditions.² Nonexistent a few years ago, the science of color today is known, although practiced by comparatively few. The practical application of scientific color research to the welfare of human beings is in its infancy. We can identify two major factors: (1) science; (2) case histories. If we combine scientific knowledge with case histories, we arrive at the best expression.

¹"Back of the Printed Word"—pamphlet (Interchemical Corporation, New York).

²"Color as Light"—Monograph, (Research Laboratories, Interchemical Corporation, N. Y.).

COLOR-THERAPY

Who has the authority to comment or advise on practical applications of the science of color? Certainly those individuals who have had years of opportunity for applying the known scientific principles and observing through laboratory trial-and-error, results which, when repeated frequently enough, establish methods and techniques. Eminent psychiatrists—European and American—have long recognized the effect of color on the "tired business man," the neurotic woman, the high-strung child; its therapeutic values in creating harmonious, healing atmospheres. An extensive source of color-therapy case histories dating back over a period of years is found in European sanatoria, institutions and hospitals, where authorities, for almost half a century have used color and decoration in the buildings as a helpful therapeutic tool.

Most sanitarium patients—men, women and children—are resident continuously for periods ranging from a few months to several years. From the time of their entrance, when ill, to the day of their departure, they stay in specific interiors, usually occupying one and the same room, a constant surrounding to which friends and relatives come, etc. The cure depends on four major factors: (1) Medical treatment; (2) Diet; (3) Rest; (4) Mental Attitude. The treatment value of the surrounding, however, is of paramount importance, being the medium for establishing the harmonious, restful atmosphere required for complete recovery.

Records of reactions and responses of a great number of such patients supplied laboratory data out of which evolved abroad the practice of scientific color-therapy years before it received widespread attention by the medical profession in this country. Today, our leading doctors and hospital administrators recognize that when the average patient starts being aware of his surroundings, he usually stops being very ill and that is when "atmosphere" can be a tremendous

asset in quickening recovery.

Colors and types of patterns positively bad in their effects on patients are known, grouped and classified. Studies have been made of special-type patients—the mentally-ill, delinquent, etc.; what excites, disturbs or depresses them; what induces repose, creates atmospheres of harmony, improves the patient's outlook and happiness. Such information helped to establish basic principles which guide the color expert in his treatment of each new problem as it presents itself.

INSTITUTIONAL WORK

For the Architect of today and the future, one of the most challenging and rewarding fields of professional opportunity in this country is the Institutional—Hospitals, Clinics, Sanitoria and Nurses' Homes, Institutions for the Abnormal, Delinquent, and Dependent; Schools and Colleges. In such buildings, the use of color in architecture is of major importance to the successful functioning of the building; therefore, an essential responsibility for the Architect.

No general principles for the application of color to the exterior of buildings have been established.

The limitations imposed by locale, materials procurable, terrain, surrounding buildings, etc., plus cost, make such use infrequent and purely individual. But interiors—walls, ceilings, floors—have the same variables everywhere: size, light, exposure, and function. These architectural elements dominating the surroundings of staff, patients, or pupils, demand the intelligent application of color.

The Architect may say his responsibility ceases the minute he transfers to the hospital administration a building structurally sound that will last, say, fifty years. But what of his professional reputation for designing a successful institution? To a degree, that depends on the patronage it attracts and keeps, on word-of-mouth advertising in the community. Hospitals have something to sell, even though some of them, because of location or type of treatment, constantly are filled to capacity.

PUBLIC PREFERS COLOR

In these days of population mobility, the public—except in welfare cases—has a choice, even in small towns. Given the choice, the public prefers hospitals with color.

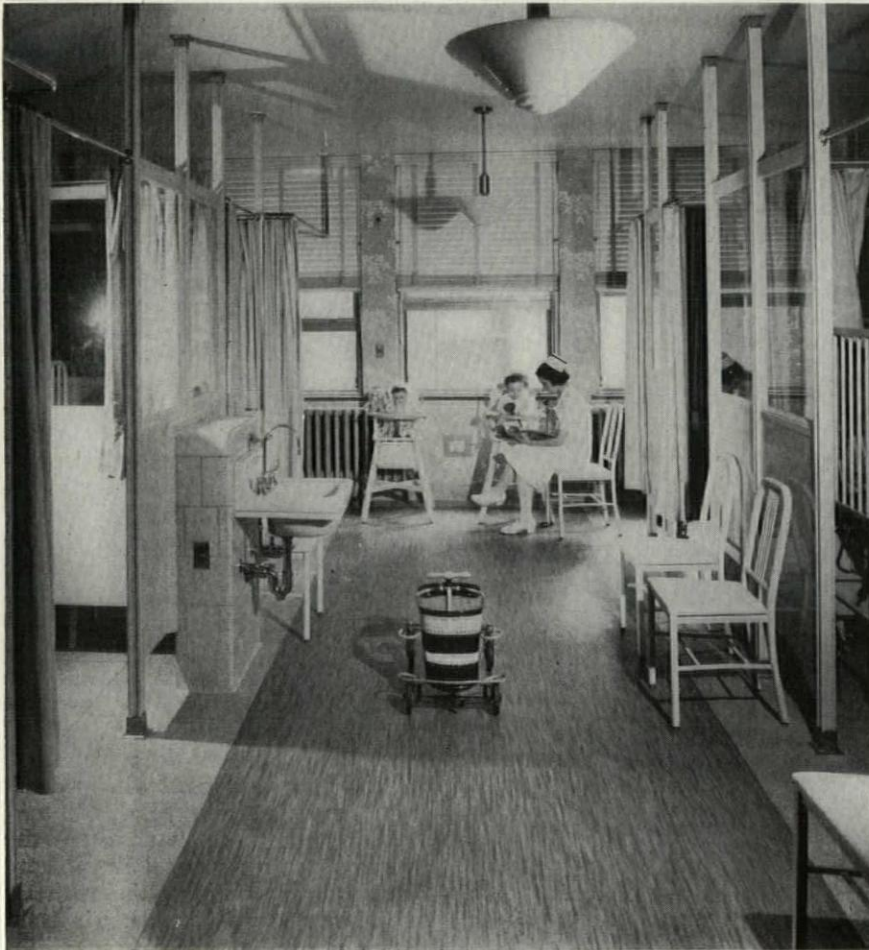
Numerous instances can be cited. What happened in a suburban community not far from New York City, is a case in point. Ten years ago, a hospital, still quite modern in layout and equipment but lacking color, had been erected. Two years ago, another hospital, stream-lined in every detail with certain structural advantages over the older institution, was built in the same community. Its walls and ceilings, however, were decorated in the traditional hospital manner—monotone and neutral colors being used throughout.

Hospital "A"—ten years old—realizing that patronage might be lost to "B"—the new building—proceeded to modernize interiors by applying color with the advice of experts. Today, the proportional bed-occupancy of "A" is definitely higher than that of "B," an unusual occurrence when community preference could be expected to favor a new building. Considering that the staff and service reputations of both are excellent, in fact the same physicians in many cases work in both, there is only one conclusion: the patients prefer the color-attractiveness of their surrounding in "A" hospital.

"TRADITIONAL" WHITE

"Why," one may ask, "if color is so important in hospitalization—having definite therapeutic values—are the 'traditional' hospital colors monotones or white, and why are these still being applied in some of our newest institutions?" A brief résumé of the history of hospitals is illuminating. Hospitalization,

This nursery unit of Wilmington's new Delaware Hospital designed by Massena & duPont, Architects, of Wilmington, has a western exposure. The ceiling is a warm ivory and the walls are covered with a light pattern of soft beige blossoms on gray-green (See detail below)



as such, is barely two hundred years old. The hospital evolved from the almshouse which uniformly, for sanitary purposes and economy reasons, was whitewashed; and whitewash has become the symbol of hygienic cleanliness.

In this particular, hospitals generally are less modern in their scientific standards. Consider what the hospital is: a purely functional building, a specialized institutional service, always utilizing the most advanced products of scientific research for the benefit of its patients, in building, equipment, and treatment. When we realize that the walls and ceilings—architectural elements—are about 80 percent of the interior surface visible to patients, the anomaly of treating such surfaces in an Eighteenth Century almshouse manner is strikingly apparent when everything else—plumbing, bedding, furniture, diets, kitchens, even bed-pans—all are products of Twentieth Century design and research!³

UN-SCIENTIFIC CHOICE

One other major reason, already mentioned, for the traditional white or monotone wall and ceiling treatments, may be traced to so-called experiments made with color which have not obtained good results. It is unfortunate that the men responsible for introducing color in institutions too often rely on two consultants—themselves and their staffs. Some understand color, and all goes well. Others do not, and what happens?

Say green may be decided on⁴: because to one individual, green is attractive; it has been seen in another institution and liked; or some one has heard that green is a good color. So these authorities go ahead and have a green, or several greens, applied to the walls. Then the feeling develops that the color is not good. But they do not realize that it very probably may be definitely bad. So they drop color, revert to traditional treatments, never once appreciating that they have *not yet* experimented with scientific color.

We also must note that institution whose Administrator, Decorator, or Architect replies to the suggestion that color be provided: "We have color. Our walls and

ceilings are off-white or neutral, but we have colored draperies and upholstered chairs." An improvement, to be sure, over the monotonous stretches of traditional treatments, but not a constructive solution. Such color surfaces are not large enough in area to create the therapeutic atmosphere medical science is demonstrating to be desirable for harmony of space. Since walls are usually over 60 percent of the space visible to patients, grey-blue drapes and white walls *do not* create a grey-blue room. Grey-blue walls, with *any* color drapes *do* give the effect of a grey-blue room.

Especially important in color-therapy is the correct application of color to ceilings. This area treated in the traditional hospital white or monotone, may have positive ill-effects on the patient. If white, consider its tiring effect since white reflects all colors. If the conventional ivory or buff, how uninteresting to the patient, most of whose time is spent looking at it. Neither are constructive therapeutic assets. But ceilings colored in lower values—greyed—are quieting and restful in effect. As a general principle, the strength of colors in ceilings is in definite relation to the walls. Contrast or harmony in wall-ceiling ensembles depends on surroundings. The so-called lightness of a room depends on the color of its walls, not the ceiling—as for example a room with yellow walls and blue ceiling. To the argument that the effect of a grey-blue ceiling is lost with indirect center lighting, may we inquire what useful purpose is served by such ceiling lights when general illumination is not required and the patient is not allowed to read, sew, write or work under such light but is given both headboard and bed-stand lights?

Uniformly, hospitals now insist on dull mat surfaces in all ceiling finishes—no sheen or gloss being permitted—the effect on the patient out-weighing any arguments as to ease of maintenance with glossy effects. It cannot be stressed too strongly that an individual's *opinion* of color that is good for hospital treatments may be detrimental from the therapeutic standpoint. What is correct for scientific color-therapy is determined by the reactions of thousands of *ill* individuals (patients) as evidenced in case history reports. Institutions treated in off-white or neutral colors, suffer from two points of view: (1) popular attractions: (2) scientific therapy.

OLDEST PRIVATE HOSPITAL

Current installations in Pennsylvania Hospital, oldest chartered private hospital in the United States, dramatize the intelligent use of color in hospital interiors. Founded by Benjamin Franklin and a group of public-spirited Philadelphia Quakers, it was chartered by the Assembly on May 11, 1751. John N. Hatfield, Administrator, asked for a decorative scheme for rooms in part of the original building dating back to 1796. Compare this with the task of decorating a 1941 building! Walls are 14 and 15 feet high—some with vaulted ceilings. Windows are 10 feet high with doors in corresponding proportions. How to combine the application of scientific color-therapy with such structural proportions and forms was an arresting problem. The solution illustrates certain definite principles, in choice of pattern, color and self-tone ensembles.

What was done?

- (1.) A picture moulding was installed about 10' 6" from the floor so that the wall color would establish a new ceiling height, thus completely altering the proportion of the entire room and its aspect to the patient.
- (2.) The ceiling treatment was darker⁵ than the walls, thus lowering the height.
- (3.) The wall received a light treatment in a self-tone all-over pattern, flowing, simple, pleasing. Above the moulding on the ceiling, a color-increased tone of the wall was used with a self-colored texture effect.

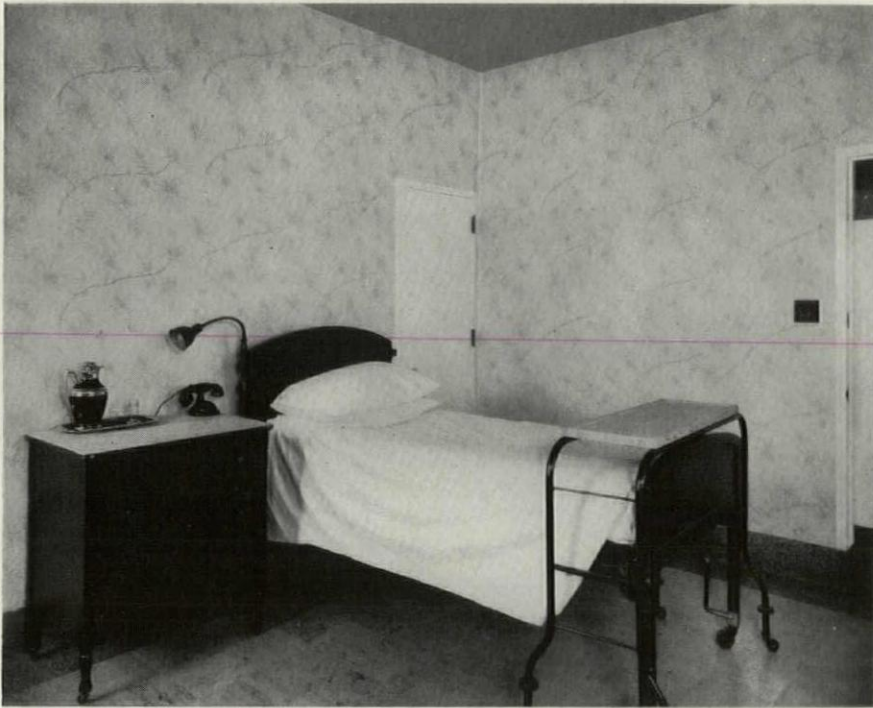
Why, in our oldest hospital, do we find this modern, scientific application of color? Mr. Hatfield says:

"As recently as a few years ago, some conservative administrators were still skeptical of the necessity for color in hospitals. Today, its use is taken for granted, not even discussed any more, just as everyone knows we cannot afford to put stretchers in our lobbies. Patients see color in other buildings and the hospital administrator is obliged to keep pace with the public's reactions by adopting the correct scientific approach in applying color for the benefit of patients and staff.

⁵ The darker-colored texture effect on the ceiling has two advantages: It reduces the glare reflections for patients confined to bed; it conceals unevenness or patched places in old plaster.

³ New institutions notable for scientific use of color in interiors are: Delaware Hospital, Wilmington; Princeton Hospital, serving a suburban college community; St. John's Hospital, Springfield, Illinois, large church hospital.

⁴ The scientific color expert would immediately ask, "What green?", knowing there are thousands of hues perceptible to the human eye. He would be aware also that many persons are partially color-blind, or do not register certain colors correctly, and do not even know it.



This private room in an 18th Century wing of historic Pennsylvania Hospital also has a western exposure. The walls of soft rose color are decorated with a delicate pine design in turquoise and off-white. The grey-turquoise ceiling is several shades darker. (detail below)



"In my experience, the greatest importance of wall and ceiling decoration is its effect on the convalescent. That controls our selection of colors, patterns and textures. It is obvious no one should install decoration that would harm patients with high temperature, such as, busy patterns, high colors, etc. But it does not follow that a color or pattern which does not harm such patients is, therefore, constructive in its therapeutic effects on convalescents.

"Before we at Pennsylvania decided upon our standard wall and ceiling treatments, we installed sixteen rooms in the Maternity Building and tested the reactions of patients, doctors and nurses. A survey showed that the patients' reactions were astonishment at finding such individual, homelike atmospheres in a hospital, delight with the friendliness and attractiveness of their surroundings and active interest in decorative effects. Fairly recently, the wife of a New York Architect occupied one of the better rooms in the Maternity Building which had been redecorated. The wall covering is a delightful two-tone pinkish peach on which is a bluish-green pine needle pattern. The ceiling is bluish-green to match the pattern. The Architect volunteered the statement that the whole treatment was very restful and satisfactory, and was perfect from the standpoint of decoration. Our doctors' reactions also were most favorable, the atmospheres created making their patients' stays agreeable ones and the staff recognized beneficial results."

"DO NOT DISTURB"

At present there are two schools of thought in the hospital management regarding the use of patterns and textures in wall and ceiling treatments. One group vehemently argues against pattern, and champions all-over texture effects. Another warmly advocates the "right pattern in the right place." Mr. Hatfield's scientific standards led him to make a "patient" survey of what ill people said they preferred. Results showed that the average patient takes more interest in color plus the right design, than in color alone. What pattern is "right" then becomes the question. Here another principle can be stated.

Nothing that might disturb a patient with a high temperature can be put on a wall. There are patterns that disturb and patterns that do not. The main characteristic governing a pleasing pattern is lack of sharp-color contrasts and repetitive motifs—whether lineal or spot. The eye should not be forced to stop abruptly at any given part of the wall, nor should it be able to "count" the motifs, nor should it follow stripes. Another important aspect is softness of color. Designs and colors must be closely ensembled, since softness of design depends on softness of color.

It is obvious that hospital decoration has no "period" style. Even if stripes are the newest decorative mode for residences, they nevertheless do not belong in hospitals. Fashions, fads and personal

tastes of the Architect, Hospital Administrator, or Building Committee should not determine a color scheme. Scientific color-therapy, whose sole criterion is the good of the patient (an ill person) should govern all applications.

COLOR BUDGETING

Creation of an ingenious structural layout sometimes preoccupies the architect to the exclusion of sufficient planning to perfect the interiors of a building. Equipment is the problem of the Hospital Board; proper space for it, the problem of the Architect. But interiors are the responsibility of both Architect and Building Committee. Specification of good building materials is essential to insure long life to a building. Though most of these are "hidden values," no Building Committee or Architect would compromise on their quality. But color for interiors is either looked upon as a minor matter to be disposed of at once without special consideration, planning or adequate budgeting, or neglected until that stage of building when it must be grouped with "late items" for which sufficient funds are never available. Yet medical science recognizes the important "treatment" values of color-therapy for which interiors are the vehicle. Building Committees and Architects seeking to achieve the complete services of a scientific, modern institution will insure success with interiors by advising with a color-therapy expert in the early stages of building.



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HERE, THERE, THIS & THAT

GRAPHIC TECHNICIAN

Rembrandt's unique emotional and dramatic powers often distract attention from his purely technical achievements in the field of etching and copperplate printing. It is impossible to fix one's attention on his human message and at the same time on his technical means of conveying that message, just as it is impossible to look through the window and at the same time inspect the window glass.

The current exhibition (January 21-March 29) of Rembrandt at The Metropolitan Museum of Art, New York, gives an excellent chance to study his great range of technical resources. He was no more afraid of tackling any subject matter than he was of expressing his vision by any means he could lay his hands on, from the commonest to the most exotic. If, when drawing, his quill pen would not get the effect

he wanted, he seems to have brushed on ink with the feather end or even to have dabbled it with his fingers. And he sketched on anything from parchment to a page torn out of a book.

He worked in oils with either end of all sizes of brushes, or again smeared with his fingers. Though he painted mostly on the oak panels and canvas that were usual in his time, he also used copper, mahogany, and unidentified exotic woods. These exotic woods would not have been readily available to any European painter outside Holland or before the seventeenth century. In Rembrandt's day Amsterdam did more business than any other port, and the produce of the world was trundled through its warehouses. Along with the rare woods, the Dutch East Indiamen also brought the tawny satiny Japan papers that Rembrandt was the first man to use for printing etchings.

In the course of his life, Rembrandt became one of the most expert copperplate printers, and in his later fifties he pulled some impressions of nudes which show an exquisitely delicate handling of ink tone. Unless he had become exceptionally deft in wiping the copper, he never could have tackled the

problem, which he was the only print maker to attempt, of showing the visible thickening of air in the depth of a ten-foot room.

It is not only the painter, draftsman, and etcher who can learn much from the exhibition now on at the Museum, but also the plate printer, and the maker of fine paper. ALICE F. MERRIAM

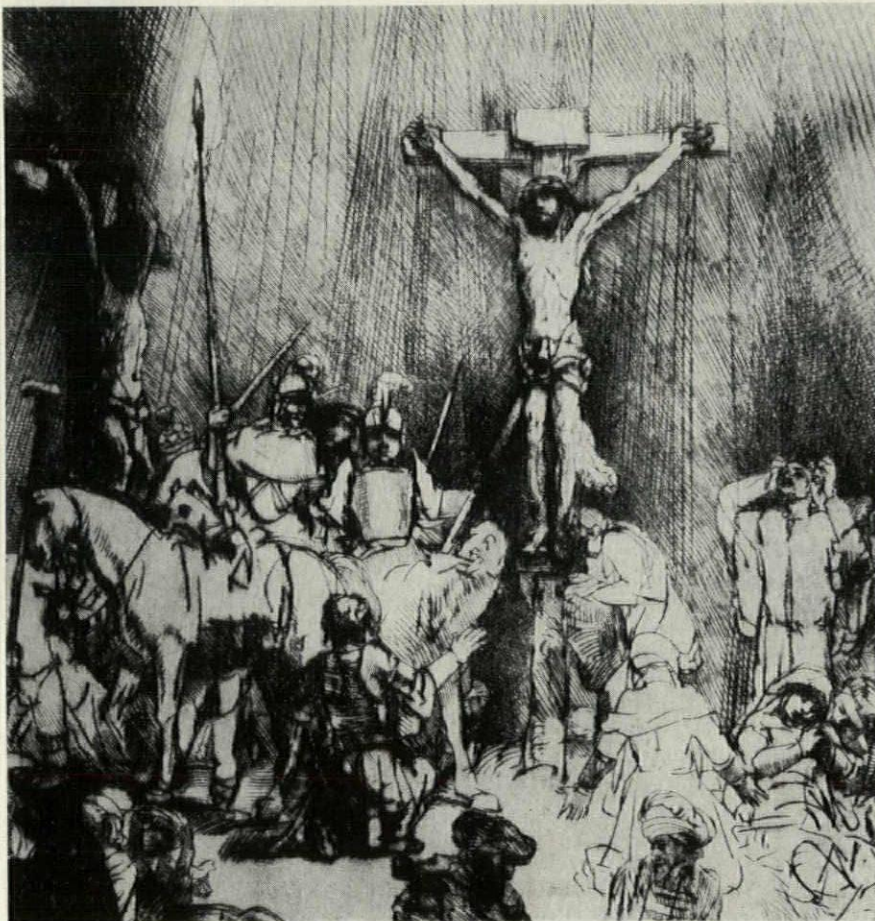
BOSTON NOTES

The feet of Boston's architectural brethren were too small to maintain balance after the impact of December's haymakers, but secondary reactions sent them scuttling off towards contacts with one or another service. First known air raid warden in the profession is *Jerry Downes*; first known auxiliary fire fighter is *Herbie Price*.

Some time ago a few architectural workers at Fort Devens had what seemed an honest grievance against the subcontractor (heating) for whom they labored. Considerable overtime pay which they had expected both as a matter of course and by strong implication (perhaps outright promise) was not forthcoming. One of the men had the guts and conviction to hire a lawyer, but as the papers said, "The United States Government won a victory in the first suit brought here for a salary claim under a cost plus construction project . . .". The Uncle, who might have become liable, ultimately, if the plaintiff won, tossed in an assistant United States attorney to defend the contractor. His winning argument had it that the draftsman acted in the capacity of an executive and therefore was not entitled to overtime pay.

So, Rule No. 1 is to get yourself down in writing as a "hired hand".

Rule No. 2, for this region, stems from the general mentality of the
(Continued on page 54)



A comprehensive collection of Rembrandt's work, currently exhibited at the Metropolitan Museum of Art, New York, affords an unparalleled opportunity to study the development of the artist from a brilliant technician to the world's most masterly draftsman of human emotion. An example of Rembrandt's daring attempt to print on vellum is the "Three Crosses" (detail at left). We are told "the skin has warped with age and the ink lies hard and greasy on the surface. Yet the blurred lines helped him to drive home his effect of a crumbling fever dream. He threw away print quality in order to get a specific dramatic effect." (Photograph courtesy of The Metropolitan Museum of Art)

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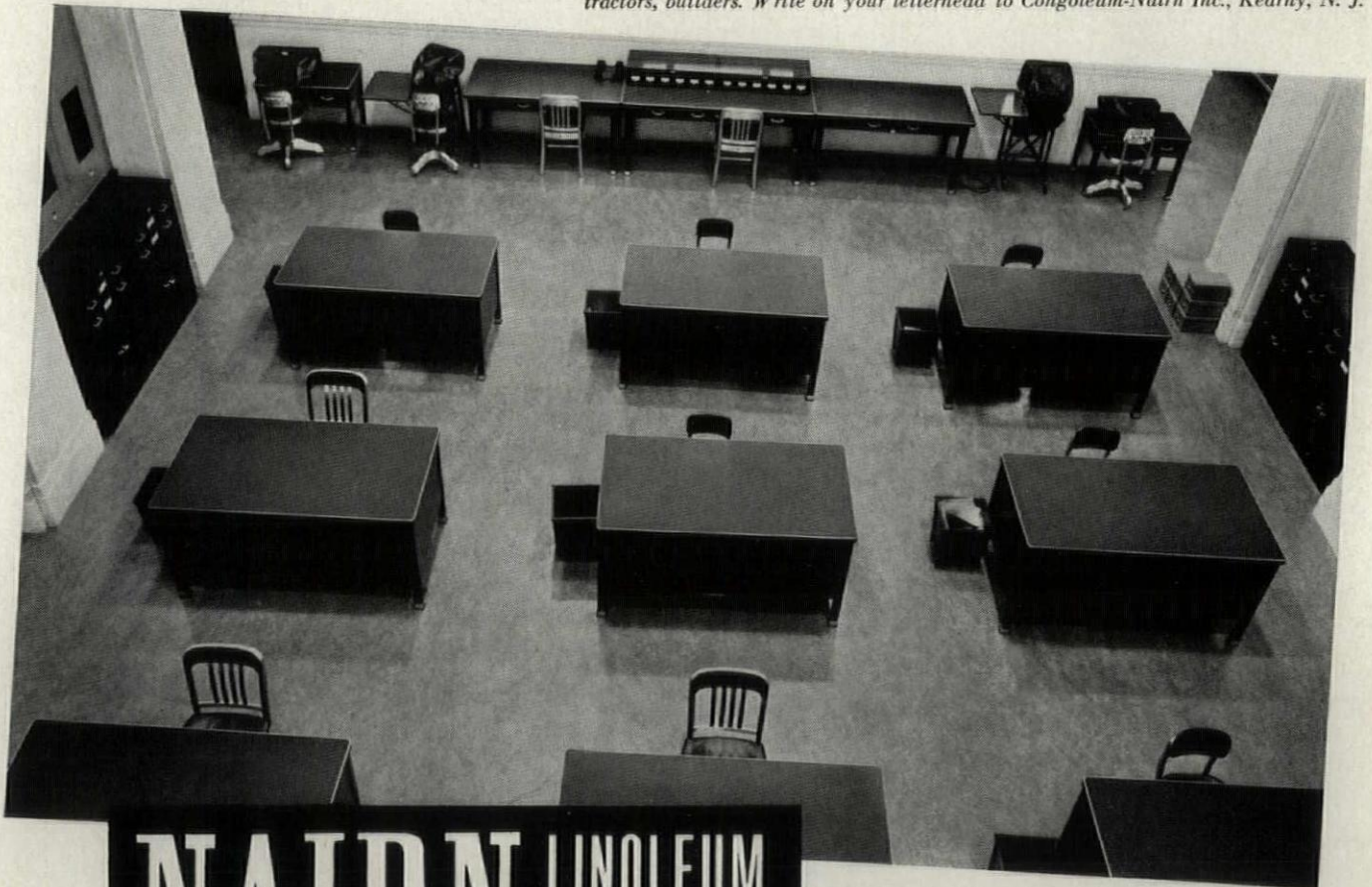
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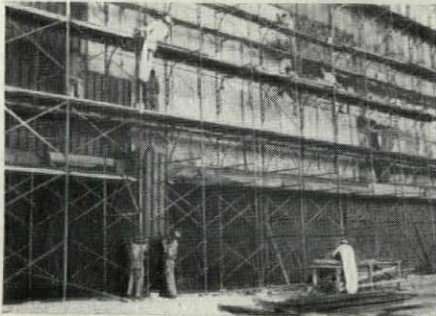
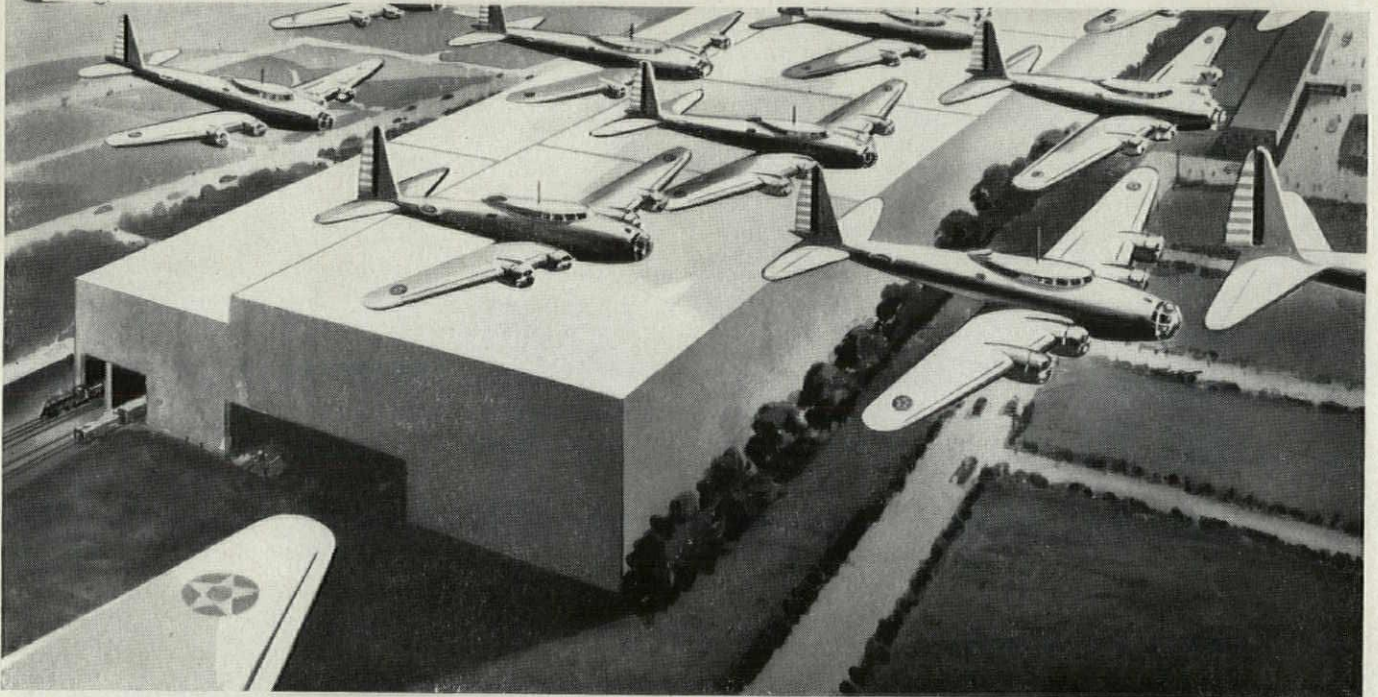
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FLOORS AND WALLS

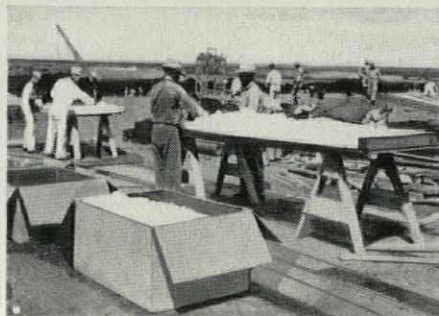
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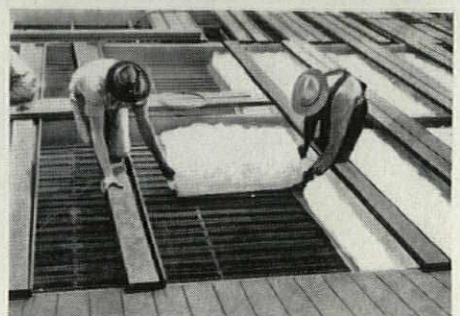
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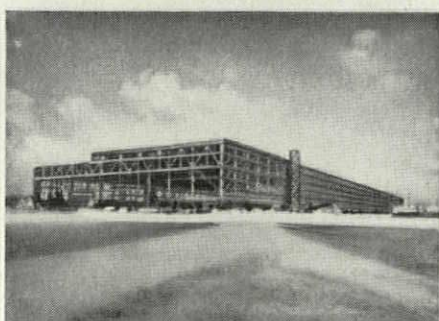
Special bats of Red Top Wool were prepared on the roof



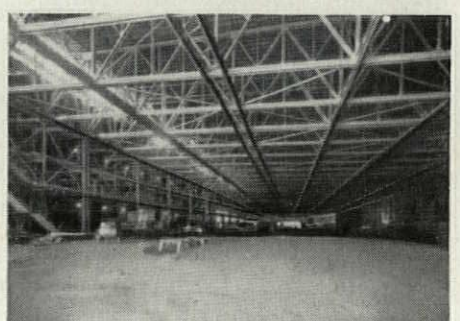
Red Top Wool was placed under the steel roof deck



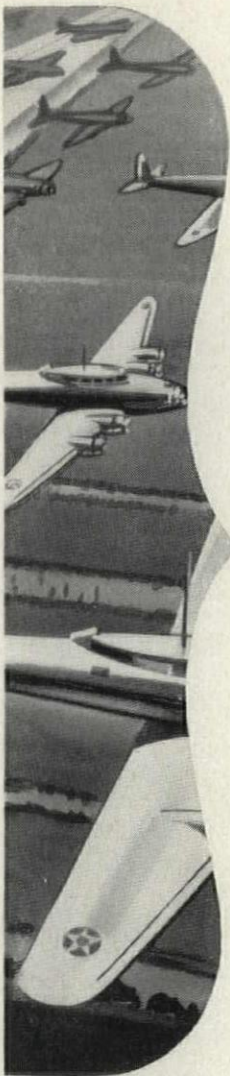
The steel roof deck was erected immediately after



The record speed of construction was noteworthy



Lightness of Red Top Wool met load restrictions of wide spans



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RED TOP INSULATING WOOL

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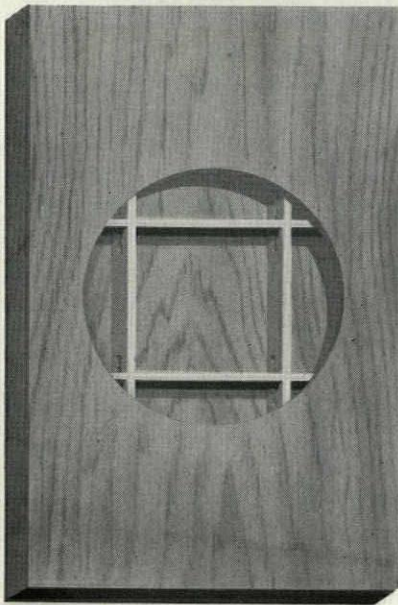
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PUBLICATIONS ON MATERIALS AND EQUIPMENT

of Interest to Architects, Draftsmen, and Specification Writers

Publications mentioned here are all 8 1/2 x 11 unless otherwise noted, and will be sent free, except as indicated, upon request to readers of PENCIL POINTS by the firm issuing them. When writing for these items please mention PENCIL POINTS.

AEROFUSE OUTLETS—Tuttle & Bailey, Inc., New Britain, Conn., presents in a new 20-page catalog complete technical information on its steel Aerofuse outlets for air conditioning, heating, ventilating requirements. Installation diagrams, selection system charts, dimension schedules, construction details, engineering data, and specifications on the various Aerofuse types are included.

AIR RAID PROTECTION—The Flintkote Co. Inc., 30 Rockefeller Plaza, New York, has developed a group of special products and processes for blackout purposes and protective concealment (camouflage)—all included in a 4-page folder. Described and illustrated are such products as blackout paper, fire retardent mastic, camouflage paints and adhesives, blackout panels, blackout static coating, blackout membrane treatment.

CONSTRUCTION GLUES—An 8-page folder, from I. F. Laucks, Inc., 911 Western Ave., Seattle, Wash., discusses the use of the firm's construction glues for contractors, builders, prefabricators. The folder describes in detail its application on various types of construction.

FIRE SAFETY—Available from National Fire Protection Association, 60 Batterymarch St., Boston, Mass., is a 48-page, 6x9 illustrated booklet, "Employee Organization For Fire Safety," priced at 25 cents. The booklet discusses principles of plant protection, exit safety, basic fire protection, how to deal with incendiary bombs. A special section is devoted to the function, operation, and organization of a plant fire brigade.

AIR CONDITIONING—A complete line of self-contained air conditioning units in various sizes and capacities for industrial and commercial establishments is described in a new series of 2-page bulletins issued by Carrier Corp., Syracuse, N. Y. Bulletins give specifications, dimensioning details.

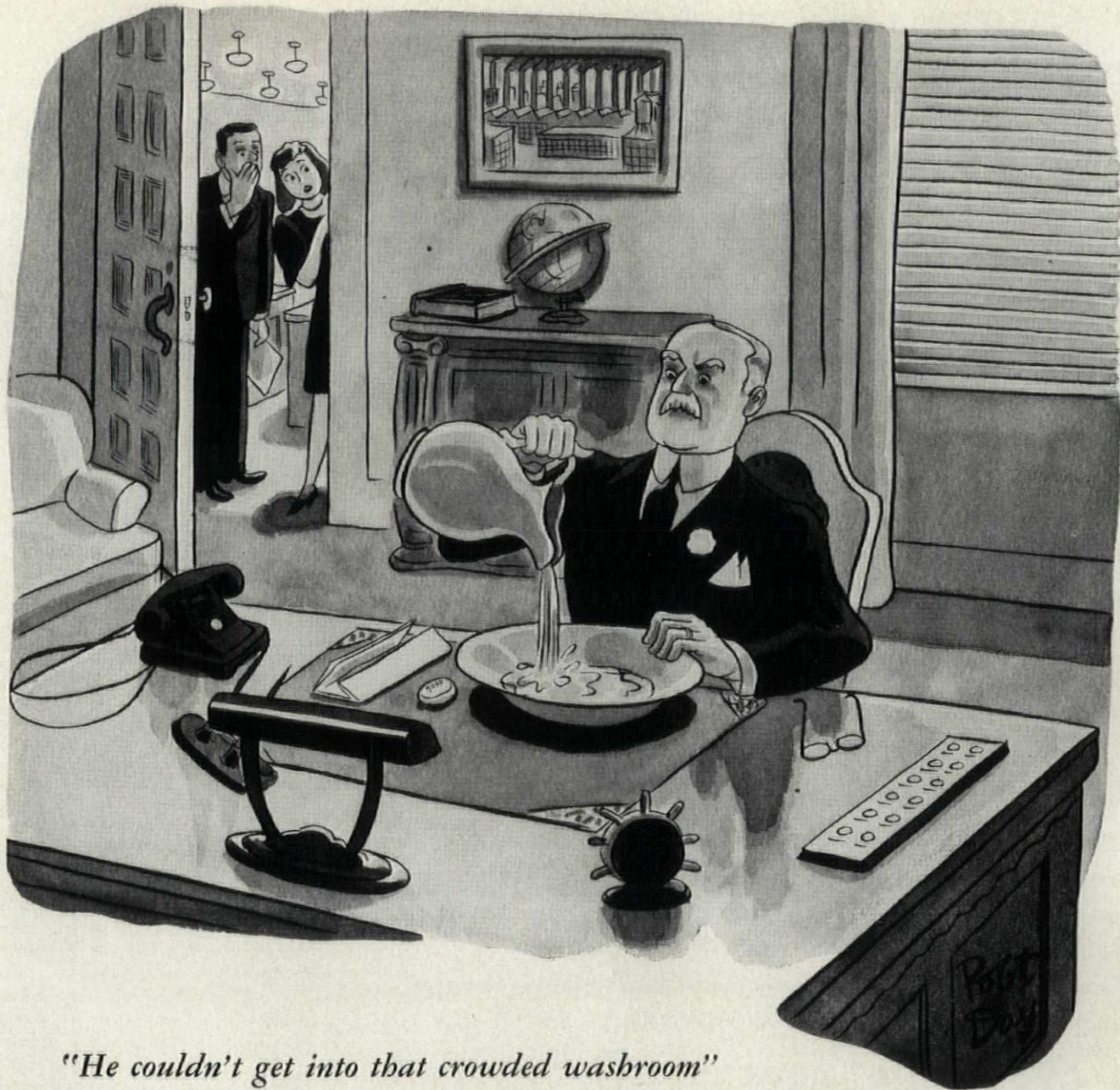
IRONWORK—Many patterns of ornamental ironwork, including cast iron railings, balustrades, pilasters, other architectural units, are illustrated in a 36-page catalog (A.I.A. File No. 15-C) from Lorio Iron Works, 744 S. Gayoso St., New Orleans, La. Illustrated are many original old designs which the firm makes into re-castings. Close-up views enable the architect to study design details, apply them to his own use. Reproductions of 284 different patterns and units made by the firm are also included.

STEEL SPECIFICATIONS—A new and revised edition of "Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings" may be had from American Institute of Steel Construction, 101 Park Ave., New York. Revisions embrace materials, loads and stresses, unit stresses, design, fabrication, erection, inspection.

Also available: Revised edition of "Code of Standard Practice for Steel Structures other than Bridges." The Code has been revised only in that part relating to weights of standard fillet welds, contains standard contract forms used by members of the industry. Copies of either document may be had for 10 cents each.

WELDING TRAINING—International Acetylene Association, 30 E. 42nd St., New York, has a new 88-page book, prepared primarily to assist instructors in planning courses for training oxy-acetylene welding and cutting operators. The material presented has been divided into self-contained units, each of which includes an outline for a classroom lecture, suggestions for assignments, recommendations for the material that should be demonstrated and discussed, and a description of the practice exercises the student should do in the shop. Paper-bound copies are 25 cents; a cloth-bound edition sells for 75 cents.

(Continued on page 46)



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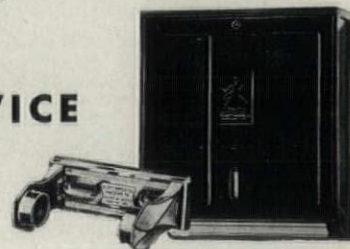
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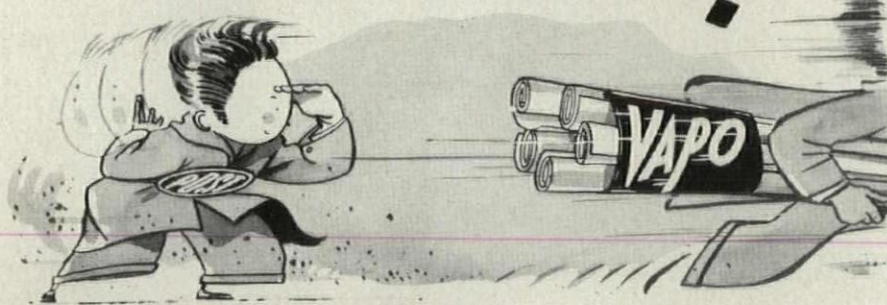
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PUBLICATIONS ON
MATERIALS AND
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(Continued from page 44)

PLASTER CHART—Third of a series of three charts summarizing all phases of plaster has been published by United States Gypsum Co., 300 W. Adams St., Chicago. This new chart classifies troubles, gives information to help solve practically any type of plaster complaint. (Chart No. 1 gives facts to help select the best plaster base for various jobs; Chart No. 2 explains the properties and uses of the 12 types of plastering materials and 56 brands of plaster made by the firm.)

WASHROOM LAYOUTS — Layouts typical of the many installations made by Bradley Washfountain Co., Milwaukee, Wis., are contained in a 16-page, 5½ x 8½ catalog. Washroom floor plan suggestions are on blue-print type pages.

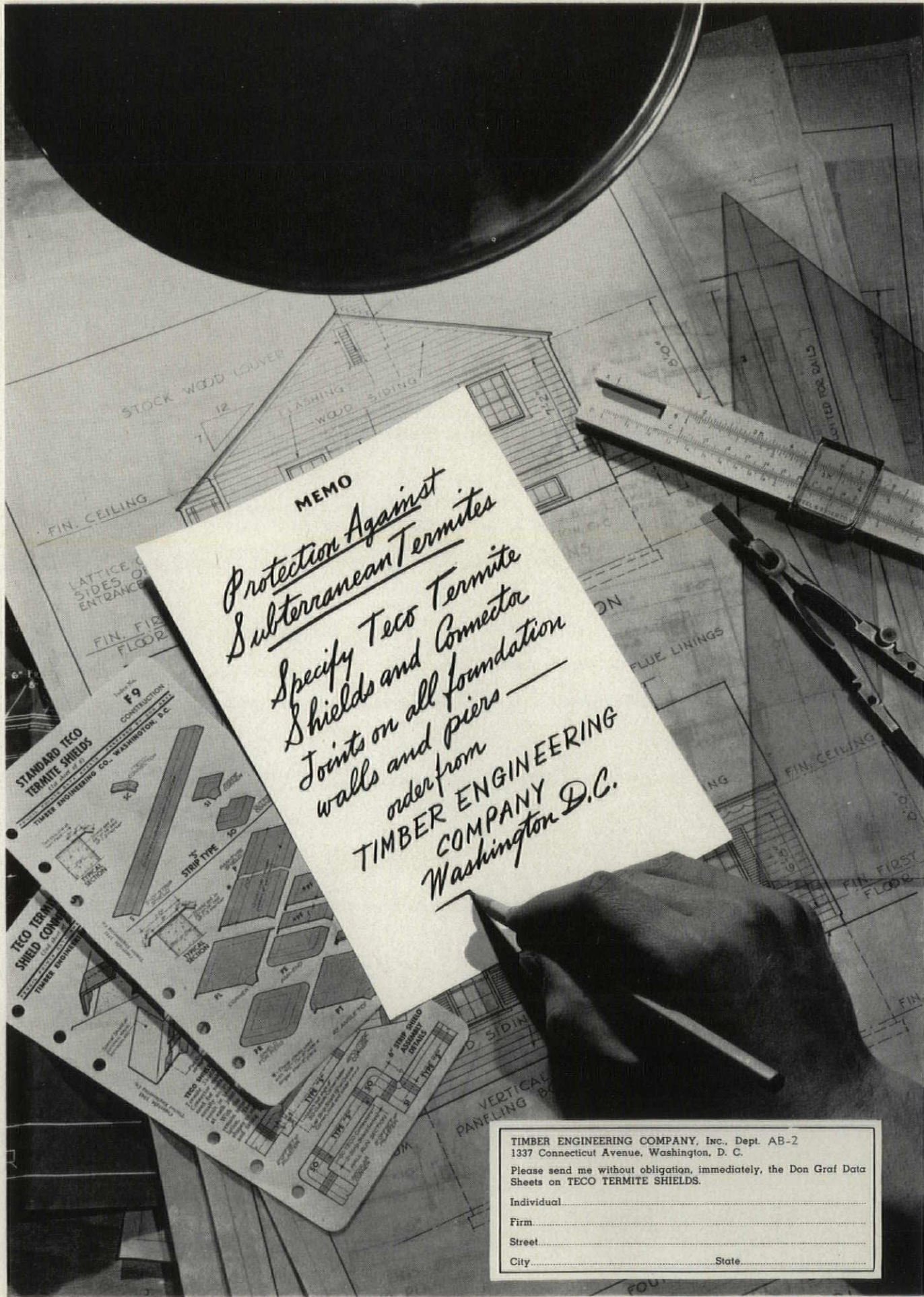
AIRPLANE HANGARS—The use of Douglas fir in the construction of airplane hangars is described in an 8-page booklet available from West Coast Lumbermen's Association, 364 Stuart Building, Seattle, Wash.

Also published by the same firm: 16-page set of flat-top roof truss plans to furnish the architect and engineer with a specimen set of designs of timber trusses as a guide for estimating and designing. A similar set of designs, 8 pages, is available for open and covered grandstands. No attempt has been made, in either case, to prepare plans to meet any particular condition due to the many variables which would be encountered in different sections of the country.

METAL WEATHERSTRIPS — Its complete line of metal weatherstripping for residential double hung windows and casement windows, doors, and thresholds is presented in a new 24-page Catalog No. 12 by Metal Strip Service, Inc., 1720 N. Kilbourn Ave., Chicago. Included are installation details, specifications. Presented also is the firm's No-Draft sash balance which eliminates pulleys, weights, cords.

Also available: Four-page folder containing instructions for installing the No-Draft sash balance; four-page folder giving frame details of construction with No-Draft installations without use of the wood parting strip.

(Continued on page 48)



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

PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 46)

WOODWORK—Usable ideas for the better employment of doors and windows in the home so as to increase convenience, utility, comfort, and beauty, are contained in a 32-page catalog, "Open House," available from Ponderosa Woodwork, 111 W. Washington St., Chicago, Ill.

ASBESTOS SIDING—A new, illustrated instruction sheet showing the step-by-step procedure by which asbestos siding is applied to gypsum or insulating sheathing with its Nailtex Fasteners, is available from U. S. Gypsum Co., 300 W. Adams St., Chicago, Ill.

ODOR ABSORBER. The Dorex Div., W. B. Connor Engineering Co., 114 E. 32nd St., New York, has issued a two-color, 4-page bulletin describing its Type A Odor Absorber, and illustrating a number of its many uses.

INDUSTRIAL HEAT TREATING EQUIPMENT—Bulletin No. 5D, 8 pages, from Mahr Mfg. Co., Minneapolis, Minn., presents oil and gas burners, oil regulating valves, low pressure blowers, other industrial heat treating equipment. Specifications and cross section details are included.

Also published by the same firm: Bulletin No. 120-A, 4 pages, on heat treating furnaces; Bulletin No. 100, 4 pages, on over and under fired tool furnaces; 4-page folder on car bottom annealing furnaces. All folders list specifications, give construction details.

DRAWING INKS—A new catalog, 12 pages, from Higgins Ink Co., Inc., 271 Ninth St., Brooklyn, N. Y., completely illustrates the firm's line of drawing inks. Featured is a color wheel made from actual swatches of Higgins drawing inks applied on white drawing paper.

SHINGLE BROCHURE—That strip shingles may have custom-cut roof character is illustrated in a four-color brochure illustrating USG Random-Tab shingles, product of United States Gypsum Co., 300 W. Adams St., Chicago, Ill. The folder shows the several colors in which the shingle is available, gives an idea of the various blends and roofs obtained with this product.

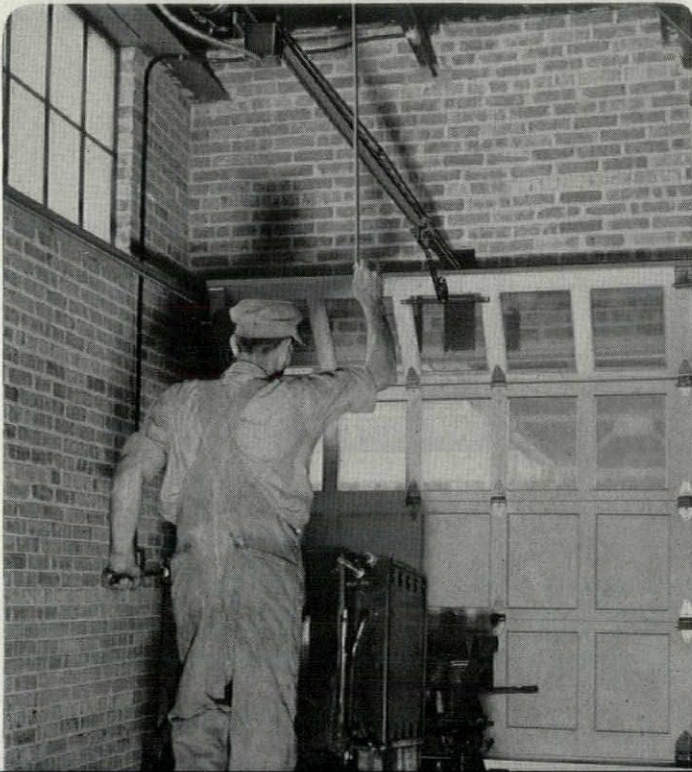
STORE FRONT CONSTRUCTION—Portfolio of details (A.I.A. File No. 26-B-1) showing rolled and extruded construction details of store front construction, and full size outline drawings of stock moldings. From Brasco Mfg. Co., Harvey, Ill.

Also published by the same firm: 12-page catalog showing typical store front installations, other variety of applications.

FORMICA FINISHES—The 1942 edition of the Formica catalog of architectural plastic finishing material illustrates the widespread application of the material, shows typical colors, inlays and realwoods in natural color, and gives construction and erection details. From Formica Insulation Co., Cincinnati, Ohio.

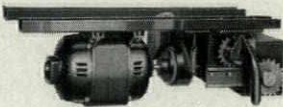
OIL BURNING FURNACE—A two-page catalog sheet from Norge Heating & Conditioning Div., Borg-Warner Corp., 12345 Kercheval Ave., Detroit, Mich, illustrates and describes the Model OD-70 oil burning furnace and accessory equipment designed especially for defense homes.

(Continued on page 52)



The Barcol OVERdoor

ELECTRIC DOOR OPERATOR



To eliminate the slowness and effort of hand operation, these motor-driven units can be used on sliding, swinging, steel rolling, or overhead doors, and on sliding and swinging gates. Write for further particulars.

MEETS REQUIREMENTS OF INDUSTRIAL SERVICE

LARGE DOORS in manufacturing plants get the hardest kind of use, especially in these days of accelerating production. A factory door must be able to stand constant use and abuse, always operate smoothly and quickly, and need only a minimum of maintenance attention or cost. *This, on its record, the Barcol OVERdoor will do.* The record shows hundreds of instances of highly satisfactory performance on truck-entrance doors, railway spur entrances, loading platforms, interdepartmental doors, large garage doors, and the like. You can specify the Barcol OVERdoor for these hard-service jobs with certainty of satisfaction.

See Catalog in Sweet's (Architectural)



BARBER-COLMAN COMPANY

100 MILL STREET • ROCKFORD, ILLINOIS

SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

An Invitation to Sales....

written by the architect, with a floor of
Johns-Manville Asphalt Tile



(Top) Marbled No. 126 for field. (Bottom) Marbled No. 102 for border.

The eye-catching floor in the woman's apparel shop above was designed from these two marbled colors.

AS EVERY EXECUTIVE KNOWS, an attractive, eye-catching floor is an essential in any modern store. And designing floors that say "Come in and buy" is easy with J-M Asphalt Tile. With its wide range of colors, sizes and patterns, this versatile flooring gives you exactly the effect you desire for any type of interior.

The beauty of the finished floor is matched only by its economy. Low in initial cost, J-M Asphalt Tile assures continued low-maintenance service. It effectively resists dirt and grime . . . safely withstands

the punishment of heavy foot traffic . . . is easily cleaned to a lustrous surface.

Why not build "an invitation to sales" into your next floor—by using Johns-Manville Asphalt Tile? For full details, and for stimulating ideas on patterns for stores, offices, restaurants, play rooms, etc., send for a copy of the full-color brochure, "Ideas for Decorative Floors." Write Johns-Manville, 22 E. 40th Street, New York, N.Y.

**All J-M Asphalt Tile
Is Factory-Waxed!**

Johns-Manville ASPHALT TILE FLOORING

**ALWAYS IMPORTANT,
NOW VITAL!**



The need for Von Duprin devices is more urgent than ever before. People are worried about dangers that are new to America. To provide safe, sure, instantaneous exit—and to allay these fears as well—there is a vital, immediate demand that all exit doors of schools and public buildings be equipped with Von Duprins.

A great part of the Von Duprin plant is devoted to defense orders, but every effort is being made to supply civilian demands also. You can help materially by insisting that specifications for Von Duprin devices are turned in as orders, complete with details and priority numbers, as early as is humanly possible. Thank you.

VONNEGUT HARDWARE CO. INDIANAPOLIS, IND.

Von Duprin

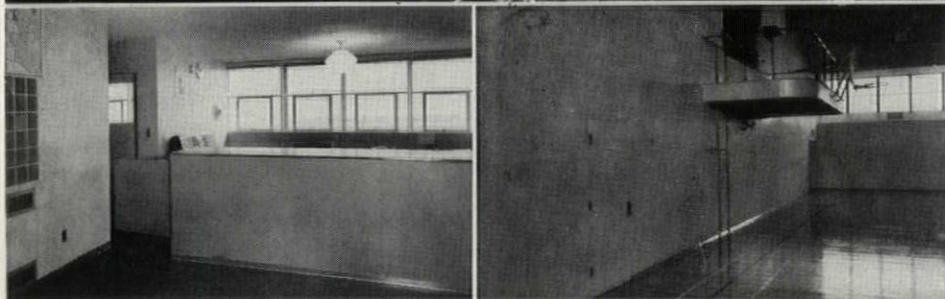
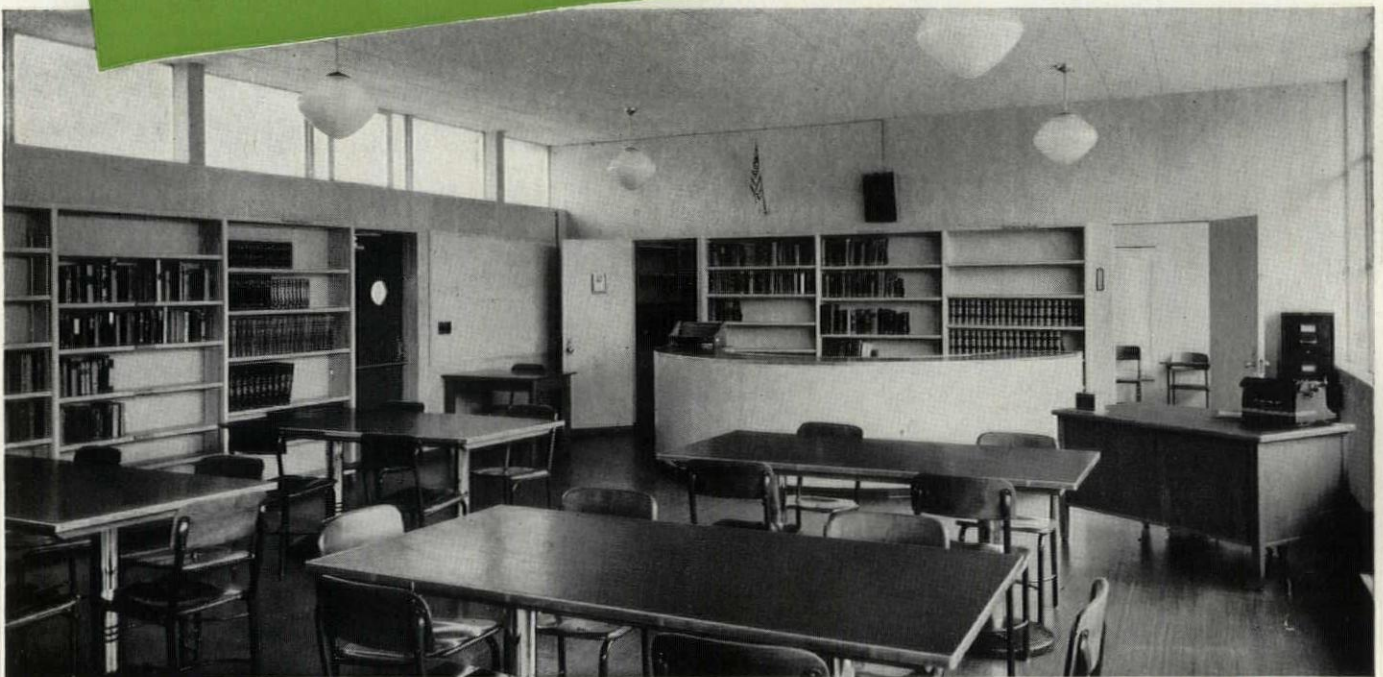
SELF-RELEASING FIRE AND PANIC EXIT DEVICES

Why so many of Today's Schools are being built of Douglas Fir Plywood

1 The best of today's schools are flexible in plan—capable of being easily adapted to changing needs. Because Douglas Fir Plywood permits the architect greater leeway in design—and gives the taxpayer more for his money at the same time—this "modern miracle in wood" is being specified extensively for both interior and exterior finish. Douglas Fir Plywood is as ideal for demountable units as for permanent construction.

2 Douglas Fir Plywood has many structural advantages: It builds kick-proof and crack-free walls and wainscoting. Used as sheathing or exterior finish, it makes walls 5.9 times as rigid as horizontal board sheathing, 40% more rigid than diagonal board sheathing . . . *vitally important advantages in earthquake or high wind areas.* Douglas Fir Plywood affords excellent insulation . . . is receptive to any finish. It forms smooth, flawless concrete surfaces at lower cost. The big panels minimize labor, speed construction.

3 There is a type or grade, size and thickness of Douglas Fir Plywood for every building purpose. Each panel is made in strict accordance with U. S. Commercial Standard CS45-40 and "grade trade-marked" for easy specification and positive identification. For more details, read the Douglas Fir Plywood Association section in Sweet's Catalog or write Douglas Fir Plywood Association, Tacoma, Washington, for literature.



BEAUTY AND DURABILITY are combined in the Douglas Fir Plywood walls of the Acalanes Union High School, Lafayette, Calif. This photograph shows the library, but all the walls were given a natural finish to produce the human, intimate effect desired throughout. Franklin & Kump, architects, designed this flexible, multi-use school.

BOTH COUNTERS AND CUPBOARDS at Acalanes Union High are constructed of Douglas Fir Plywood, Plypanel grade. All plywood wall panels were butted together without battens.

THE GYMNASIUM was lined with 3/4-inch Douglas Fir Plywood. Regardless of the rough treatment given them, these durable yet attractive plywood walls will never crack nor puncture.

DOUGLAS FIR PLYWOOD
Real Lumber
**MADE LARGER, LIGHTER
 SPLIT-PROOF
 STRONGER**

SPECIFY DOUGLAS FIR PLYWOOD BY THESE "GRADE TRADE-MARKS"

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PUBLICATIONS ON MATERIALS AND EQUIPMENT

(Continued from page 48)

"THE LITTLE WHITE BOOK"

—Many prize houses which have won awards in recent years for architectural excellence are illustrated in this 3½ x 6, 16-page booklet from Samuel Cabot, Inc., 141 Milk St., Boston, Mass., which describes and illustrates the firm's Double-White and Old Virginia White paint used on the houses.

OIL - GASOLINE SEPARATORS

—The Solus oil and gasoline separator to prevent oil and gasoline from entering the sewerage system, and which helps prevent explosions and pollution of surrounding waters, is described in a 14-page, 4 x 8½ folder from The Central Foundry Co., 386 Fourth Ave., New York.

UNIT HEATERS

—A new 36-page catalog and engineering data book (A.I.A. File No. 30-D-11) on unit heaters may be had from Ilg Electric Ventilating Co., 2850 N. Craw-

ford Ave., Chicago, Ill. Dimensions and weights of various units are given, together with charts listing performance data, as well as piping tables, and schematic drawings showing positioning of both horizontal and vertical-type heating units.

STEEL WINDOWS

—A new 24-page catalog (A.I.A. File No. 16-E) from Truscon Steel Co., Youngstown, Ohio, pictures the firm's projected steel windows for architectural and commercial installations. Charts and tables give types and sizes. Included are inside and outside glazing details, specifications, installation details, mullion details, screen details, special details.

PLASTIC TRIM

—An 8-page catalog, P-1, from R. D. Werner Co., Inc., 380 Second Ave., New York, illustrates in natural color the five colors in the Wernco line of extruded plastic decorative trim for bars, tables, furniture, fixtures, interiors, other applications.

PLEXIGLAS FABRICATION

—Although prepared specifically for Army and Navy maintenance stations, companies making military aircraft, and other firms fabricating Plexiglas for Victory purposes, the new Plexiglas fabricating manual from Rohm & Haas Co., Washington Square, Philadelphia, Pa., is now available to other users. The 48-page, 5½ x 8 catalog contains blue-print type illustrations, data on machining, forming, cementing, finishing, other processes involved.

ARCHITECTURAL METALS

—"The Care of Architectural Metals," a 3½ x 8 booklet from The Kawneer Co., Niles, Mich., discusses the importance of cleaning and protecting aluminum, bronze, and stainless steel finishes, gives instructions and recommendations for performing the work.

PRESSURE-TREATED WOOD

—A 2-page leaflet, from the Wood Preserving Division, Koppers Co., Pittsburgh, Pa., discusses pressure-treated wood for permanent low cost housing. Illustrations show construction for low-cost, basementless houses, parts of buildings which need protection against decay and fungus, and the treatments suggested for painted and unpainted wood. Discussed also are USHA recommendations for preservative treatments.



**Only 550 Pounds
of SISALKRAFT
replaces 82,000
pounds of sand!***

Protection . . .

This rugged paper protects the finished surface from drip, debris, staining and scuffing — eliminates grinding — assures a clean, perfect surface when the paper is finally removed. Because of its remarkable strength, toughness and resistance to scuffing, work can proceed over SISALKRAFT without delay and inconvenience.

Plus . . . "Automatic" CURING

SISALKRAFT, laid over the freshly finished slab, requires no further attention. It's air and water-proof—prevents rapid evaporation—assures a perfect cure, with density, strength and hardness comparable to concrete cured by complete water immersion.

Write for engineering data on
SISALKRAFT for concrete curing.

The SISALKRAFT Co.
205 W. Wacker Drive, Chicago, Illinois
NEW YORK - - - - - 101 Park Ave.
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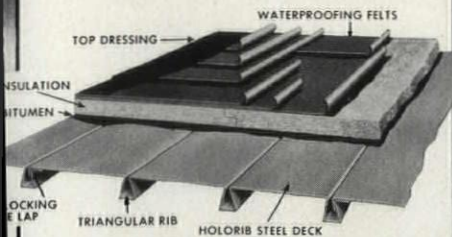
* To cover 10,000 sq. ft. of floor with 1 in. of sand means 82,000 lbs. . . . to hoist, spread, wet down and keep wet, scrape up and lower.

Approximately 550 lbs. of SISALKRAFT covers the same area . . . requires no further attention.

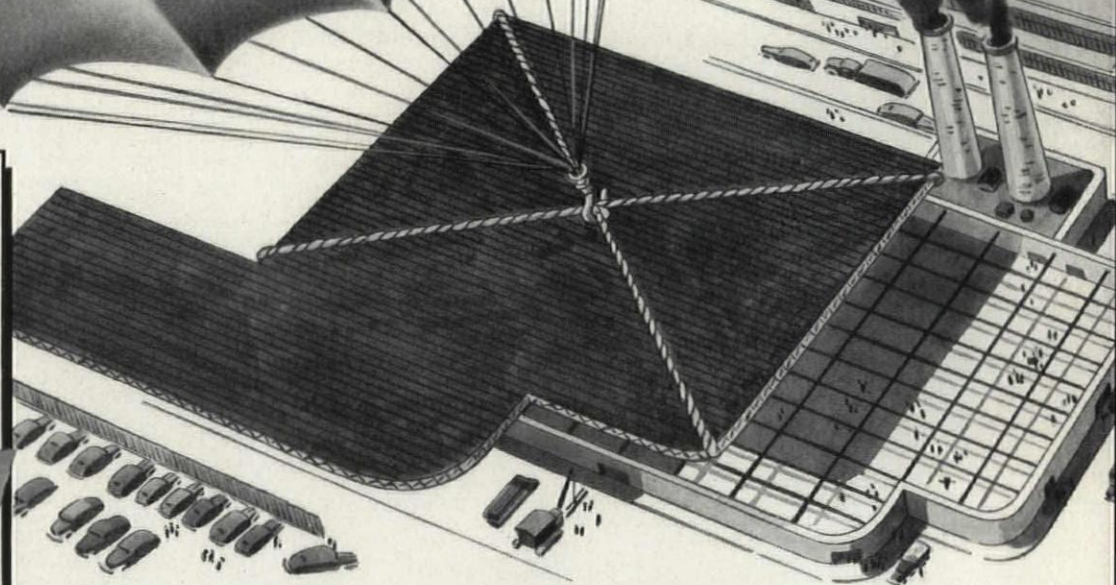


A Victory Roof
THAT WILL HELP WIN THE WAR!
 ... IT SAVES STRUCTURAL STEEL
 BECAUSE IT'S SO LIGHT IN WEIGHT

THE
HOLORIB
 COMPLETE ROOF UNIT



Designed to give sure and economical protection against (1) Leakage of water; (2) Leakage of heat; (3) Leakage of dollars for maintenance. On the strong steel base is placed its middle stratum composed of pressure resisting insulating sheets which prevent heat loss. Its outer surface is long-lived waterproofing designed for permanent protection against leakage. These component parts are bonded together and waterproofed by moppings of roofing asphalt, and further secured by Holorib Expanding Nails. Thus united, they form a complete roof, permanent, proof against weather, fire or rot.



A Holorib Roof-Deck unit, complete with insulation and waterproofing, weighs only from 4 to 8 lbs. per square foot. *Thus it saves up to 15% in structural steel.*

Equally important to America's war efforts, Holorib helps the defense plant to get under roof *faster*, and to start production *sooner*. It assures *quicker* winter construction.

Holorib can be laid in any weather in which men can work. Its strong, light sections are laid in a jiffy and as quickly welded to the purlins. Holorib is easily laid as fast as the structural steel is erected. There's nothing to pour, nothing to freeze,

nothing to consume time in drying. Time is saved at every step.

Holorib steel deck provides an ideal foundation for the application of insulation and waterproofing as shown at left. How the Holorib complete roof unit saves first costs of construction, saves fuel in winter, protects against summer heat, saves insurance and gives long service with minimum of maintenance are a few of the advantages covered in the Fenestra Holorib Catalog . . . copies sent upon request.

Detroit Steel Products Co.,
 3102 Griffin Ave.,
 Detroit, Mich.

- Please send me a copy of the Fenestra Holorib Catalog.
- Have a Fenestra Holorib Representative call on or about _____.

Name _____
 Firm _____
 Address _____
 City _____ State _____

Fenestra **HOLORIB**

New HOLOPHANE HIBAY REFLECTOR

*Increases
Production
Reduces
Costly Errors*



No. 990
(500-1500W)

READY NOW

Contains less critical metals . . . Built to Holophane standards of scientific illumination. Conserves materials, man-power and effort . . . One of 4 types, each with a different distribution.

ADVANTAGES

1. Uses less critical defense metals
 2. Standard Holophane construction . . . sturdy as a Cranelite
 3. Traditional Holophane efficiency, permanence, safety
 4. No wattage limitations—maximum 1500 Watt Incandescent or 400 Watt Mercury
 5. Common-sense high bay light distribution for high mounting
- LOWER COST
• FASTER SHIPMENT
- SEND FOR DATA NOW
— NO OBLIGATION



Holophane

COMPANY, INC.
342 MADISON AVENUE
NEW YORK CITY

SINCE 1898
THE HOLOPHANE CO. LTD.
385 YONGE ST., TORONTO, CAN.

(Continued from page 40)

moment, and warns you never to identify yourself openly with Architecture, unless you have a rich wife and a hobby. The name is rank poison on a letter head or a job application. Be a "construction man" or a "constructor" if you can't define yourself as some kind of an engineer. Anyone with enough gumption could set up an engineering diploma mill (a buck the dip) tied in with elusive but plausible schools and resuscitate the profession before the embalmers get hold of it.

A recent competition for a recreation center on the Charles River (White Fund) has been won by Leland and Larsen. *Pete Larsen* is an old hand at competitive facility, and *Maurice Feather* rates as a gold mine among architectural partners, getting all A's for skill, delineation, and hard work.

The Boston Architectural Club has arranged "Club Nights" on the third Thursday of each month; *George R. McClellan* describing his United States and Mexican Rotch Wanderings at the December meeting. Hamburgers and beer produced great bodily contentment among the lads present, while *George* improved their minds. During January the Club will have showed sculpture by its very talented chairman of the Educational Committee, *Archangelo Cascieri*.

The Architectural League, under the perfect control of President *John Shea*, convened at a special meeting to discuss returns from its job questionnaire. Not having been authorized to publish the findings, suffice to say that most of the boys were working where you know they must have been, but the average wage was higher than you might have expected, inflated perchance by them as had hit the jackpot. *James N. Holden* is reported to have made a jackpotty looking connection with a hardbitten engineering firm. The writer knew that Jim was going to be a master of men way back on the Amalfi Road when J.N.H. rolled by the natural pedestrian in a carozza, with his bestickered portmanteau in the forepeak, aside the driver. Whether or not he was smoking a seegar could not be observed through the dust. Jim's able associate in co-ordination, *Henry* (Make it eighty and I'll sign) *Slocum*, has pitched for another engineering firm, and who hasn't? *Norman O'Sullivan*, amateur astronomer and dietician, and *Tito Cascieri* have carved out rare artistic niches among the 4-Aitchers, and Big *George Hitchings* had

an occasional oversized niche for himself until he got variety into the indication of industrial windows operated by worm and gear.

From what the boys say of their engineering bosses and co-workers there seem to be two main orders: (1) those who attain results as directly as may be, and (2) many others who do it the hard way, with complicated, jerky office practice, the use of cryptic symbols for two syllable words, and the maintenance of lettering janizaries who rest their axes against your table while they test out all slanted verticals for 17°-30' from the perpendicular. In the light of this one said, "If the architects would only write their specs in Latin half the battle of survival would be won." But I prefer the diploma mill, for with the exception of *Bob Walsh* and a very few others the only Latin we know is contained in the slogan department at the end of the dictionary.

The Boston local, Pest Club of Rome, was pleased to hear that *Lessing Williams* has filled that blank area in his life by marrying Miss Pauline Beck.

Sergeant-major *George Lloyd* (ex-Perry, Shaw and Hepburn) is reported spliced, and that seasoned old godfather, *E. A. Clancy*, is thought to be nurturing a love-bug.

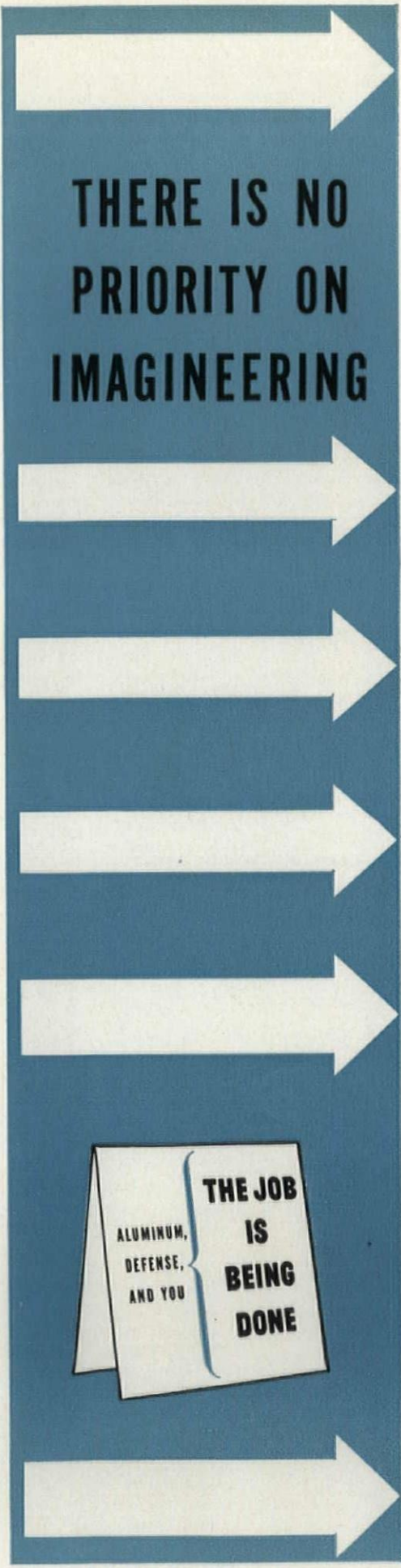
LEON KEACH

HOWE APPOINTED PBA SUPERVISING ARCHITECT

George Howe, A.I.A., of Philadelphia, has been appointed Supervising Architect of the Public Buildings Administration of the FWA. In his new capacity, Mr. Howe will administer the architectural activities of the PBA.

Seventeenth architect to be appointed to the post since its origin in 1836, Mr. Howe has been associated, since 1939, with the Office of the Supervising Architect as consultant architect, serving as one of the members of the Design Committee which reviewed designs for Federal Buildings.

During his professional career of 25 years, Mr. Howe has gained an international reputation for his work in the field of residential architecture as well as commercial and public buildings. From 1916-1928 he was a member of the Philadelphia firm of Mellor, Meigs & Howe. In 1929 he and William E. Lescaze formed a new firm, and together they designed a number of schools and commercial buildings. During the past year Mr. Howe designed the Middletown, Pa. Defense Housing Project.



THERE IS NO PRIORITY ON IMAGINEERING



EVERY INDUSTRY, every responsible man in industry, has the present duty of answering two questions.

FIRST ONE IS: Are we, am I personally, doing everything within my power for the war? Our answer here at Alcoa is a plain, unqualified, yes.

NEXT QUESTION IS: What are we doing about the day when we will all need business, which is the polite way of saying, when millions of jobs will be needed for the boys who come back, and for the boys who stayed back to make the weapons.

IMAGINEERING, you know, is the word we have coined to define what we business people have all got to do about the future; about the products we are going to make and the services we are going to be able to offer when this war is over. Imagineering is imagination plus engineering.

HOW DO YOU DO IT? One way would be to figure out, now, how to take advantage of all the aluminum that is going to be available.

QUICKEST WAY TO GET AT IT is to take one of your products or a piece of equipment that "just couldn't" be made of aluminum, and ask yourself, **Why not?**

MEANING, OF COURSE, why not light; why not stronger for the same weight; why not resistant to corrosion, and so on, ad infinitum. The first man in any line of business who calls tradition a liar, and things-as-they-are a millstone, is the man who is going places; the man who is going to make peacetime pay rolls.

THAT'S IMAGINEERING AT WORK. We've got some ideas here at Alcoa. We're trying to pass them out. We are looking for men who have made themselves receptive by doing some solid Imagineering on their own hook, in their own fields.

Aluminum Company of America, 2198 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA ALUMINUM



TAKES A BOW

Welcome addition to the architectural publishing fraternity is "Architecture of the West", Vol. 1, No. 1 of which was published several weeks ago. Writes Editor *Al Nydin*: "It is not our purpose to displace contemporary publications devoted to the architectural and construction fraternity, but to chronicle the affairs of the industry, and its related problems, peculiar to this particular corner of the country."

The bi-monthly publication is the official magazine of the Wash-

ington State and Spokane Chapters of the A.I.A. Illustrated in the issue is the work of *Edwin J. Ivey, Elizabeth Ayer, Pearson & Richards, Paul Thiry, John T. Jacobsen, and J. D. Annand*. A special section is devoted to landscaping, site planning and land values, interior decorating, and news of the architectural and general contracting fields.

LANDSCAPE ARCHITECTS UNITE FOR PROJECTS

In an alliance brought on by the war emergency, six Chicago landscape architectural firms have

merged their personnel, office facilities, and equipment for the planning and supervision of the larger defense ground projects. Known as "Associated Landscape Architects," with offices at 664 N. Michigan Ave., Chicago, the group will specialize in site and town planning, camouflage, defense housing, airports, recreational areas, and defense industrial plants.

Included in the group are *C. B. Andrews, Fitzgerald & Atkinson, Robert Bruce Harris, Ralph Rodney Root, Simonds, West & Blair, and F. A. Cushing Smith & Associates*. This association is in addition to its members' individual practice.

DEMOUNTABLE HOUSES

Available from the Federal Works Agency, Defense Housing Division, Washington, D. C., is a brochure prepared by the Planning Section of the Division, outlining standards, floor plans, and elevations for prefabricated demountable houses acceptable for use in connection with demountable housing projects constructed by the Division. Suggested plans and elevations are for the use of the prefabricator in designing his own plan, elevation, detail working drawings. Also suggested are desirable interior arrangements of space and floor areas. Plans have been designed on a four-foot modular basis for use as a free standing single-family unit structure, single-family unit in a double-family structure, and as a single-family unit in a row structure.

ADVERTISING AWARD

Top honor in industrial advertising, as selected in the annual feature of "Industrial Marketing" magazine, was awarded recently to *Edward L. Andrew*, vice-president of Fuller & Smith and Ross, Inc. advertising agency, for the series, "Aluminum, Defense, and You," written for the Aluminum Company of America. Some of the advertisements were run in PENCIL POINTS last year.

A.S.C.E. MEETING

Business meetings, prize awards, conferring of honorary memberships, featured the eighty-ninth annual meeting of the American Society of Civil Engineers, held January 21-24 at the Waldorf-Astoria Hotel, New York. On exhibit at the meeting were drawings of engineering construction made by *Miss Lili Réthi*.



Arkwright Standards STAND!

As industry rushes to its battle stations, it can be sure that its designers and draftsmen will continue to have good quality tracing cloth to work with.

For Arkwright standards stand . . . in war as well as peace!

In 1939 Arkwright standards — smooth, smudge-proof surface and permanently transparent finish — meant a good deal to draftsmen working on consumer goods production. But think how much more essential they are in 1942 as industry speeds up its war supplies output.

Besides maintaining the quality of its tracing cloths, Arkwright also maintains sufficient stock to assure dependable delivery to defense and non-defense industries. Write for samples and new catalog. Arkwright Finishing Co., Providence, Rhode Island.

Arkwright TRACING
CLOTHS

"AMERICA'S OLDEST AND FINEST"

Sold by Leading Drawing Material Dealers Everywhere



Windows

... THAT FIT YOUR PLANS TODAY

● *Improved*, "insulated," trouble-free wood windows help you specify extra value and greater economy for your jobs.

Silentite Windows are more important to you now than ever before! They'll help your builders cut installation costs and save time. For the "pre-fit" *Silentite*, by long experience and unbiased tests, actually saves *as much as half* the cost necessary to install ordinary windows!

Silentite comes to the job in dustproof cartons. There are no weights, cords or pulleys to install—just simple "life-time" springs. You may choose narrower, more modern trim, like Curtis Mitertite, for all interiors.

Silentite is fully weather-stripped! Owners report as much as 25% fuel savings. This wood window is

made of Ponderosa Pine and treated with a toxic preservative (a special Curtis formula). *Silentite* won't rattle, stick or jam! It's trouble-free! That means lasting window satisfaction!

To make it easy for you to figure installation and fuel savings with *Silentite Windows*, we have prepared an "Economy Calculator." It's a simple slide rule; easy to use.

Let us send you an "Economy Calculator" so you can figure installation and fuel savings for every job. We'll also send you information on the *Silentite* Window family which includes Double-Hung Windows, Casement Windows, Basement Sash, Circle Sash. Just mail the coupon. If you live in Canada, write to W. C. Edwards & Co., Ltd., 991 Somerset Street, West, Ottawa, Canada.

When in New York, visit the Curtis Woodwork display at Architects' Samples Corporation, 101 Park Ave.



CURTIS WOODWORK IS SOLD BY
RELIABLE DEALERS EVERYWHERE

Curtis Companies Service Bureau
Dept. PP-2, Clinton, Iowa

Please send me a Curtis Silentite "Economy Calculator" and information on Silentite Windows.

Name.....

Address.....

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

Pen and ink drawing in Higgins Ink by JACK TINKER made for James Monroe Perkins, Artist's Representative



HIGGINS—more power to your pen

The versatility of Higgins is evident in this illustration where the careful carelessness of the technique demands delicacy of line and broadness of stroke.

For more than 60 years, masters of art have relied on the smooth flowing, dense blackness of Higgins American India Inks for their responsiveness to all techniques. This and other illustrations appear in Higgins new "Techniques" pamphlet. One copy only free to art instructors writing on school stationery. All others 50c.



AVAILABLE IN A COMPLETE COLOR RANGE

HIGGINS

HIGGINS INK CO., INC.
271 NINTH ST., BROOKLYN, N. Y.

AT LARGE IN THE LIBRARY

THE GULF COAST OF MISSISSIPPI, by Nola Nance Oliver (\$2 a copy, 105 pages, 6" x 8 1/4", illustrated—Hastings House, New York)

THE PUEBLOS: A CAMERA CHRONICLE, by Laura Gilpin (\$3 a copy, 124 pages, 7 1/4" x 9 1/2", illustrated—Hastings House, N. Y.)

More armchair travel of the sort that architects find most inspirational is conducted by Hastings House, publishers of the Samuel Chamberlain series and other distinctive chronicles of America's historic towns, in two new books. These are, Nola Nance Oliver's at-

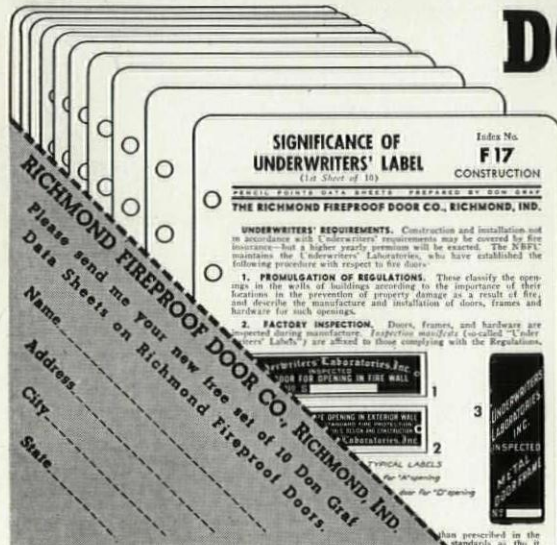
tractive presentation of the historic Gulf Coast of Mississippi and the thoughtful record of a trip to the Pueblos of the Southwest by Laura Gilpin.

Remains of these cultures, existent on the Arizona and New Mexico mountaintops and in the side of the steep cliffs during the first dozen centuries of the Christian era, have proved a rich text for archaeologists of our day. Much had been conjecture, of course, from study of the descendants of the earlier peoples, and remains of the Pueblo life following the Spanish Conquest. But it is in the Pueblo villages and cliff apartment

dwellings that the significance of prehistoric development is realized. The Pueblos pictured include constructions of the Developmental Pueblo Period as well as the Classical Period of Pueblo and Cliff Dweller Civilization. A brief outline of the peoples, their homes and customs accompanies this pictorial record.

Along the Gulf Coast of serene, conservative Mississippi is found a "crescent of charm" that has been a favored vacation retreat for generations of sophisticated travelers from North and South. It is described sympathetically by Mrs. Oliver, whose "Natchez: Symbol of the Old South" was an earlier book of this popular series published by Hastings House. For this issue
(Continued on page 62)

RICHMOND FIREPROOF DOOR CO. DON GRAF DATA SHEETS



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GENERAL ELECTRIC

HOME BUREAU, BRIDGEPORT, CONN.

(Continued from page 60)

of PENCIL POINTS Mrs. Oliver also has written of the annual Natchez Pilgrimage, which is of significance to the student of *ante-bellum* architecture, customs, and atmosphere of the South.

Along the Gulf Coast Mrs. Oliver has chosen to describe smaller and half-forgotten buildings, as well as the showplaces and landmarks. The photographs included are by Roy Webb, A. V. Ragusin, Walter Holloway and Elbert Dole Studios.

C. M.

THE MART EMPLOYMENT OPPORTUNITY

HERMAN H. SIEGEL, *Architect*, 184 Joralemon St., Brooklyn, N. Y., has an airbrush and pressure gage for sale. Airbrush is a Walden, in perfect condition, has been used about a week only.

FRANK SCHMITT, 812 N. E. 15th St., Oklahoma City, Okla., has the following issues of PENCIL POINTS for sale: March 1930; complete issues of 1939, 1940, 1941. Will not sell single copies.

ESTIMATOR WANTED to take off heating and plumbing materials preparatory to purchasing. Address, James T. White, Superintendent, Mechanical Division, Virginia Engineering Co., Inc., Naval Air Station, Norfolk, Virginia.

POSITIONS WANTED

REGISTERED ARCHITECT, 29, M.I.T. graduate, married, desires employment in defense work. Address, B. F. Lippold, Jr., 45 Hanford St., Middletown, N. Y.

EXPERIENCED DRAFTSMAN desires architectural work on any basis, including free-lance. Complete working drawings from rough sketches, etc. Edward Hess, 1260 Winnemac Ave., Chicago, Ill.

ARCHITECT with twenty years varied experience wishes drafting or outside work within 100 miles of New York City. Address, Box 105, PENCIL POINTS.

MANUFACTURERS' DATA WANTED

JOHN F. ALTER, *Architect*, 351 Essex St., Lawrence, Mass. (Catalogs, samples, and data for A.I.A. file to replace material completely destroyed by fire.)

THOMAS L. HANSEN, A.I.A., School of Architecture, University of Washington, Seattle, Wash. (Samples to build up a display and exhibition of various building materials.)

U. S. ENGINEER OFFICE, Inspection Section, Rock Island, Ill. (Data for A.I.A. file, and data sheets for drafting room, including specifications and construction work on airports, other Victory projects.)

FREDERICK H. KLEMYER, Sanderson & Porter, Pine Bluff Arsenal, Pine Bluff, Ark. (Data for specification department.)

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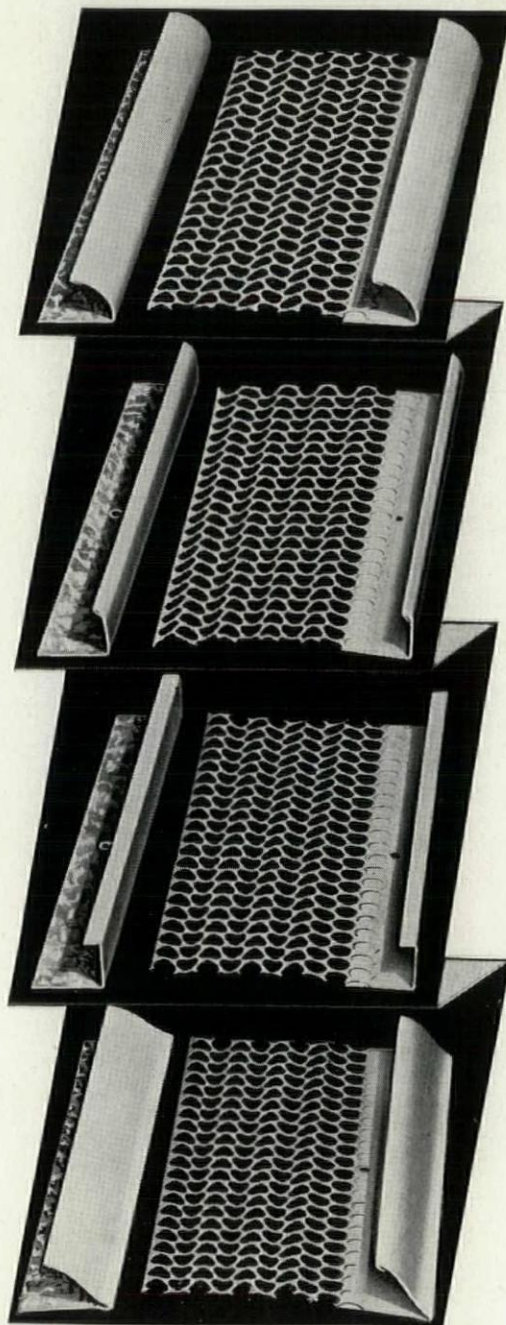
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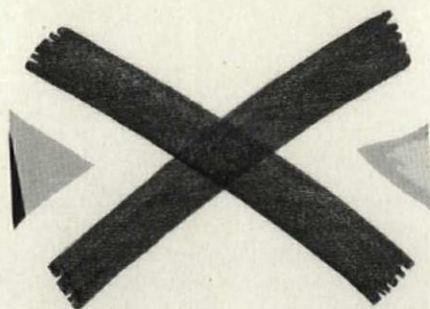
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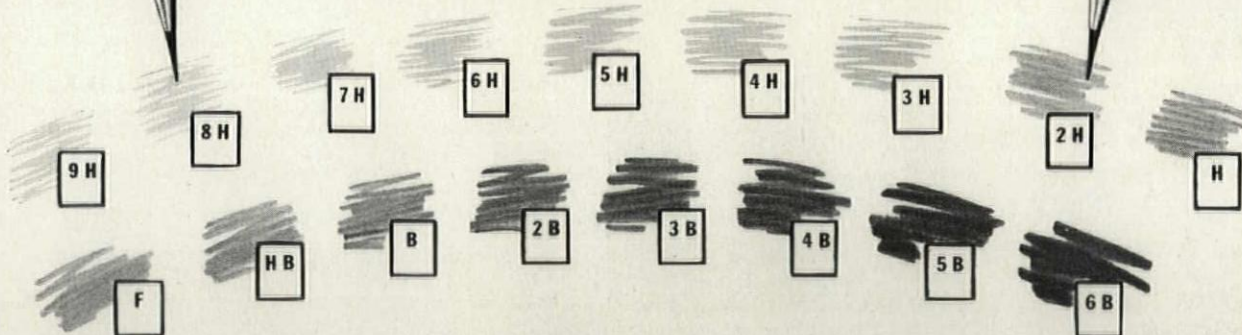
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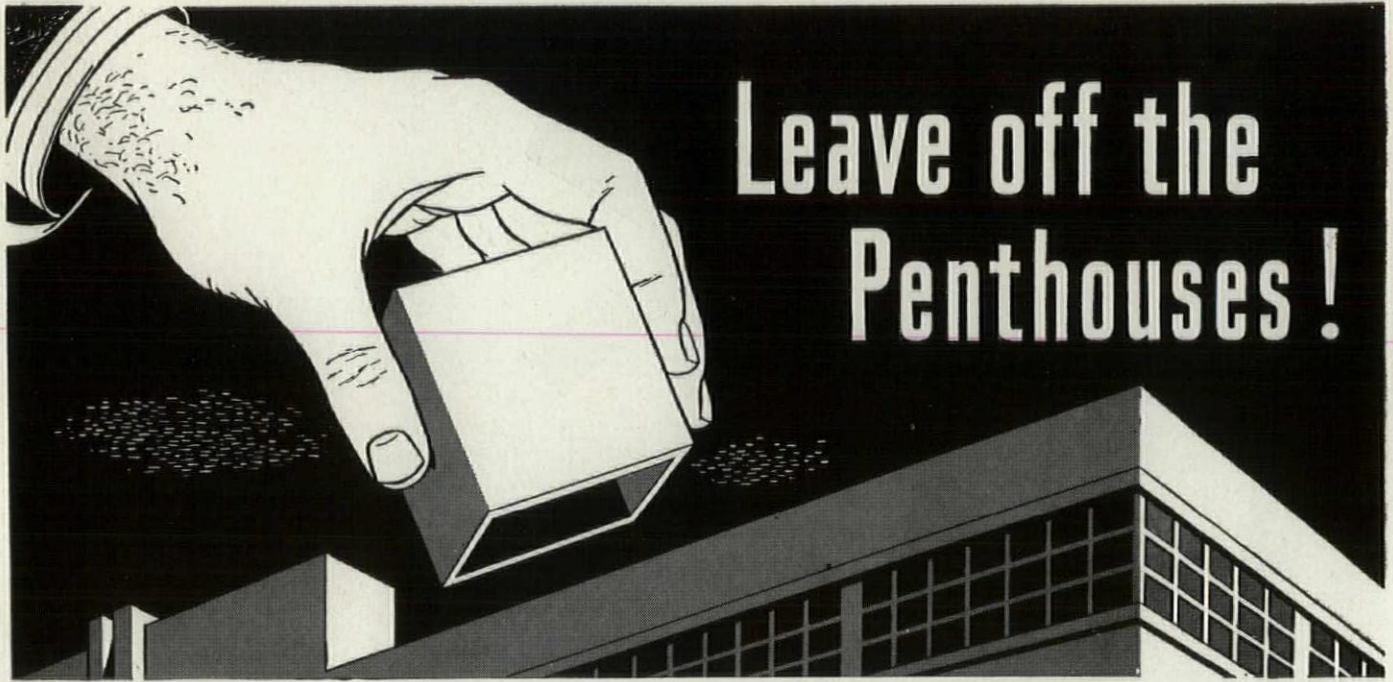


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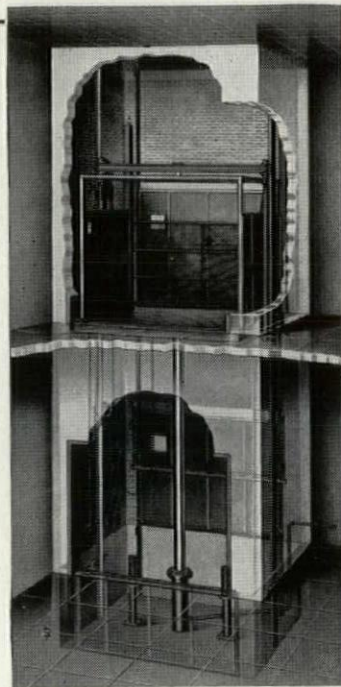
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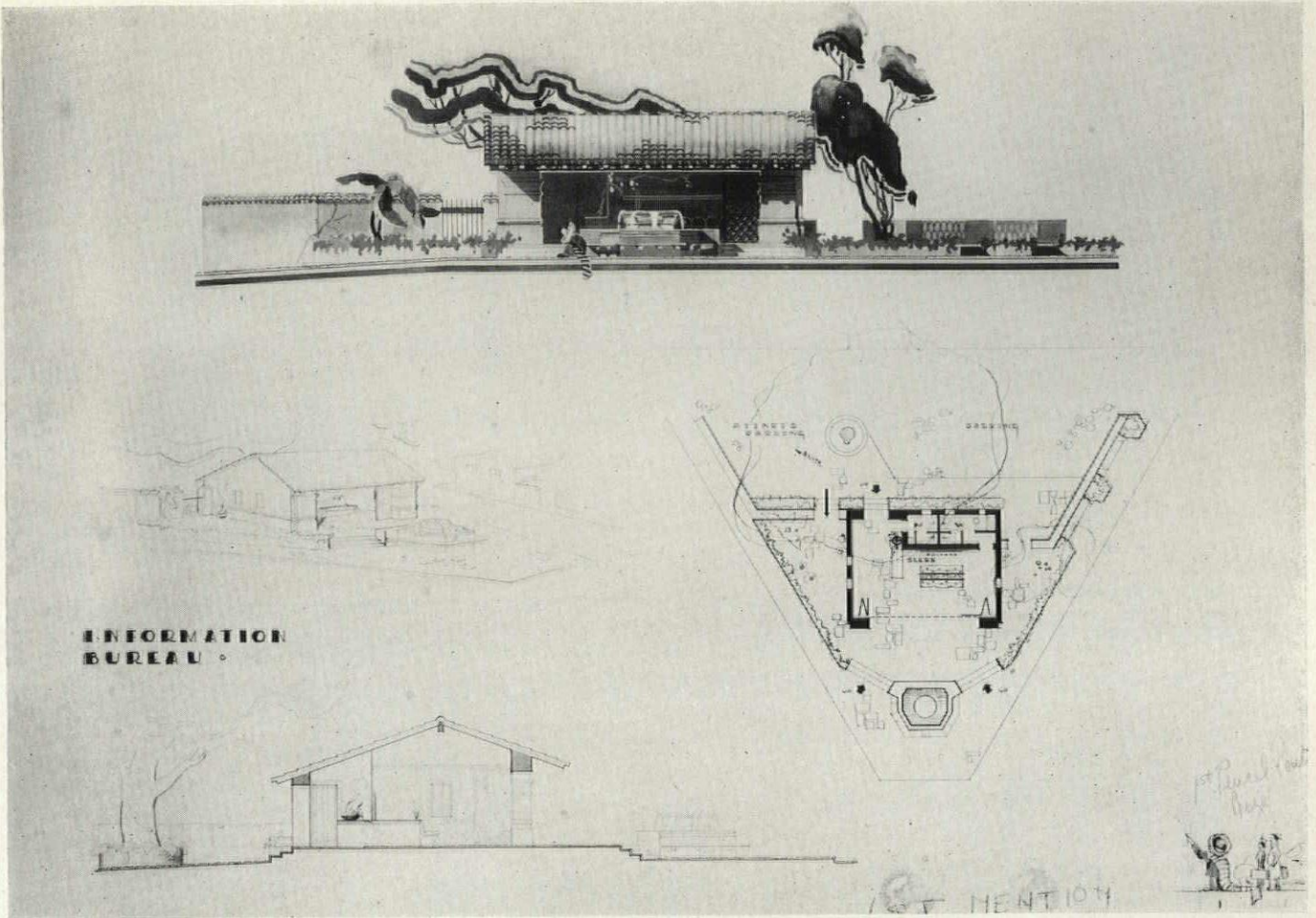
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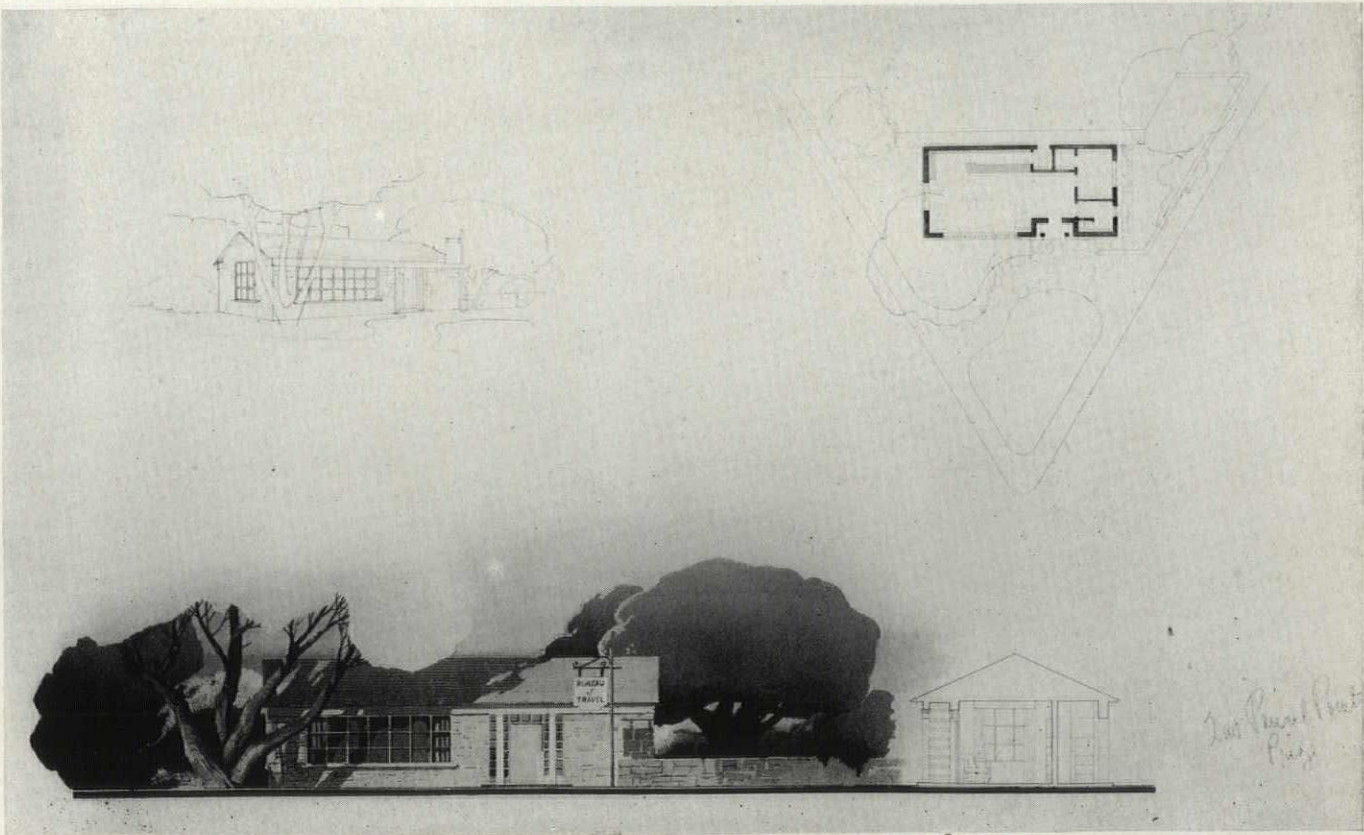
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OILDRAULIC ELEVATORS



Shown on this page are the Pencil Points Prizewinners in the recent Beaux Arts Competition. (See Story on Page 66)



BEAUX ARTS COMPETITION — A TOURIST INFORMATION BUREAU

THE CURRENT

Winner of the PENCIL POINTS Prize of \$50 in the recent Beaux-Arts Competition, "Class C, Problem II—A Tourist Information Bureau," was *James J. Derks*, of the University of Illinois. Second PENCIL POINTS Prize winner of \$25 was *M. S. Martin*, of Oklahoma A. & M. College. There were 133 drawings entered.

A report of the Jury findings, written by *Robert Allan Jacobs*, follows in part:

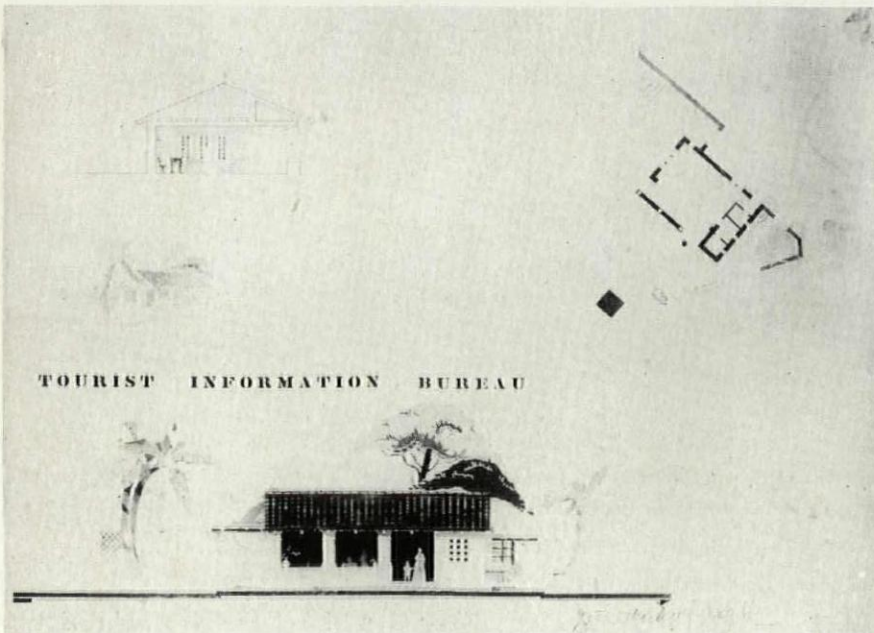
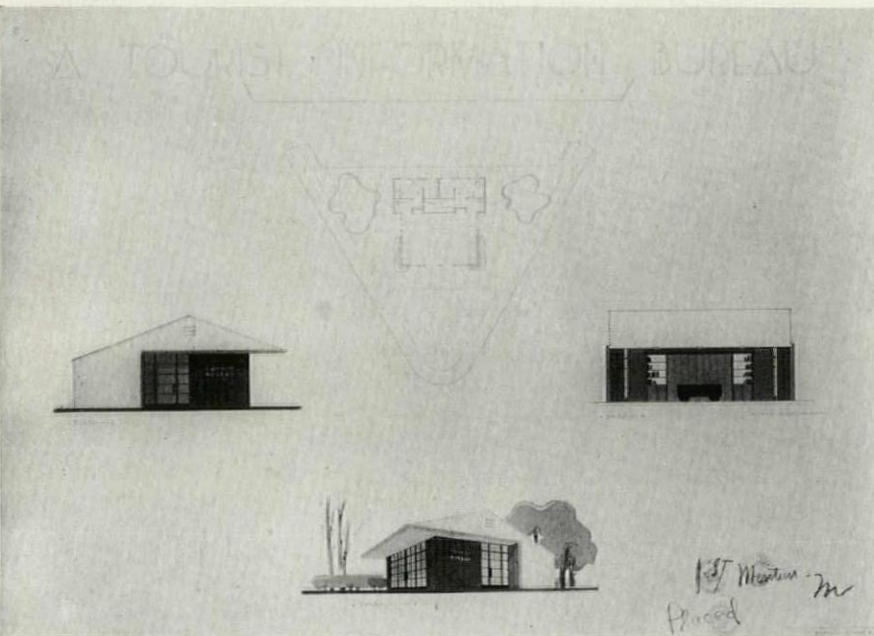
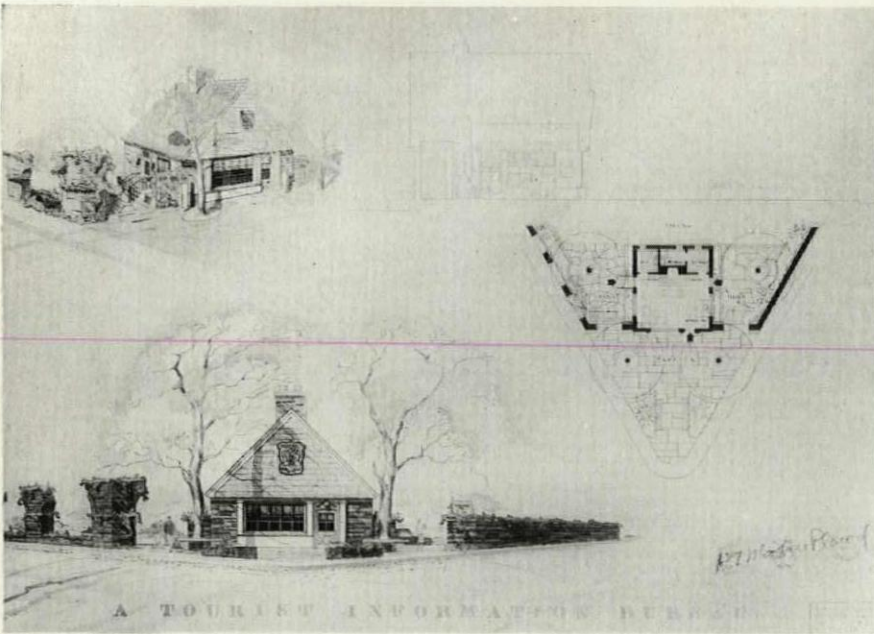
"The essential points of the program considered by the Jury were: (1) Relation of the building to the lot; (2) Circulation (a) in relation of automobile to building, and (b) in relation of main room to toilet facilities; (3) Character of the building.

"This was readily evident when most of the building designs had been studied with consideration for the size, shape, and location of the lot. In each case where the functions of the building had been thought through in plan, section, and elevation, the problem received recognition. Those that neglected the plan and read the program as purely a façade problem did not fare so well.

"The most obvious weakness in the submissions was in the apparent inability to give character to the building. So many designs could easily be taken for village libraries, offices of real estate developments, antique shops, or even private residences. Many of the buildings were stylistic, to which there was no objection except that tourists coming upon the building might fail to realize its purpose. A few disregarded the program description placing the building in an historical town, and presented a building entirely foreign to such surroundings. The Jury held that such a submission ignored the conditions of the program, and that while the design answered the program, it was not a true solution of the problem

"*James J. Derks*, University of Illinois, received the PENCIL POINTS Prize of \$50 and the award of First Mention Placed. The outstanding

Illustrated here are the First Mention Placed awards made in the recent Beaux Arts Competition: Verne Richardson, University of Illinois (top photograph); Alfred W. Brownell, Georgia Tech (center); and Roy Allan Clapp, University of Illinois (bottom)



COMPETITION ANNOUNCEMENTS AND RESULTS

qualities of this problem (top photo, page 65) were the simple and direct way of handling the plan, the charming qualities obtained in the elevations, the openness of the scheme, and the ease with which a tourist could enter the building. The general treatment of the plan on the lot, and the landscaping indicated that the author took the area as a unit and planned not only the building but the surrounding area for equal ease of access by the tourist parking his car on the street or in the parking space.

"M. S. Martin, Oklahoma Agricultural and Mechanical College, was awarded the second PENCIL POINTS Prize of \$25, and First Mention Placed. (Bottom photo, page 65). This plan did not measure up to the first prize. The toilets were too close to the main entrance, and the service entrance at the rear was small and could be used only for service rather than direct access from the parking space at the back of the building. The tourist who parked would have to walk around the side to the front entrance. However, the character of the elevation was excellent, and in scale. The elevation is simple and pleasing. The idea of placing a sign in front of the building was good, but the general criticism applies to this as well as many other solutions, that without the sign this building could be taken for a small library or even a residence."

Author of the program was John W. Ames, Jr., Boston, Mass. Robert S. Hutchins, of New York, was chairman of the Jury of Award.

Schools participating in the competition were: Atelier Clark, Hollywood, Calif.; Cleveland School of Architecture, Western Reserve University; Georgia School of Technology, Atelier Gnerre, New York City, New York University, Oklahoma Agricultural & Mechanical College, Rice Institute, Texas Technological College, T Square Club of Philadelphia, Pa., University of Illinois, University of Notre Dame, University of Oklahoma.

First Mention Placed (see photos on page 66) was awarded to the fol-

The competition entry submitted in the Beaux Arts Competition by Rex Allen Harris, of Oklahoma Agricultural & Mechanical College, was eliminated by the H. C. Jury which noted on the drawing, "Congratulations on the rendering." (Photograph at right)

lowing in addition to the prize winners: A. W. Brownell, Georgia School of Technology; V. Richardson, University of Illinois; R. A. Clapp, University of Illinois.

First Mention was awarded D. Ford and D. F. Knapp, Oklahoma A. & M. College; J. Braveman, P. W. Mason, C. A. Rubinelli, and W. K. Vivrett, University of Illinois; G. G. Hoskins, University of Oklahoma.

RORIMER MEDAL COMPETITION

Three national student prize winners were selected by the American Institute of Decorators in their sixth annual Rorimer Design Competition. Gold, silver, and bronze medals, designed by Rene Chambellan, went to Miss Jane M. Dorsey, New York School of Interior Decoration; John W. Thiele, New York School of Interior Decoration; and Miss Martha Templeton, University of Washington, as first, second, and third prize respectively.

Forty-seven entries from eleven different states were received in this competition from students of 15 schools and colleges. Twenty-two contestants were eliminated by the H. C. Jury.

A report of the Jury of Award findings follows in part.

"In general, most of the drawings judged showed a creditable effort and were workmanlike. There was a general tendency, however, to overstate the solution and a failure on the part of practically all the competitors to free themselves from institutionalism. In a

number of cases where the contestants felt the necessity for a more 'homey' atmosphere, their solutions were stereotyped and un-original.

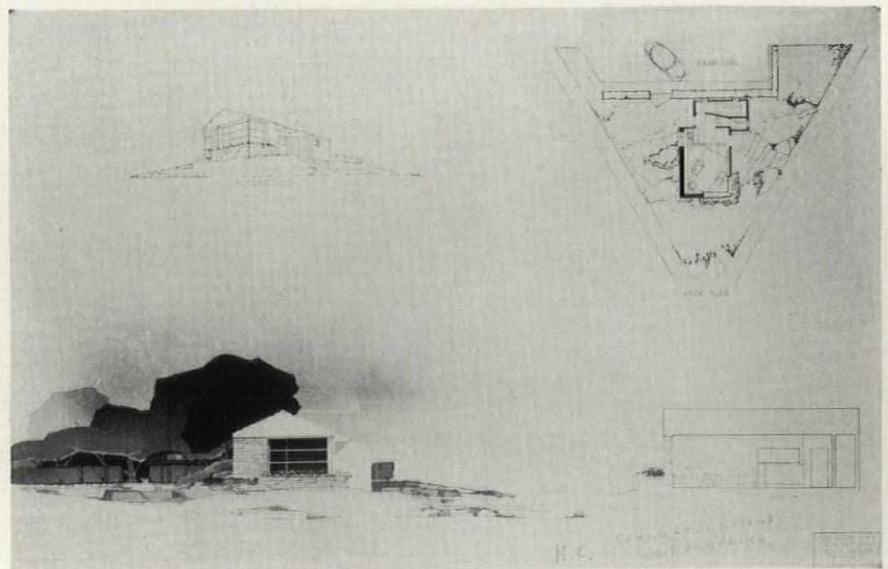
"In analyzing the problem, the Jury concluded that great flexibility and quietness were the results more to be desired in the solution. In some cases, well-designed and well-considered solutions were hurt by too loud a palette, which made them look stagey.

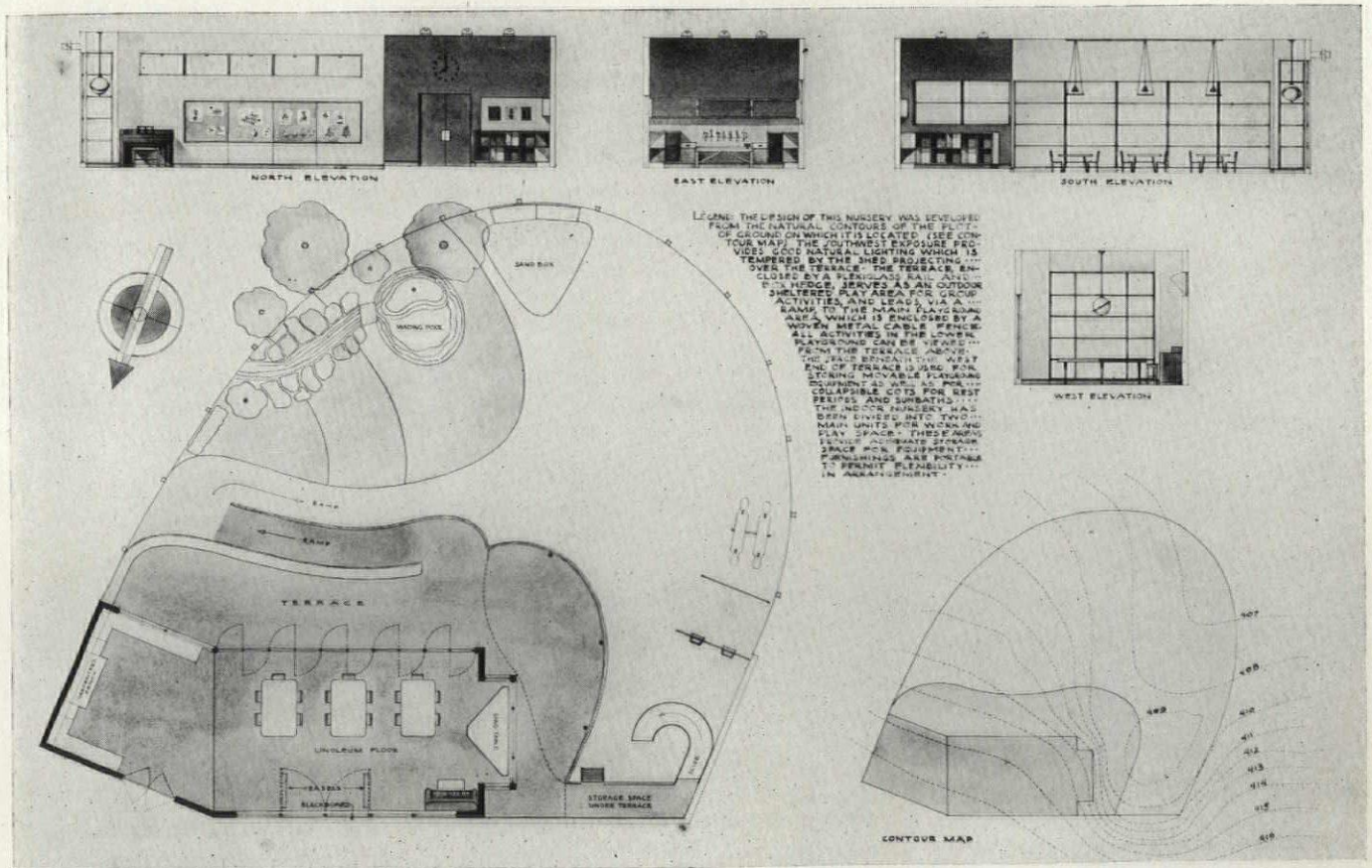
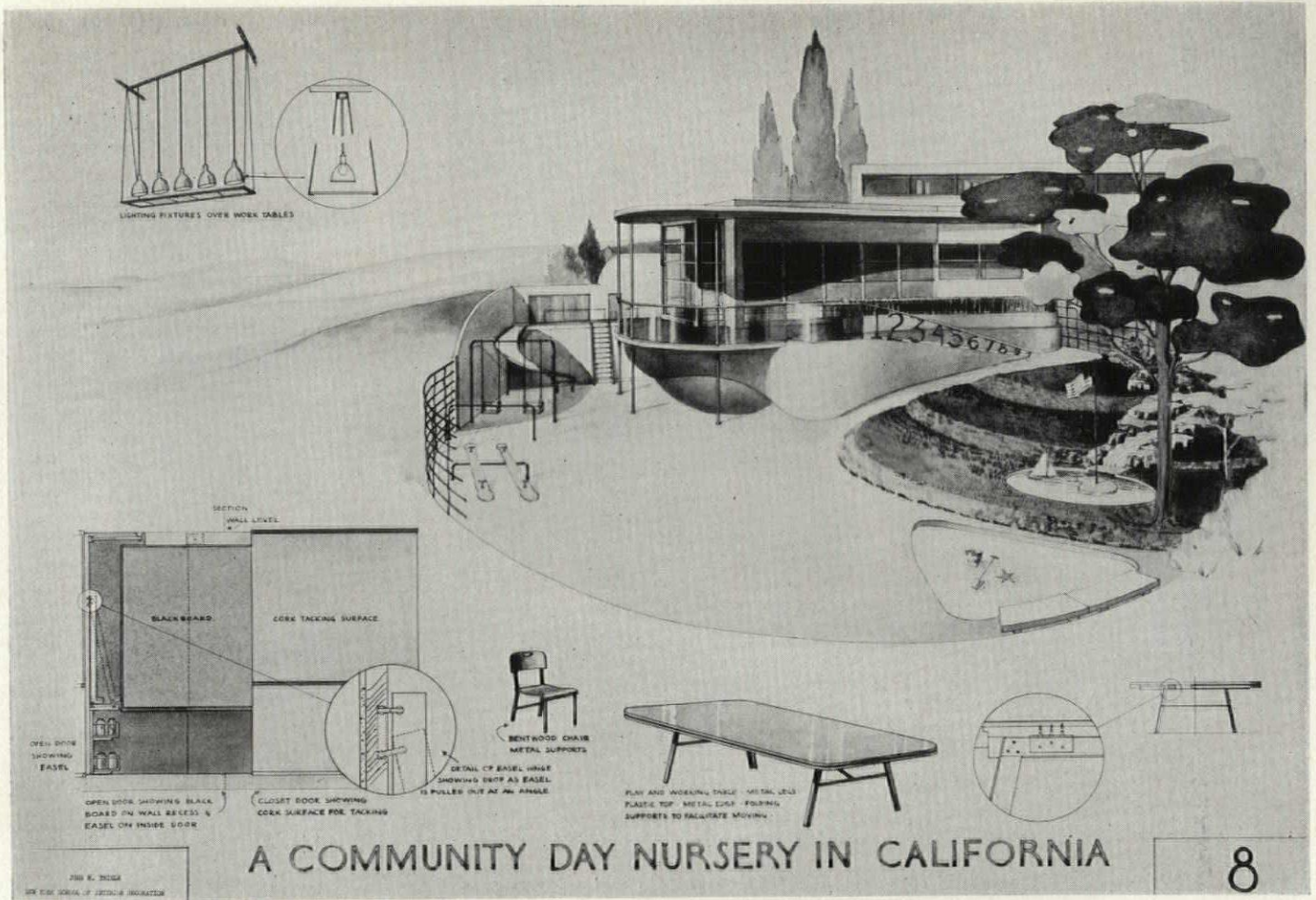
"In the solution of Miss Jane M. Dorsey, of the New York School of Interior Decoration, which won the first prize, there was revealed a very thorough solution of the problem, and the arrangement of the space was admirably conceived. (See photos on page 68.) The Jury felt that a child would love to play and work in such a space. . . .

"The second prize design of Mr. Thiele, (see photos on page 69) also of the New York School of Interior Decoration, was solved for a highly contoured plot and merited the award not only for the excellent handling of the interior but for the excellent knowledge of architecture that was displayed. It was also a flexible design in its appointments. . . .

"In the third prize design of Miss Templeton, of the University of Washington, an interesting use of the space and the angular treatment of the room as well as the play areas was neither too bizarre nor strained to be effective. . . .

"In most cases the winning designs, as well as those of the other competitors, showed a good knowledge of the use of materials. The Jury commented on the lack of





This design won second prize for John W. Thiele. (See story on page 67)
COMPETITION, "A COMMUNITY DAY NURSERY" - SECOND PRIZE

shades and blinds. In many cases the softening of the strong lights that might come in through the large exposed glass surfaces might have thus been taken care of."

The winning drawings, as well as other drawings entered in the Competition, were shown at the Chicago Art Institute during the 11th Annual Conference of the Institute, and will go on exhibition at several schools and colleges throughout the country.

POSTER COMPETITION

Four prizes totalling \$350 will be given by the American Hospital Association for the design of a poster to commemorate National Hospital Day, May 12. Details of the competition, which closes March 20, may be had from the association at 18 E. Division St., Chicago.

WALTER COPE PRIZE

Martin S. Kermacy was the winner of the first prize in the competition, "The Development of Robin Hood Dell in Fairmount Park, Philadelphia," sponsored by the T Square Club of Philadelphia. Second and third prizes were split between Roaul A. Ibarguen, University of Pennsylvania, and Edwin M. Ebur, Drexel Institute of Technology. The project of F. C. Salmon, University of Pennsylvania, was also premiated as possessing merit.

KINLEY FELLOWSHIP

The committee in charge of awarding the *Kate Neal Kinley Memorial Fellowship* has announced the eleventh annual consideration of candidates for the Fellowship. Candidates who are college graduates, and whose principal or major studies have been in music, art, or architecture, should make application to the committee not later than May 1st. The Fellowship of \$1,000 is to be used by the recipient toward defraying the expenses of a year's study of the fine arts in America or abroad. Application blanks and further details may be had from Dean Rexford Newcomb, College of Fine and Applied Arts, Room 110, Architecture Building, University of Illinois, Urbana, Ill.

ROSENBERG SCHOLARSHIP

Applications for the third *Abraham Rosenberg Traveling Scholarship Award* will be received until March 31 by the San Francisco Art Association, 800 Chestnut St., San Francisco, Calif.



FREDERIC CHARLES HIRONS
1881-1942

A MAN has died who added to his time. Brilliant as architect and artist, human and lovable as friend.

A V E A T Q U E V A L E

DECORATE 400,000 DEFENSE HOUSES

A national competition among professional interior designers to provide the best plan for the arrangement and furnishings of interiors in the 200,000 government defense houses, as well as an estimated 200,000 privately-built defense homes, has been announced by "Interior Design and Decoration" magazine, 521 Fifth Ave., New York. Sponsors of the competition are the Public Buildings Administration and the magazine, in cooperation with the American Institute of Decorators. A Defense Housing Medal is being created by the A.I.D. and will be offered in addition to the cash awards of \$500. The contest will close March 15. Awards will be made for the best arrangements of interiors that can be obtained at the lowest cost by defense workers who will occupy the homes.

AIRPORT ADMINISTRATION BUILDING COMPETITION

The Fitchburg (Mass.) Municipal Airport Commission has announced a competition to secure an appropriate design for the Administration Building to be located at the Fitchburg airport. Copies of the program will be issued on February 23, and the competition will close on April 18. *Joseph Hudnut*, Professor of Architecture at Harvard University, Cambridge, Mass.,

will prepare the program and conduct the competition. Competitors must notify Professor Hudnut, in writing, by March 1, of their intention to participate (mandatory).

The Jury of Award will consist of the following: *Hon. Alfred Woolacott*, Mayor of Fitchburg; *George R. Wallace*, Chairman of the Fitchburg Municipal Airport Commission; *John A. Holabird*, Architect, of Chicago; *George Howe*, PBA Supervising Architect; *Eero Saarinen*, Architect, Bloomfield Hills, Mich.

RENDERING AND SMALL SCULPTURE COMPETITION

The Architectural League of New York has announced an exhibition of architectural rendering and small sculpture (March 9-April 4), and a competition for the Birch Burdette Long Memorial Prize of \$100 for architectural rendering and for the Henry O. Avery Prize of \$50 for small sculpture. Further information may be had from the League at 115 E. 40th St., New York.

Although the competition entries do not have to be submitted until March 2, competitors must file an entry slip with the League before February 20.

P E R S O N A L S

WALTER R. MACCORNACK, *Dean*, Massachusetts Institute of Technology, has been appointed chairman of the A.I.A. Committee on Urban and Rural Land Use, succeeding FREDERICK BIGGER.

LOUIS H. FRIEDHEIM, *Architect*, has moved his office from 132 Montague St., Brooklyn, N. Y., to 201 W. 77th St., New York City. Catalogs requested.

HENRY F. WITHEY, *A.I.A.*, has moved his office from 407 S. Western Ave., Los Angeles, Calif., to 15031 Ventura Blvd., Sherman Oaks, Calif.

WILLIAM EDWARD KAPP has opened an office for the practice of architecture and industrial design in the Buhl Building, Detroit, Mich.

C. WHITNEY STANDISH, *Architect*, has moved his office from 234 Cabot St., Beverly, Mass., to 1 Harrison St., Melrose Highlands, Mass.

COMPETITION FOR AIRPORT
BUILDING

at Fitchburg, Massachusetts

THE FITCHBURG MUNICIPAL
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George R. Wallace, Chairman

Announces an Architectural Competition
For the Design of

AN ADMINISTRATION BUILDING
AT THE MUNICIPAL AIRPORT

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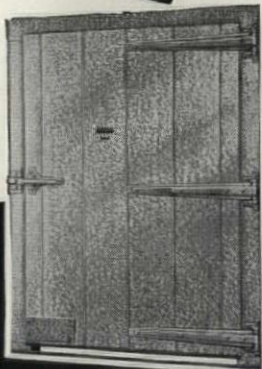
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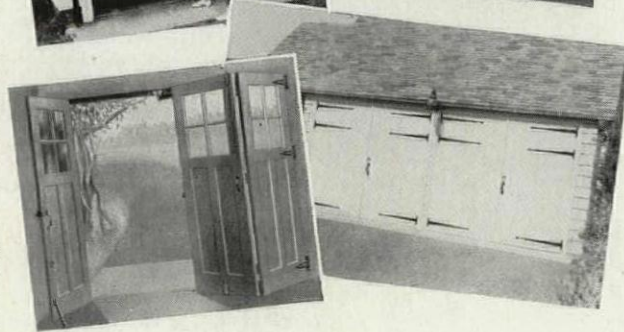
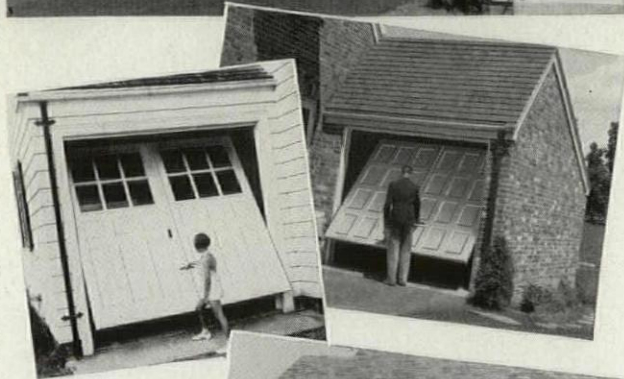
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STANLEY
HARDWARE

NEW PRODUCTS

COPPER FLASHING SUBSTITUTE

A substitute material for use in place of sheet copper and other sheet metals has been developed by the Cheney Co., Ardmore, Pa., for either defense or non-defense construction, as no priorities are necessary for it.



The new material, called Pitch-On-Metal, is made with a ferrous metal core, completely enclosed in a baked-on coal-tar pitch, and is not

affected by moisture, or cement mortar, and is resistant to most acid conditions. It has been found to be satisfactory in the manufacture of Cheney Thruwall Flashing, and is made for this use during the copper emergency.

In addition to its use for flashing, Pitch-On-Metal is also available in regular sheet form for counter-flashing, gutters, down spouts, gravel stops, termite shields, ducts, etc. It can be satisfactorily painted any desired color provided one coat of shellac is applied after all fabrication is completed.

BLACKOUT MATERIALS

Special products for blackout and protective concealment (camouflage) purposes have been developed by The Flintkote Co., 30 Rockefeller Plaza, New York. Flintkote products available: static coating—a non-inflammable (in liquid form), non-toxic asphalt emulsion for application on windows, skylights, roofing, masonry, wood and metal surfaces; membrane treatment—a fabric embedded in and coated with static coating, for more permanent blackout and shatterproofing purposes; blackout panels—light, rigid, weatherproof black sheets for exterior or interior use, which hang like screens or storm-sash; blackout paper—waterproof paper or felt for temporary, emergency blacking-out; fire retardant mastic—for preventing the spread of roof fires resulting from incendiary (thermite) bombs; camouflage paints and adhesives conforming with Victory agency requirements.

FURNACE-WATER HEATER COMBINATION

Designed as a single unit for use in low-cost housing projects and trailer units is the new Evanaire Model No. 1000 combination furnace and water heater unit from Evans Products Co., 15310 Fullerton, Detroit, Mich. The unit, no longer than an oil-burning furnace, supplies heat and hot water from a single burner, a single valve, and a single cabinet.

The lower half of the new Evanaire model contains the heating unit, combustion chamber, and blower, while the upper half consists of the hot water tank and stack. A large, spring-mounted fan in the bottom rear forces the heat out through louvers at floor level. A constant supply of hot water is provided by the same burner that supplies the heated air, which is fan-forced through the house.

(Continued on page 74)



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for
Architects and Engineers

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Toncan Iron Sheets are easier to work, speed construction, reduce waste, stand up longer without repairs—all important in *Construction for Victory*.

Get a copy of "A Few Facts about Toncan Iron" and see why it pays to specify Toncan Iron for sheet metal work. There's much of interest, too, in Sweet's—27/3 and 13/6 on pipe and sheets—23/5 on Steel and Tubes—9/1 and 21/2 on Berger—15/18 on Truscon.

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- One compact unit. Smallest size occupies only 3½ square feet floor space.
- Corrosion - resistant cast iron heat transfer surface assures high transfer efficiency.
- Comes to you in one "package," factory wired and assembled for installation by any sheet metal contractor.
- Underwriters' Laboratories, Inc., approved for installation with only 2 inch wall clearance.

For defense housing and remodeling requirements, consider the General Electric series of new gas furnaces ranging from 48,000 to 96,000 Btu per hour output. These units will meet any of the heating requirements that may be encountered in defense housing projects utilizing forced warm air heating. For further data write to General Electric, Division 2502, Bloomfield, N. J.

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For radiator or warm air heat, using oil or gas

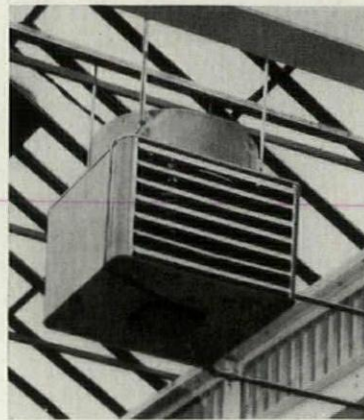
G-E Oil Furnaces in 7 different sizes for various heating capacities. Year 'round domestic hot water coil. Also G-E Gas Furnaces.

G-E Winter Air Conditioners (Oil or Gas Fired) circulate *conditioned* warm air heat—filtered and humidified.

GENERAL  ELECTRIC

(Continued from page 72) FIVE-WAY UNIT HEATER

A new unit heater for industrial and many types of commercial buildings has been announced by Carrier Corp., Syracuse, N. Y. Called the Carrier Five-Way Unit Heater because it discharges heat in five directions—outwards four ways and downward—it is available with steam or hot water coils. The unit is of the suspension type. The direction of air discharge may be made at any angle by adjusting the louvers in the outlets of the unit, each louver being independently adjustable.



Though housed in the unit, the motor is in the entering cool air stream, is protected from the heat of the coils by a circular shield. Standard units have two outlets located on opposite sides, with the other two sides consisting of a removable panel which may be replaced by outlets when desired. Louvers and panels may be interchanged even after installation, affording a flexibility to meet building changes.

Though housed in the unit, the motor is in the entering cool air stream, is protected from the heat of the coils by a circular shield. Standard units have two outlets located on opposite sides, with the other two sides consisting of a removable panel which may be replaced by outlets when desired. Louvers and panels may be interchanged even after installation, affording a flexibility to meet building changes.

BLACKOUT PAINTS

Designed for domestic and commercial use in areas subject to possible air raids is a line of blackout and camouflage paints developed by the Paint Division, Pittsburgh Plate Glass Co., Pittsburgh, Pa. The paints come in black, smoke gray, earth drab, and neutral brick. By using the color that more nearly blends with the surrounding exterior building or terrain, a partial camouflage is effected in daytime in addition to providing blackout protection during the night. Where a complete blackout is desired the outside of the window may be covered with a coat of blackout paint and the inside with a standard interior paint.

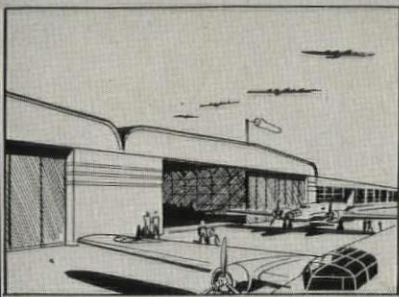
WOOD FRAME GLAZING PANELS

In order to conserve on aluminum needed for wartime industry, the Andersen Corp., Bayport, Minn., is now making wood frame, removable, double glazing panels for its casement window. The new panel is made of treated hard maple, comes equipped with four locks. Engineering tests made by the firm indicate that the new panel is equally as efficient as the aluminum frame double glazing formerly supplied for the window.

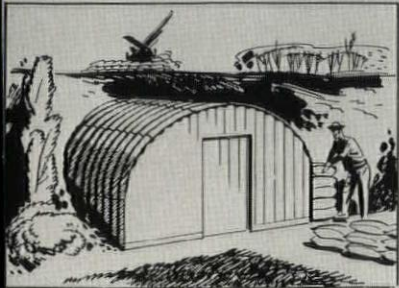
BRICK SCALES

Palmer Speed brick scales provide a method whereby brick bond dimensions for brick of any size can be read directly off or laid out on drawings to the scale of 1/8, 1/4, and 3/4-inch to the foot. The scales are worked out for American or running bond, Flemish, English, and English cross bond. Sets, consisting of twelve scales for horizontal layout and nine scales for vertical layout, are printed

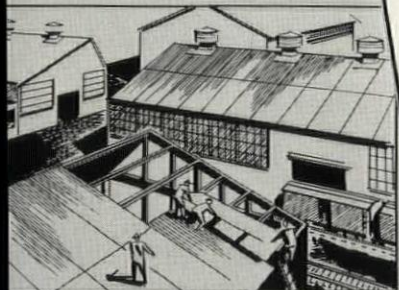
(Continued on page 76)



MOVABLE AIRPLANE HANGARS can be designed with U·S·S Steel Sheets so they can be moved quickly without damage.



AIR-RAID SHELTERS are being made from U·S·S Sectional Plate Arches. These are strong and can be quickly erected with ordinary labor.



MORE PLANT CAPACITY is quickly put under roof with U·S·S plain corrugated Steel Sheets.



PORTABLE BUILDINGS for the fighting forces can be made of U·S·S Steel Sheets and insulated to keep out heat and cold.



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ERECTION**

*...design with
U·S·S Steel Sheets*

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PLANT expansions, army camps, air-raid shelters, defense housing, are just a few of the jobs that have to be built literally overnight. But, there's no need to sacrifice durability for speed if you build with U·S·S Steel Sheets.

Look carefully at the illustration. This is a permanent building designed for fast erection by being made in sections. It will stand the ravages of lightning, fire, weather and time. Buildings like this are low in first cost, economical to build, free from expensive maintenance. They can be moved from place to place and set up without serious loss.

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Where immediate painting is important specify U·S·S Paintbond. This new sheet is Bonderized to obtain a superior surface for painting. Paint holds tighter—does not flake off—protects the surface longer.

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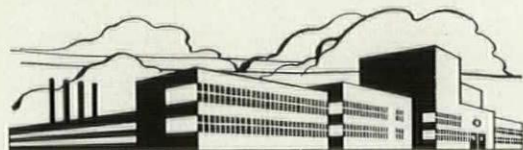


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The LCN organization, inside and out, has been carefully built over the years to do a superlative job in this field. We've taken on other work demanding precision, too, and our wheels turn day and night so that these two essential needs will be taken care of — well. LCN, 466 West Superior St., Chicago.



To be Sure—Specify
DOOR CLOSERS BY



(Continued from page 74)

on durable cardboard and coated with cellophane to prolong their use.

Dimensions for piers, openings, and other building requirements may be chosen from measurements printed on all Palmer scales. They may be used for tracing measurements directly. With the scales one may determine the number of brick required in various courses of given lengths. Priced at \$2 a set by Palmer Mfg. Co., Box 909, Pensacola, Florida.

PLASTIC TRIM

The introduction of a line of plastic trims for linoleum and Linowall installations has been announced by the Floor Division of Armstrong Cork Co., Lancaster, Pa. The new plastic parts will be supplied in the form of binding strip, cap strip, inside and outside corners, and right and left end stops. Available in ivory, gray, blue, brown, red, black.

GLARE-FREE LIGHT BULB

For all applications where eyestrain and fatigue result from close work in tool rooms, factories, drafting rooms, offices, homes, or wherever artificial light is used, The Save Electric Co., Toledo, Ohio, has introduced a new incandescent light bulb with less red and more green-yellow rays. It casts a pastel green hue on white substances, making them glare-free and creating about the same effect as ordinary light on "eye-ease" (green) paper. The bulb, known as Verd-A-Ray, is coated with ceramic glass-on-glass filter coating, can be used in any incandescent lamp outlet since no special fixtures are required. The bulb is said to consume the same amount of current as standard lamps of equal wattages. It may be had in sizes from 40 to 1500 watts, is priced at 25 cents up to and including 100 watts.

ACOUSTICAL TILE

Now being distributed by R. Guastavino Co., 500 Fifth Ave., New York, is a new lightweight incombustible acoustical unit, called Silicar. Made basically from a mineral known as Diatomaceous earth, the construction of Silicar is composed of millions of cells and small cellular openings which not only comprise its surface area but extend throughout its entire structure. This construction is said to give Silicar a more uniform sound absorption over the useful frequency spectrum.

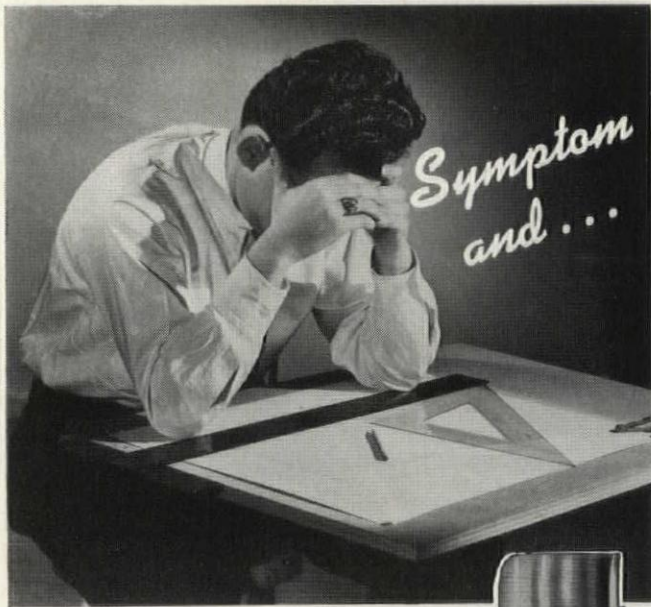
Silicar is especially suitable for radio broadcasting rooms, theatres, auditoriums, hospitals, restaurants, and offices. Available in stock sizes of 6 by 12, 12 by 12, 12 by 24, and 18 by 18 inches, and in stock thicknesses of 1/2, 3/4, 7/8, and 1-inch. Special sizes to order. Silicar may be had with either a fissured surface or a smooth surface.

CLEANING SERVICE

A safe, quick, and economical system for fire-proofing and cleaning grease ducts, chutes, exhaust fans, and other kitchen equipment has been announced by the Spee-D Chemical Systems, 622 Broadway, Cincinnati, Ohio.

The system eliminates the costly scraping and mechanical methods and is able to reach and clean places heretofore inaccessible; according to

(Continued on page 78)



Cure!

HALLOWELL

STEEL STOOL

Sustained speed and accuracy in the drawing room depends a lot on proper seating at the board.



FIG. 1266 Pat. App. for

And that's why so many drawing rooms are equipped with the "Hallowell" Stool shown above. Designed by draftsmen for draftsmen, it provides real work-producing comfort!

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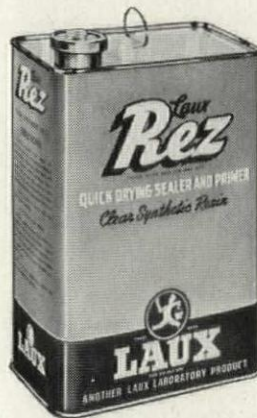
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Don't Forget...

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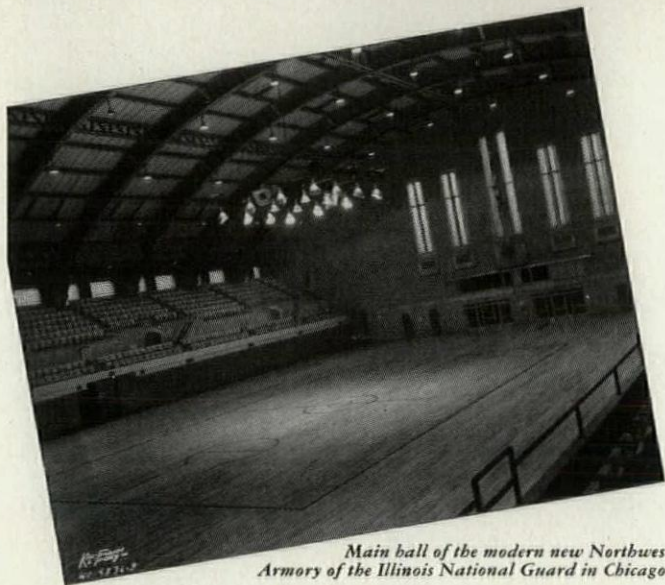
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Floors that take PUNISHMENT OUGHT TO BE MAPLE



Main ball of the modern new Northwest Armory of the Illinois National Guard in Chicago.

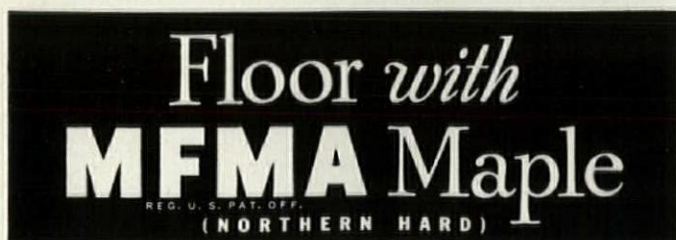
Drills, games, gym work, dances, and assemblies—they're all "work" to an armory floor—punishment that soon shows in all but the toughest floorings. And so this Armory, like many, is floored with Hard Maple.

Northern Hard Maple is "made" for punishment. Its peculiar characteristics come from Nature itself. It grows in our Northern forests where winters are long, and slow growth gives it tough fibre and close grain that have remarkable resistance to abrasion. It tends to "polish" rather than wear—and because wear is slow, its cost is startlingly low when years of service are counted.

And during those years, Maple gives the more satisfactory service of wood—affords warmth, dryness, resilient comfort and sanitation. It lowers maintenance costs, simplifies alterations, and properly finished, is cleaned by brushing alone.

So when floors must take punishment, floor with Maple—trademarked **MFMA** Northern Hard Maple, in strips or blocks. See Sweet's, Sec. 11/82.

MAPLE FLOORING MANUFACTURERS ASSOCIATION
1785 McCormick Building, Chicago, Illinois



(Continued from page 76)

the manufacturer. The application of a single treatment by factory-trained service men is sufficient to thoroughly clean grease ducts, stove hoods, and similar kitchen equipment, and to remove all accumulations of cooking fats and dirt.

Equipment so cleaned is at the same time and by the same process completely and thoroughly fireproofed, eliminating the dangerous fire hazard prevalent in grease ducts and chutes. The chemicals used are odorless and harmless to person, property, or food. Both the cleaning and fireproofing are guaranteed for one year. The process is applied without interruption to business and without muss or fuss.

PLASTER REFERENCE CHART

A comprehensive reference chart which describes the uses and advantages of all types of interior plaster has been prepared by the United States Gypsum Co., 300 W. Adams St., Chicago. Included in the chart, which is free upon request, is a glossary of 112 plastering terms.

The chart shows what each base coat material or finishing plaster is used for, what its advantages are, whether it contains sand or must be sanded on the job, what its coverage is per ton, and what its relative cost is. Recommendations are made for the type of plaster base over which each type of base coat plaster should be used. It further recommends the size of grounds, the thickness of plaster over lath, tells whether a base coat plaster is fibered or unfibered.

Limes for job-mixed finishes are broken down as to type, color, relative cost, advantages. Gauging plasters are broken down as to set, color, relative cost, advantages.

RUST PREVENTATIVE

A clear, tasteless, harmless liquid, Aqua-Clear, which prevents the formation of rust and corrosion in metal water tanks and pipes has been announced by Sudbury Laboratory, South Sudbury, Mass. Rust formation is prevented by the deposit of a thin, non-permanent film on all metal surfaces. The film is so thin that it does not interfere with the flow of water, even in narrow pipes, and it cannot build up to form a scale. It can be maintained by adding Aqua-Clear as water is put into the system. Aqua-Clear also clears out loose rust from old, rusty tanks and pipes.

LIQUID MASKING

Maskoid is a new frisket which may be applied to any drawing surface as well as on metal, wood, glass, celluloid, etc. It is a liquid of prevulcanized rubber composition (not rubber cement) which, when applied to a surface, dries quickly and forms a temporary protective film. It may be removed very easily by stripping from the surface like a sheet of rubber.

Maskoid may be painted on with a pen or brush, or sprayed on with airbrush, in one single operation, eliminating intricate stencil cutting. It is adaptable for use in the ruling of brick lines, highlighting of trees against backgrounds, protecting white areas in architectural models, etc. Being colored, it is easily seen when applied over an area. A descriptive booklet may be had from Andrew Jeri Co., Inc., 1163 Sixth Ave., New York.



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Supplies emergency needs for food, clothing, shelter and medical attention for disaster victims. • Assists stricken families in repair of homes and other adjustments; provides minimum reserves of essential relief supplies to prevent unnecessary delays.

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TOTAL \$50,000,000

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SHIPSHAW, Que., Jan. 11
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 through a big wooden bar-
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