

# THE ARCHITECTURAL FORUM

AUGUST 1942





# Soft Woods "Frozen"?

That Needn't Hold Us Up—  
There's Still Plenty of  
Celotex Vapor-seal Sheathing!



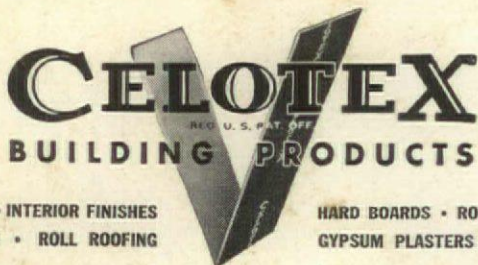
## Celotex Vapor-seal Sheathing Replaces Critical Materials—Builds, Braces, Insulates at One Low Cost!

**D**ON'T LET lack of soft wood sheathing hold up important construction! Do as so many others are doing—use Celotex Vapor-seal Sheathing. It is available. It handles easily—goes up fast—stays put. It provides exceptional bracing strength. *And it insulates!*

Stock size for horizontal application, as shown, is 2' x 8', 25/32" thick, with tongue and groove on long edges. Standard boards for vertical application are 4' wide and 8', 8½', 9', 9½', 10' or 12' long; thickness

25/32". Celotex Asphalted Sheathing, ½" thick, is also available in the same sizes. Both are asphalt coated on all surfaces and edges. Permanently protected against termites and dry rot by the exclusive, patented Ferox Process.

Speed emergency construction of barracks, storage buildings, tool sheds, temporary schools, recreation centers, and residences with the proved excellence of this famous product! Write for samples and specifications! Or go direct to your own Celotex dealer.



INSULATING SHEATHING • LATH • INTERIOR FINISHES  
ASPHALT SHINGLES • SIDING • ROLL ROOFING

HARD BOARDS • ROCK WOOL BATTS • BLANKETS  
GYPSUM PLASTERS and LATH and WALL BOARDS

THE CELOTEX CORPORATION • CHICAGO



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*In Military Service:*

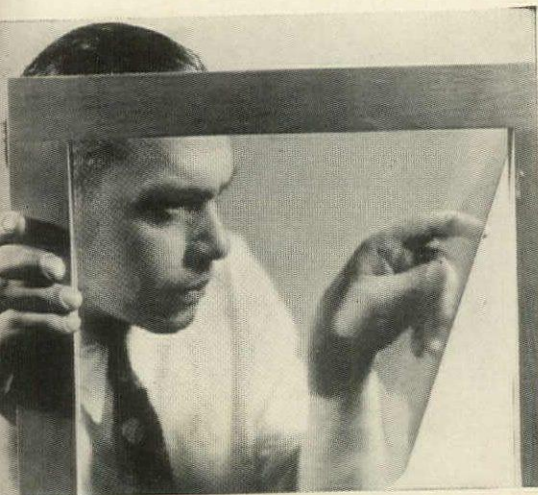
Robert W. Chastaney, Jr.  
Robert Hanford  
Joseph C. Hazen, Jr.  
George B. Hotchkiss, Jr.  
S. Chapin Lawson  
A. Banks Wanamaker

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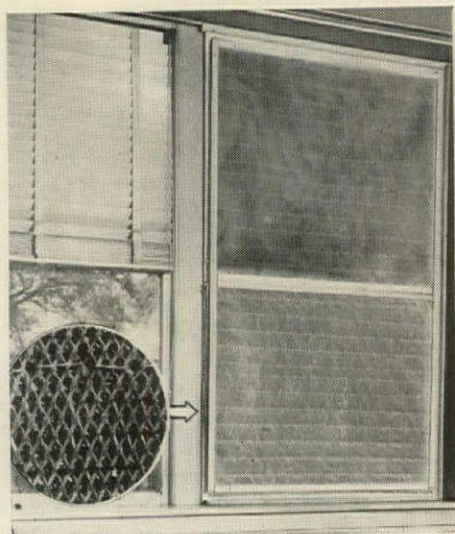
VOLUME 77—NUMBER TWO



# Building Reporter



Plastic window panes boast transparency.



Cut paper forms protective window screen.



Plastic shade strips stop room light leakage.

*Innovations in window and door design bulk large in this month's product news. Outstanding examples appear here and on following pages. For more information on any product described, write direct to the manufacturer.*

**PLASTIC GLASS** keeps heat in, lets ultraviolet through, permits visibility.

*Name:* Lumapane (see first cut, left).

*Purpose:* For shatterproof glazing of windows and partitions subject to explosions, bombings, other hazards.

*Features:* Similar to Vimlite, an earlier product designed to transmit health-giving ultraviolet radiation, this new material is also a laminated plastic with a reinforcement filler of wire screen mesh. Added quality: crystal clear transparency. Thus it can be used to replace glass in hazardous locations where visibility is essential. A sheet costs slightly more than window glass but is only half as expensive as safety glass. About 0.30 in. thick, it resists the explosion of a 150 lb. bomb 8 feet away, and has withstood tests made under vacuum shock conditions. If fractured by a bullet or shell splinter, it can be repaired with cellulose tape with little impairment to its original strength.

*Manufacturer:* Celanese Celluloid Corp., 180 Madison Ave., New York, N. Y.

**BLACKOUT SCREEN** stops flying glass but permits air to pass through.

*Name:* Blackout and Glass Shatter Screen (cut, left).

*Purpose:* To stop telltale room light from escaping, to provide a safeguard against flying glass in air bombings.

*Features:* Screen is a porous blanket made up of 16 layers of black flameproof expanded fiber and 4 layers of light colored flameproof expanded fiber. This blanket is mounted in a light wood frame and attached inside of windows, skylights and door glass. Explosion tests show that it is strong enough to sieve out shattered glass.

*Manufacturer:* Research Products Corp., Madison, Wis.

**BLACKOUT PROTECTION.** Plastic strips hold window shades tight.

*Name:* Tenite Window Strips (cut, left).

*Purpose:* To prevent cracks of light showing around edges of blackout shades.

*Features:* Available in extruded black or white Tenite (a Tennessee Eastman plastic), the strips are applied as edging

around the window frame. They act as tracks, permit the window shades to be easily raised or lowered while keeping room light from escaping.

*Distributor:* Plastic Products Engineering Co., 500 Fifth Ave., New York, N. Y.

**WINDOW UNITS.** Blackout panels made interchangeable with screens and storm sash.

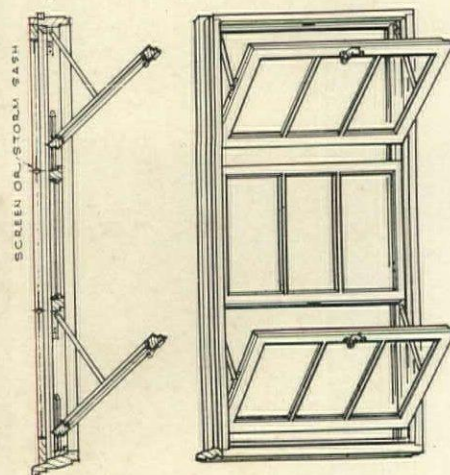
*Name:* Three-Fold Window Units.

*Purpose:* Triple usefulness through interchangeability of 1) blackout protection panels, 2) storm sash, 3) window screens.

*Features:* Once the guides are installed on outside of existing window sash, the individual window units are easily slipped into place from inside the room. The blackout panels may be painted any color desired.

*Manufacturer:* The Burrowes Corp., Portland, Maine.

**WOOD SASH.** Projected ventilator units standardized for easy installation.



*Name:* National Projected Wood Sash Units.

*Purpose:* Primarily for industrial and commercial buildings, schools, hospitals, so on.

*Features:* Engineered by the well-known architectural firm of Graham, Anderson, Probst and White, under the supervision of a special NDMA technical committee, these new sash are offered in 18 standard basic units. Largest: about 4 by 2 ft. They may be installed individually or combined to fit openings varying in height and width in any type of wall construction. Standardized frame accommodates either bottom-pivoted in-projecting vents (see cut) or top-pivoted out-projecting vents without change in the hardware. The operating hardware, friction controlled, holds the ventilator in any desired

(Continued on page 114)



## IT'S THE TALK OF THE TOWN AND A FAVORITE ON THE FARM



### MASONITE CELL-U-BLANKET



A NEW AND BETTER INSULATION  
SOLD BY LUMBER DEALERS EVERYWHERE

\*TRADE-MARK REG. U. S. PAT. OFF. "MASONITE" IDENTIFIES ALL PRODUCTS MARKETING BY MASONITE CORPORATION. COPYRIGHT 1942, MASONITE CORP.

**MASONITE CORPORATION**, Dept. AF-8, 111 W. Washington Street, Chicago, Illinois

Please send FREE sample and complete information about Masonite Cell-U-Blanket Insulation.

Name \_\_\_\_\_ Address \_\_\_\_\_  
City \_\_\_\_\_ State \_\_\_\_\_

THE ARCHITECTURAL  
FORUM

Published monthly by Time, Inc., Orange, Conn. Yearly subscription: U. S. A. Insular Possessions, Canada and Cuba, \$4.00. Foreign Countries in the Postal Union, \$6.00. Single copies of this August issue, \$1.00. Entered as Second Class Matter at the Post Office at Orange, Conn., under the Act of March 3, 1879. Additional entry at New York, N. Y. Copyright, 1942, Time Inc.

VOLUME 77  
Number 2

AUGUST 1942

3

**I**DLE days are over for attics in city dwellings. Masonite\* Cell-U-Blanket\*—an improved type blanket insulation—applied to studs and roof rafters *from the inside*, is putting them to work as comfortable, livable bedrooms. And you'll like the fuel saving that results from this new and unusually effective insulation.

On the farm, this same blanket is bringing new efficiency to barns, poultry houses and other service buildings . . . making them better, more healthful living quarters for all kinds of livestock and poultry.

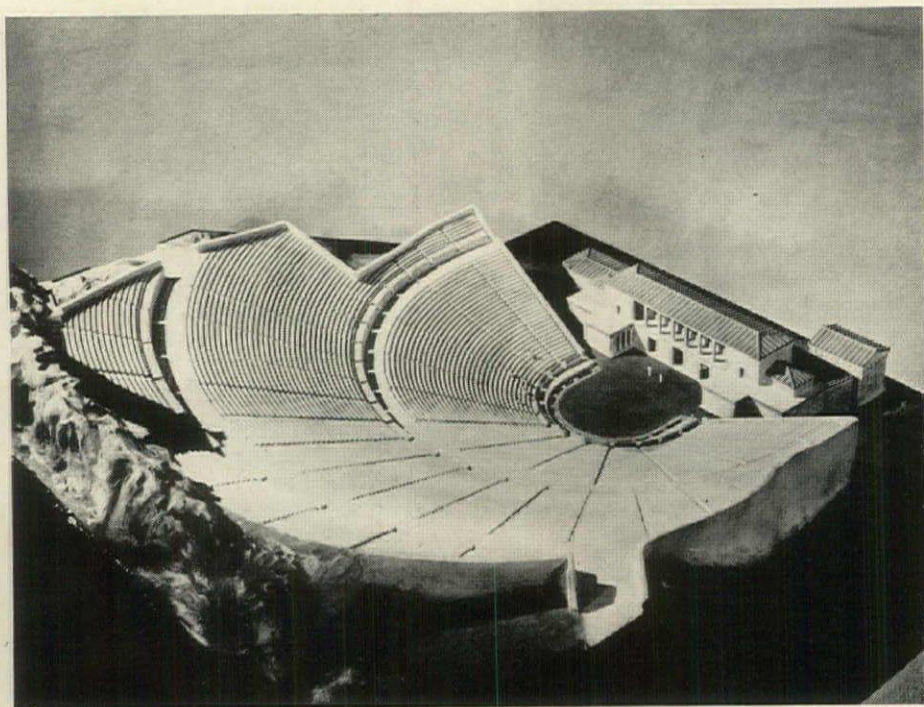
Cell-U-Blanket is light in weight, easily installed. It comes in rolls from which the proper lengths are cut and either nailed or stapled to studs and rafters.

Particular advantages are that it provides a *positive vapor barrier* . . . *will not shrink, sag or settle* . . . is *wind-proof* and *moisture-resistant*.

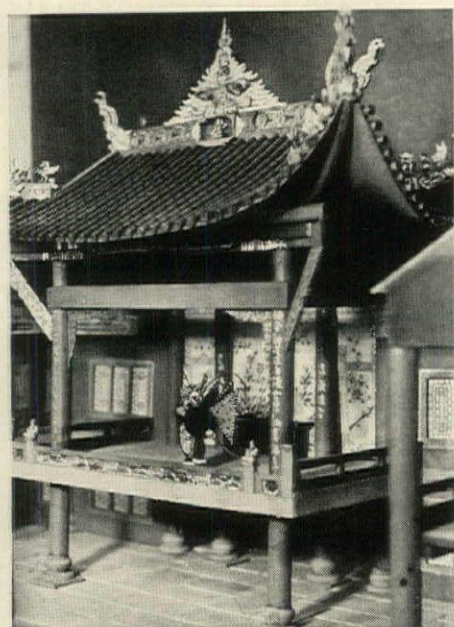
Local lumber dealers can procure Cell-U-Blanket in 3 thicknesses, 6 widths and with either asphalt-impregnated coverings on both sides or with a non-metallic reflective surface on the flange side. Mail the coupon for FREE sample and full details.



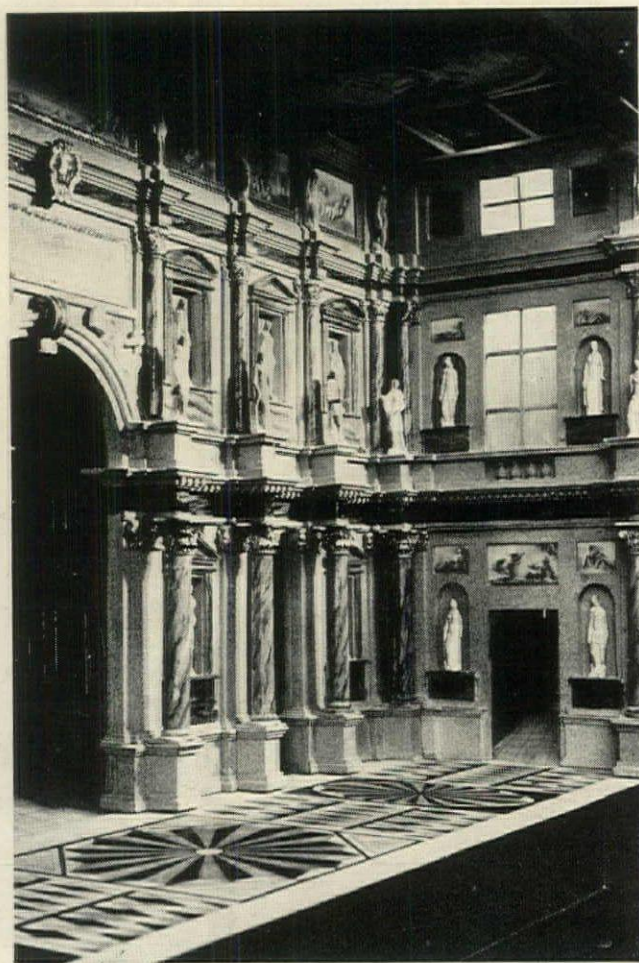
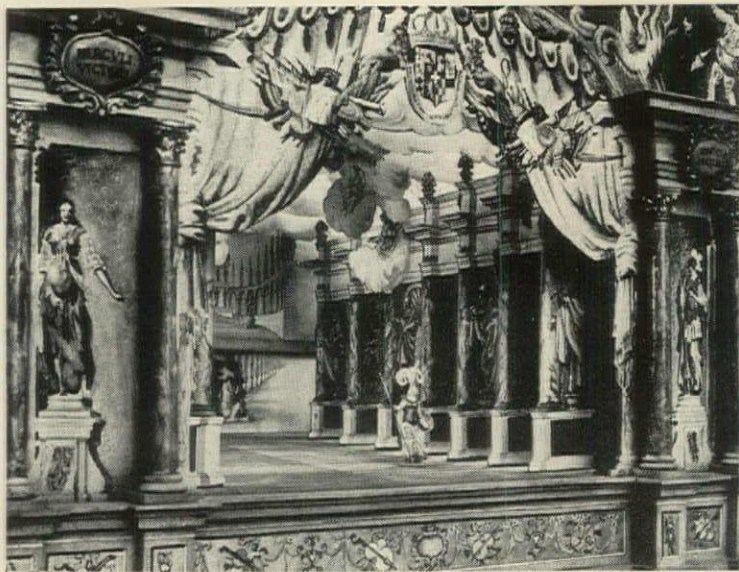
# FORUM OF EVENTS



CLEVELAND MUSEUM'S THEATER MODELS

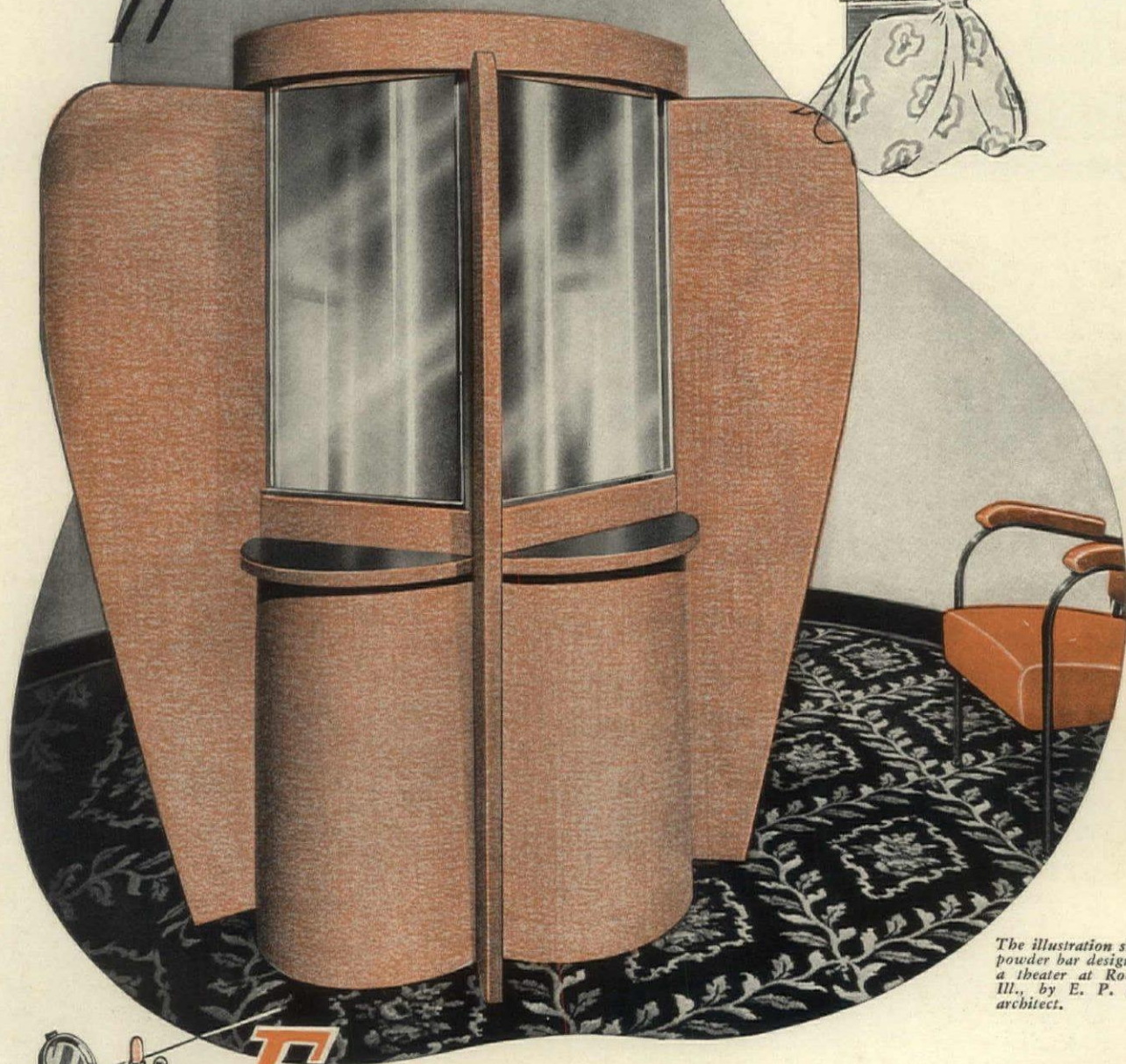


The use of models for instruction is an educational technique which, like the motion picture, has potentialities that have barely been scratched. Illustrated here are four of the Cleveland Museum's magnificent collection of theater models, provided through a grant from the Rockefeller Foundation and constructed with great skill and accuracy by Professor Elemer Nagy of Yale, with the aid of a group of graduate students. The miniature theaters, covering a wide range of periods and places, are part of a broad experiment in the use of new types of visual material for educational purposes, and they are available for use by local secondary schools, colleges and theater groups. The success of the venture suggests that similar projects by architects' organizations, in collaboration with museums, might be well worth considering. The use of models in camouflage work opens up other avenues for experienced, patriotic and versatile students.





# Appeal to Women?—



*The illustration shows a powder bar designed for a theater at Rockford, Ill., by E. P. Lewin, architect.*



## FORMICA HAS IT!

THE use, by leading designers, of Formica in cosmetic bars, powder bars, and the equipment of better beauty shops indicates their confidence that Formica has a strong appeal to women.

That appeal lies in the wide variety of colors, tints and patterns, which are deep and limpid—characteristic of plastics. In short

here is a new and peculiarly modern beauty.

The smooth modern, plastic surface is non-absorbent and is not easily stained; it may be had in cigarette proof grade for horizontal surfaces. Cleaning and maintenance are simple to the last degree—usually consisting of nothing more than wiping with a moist cloth.

*The Formica Insulation Company, 4620 Spring Grove Avenue . . . Cincinnati, Ohio*





# LINES &

S M U D G E S

**G E S**  
EXIT THE FLAT ENTER THE SMALL HOUSE

Published by the Architectural Students' Society of the  
Royal Victoria Institute of Architects, 53-55 Collier  
Place, Melbourne, C.T., Edited by R. Penleigh Boyd  
distributed by Ronald Gull.  
June, 1963. Volume 3, Number 24



*Penquet of the Month*  
to Architect Roy Grounds, for "Clendon Corner."  
Took Ice-cream Malvern, Clendon (roads)  
To the charming Miss Clendon, a virile young  
brother,

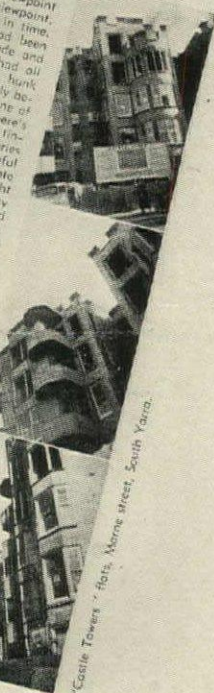
No fuss, no frills, no feather.



At the foot of the "steep hill, where your horse" is Malvern road, Torok, and at the most interesting stories of the whole flat, Ero is located. Here it was that late in 1940, "London" flats building field, created a south of "society" in the first place. Here it is that the most striking contrast of the era has been provided for the first time. For neighbouring "Clendons" is a low, brick, unimposing character, while on the opposite corner is "Wanda Court," a typical sub-medieval design. The two sub-medieval designs have answered almost identical sites, both where there have been ancient sites, both where there have been modern plans and requirements, and both where the modern plan requires the same. The two have been built on the same sites, both where there have been ancient sites, both where there have been modern plans and requirements, and both where the modern plan requires the same. The two have been built on the same sites, both where there have been ancient sites, both where there have been modern plans and requirements, and both where the modern plan requires the same.

But where "Wanda Court" is just bare  
Yarra, there is something in Melbourne  
scale, it is a few steps further  
as it is ridiculous from a social  
Heaven only knows what it will become  
It is as though a giant gargantuan  
chicken over Melbourne for about a decade  
that when it seemed that the contents of  
come out, a particularly fruitful, sticky  
come dislodged and fell into the bottom of  
the most ennobled and tall into the middle of  
one in your eye; said the city of "The  
shook. And one in the other eye it. The  
Marne  
innumerable boys by narrow cavernous light  
courts across which neighboring tenements  
brief effects around the weather. Tenements  
below the tenements may harbour in an air-raid  
shelter, while high above the tenement adven-  
ture may shelter behind the turret battl-  
ments while they assail the night bombers with  
Such is "Castle Towers," one of the worst things  
that has happened to Melbourne, one of the  
biggest and boldest of the war babies. If you  
look six months of the post-war world, we may  
well ask, "What were we fighting for?"

## Castle Towers



Castle Towers - flats, Marine street, South Yarra

**BLOT OF THE MONTH**



(Forum of Events continued on page 106)

MAY 1941—AS AUSTRALIA AT LAST BECOMES WAR-CONSCIOUS, AN AUSTRALIAN YOUTH STRIVES TO EXAMINE THE FIRST OMINOUS INDICATIONS OF THE NEW ORDER OF THE FUTURE. MELBOURNE UNIVERSITY ARCHITECTURAL ATTACHE, TIGHTENING ITS GRIP ON THE LIVES OF MELBOURNE'S STUDENTS, CHAINS THEM TO THE DELAYING STRUCTURE OF A SHORT PRE-WAR WORLD.



It is not to be denied that Melbourne owes much to M.U.A.A. For many years under

In the midst of a war that is slowly knocking the foundations from under our established curriculum, it would not seem unreasonable to expect the authorities directing the education in architecture to make allowances for changing conditions in students' lives. Mass-producing architectural education, MAA has always been a demanding consideration in student thought. Since we began the course, life gradually has become further complicated. Today, it is a toll and chain to personal student endeavour.

# £ S DRAFTSMAN'S

[illegible]

**DEATH**

**OF THE ARCHITECT**

When John Dunsenbury Japan attacked  
he was 200,000 miles away

THE PUBLIC LEADS THE DESIGNER

WHERE WILL HE TAKE THEM?

1940  
and this season for  
1941

At last the Australian public is ready for the new architecture ... Because at last it is no longer new.

**YOU**  
a Jap  
a hell  
of a  
fright

FENCE

## SERVICE

SEVEN

[illegible]

MADE IN

OF ARCHITECTURAL EDUCATION IN VICTORIA

THE DRAWING BOARD:

## ARMY SEEKS SOLDIER-DRAFTSMEN FOR HOME SERVICE

Kitty draftsmen are actively required for big developments in the U.S. Army. Work is mainly temporary, but in the past architectural draftsmen have never found competing, and perhaps have capable and versatile than others.

All draftsmen should consider seriously this position while the country is still asking for voluntary enlistments. Pay in camp is \$2 a day, with opportunities for promotion.

**SHELTER THOUGHTS**  
 Dress: Streetwise, fun.  
 1. [www.100percentcotton.com](http://www.100percentcotton.com)

Bl...

CADRE

ADGE

10

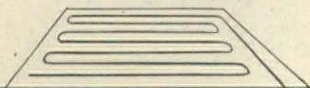
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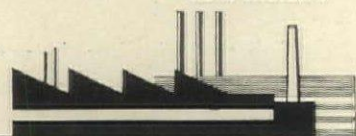
*Have you checked*



**ECONOMY IN MATERIALS**

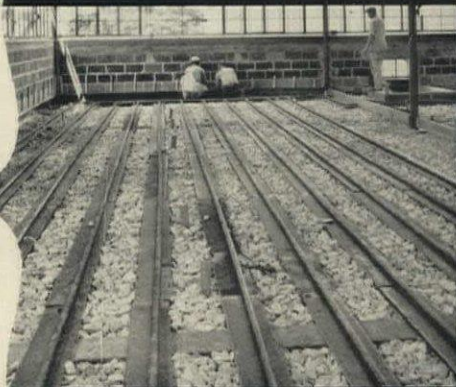


**ADAPTABILITY**



*against today's 3  
great needs?*

## RADIANT HEATING



America, too, has its secret weapon: the ingenuity of its designers in converting the devices of peace into the instruments of war.

Architects and engineers with a life-time of training in planning homes and hospitals, schools, office buildings, churches and institutions, have turned their talents overnight to the highly specialized structures needed for war production. And since heating requirements are often highly specialized also, they are finding new uses for Radiant Heating. Installations are now in progress, on the boards, or projected, for such diverse applications as an aircraft factory, a hydro-electric power plant, an ordnance plant, a control manufacturing plant, and a chemical plant.

You, too, may find in Radiant Heating a complete answer to some difficult problem. Panels can be shop-fabricated and speedily assembled with field welds. Metal requirements are generally much less than with other hot water or steam systems. And adaptability is demonstrated by Radiant Heating's success in answering such questions as these . . .

**WHAT ABOUT EXPLOSION HAZARDS?** Where a static spark or metal to metal contact might cause an explosion, Radiant Heating eliminates a bad hazard. No metal parts are exposed. Surface temperatures are low. Walls, floors and ceilings can be made completely smooth.

**WHAT ABOUT CLEAR-SPACE?** Floor area and overhead are

left completely free from piping and heating units, when Radiant Heating is installed. There is nothing to interfere with material flow by crane or truck, or with equipment placement.

**WHAT ABOUT UNIFORM TEMPERATURES?** In close-tolerance finishing operations, "spotty" heating may increase rejects. Radiant Heating distributes its warmth uniformly over an entire area.

These few items are not intended to define all uses of Radiant Heating, but merely to indicate its wide possibilities . . . and to suggest the value of checking it against heating needs on every essential project. You will find complete information on calculation and current installation methods in our Technical Bulletin, "Byers Wrought Iron for Radiant Heating Installations," sent on request. Also, our "Experience Pool," built up through contacts with dozens of engineers on hundreds of jobs, is at your service. All you need do is to write.

A. M. Byers Company. Established 1864. Offices in Pittsburgh, Boston, New York, Philadelphia, Washington, Chicago, St. Louis, Houston, Seattle, San Francisco.

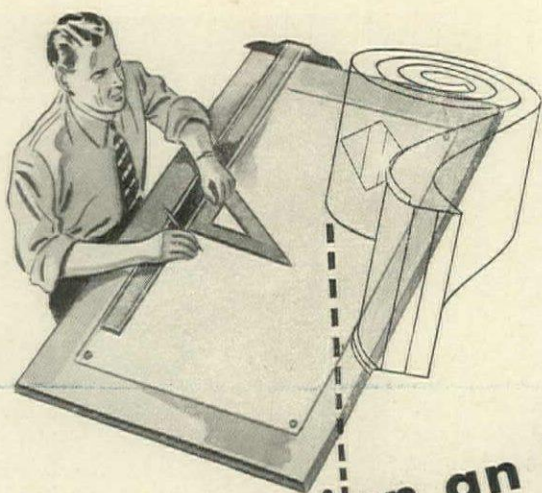
## BYERS WROUGHT IRON

FOR EXTRA SERVICE

IN CORROSIVE APPLICATIONS

CORROSION COSTS YOU MORE THAN WROUGHT IRON





# If YOU Had to Design an Insulation... It Would Be DOUBLE-VALUE BALSAM-WOOL!

—And here's what you'd insist on in the way of performance and extra safety factors:

**DOUBLE SEALING** Naturally, you'd want the highest efficiency house insulation, *fully* protected—and so you'd double-seal it in a tough protective covering—just as we seal Double-Value Balsam-Wool

**DOUBLE WIND BARRIERS** You'd realize, too, that an efficient insulation must really *stop* wind infiltration, so you'd provide double wind barriers to keep out chilly drafts and protect the original high efficiency.

**DOUBLE MOISTURE LINERS** You'd want to be absolutely certain that moisture would not impair the performance of your insulation. And to make doubly sure, you'd provide *two* or more effective, lasting moisture barriers.

**DOUBLE AIR SPACES** You'd want to give the buyer the utmost in value—you'd want the walls to breathe—that's why you'd provide for *double* air spaces in application.

**DOUBLE BONDING** You'd take an extra step to make sure that the insulation mat would not settle or pack down within the liners—you'd double bond the mat to the liners.

**DOUBLE FASTENING** Realizing that insulation is only as good as its application, you'd provide double fastening to eliminate further settling. And, of course, you'd make your insulation fire, vermin and termite resistant.

*And when you had all of these qualities built into your insulation, you'd have Double-Value Balsam-Wool—or a reasonably accurate facsimile. It would be the insulation you'd choose for your home. You can learn why Balsam-Wool is designed the way it is by using the coupon below.*

WOOD CONVERSION COMPANY

Dept. 147-8 First National Bank Building, St. Paul, Minn.

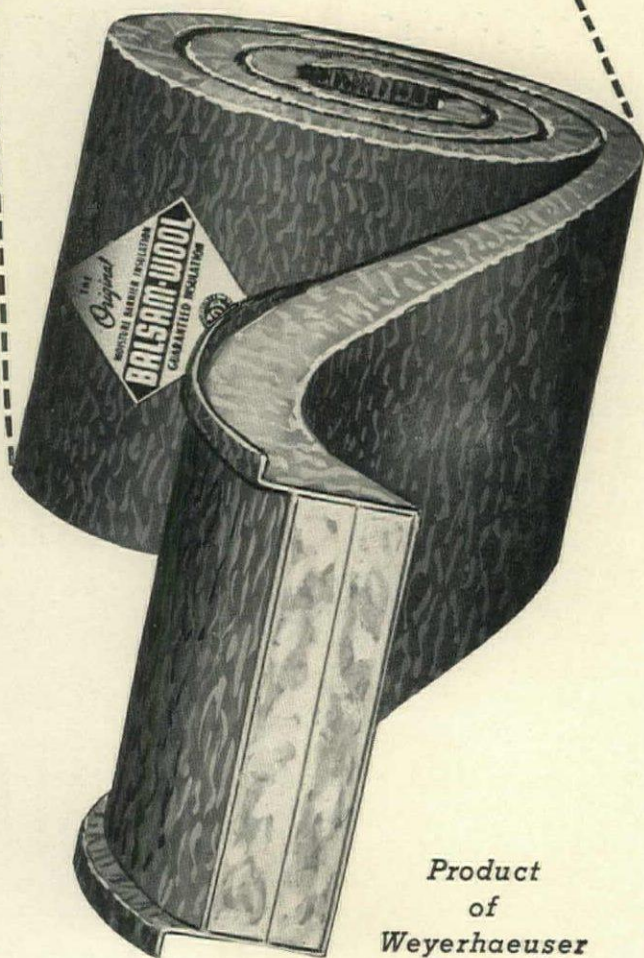
Gentlemen: I want to know more about the new Double-Thick and Standard Balsam-Wool. Please send me complete information.

Name .....

Address .....

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

Suppose you had the job of designing the very best insulation that money could buy. Suppose you spent 20 years in determining exactly what insulation must do, how it would act in extreme heat and cold, when exposed to moisture and wind, under every kind of condition, everywhere. You'd probably wind up with a product identical to Double-Value Balsam-Wool.



Product  
of  
Weyerhaeuser



# SIX THINGS

IMAGINEERING

★  
SO MUCH  
SO SOON  
★

## A MAN CAN DO

**I MAKE OUR OWN JOB MORE PRODUCTIVE.** Every man jack of us can. And that's not preaching, either. It's the point of view we've adopted for the duration at Alcoa. The records we've broken so far, we tell ourselves, aren't nearly good enough. Nor shall we be satisfied with the new ones we set tomorrow.



**II MAKE OUR MACHINES MORE PRODUCTIVE.** There is a way. We don't know the answer for your equipment. But we have found the answers for many of our own machines which we thought were already up to top output. The resulting step-up is getting planes into the air faster. And it is doing things to aluminum prices. Designers please note.

**III PRACTICE PREVENTIVE MAINTENANCE.** Keeping present equipment in top condition is easier than getting new. One of the ways our engineers are helping production everywhere is in counseling users of aluminum equipment on means of preventing unnecessary corrosion. The remedy is usually simple; the results priceless. Ask us.

**FOUR BUY WAR BONDS AND STAMPS.** It's patriotism with self-interest. You finance the war and you help to defeat inflation by refusing to spend for nonessentials. Moreover, you finance yourself to take advantage of all the revolutionary new products that are going to be ready to buy when the war is over. Buy today to keep your own wheels turning tomorrow.

**~~III~~ DREAM A DREAM EVERY DAY.** Remember that the kind of peace we all want depends on how many jobs we think up for the boys coming back. New jobs come out of new things to make. Let your imagination soar; engineer it down to earth; then file the plans away, ready for the day when. That's Imagineering! Selfish suggestion: think seriously in terms of Alcoa Aluminum.

**Sixth and last KEEP THE OLD CHIN UP.** Whatever the news, whatever the temptation, keep the chin up. The boys out there deserve it. Whether it's rationing, or restrictions, or whatever, let them watch us being soldiers about that.

Aluminum Company of America, 2166 Gulf Bldg., Pittsburgh, Pa.

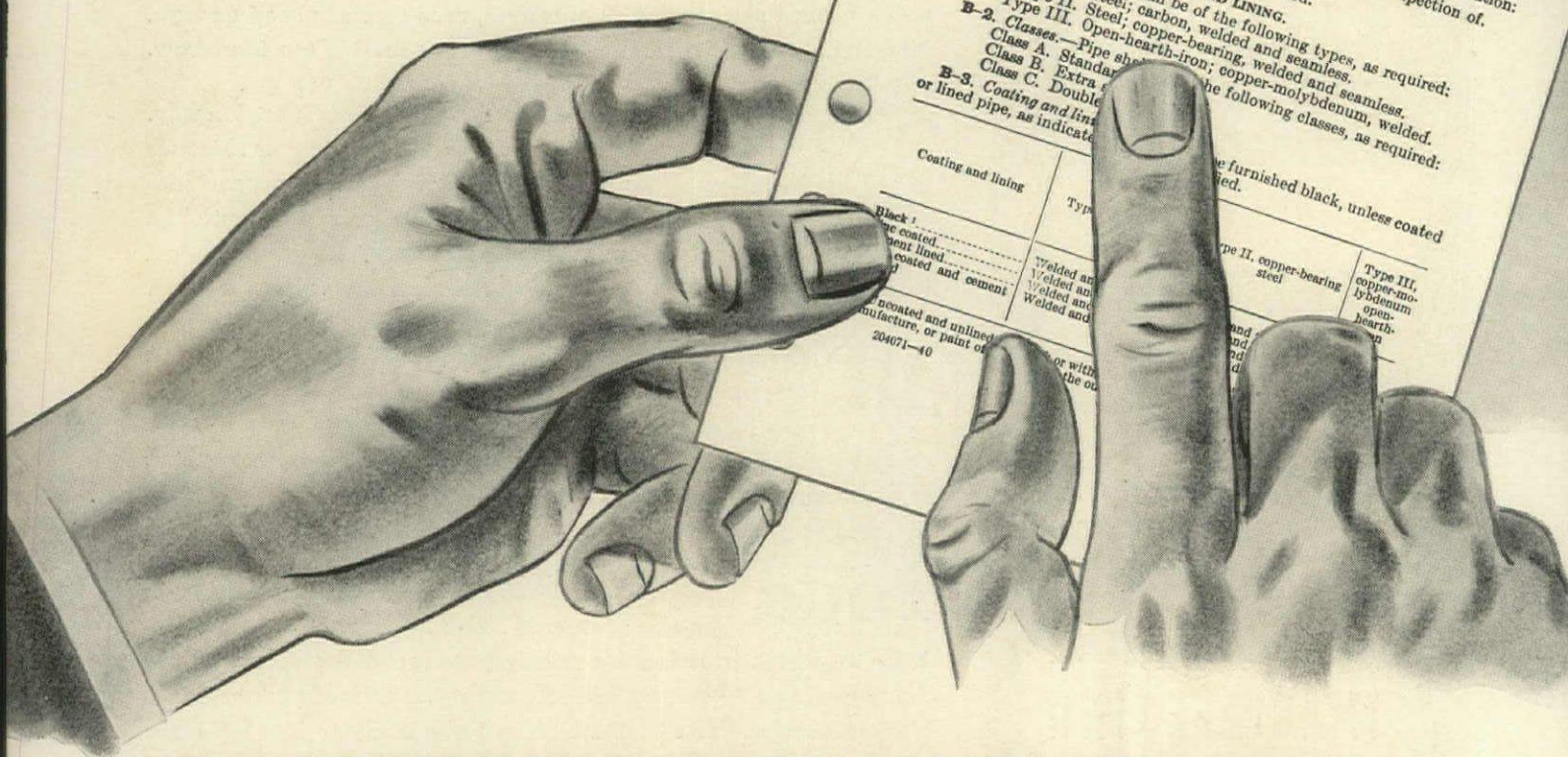
# ALCOA ALUMINUM





# Government Specifications

SHOW THE DIFFERENCE!



You can't tell Government engineers that all pipe is alike. They've made it their business to learn the facts about pipe. They *know* the difference between the various types—have selected those approved for Government work. So if you want to be qualified to select the *right* pipe for each and every type of service, *you* should know the facts about pipe, too.

Do you know Toncan Iron Pipe and how it differs from others? Get authentic facts from Republic—producer of all three types approved under Federal Specification WW-P-403a.

Toncan Iron Pipe is made to resist severe rust and corrosion. It is *not* a copper-bearing steel pipe. Toncan Iron is an open-hearth *iron*—highly refined—remarkably free from impurities that aid corrosion. *Molybdenum* is added to refine the grain structure and improve the iron's ability to take more rust-resistant copper *effectively* and *uniformly* all the way through

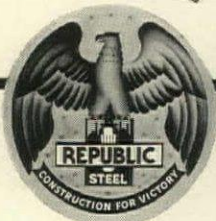
the metal—thus adding to its corrosion-resisting qualities. That's why Toncan Iron, with *twice as much copper* as the best copper-bearing steel, has greater corrosion-resistance than any other ferrous material in its price class.

Specify Toncan Iron Pipe for installations where rust and corrosion attack. It's a sign of quality and economy in the service you give.

Know the relative facts about Toncan Iron Pipe and others to serve your clients better. Write for this book now. Also see Sweet's 27/3. In Sweet's, too, is data on other Republic products: Sheets 13/6—Steel and Tubes 23/5—Berger 9/1 and 21/2—Truscon 15/18.

## REPUBLIC STEEL CORPORATION

General Offices: Cleveland, Ohio  
Berger Manufacturing Division • Culvert Division  
Niles Steel Products Division  
Steel and Tubes Division  
Union Drawn Steel Division • Truscon Steel Company  
Export Dept.: Chrysler Building, New York, N. Y.



# REPUBLIC Toncan Iron PIPE

Reg. U. S. Pat. Off.

An alloy of refined open-hearth iron, copper and molybdenum—that grows old slowly

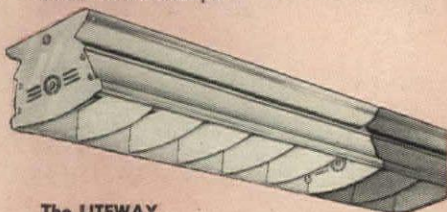


## DAY-BRITE FLUORESCENT FIXTURES

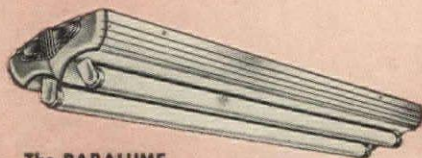
MAKE EVERY "LIGHT MINUTE" EFFECTIVE



**The TWO-FORTY...THREE-FORTY**  
Industrial fixtures designed for highly-effective factory illumination... Two 40-watt; and three 40-watt lamps.



**The LITEWAY**  
A louver type exposed troffer for direct ceiling mounting in single units or long continuous runs. Single or multiple lamp.



**The PARALUME**  
A very popular Day-Brite Unit for general lighting—furnished for 2, 3 or 4 lights. Direct ceiling or suspension mounting.

### The DAY-LINE

For continuous installations—Porcelain enamel reflectors—Designed for easy installation and servicing. 2 or 3—40 watt; 2—100 watt lamps.



## 60 "LIGHT MINUTES" IN EVERY PRODUCTION HOUR

DAY-BRITE Fluorescent Fixtures utilize every light minute of every production hour. A flood of glare-free illumination is secured and maintained by: Correct spacing of tubes—Maintenance of cut-off angles that govern light distribution—Ease of installation—Ease of servicing—Mechanical accessibility—Provision for unit mounting or continuous runs...

### IMPORTANT TO ARCHITECTS

There's a Day-Brite Engineering Consultant near you, qualified to furnish specific recommendations—including blue-print layouts—all based on a detailed analysis of your individual requirements... Call him for helpful service—his time is yours!

**DAY-BRITE LIGHTING, INC.**  
5459 BULWER AVE. • • • ST. LOUIS, MO.



Designs Patented Nos. 130,740, 2,281,346, 122,156, 125,001



The COMPLETE LINE OF FLUORESCENT LIGHTING FIXTURES

Nationally distributed through all leading electrical supply houses

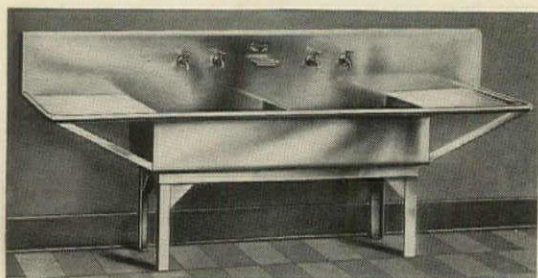




# Only HEALTHY MEN

## Can FIGHT!

—and, it makes no difference whether these men are at the front, in the air, at sea, or working in factories and shops producing essential war supplies and equipment—they are ALL engaged in a desperate FIGHT to win this War!



ELKAY "STURDIBILT" GOVERNMENT TYPE SCULLERY SINK No. N-108-D. Our No. 60 A D B. Can also be supplied in Galvanized steel.



ELKAY "STURDIBILT" STAINLESS STEEL CABINET TOPS IN CENTRAL STERILE SUPPLY ROOM OF MODERN HOSPITAL.



ELKAY "STURDIBILT" STAINLESS STEEL CABINET SINKS AND TOPS IN DOMESTIC SCIENCE KITCHEN OF LARGE FOOD MANUFACTURING PLANT.

## ELKAY "Sturdibilt"

STAINLESS STEEL

## Cabinet Sinks and Tops

are playing an important part in keeping our men "Fit". Their stain, acid, and rust-resisting surfaces, free from all visible seams, joints and overlapping flanges, assure the utmost in sanitation. That's why in Government institutions, in industrial plants engaged in the preparation of chemicals and foods, in hospitals and in schools—wherever SANITATION is the first consideration—ELKAY "Sturdibilt" Stainless Steel equipment is widely used.

*We invite inquiries from Architects, Engineers, Plumbing Contractors and Builders who have projects with an A-1-K or better rating, to send us their specifications. We have the facilities, equipment and more than twenty years experience which enable us to render exceptionally prompt service.*

### ELKAY MANUFACTURING CO.

4703-14 ARTHINGTON STREET • CHICAGO, ILLINOIS

## COOPERATION WILL WIN THIS WAR





**W**hen woman's  
place is in the Factory...

# modine

## UNIT HEATERS

*solve another problem*

Now it's *woman-power*, as well as man-power. New production problems—and *new labor problems* in that new war plant or governmental building you're planning.

One of the biggest helps toward their solution is Modine Unit Heaters. Modines mean *comfort!* All workers appreciate that. Particularly women. They're contented. They co-operate. Absenteeism drops. Production goes up... stays up!

Your production decks are always cleared for action with Modines—all existing floor space can be fully utilized. "Preventive maintenance" is an accomplished fact with Modines—they're de-

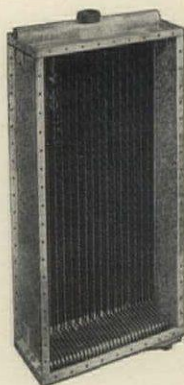
signed and built for 24-hr.-day operation. Operating costs are lower, too. Individually controllable—to save heat and fuel.

Installation is less of a problem—with Modine-patented direct-from-branch-supply-pipe suspension. Costs are lower. Installation is *faster!*

Vertical, or Horizontal Delivery Models—in a wider range of sizes. For applications where WPB restrictions prohibit use of copper, Modine units with ferrous condensers are available. Differing only in condenser design, these units have all the proved performance and structural features of the copper condenser model. *Get the latest catalogs.*



Horizontal Delivery Model



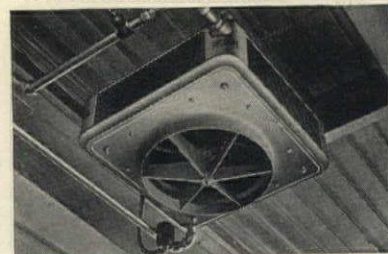
### modine HEATING AND COOLING COILS

for Heating, Ventilating, Air Conditioning  
and All Types of Processing and Drying

Long recognized by experienced management for superior performance in numerous and varied peacetime applications, Modine Coils are now accelerating production in war industries... bringing new comfort heating to Industrial Plants and Army Cantonments, Navy and Maritime

Commission Ships; dehydrating food stuffs for use of the armed forces, etc. . . .

The Modine line is *complete*, including—Blast Heaters, Booster Coils, Cooling Coils, Steam Distribution Coils, Ventilation Heaters, etc. Available in copper and ferrous units. *Write for Literature.*



Vertical Delivery Model



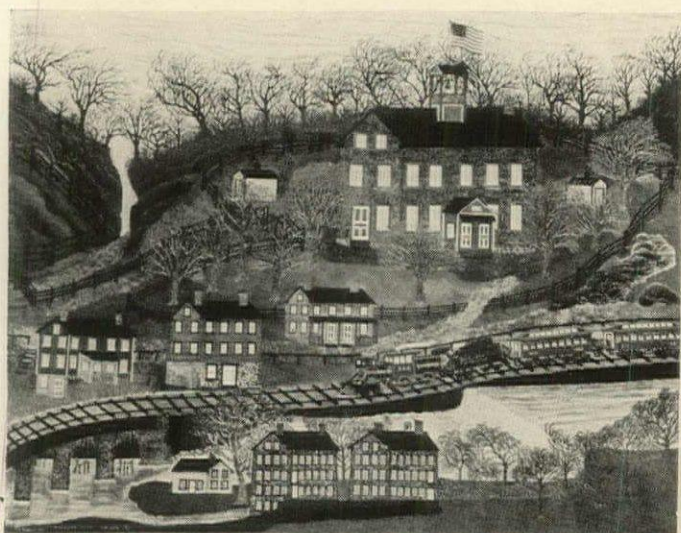
Look in your phone book for Modine representative's name—"Where to Buy It" section under Heating Apparatus.



**MODINE MANUFACTURING COMPANY, 1736 RACINE ST., RACINE, WIS.**



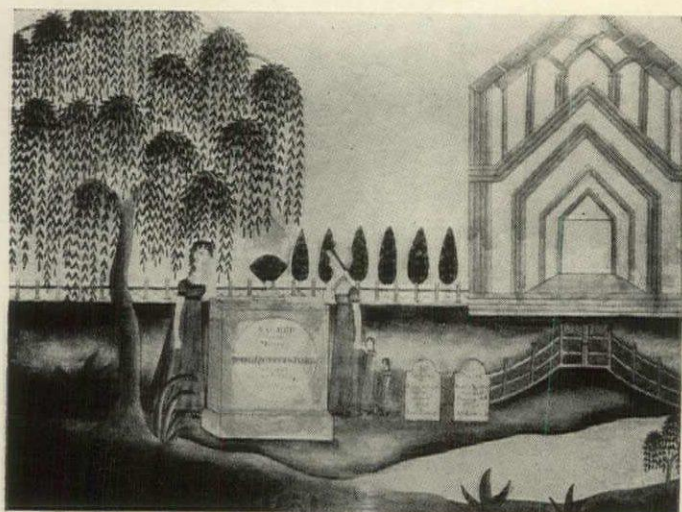
# BOOKS



MANCHESTER VALLEY, BY JOSEPH PICKETT



WATERCOLOR, MID-19TH CENTURY



MEMORIAL FOR POLLY BOTSFORD, 1813

**AMERICAN PRIMITIVE PAINTING**, by Jean Lipman. Oxford University Press, New York. 80 pp., 102 illustrations, of which 8 are in full color. 9½ x 12¼. \$5.

Painting in America springs from many sources. In the earliest days of the Republic, when life was a daily struggle for existence for an overwhelming percentage of the population, art was supported by comparatively few rich individuals, whose cultural ties were largely with England or Holland, and whose painters were expected to work in the same tradition. By the late nineteenth century, the U. S. had its own academic tradition and its own rebels against the tradition. It borrowed freely from all schools in Europe, many of the best painters studied abroad, and the interchange of men and ideas continued up through the emergence of a modern movement in art. Curiously enough, it was this most recent development which focused the attention of painters and critics alike on a purely native school of painting in this country, which had flourished during the first three-quarters of the nineteenth century without benefit of academic approval. This so-called "primitive" painting was the outgrowth of a native craft tradition, and was produced by sign painters, young ladies in seminaries, itinerant limners and house decorators, and amateurs who liked to paint but knew nothing about the rules of composition or drawing. The main characteristic of this kind of painting was "a unique freedom from realism which has as a result the free, unself-conscious ability to develop the purely aesthetic qualities of abstract design."

As Mrs. Lipman points out in her admirable introduction, there was no intention on the part of these painters to create any kind of abstract art. "The untutored painter attempted to reproduce reality, but his relative inability to do so because of the simplicity of his vision and the limitations of his technique resulted in an essentially abstract style. His technical liabilities made way for a compensating emphasis on pure design."

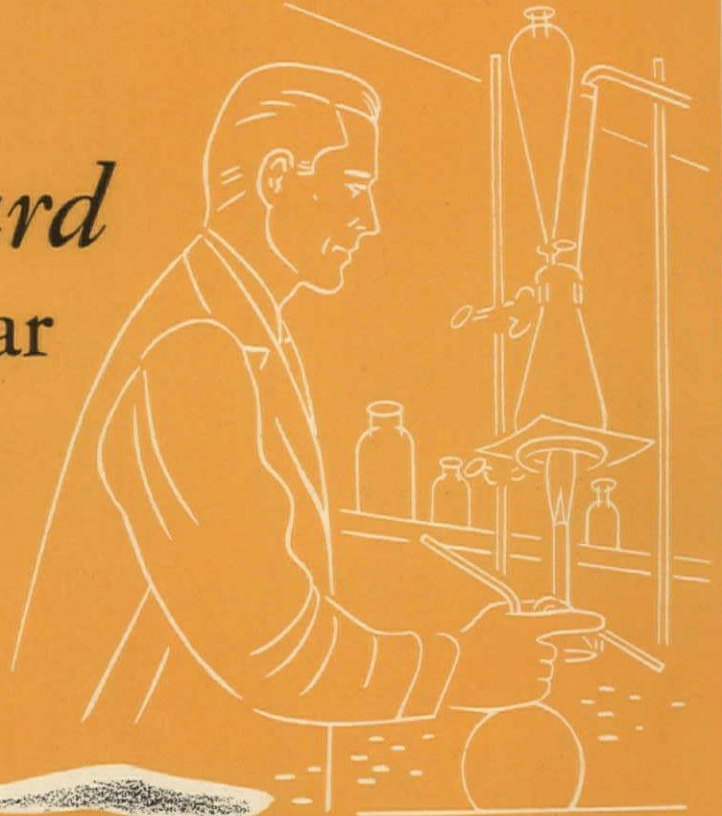
It was this "compensating emphasis" which attracted the attention of contemporary artists who had been striving consciously for similar effects in their own work. The emphasis on abstract design, conspicuously present in archaic Greek and Etruscan art, in African wood sculpture and in primitive work of all periods, accounts for the renewed interest in this work at the present time, when the abstract qualities of art are so highly prized. Thus it has happened that work formerly described by critics as "crude, uncouth, stiff, distorted, poorly executed" is now considered "original, individual, formalized, lucid and abstract."

This book, which is distinguished quite as much for its excellent illustrations and handsome format as for its brief and lucid text, is the first complete study of American primitive painting. It shows, in a well selected group of reproductions, the strong contrast between primitive and academic painting throughout the period. Its illustrations include portraits, family groups and miniatures, landscapes, historical scenes, ship pictures—a very interesting summary of the predominant interests of the time. A section is devoted to "Ladies' Work," which consisted of still lifes, decorative pieces, portraits and memorials. Both black and white and color reproduction are excellent, and there are enough of the latter to give an excellent idea of what was achieved by these early, and frequently anonymous, painters.

(Continued on page 112)



# There's an *Unseen Guard* protecting war production



**It's the refinements... the benefits of patient research... the quality... of the electrical wires and cables upon which uninterrupted operation depends.**

In electrical wires and cables, the "tremendous trifles", the never-heard-of-improvements, small as many of them are, are lengthening the period between "begin operation" and "breakdown". They are safeguarding steady production... they have been built to keep pace with 3-shift operation.

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

42222



This familiar trade-mark symbolizes the best efforts of modern research and production.

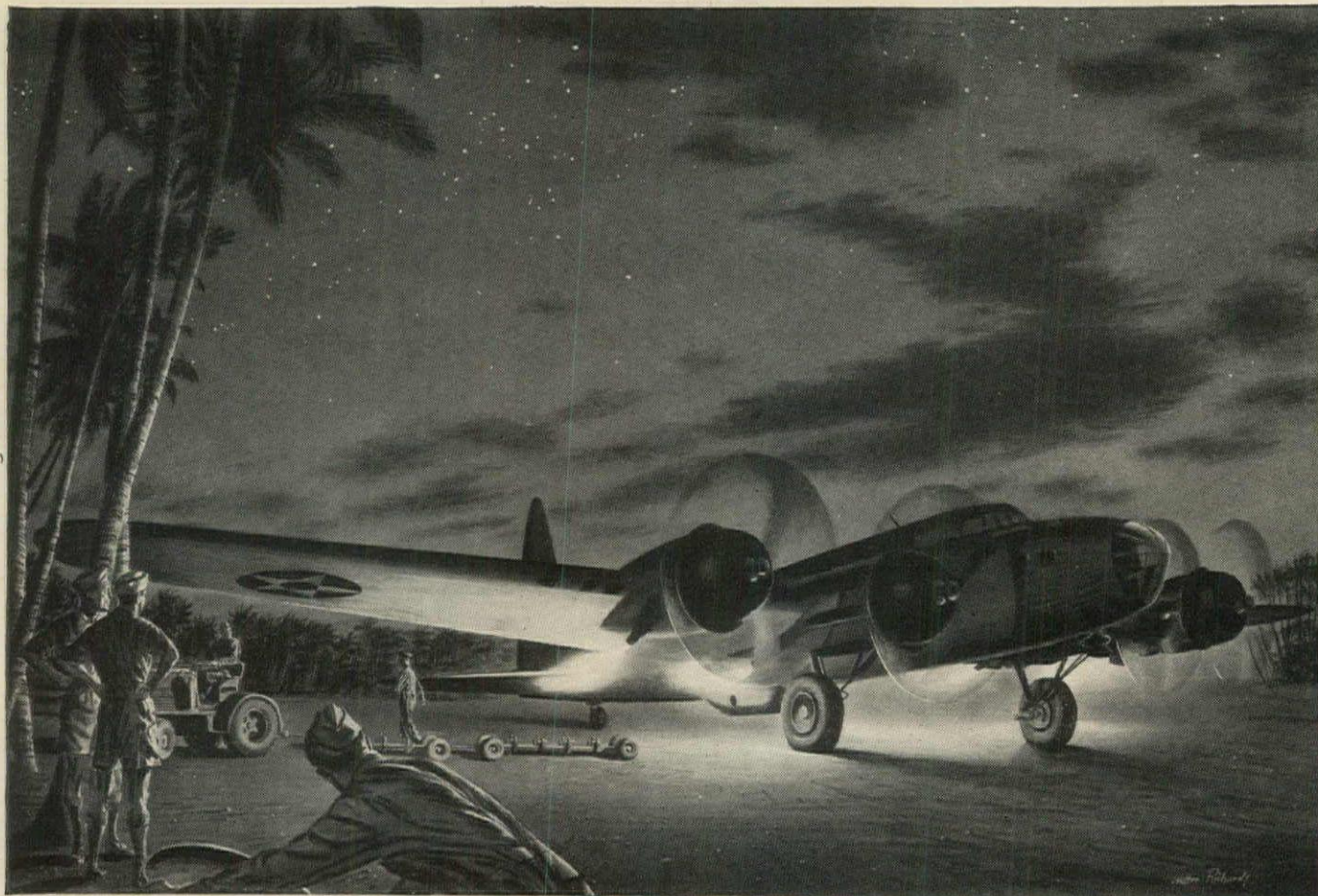
**ELECTRICAL WIRES AND CABLES OF COPPER ARE THE LIFE LINES OF OUR NATION**

## **ANACONDA WIRE & CABLE COMPANY**

*Subsidiary of Anaconda Copper Mining Company*

GENERAL OFFICES: 25 Broadway, New York City • CHICAGO OFFICE: 20 North Wacker Drive • Sales Offices in Principal Cities





## Miracle in the night

**I**t is night at a hidden airfield.

A huge bomber rolls forth and roars down the dark runway. Hours later it returns and circles above the field. Not a light shows—yet its wheels unerringly find the runway its pilot never sees.

*How can men fly like this? How can they take off in darkness, accurately bomb their objectives, return to an unmarked field, land safely without lights?*

The answer, of course, is *instruments*—precise, delicate dials and indicators that are the eyes and ears of our fighting forces.

In the cockpit of every American bomber are more than 200 of these instruments. In ships, submarines, tanks, in every type of artillery, instruments perform a thousand essential tasks. This, truly, is a war of instruments.

If we are to have planes and tanks and fighting machines by the thousands, we must have instruments by the *millions*. Before the war, America had no facilities for making electrical instruments on such a tremendous scale—yet *today*, America is getting the instruments it needs. And, Westinghouse is proud to be contributing to this vital war effort.

In Westinghouse plants long devoted to instrument manufacture, and in others now converted to that task, delicate, precise hand workmanship has been put on a mass-production basis—the job men used to say could never be done.

Westinghouse is doing this job *24 hours every day*.

### Again it's Westinghouse "know how"

What is this "know how"? It is the

ability to get things done in the best possible way. It is a combination of pride of craftsmanship, untiring research, and a world of experience.

The same Westinghouse "know how" that made electric stairways, Precipitrons, circuit breakers, and countless other things for you yesterday, now has a single task: to provide weapons and tools that will keep freedom alive in America and throughout the world.

## Westinghouse

**Every Westinghouse plant is producing equipment for the Army, Navy, or Merchant Marine. Here are some examples:**

Blackout Plant Air-Conditioning Equipment  
Naval Ordnance  
Field Hospital X-Ray Equipment  
Army Camp Refrigerators  
Instruments for Battleships  
Aircraft Instruments

Binoculars  
Mercury Vapor Lamps  
Military Radio  
Marine Turbines and Gears  
Fluorescent Lighting  
Tank Equipment

Ship Searchlights  
Water Coolers  
Ignitron Rectifiers  
Motors and Controls  
Armor-Piercing Shot  
Electronic Tubes  
Steam Condensers

**WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, PITTSBURGH, PENNA.**

Plants in 25 cities — offices everywhere





## Ships, planes, guns, tanks start in a coal mine

This is a war of machines and armaments, and vast quantities of power are required to build them. Despite all the other forms of energy, 60% of all horse-power required by American industry comes from coal.

Our whole civilization is based on coal, and our whole defense of that civilization is based on it. Coal provides heat. Gasoline can be made from coal. Rubber is about to be made from it. Many vitamins are coming from coal's derivatives.

Coke made from coal is indispensable to steel. Railroads consume one out of every five tons mined. Dozens of vital industries look to it for one or more of the 150,000 chemical compounds already identified through coal carbonization.

Koppers builds most of the coke ovens which carbonize millions of tons of coal... is an important producer of chemicals for war... of anti-aircraft gun mounts, airplane catapults... airplane, submarine,

diesel and automobile piston rings... Fast's Couplings for power transmission... pressure-cresoted timber, ties and piling... and dozens of other products. Koppers Company, Pittsburgh, Pa.

Buy United States  
War Bonds and Stamps

**KOPPERS**  
THE INDUSTRY THAT SERVES ALL INDUSTRY

*Workers in our Bartlett Hayward Division are now privileged to wear the Navy "E" emblem*





**“W**hat do you mean—  
*fighting air battles  
on the floor?”*



*“Just this, Joe, every hour we save in the manufacture of a bomber may mean the difference between defeat or victory in some battle. So we’re stepping up production in this plant with our floors.”*

*“Notice how the white concrete topping on those floors reflects light. That means that assemblymen can work efficiently on the underside as well as topside as bombers go down the assembly line.”*



*“This idea of using white concrete floors to reflect light up is not only helping us produce bombers faster, but it has a general application in stepping up working efficiency in all types of industrial plants.”*



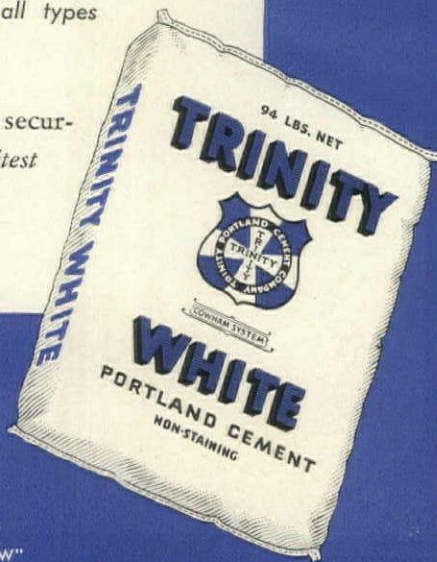
For enhancing general lighting efficiency—for securing the greatest light reflectivity—use the “*whitest white*” portland cement—Trinity White.

Photo Courtesy The Austin Company

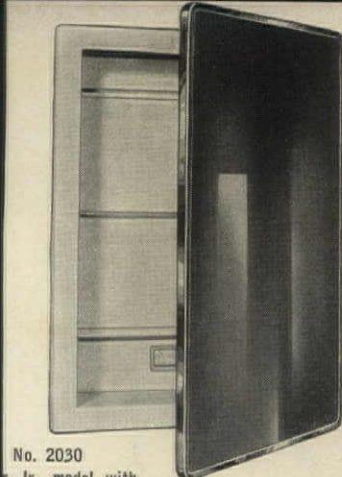
**TRINITY WHITE**  
**PORTLAND CEMENT**  
**PLAIN OR WATERPROOFED**



“AS WHITE AS SNOW”





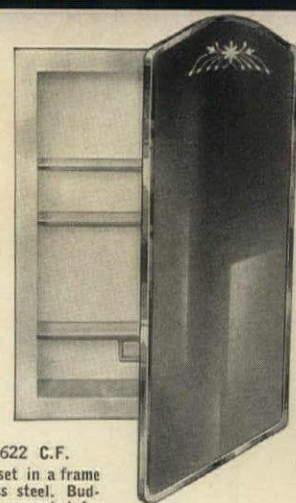


No. 2030  
Jr. model with  
rounded corners. Stain-  
less steel frame.



THE DUCHESS

Appears to be a beautiful,  
circular mirror hung on the  
wall; but behind the mirror  
is a spacious cabinet. In-  
genious hinge permits door to  
be pulled out over lavatory.



No. 1622 C.F.

Mirror is set in a frame  
of stainless steel. Bud-  
get model suggested for  
moderate priced bath-  
room having chrome  
plated accessories.

# MIAMI Metal BATHROOM CABINETS

## Available for IMMEDIATE SHIPMENT



No. 406

For low-cost houses.  
Demi-tubular light  
bracket, light switch  
and convenience plug.  
All-mirror front.

Limited stocks of the famous Miami Steel Bathroom Cabinets and Accessories are available, as long as they last, for repair jobs, replacements and new, essential housing. Further production of steel cabinets will be confined, for the duration, to the requirements of essential marine needs.

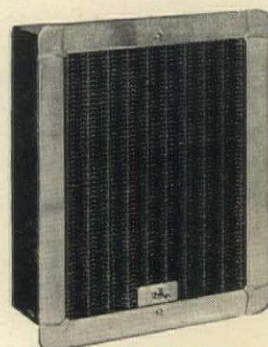
Miami pioneered and introduced its first steel cabinets in 1919; more recently, its models in Aluminum and in Stainless Steel. To conserve vital metals, Miami returns temporarily, after a period of twenty-three years, to the manufacture of wood cabinets.

Regardless of what your cabinet requirements are, you may specify MIAMI with every assurance that the Miami reputation for fine craftsmanship and originality will be upheld; that Miami will continue to represent the most advanced ideas in the bathroom cabinet field. Write today for full information. Address Dept. AF.

## NEW MIAMI WOOD CABINETS COMING

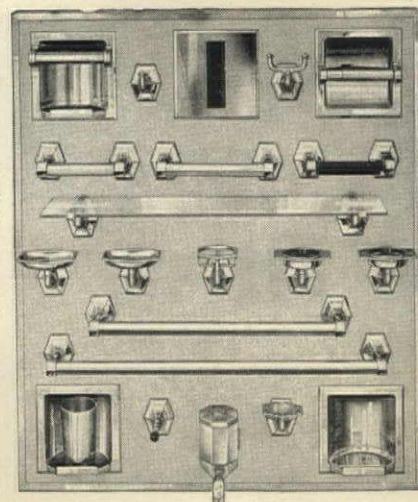
## MIAMI CABINET DIVISION

THE PHILIP CAREY MANUFACTURING COMPANY  
MIDDLETOWN, OHIO



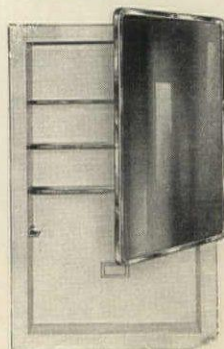
ELECTRIC BATHROOM  
HEATER

Framed in brilliant chrome.  
Quickly removes chill from  
bathroom, dressing room or  
kitchen. Capacity: 1200 Watts  
per hour.



COLONIAL ACCESSORIES

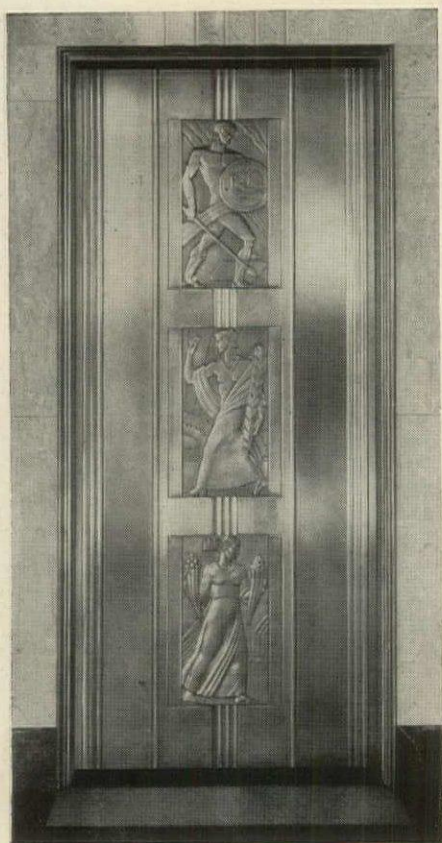
Manufactured in both recessed and projection  
types, from "Zamac" metal with chromium  
finish.



No. 1616

Ideal model for man's  
bathroom. Ample stor-  
age space, behind  
door and the open  
shelf below, for shav-  
ing and toilet ar-  
ticles.





# Metamorphosis...

## from Kalamazoo<sup>\*</sup>

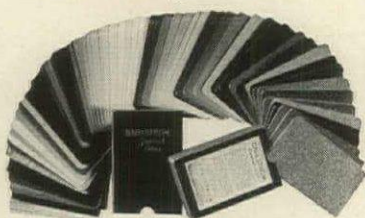
## to USAFFE<sup>†</sup>



DAHLSTROM, like many another manufacturer serving the Building industry, has switched to war production. One product of this change is the Army field radio, enclosed in a Dahlstrom cabinet, and now in service with the Usaffe<sup>†</sup> and wherever American soldiers carry the war to the enemy. This is but one example of our temporary metamorphosis from elevator entrances, hollow-metal doors and trim to the vastly more vital needs of the Nation today.

But busy as we are, shaping the tools of war, we feel that now is the time to plan for the day when the world will again be building and not destroying. To that end, we are continuing to offer design and technical assistance to those Architects who, even now, are planning for a better future. Our business has been built largely on the faith of the Architectural profession in Dahlstrom products. We appreciate this goodwill and are anxious to return the compliment now.

### Your Set of 64 Colors



This set of DAHLSTROM Standard Color Cards has been produced in our own finishing department under conditions identical to actual production. They include plain enamel, metallic enamel, stippled and grained finishes. Architects find many uses for them. *Write for your set today.*

<sup>\*</sup>The distinctive Dahlstrom Elevator Entrance installation in the Kalamazoo County Building, Kalamazoo, Mich. M. C. J. Billingham, Architect.

<sup>†</sup>Abbreviation for U. S. Army Forces in the Far East. The command of Gen. Douglas MacArthur.

# DAHLSTROM

METALLIC DOOR COMPANY, JAMESTOWN, N. Y.

BRANCHES IN NEW YORK, CHICAGO, PHILADELPHIA AND SAN FRANCISCO

*Representatives in Principal Cities*





RECOGNIZED

*Experience*

*New Airplane  
Engine Plant in  
the Middle West*

*Designed  
by Albert Kahn,  
Associated Architects  
and Engineers, Inc.,  
Detroit.*

ONCE MORE, Minneapolis-Honeywell helps those who help! In this new airplane engine plant in the middle west, M-H Controls govern conditions to help speed production. • No matter what control requirements may be—whether for a sleek, new modern building like this outstanding plant designed by Albert Kahn—or for an

older plant being converted to war production—Minneapolis-Honeywell has the experience, the knowledge and the facilities to produce exactly the results desired—at minimum expense. Minneapolis-Honeywell Regulator Company, 2740 Fourth Avenue South, Minneapolis, Minnesota. Company owned branches in 49 principal cities.

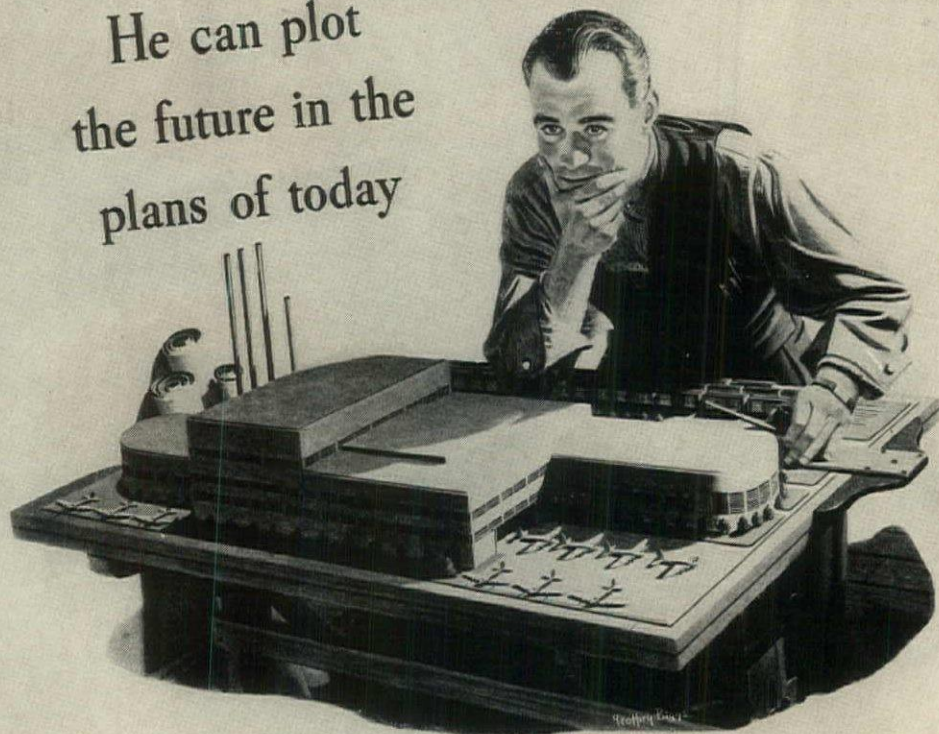
**MINNEAPOLIS-HONEYWELL**

*Regulator Company*



# THE PUBLIC ISN'T FORGETTING

He can plot  
the future in the  
plans of today



THE title on his office door is "Architect"—but it scarcely does him justice. His has been a leading part in making America a nation of modern skyscrapers, efficient factories... and comfortable, livable homes.

Today his skill is devoted almost entirely to war-vital projects. Indeed, materials for homes he would like to design are not available. Copper and brass and bronze are needed to help fight the war. He, of all people, appreciates the necessity. For the very qualities that make these metals so indispensable for home construction

make them doubly vital for war production...for ammunition, for planes and ships—and for the electrification of the plants that produce them.

But your architect can look ahead with confidence. Much of the war-time design he is developing today will be reflected in finer peacetime construction to come. And this he can also count on: When the present emergency is over, Anaconda Copper, Brass and Bronze—for rustproof piping, for enduring gutters, downspouts and flashing, for screens and hardware and weather-stripping—will

be ready for an even wider field of application.

For, while devoting every productive effort to helping win this war, Anaconda is carrying on the same research that pioneered such important developments as brass-pipe plumbing, that paved the way for copper tubing, which made low-cost, rust-free water piping possible.

The homes that can't be built today will be better built tomorrow because of Anaconda research.

**THE AMERICAN BRASS COMPANY**  
General Offices: Waterbury, Connecticut  
Subsidiary of Anaconda Copper Mining Company  
In Canada: ANACONDA AMERICAN BRASS LTD.,  
New Toronto, Ont.



The cherished Navy "g" pennant—awarded to our three Connecticut plants for achievement in production.



## Anaconda Copper & Brass

4204. THIS ADVERTISEMENT APPEARS IN TIME, CIRCULATION 890,698, ISSUE OF AUGUST 3, 1942

FROM TIME MAGAZINE • AUGUST 3rd

This is the fourth in a series of advertisements that are helping to maintain public interest in better building... through copper, brass and bronze.



# WHAT YOU CAN DO FOR THEM...

The desire for comfortable and gracious living . . . for which you have been largely responsible . . . has not dissolved in the crucible of war. It is being kept alive by such messages as you see to the left.

Reminded that copper and brass are vital to victory, Americans also are reminded of the economies and comforts these durable



metals can bring them when peace returns. With you, they look forward to the day when you can specify, they can buy, copper and brass plumbing and be sure of no inconveniences or expenses caused by rust . . . secure in the knowledge that their piping will always deliver a full, rust-free flow of water.

The Everdur\* water storage tanks they seek are doing duty in the fight for victory. But, they'll be back too, saving the unpleasantness of hot water discolored with tank-generated rust . . . serving faithfully, dependably, year in and year out.



And although less durable materials must be used for flashings today because copper is now making munitions for our armed services, peace will bring its durability back to American homeowners. With copper, they know there'll be no water damage so often experienced when rustable metal flash-



ings are used . . . they'll get better, less expensive service from rain disposal systems made of copper.

Your specifications of copper, brass and bronze have made thousands of homes more livable, more economical. The homeowners of the future will look to you for the same advantages.

4214

## Anaconda Copper & Brass

\*Trade Mark Reg. U. S. Pat. Off.

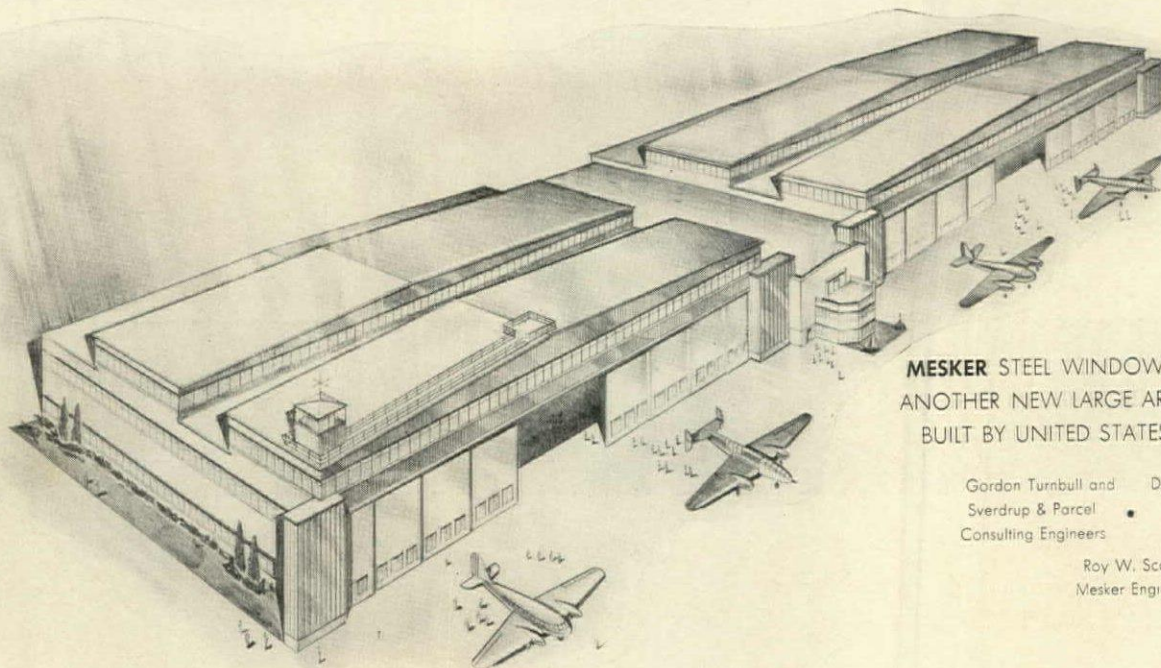
**THE AMERICAN BRASS COMPANY**

General Offices: Waterbury, Conn.

Subsidiary of Anaconda Copper Mining Company

In Canada: Anaconda American Brass Ltd., New Toronto, Ont.





**MESKER STEEL WINDOW ENGINEERED**  
ANOTHER NEW LARGE ARMY AIR DEPOT  
BUILT BY UNITED STATES ENGINEERS

Gordon Turnbull and Sverdrup & Parcel  
Consulting Engineers

Dunning James & Patterson  
Contractors

Roy W. Scovil  
Mesker Engineer

## STURDINESS that's good economy...

"Mesker" has always symbolized STURDINESS in Steel Windows; and hence, *good economy*. Mesker's Frame and Muntin Bars  $1\frac{1}{2}$ " in depth have contributed much to this reputation. This feature facilitates economical glazing... without sacrificing maximum depth of Muntin Bar.

A minimum amount of putty is required, because the glazing rabbet is only  $\frac{7}{8}$ ". Glazing costs are *greatly* reduced. Most

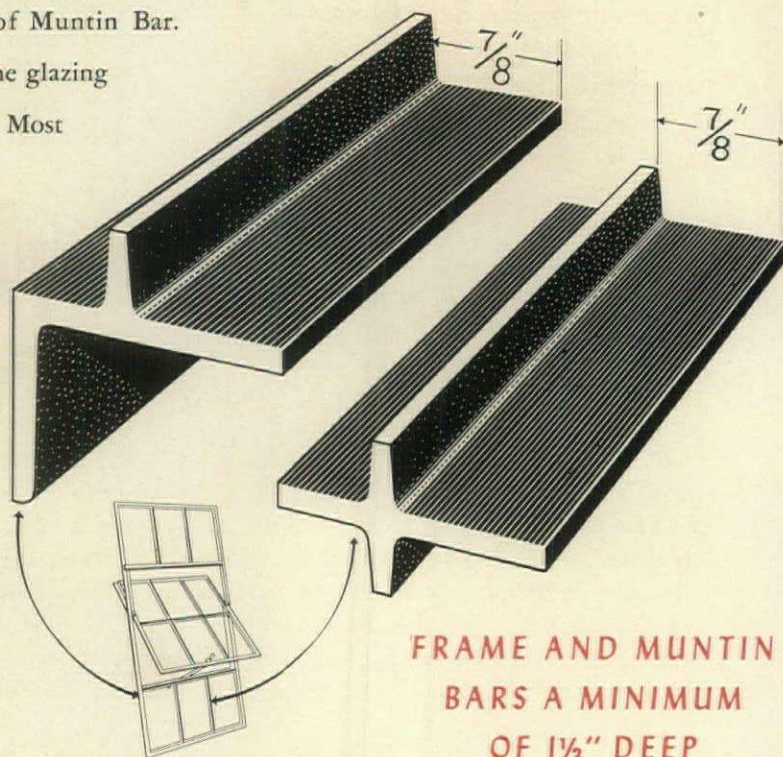
important, Mesker's Frame and Muntin Bars  $1\frac{1}{2}$ " in depth are a major factor in providing a life-time of economical, WEATHER-TIGHT

service. The extra depth of Mesker sections increases tremendously the strength of

Mesker Windows. The cruciform Muntin Bar on Mesker Windows is the deepest, strongest

on the market. Summed up, only Mesker provides the ideal combination of MAXIMUM

strength with *minimum* glazing rabbet. Next time... specify "Mesker"



**FRAME AND MUNTIN  
BARS A MINIMUM  
OF  $1\frac{1}{2}$ " DEEP**



### THE DOUBLE THICK WEATHERING BAR

...used on Mesker Industrial Pivoted Sash is  $\frac{1}{2}$ " thick... twice that used by others in Industrial Steel Sash. This exclusive feature, so dramatically illustrated by the Visual Test Kit (free upon request), is indicative of the quality built into ALL Mesker products.

# Mesker Brothers

## STEEL SASH

424 SOUTH SEVENTH ST., ST. LOUIS, MO.

CASEMENT WINDOWS • MONUMENTAL WINDOWS • INDUSTRIAL WINDOWS  
INDUSTRIAL DOORS • METAL SCREENS • DETENTION WINDOWS



# READILY AVAILABLE!

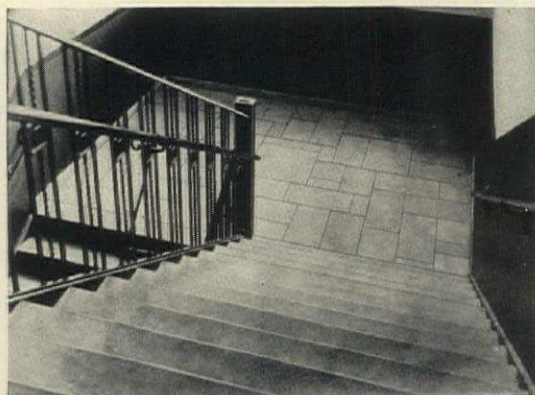
## *Alberene* \* **TREAD STOCK**

**a safe footing  
for hurrying feet!**

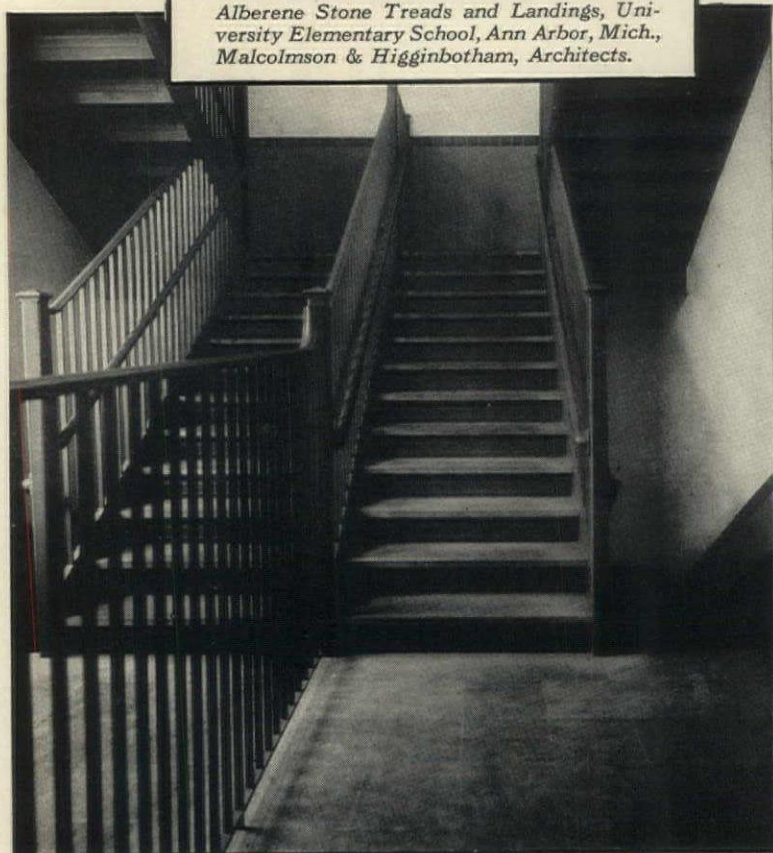
Ample stocks of this selected, extremely hard stone are available. Shipments can be made with reasonable promptness.

For more than 30 years Alberene Tread Stock has been the choice for treads, platforms and floors subject to severe daily use in schools, hospitals and public buildings. Its natural highly-toothed surface is safe, wet or dry, and this light blue-grey stone meets every requirement of durability, economy and upkeep and appearance. Tread Stock is non-staining and easy to clean, and neither chips nor scales.

A request on your business letterhead will bring a set of samples, conveniently boxed, showing the wide range of our stones, including black and mottled dark blues and greens. Please address Alberene Stone Corporation of Virginia, 419 Fourth Avenue, New York. Sales Offices in principal cities. Quarries and Mills at Schuyler, Virginia.



*Alberene Stone Treads and Landings, University Elementary School, Ann Arbor, Mich., Malcolmson & Higginbotham, Architects.*



*Alberene Stone Treads and Landings, Woodrow Wilson High School, Washington, D. C., Nathan Wyeth, Architect.*

\*Abrasive hardness factor averages 30 to 35; far higher than that of any other stone commercially used for stair treads.

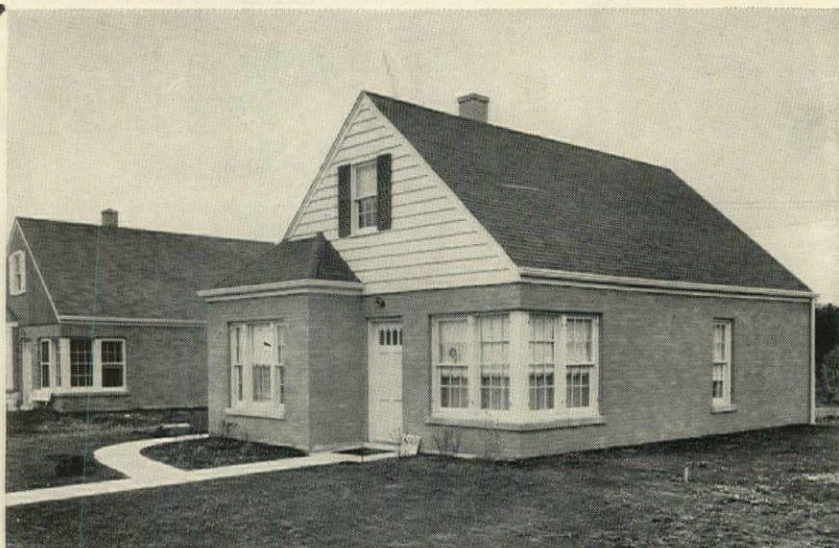
## ALBERENE STONE

**THE NATURAL STONE OF DIVERSIFIED UTILITY**



# Tile- Tex Floors

For  
Basement-less  
Homes—



*Typical Defense Home in W. Heise's Blackhawk Heights development, Westmont, Illinois*

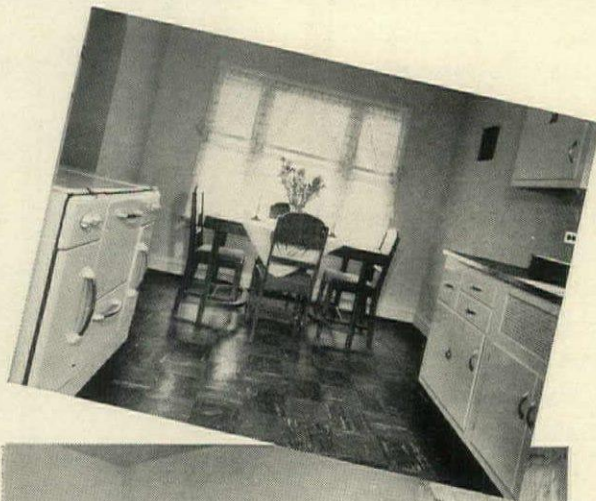
★ ★ ★ “it's ideal for War Housing—  
applied directly on concrete slabs”

## Says W. HEISE, Chicago Builder

Basement-less defense homes are growing rapidly in favor with progressive builders because they can be constructed faster, require smaller quantities of critical materials, and are more adaptable to modern living conditions.

W. Heise, prominent Chicago Builder, has used Tile-*Tex* throughout the defense homes in his popular development, “Blackhawk Heights,” Westmont, Illinois. Why? Because *Tile-*Tex** is low in first cost, attractive, long-wearing, and safe to install directly on concrete sub-floors on, above, or below grade.

*Tile-*Tex** floors are installed quickly and efficiently by approved, experienced *Tile-*Tex** contractors located in all principal cities and towns. Write today for the name of your nearest *Tile-*Tex** contractor and complete data on *Tile-*Tex** asphalt tile flooring for defense homes.



*Note the attractive *Tile-*Tex** floors in the kitchen and bedroom of the home illustrated above*

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.

**THE TILE-TEX COMPANY**  
101 PARK AVE., NEW YORK • CHICAGO HEIGHTS, ILL.

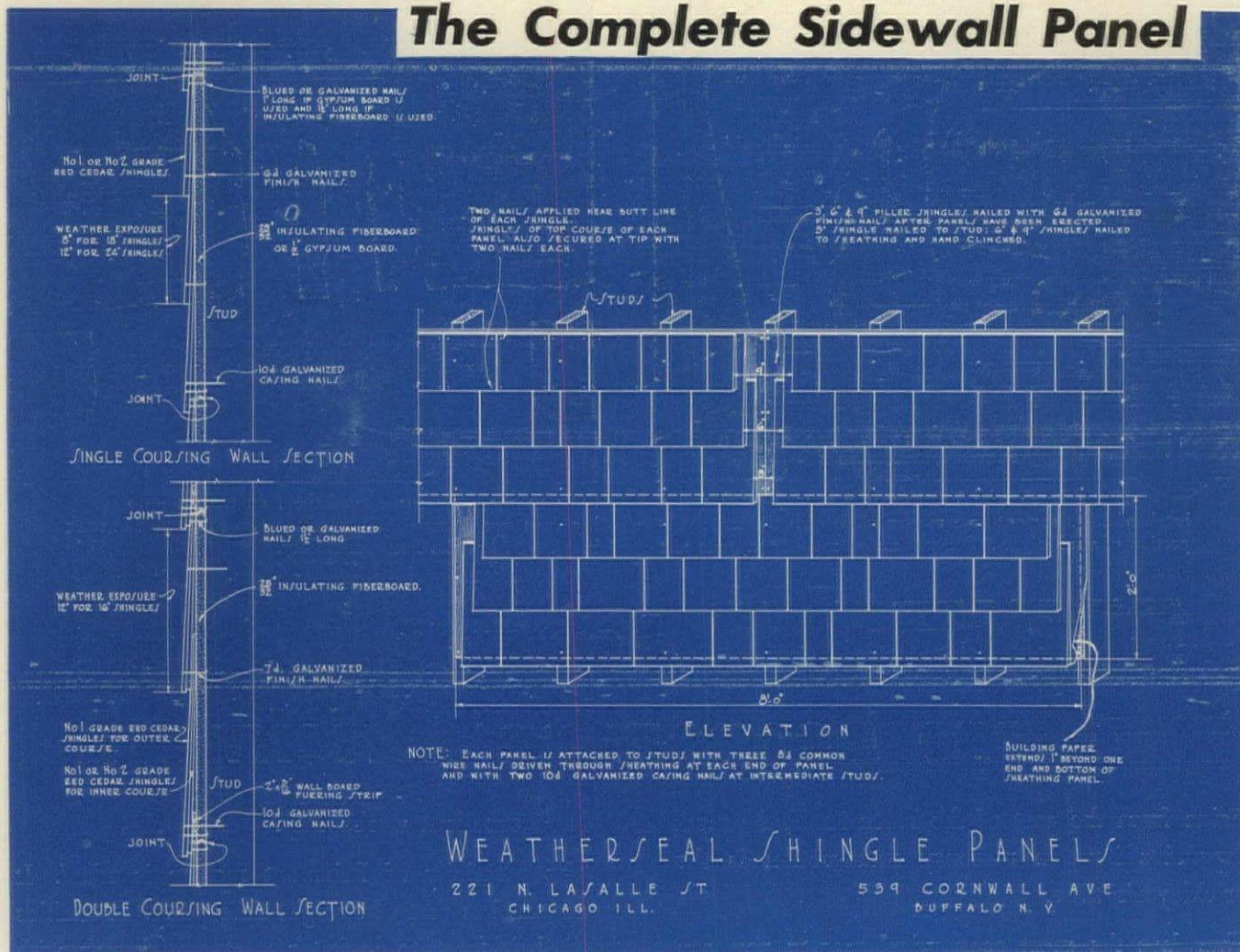
THIS IS THE FOURTH OF A SERIES DEALING WITH THE PART OF TILE-TEX IN THE DEFENSE PROGRAM



# WEATHERSEAL

**SPEED - ECONOMY - APPROVED CONSTRUCTION**

## The Complete Sidewall Panel



## RED CEDAR SHINGLES

**Used Exclusively on WEATHERSEAL PANELS**

WEATHERSEAL is a shop-built Panel made locally by carefully selected reputable concerns under Franchise arrangement. WEATHERSEAL delivery to the job does not depend on over-taxed transportation facilities that are needed for vital War activities. WEATHERSEAL is flexible to any type of design of house or building of stud construction. Panel is standard 2 ft. by 8 ft. size in a COMPLETE unit of Sheathing, Building Paper and RED CEDAR SHINGLES, ready to nail right on the studding. Sheathing may be Gypsum board, Insulation Board or Plywood—All time-tested standard materials. Fabricators operate under WEATHERSEAL Patent 2,256,435. F.H.A. acceptance nationally.

**OUTSTANDING OPPORTUNITY**—For well rated energetic concerns in many areas to fabricate WEATHERSEAL Panels under an exclusive Franchise arrangement.

Write for FREE Blueprints and Descriptive Literature

**WEATHERSEAL SHINGLE PANELS**

221 North LaSalle St., Chicago Ill.

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**ALL IN ONE UNIT**  
SHEATHING  
PAPER  
SHINGLES





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



1 Mix a batch of 1-3 Brixment mortar (above) and a batch of 50-50 cement-lime mortar made with the same proportion of sand (right). Get any competent bricklayer to test



2 them on the board—to spread them on the wall—to lay up a few brick with each of the two mortars. Then ask him *which* has the best workability.

## BRIXMENT Assures More Economical Brickwork

Aside from the cost of the brick itself, the most expensive item in masonry construction is the bricklayer's time.

Therefore the most economical mortar you can buy is the one that enables the bricklayer to lay the most brick per day. You cannot afford to give your bricklayer any mortar which causes unnecessary work, such as constant retempering, stooping to the board to replace mortar that failed to stick when he threw up the head-joint, etc.

To secure economical brickwork, the mortar must

have excellent workability.

The plasticity of Brixment mortar is *ideal*. It approaches that of straight lime putty. It enables the bricklayer to do faster, neater brickwork, with the brick well bedded and the joints well filled.

This is the principal reason why Brixment reduces the cost of brickwork. But in addition, less labor and supervision are required in mixing. No soaking or slaking. No mortar is wasted. And Brixment mortar makes a neater job that costs less to clean down.

# BRIXMENT

## For Mortar and Stucco

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

THE ARCHITECTURAL FORUM





# Design for Relaxing!



*Setting for a Good Time* — The effects achieved with Flexglass are unique because the material is unique! Flexglass is made of small rectangles of glass mounted on flexible fabric which can be applied to any hard surface, straight or curved. Flexglass has brightened the Mezzanine and the spectacular Revolving Bar as shown here. Photos: Luedeke.

With Night Club design requiring something more than mere functional arrangements, the architect naturally aims at an atmosphere of color, sparkle, intimacy and spaciousness.

Flexglass helped designer C. Theodore Macheras create such an atmosphere in the Chez Ami, Buffalo's popular new night club. Sparkling White Mirror Flexglass is featured in the unusual "keyhole" ceiling, and carried

into large sections of the wall areas.

Sparkling Icy White Dewdrop Flexglass is used to face the scalloped front of the big circular bar, and also on the risers — thus capitalizing the flexible quality of Flexglass (it bends easily to a 5" radius).

Flexglass is also weatherproof, and was employed on the exterior facade of the Chez Ami to "key" the atmosphere so successfully created. Peach

Mirrors set in white stucco provide the club with a lasting and ornamental note of identification.

Among the great variety of Flexglass colors and effects there are sure to be some which fit perfectly the decorative scheme you have in mind. Please . . . ask us for our FREE color card.

★ Modern Interior Wood Treatments are possible at low cost with Flexwood. Genuine wood, fabric-backed. Strong and durable, yet bends around a pencil. Flexwood and Flexglass are manufactured and marketed jointly by The Mengel Company, Louisville, Ky., and United States Plywood Corporation.

## flexglass

The Glass That Bends

UNITED STATES PLYWOOD CORP., 105 Park Avenue • New York, N. Y.



# LETTERS

## DECLARATION OF INDEPENDENCE

### Forum:

The war means one of two things for Grand Rapids (and when I say Grand Rapids, I mean the entire commercial furniture industry). It means a rebirth, or the end—the grand finale.

No other group of manufacturers in America has so underrated, or been so contemptuous of, the intelligence of its buying public as the American furniture manufacturers. They have not done this altogether intentionally—but *they have done it*.

There is one thing and one thing only that stands between Grand Rapids and good design, and that is the hangover from antique furniture. So long as this hangover lasts, just so long will the decline of Grand Rapids continue, and its extinction be assured.

Curiously enough, Grand Rapids is the last place to find out that Americans want good contemporary furniture, for the reason that it has always concluded that because the public did not buy the *Grand Rapids* version of contemporary furniture (labelled "modern"), it did not want contemporary furniture at all.

One might well ask, "Who started all this? Who led Grand Rapids up the antique garden path?" And the answer is—the early so-called "interior decorators." Now, it is a carefully guarded legend—among themselves—that the interior decorators were the girls and boys who "brought culture to Buffalo." But I think the moment has come to spike this particular myth.

### \$70,000,000 SNOBS

Those interior decorators of fifty to twenty-five years ago were snobs. Their ladylike dream of culture was to transplant the houses and furniture of their European hostesses to America. So deeply impressed were they by the "backgrounds" of these hostesses, that they could not resist bringing back such tempting formula to impress their clients in this country.

And so began the whole dreary process, which grew to such crazy proportions that before the present war seventy million dollars worth of antique accumulations were crossing the Atlantic to America every year.

In the face of such an avalanche of imported "refinement," what could the boys in Grand Rapids do? In they went—hook, line and sinker—and soon the decorators had them reeling. Aided by the department stores, Grand Rapids "promoted" every conceivable "period" in a desperate race to keep up with the decorators, who were out of breath themselves.

Now the history books of Grand Rapids are exhausted (those well-thumbed editions of Macquoid and Cescinsky), and there isn't a thing, from a tripod table to a breakfront cabinet, that hasn't been mauled and rehashed to death.

Of course, it "still sells." The whole poison of the antique business has gone too deep into the consciousness of Americans to be wiped out overnight. But each year—each month—more contemporary houses are being built and more people are beginning to think.

*Why* are they thinking? And *what* are they thinking?

### NO QUEEN ANNE THEY

Well, first of all, there is a young generation that the "interior decorators" have failed to impress with their dreams of ladylike refinement. No sir, no Louis Seize for them. Not while millions of dollars worth of "Collections" are selling at Gimbels at a fraction of their original cost, and the photographs of Mrs. Vanderbilt's "Frenchy" background remind them of an obsolete hotel.

Of course, this new generation doesn't know *what* it wants, because it isn't there for them to see. But it does know what it *doesn't* want. It doesn't want the furniture with which its parents have surrounded it—copies of antiques from Grand Rapids.

These same parents are also awakening from the prewar American masquerade of pretending that dollars come from America, but "culture" comes from Europe. The panelled, tapestry-hung salons, that caused such qualms of envy and awe even ten years ago, look dirty and depressing to them as they kibitz around indifferently at the auctions of the chateaux of Fifth Avenue today.

Where indeed are the "Au Quatrième's" of yesteryear?

### IT'S THE PUBLIC WHO PAYS

Now, of course, the boys of Grand Rapids will say in answer to all this—"You're telling us, Mister. We know all about it, *too*. We did "modern" before anyone did it. Smart-as-hell "modern" too—Provincial "modern," Chinese "modern," Swedish "modern." But the public doesn't go for it. We make our bread and butter on reproductions. Give the public what it wants. If they ever want something else, we'll give 'em that too."

I don't believe the public *ever* "gets what it wants." All it ever gets in furniture is the taste of a small group of uncreative decorators, dished up commercially via the drawing boards of Grand Rapids; or the unadulterated sterile hash that originates in the history books.

It is not a question of the public "wanting" any of this. It's a question of its

being all they can *get* after they have been led to it by the nose—through high-pressure advertising, department-store promotion, and the editorials in magazines (who know better, but can't resist the pressure from the advertising department).

"So who is going to put the public straight on all this, Mr. Wiseguy? Who knows what the public *does* want? Do you, Mr. Robsjohn-Gibbings?"

No, frankly, I do *not*, if you mean could I sit down and make a sketch for you. But I can make a pretty shrewd guess what will happen if things go on the way they are going now.

There will be a hell of a lot of houses built between now and the end of the war—defense houses, I mean; and there will be even more of a hell of a lot after the war. And these houses won't be Cape Cod Colonial or English or French. They will be just plain, good American twentieth-century houses, and they will need good American twentieth-century furniture to put inside them. It won't be Chinese "modern," or Colonial "modern." It will be good, down-to-earth, inexpensive *contemporary furniture*.

This furniture isn't born yet, but America is in labor, so to speak, and *this* time the baby won't be an *adopted* one. Its parents are democratic people, and so it will have one of the greatest heritages in the world.

### SHAPE OF THE FUTURE

Unquestionably this furniture will be standardized. Unquestionably making airplanes of wood will open up undreamed of ways of making furniture. Unquestionably we will all forget about Queen Anne, Duncan Phyfe and Chippendale, and start *designing*. And when I say designing I mean really sitting down in front of a drawing board and, like Americans, tackling a job for American needs—not cringing around with an inferiority complex about the furniture of some other country.

This is the way someone sat down and got started on Boulder Dam and the Tennessee River Dams. This is how someone tackled American automobiles and American airplanes and American kitchens and American bathrooms. This is the way Thomas Jefferson sat down and wrote the Declaration of Independence.

So what are we waiting for? All we need is faith in ourselves as American furniture designers. We have wasted 75 years of the design of America. Let's get going on a Declaration of Independence for the American House.

T. H. ROBSJOHN-GIBBINGS

New York City

Bravo!—Ed.

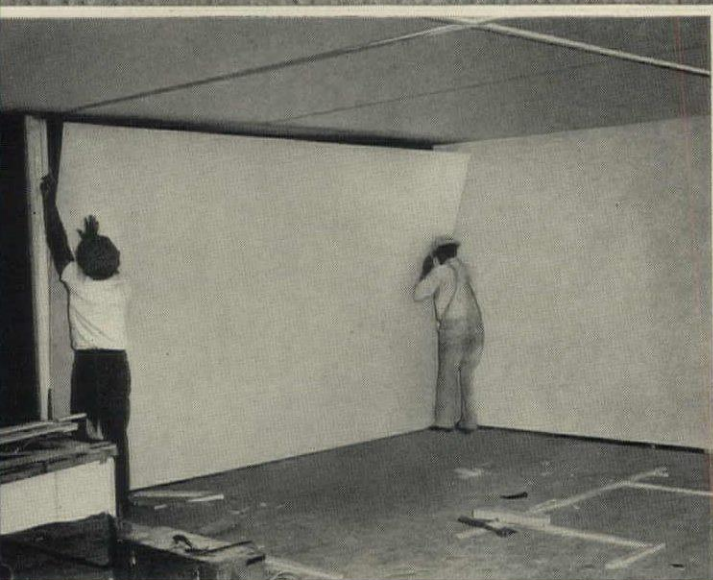
(Letters continued on page 104)



# ARE YOU UP-TO-DATE



## ON THIS NEW TYPE OF INTERIOR WALL LINING?



**IDEALLY SUITED FOR SPEED CONSTRUCTION OF WAR HOUSING:** New and vastly improved over any panel material you have ever known. Upson Strong-Bilt Panels, in full wall size, are bringing a whole new conception of interior wall lining construction to foresighted builders.



**ENTHUSIASTIC PUBLIC APPROVAL:** From the many thousands of people who now live in homes with Upson Strong-Bilt Panels on walls and ceilings, comes unstinted praise for their exceptional beauty, their economy, their *crackproof* qualities and low maintenance cost.

### DO YOU KNOW:

- ▶ that dozens of war building contractors have found Upson Strong-Bilt Panels the best answer to speed and quality specifications?
- ▶ that they are FHA accepted?
- ▶ that they can be applied to the average small home in 40 to 50 man hours?
- ▶ that there is no cutting, taping or filling of joints? No nails to countersink. No filled holes to mar finished surface. Special Upson fasteners grip the panel securely from the rear.
- ▶ that Upson Strong-Bilt Panels produce more beautiful walls and ceilings than any other panel material?

- ▶ that they remain forever *crackproof*—thus have lowest maintenance cost?
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- ▶ that they have efficient insulation value—3½ times that of plaster, thus adding to year round comfort?
- ▶ that no other material is so well adapted to dry-built mass production methods?

*It is now firmly established that beauty and permanence in interior wall linings need not be sacrificed to secure speed construction and economy. Upson Strong-Bilt Panels combine them all. For important data and booklets picturing new time and cost-saving methods developed by Upson architect-engineers, phone, wire or write The Upson Co., Dept. 2-F, Lockport, N. Y.*

Always look for  the blue center

**UPSON  
STRONG-BILT  
PANELS**

**MOST BEAUTIFUL SURFACE ON ANY WALL MATERIAL**





THE U. S. Soldier of today, say the records, is the healthiest the world has ever seen. For this, credit the U. S. Army's Medical Department, which has wrought miracles.

Deaths from sickness in the Army are a fraction of those in civilian life ... for tuberculosis *one-ninth*, influenza *one-tenth*, pneumonia *two-fifths*. Typhoid fever, "great killer" of the Spanish-American war, has been virtually eliminated. From 4,800 cases and 535 deaths per 100,000 then, it has been reduced to 3 cases in a million, for the first half of 1941, and no deaths.

In the field of preventive medicine, the Army's Medical Department has taken the

lead in America. In the largest laboratory of its kind in the world, the Army Medical School makes all of the typhoid-paratyphoid vaccine required by the Army, Navy, U. S. Public Health Service, Indian Service, and other Federal Departments ... and in furtherance of the Good Neighbor policy has supplied the stock culture to other nations in the Western Hemisphere. Output last year was multiplied 8 times, to 33½ million cubic centimeters.

The planting and harvesting rooms used in making vaccine are sterilized with live steam. Sealed during use, they are conditioned with air which is thoroughly sterilized by washing and passing through ultra-violet light. As in the case of oper-

ating, clinical, therapeutic and other hospital equipment which must be rustless and readily sterilized, the metal employed for constructing these rooms and the equipment is Monel ... another instance of the importance of INCO Nickel Alloys to the well being of the forces.

THE INTERNATIONAL NICKEL COMPANY, INC.  
67 Wall Street  
New York, N. Y.

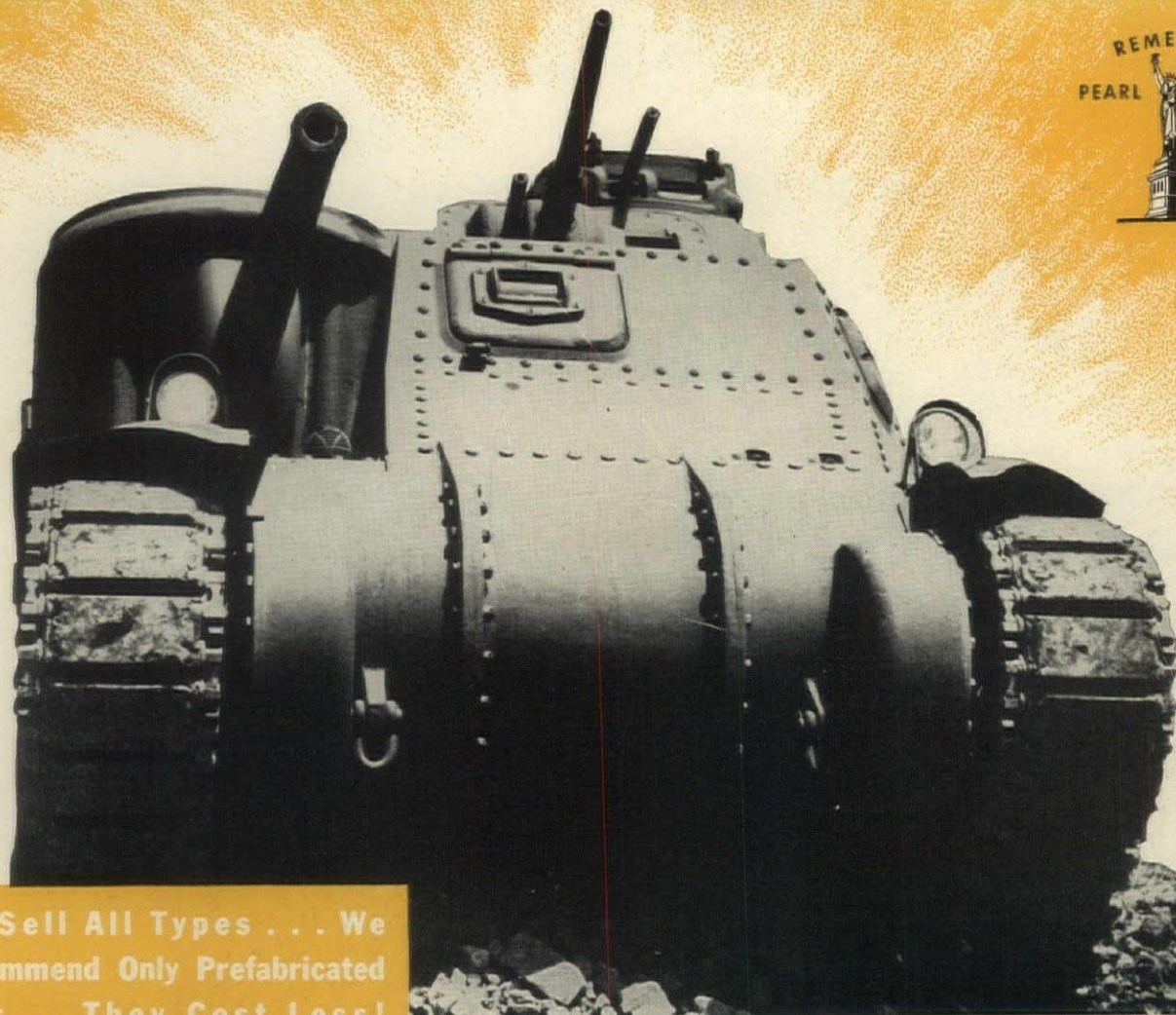


*Specially designed Monel sterilizing equipment in use by the Army.*

## INCO NICKEL ALLOYS

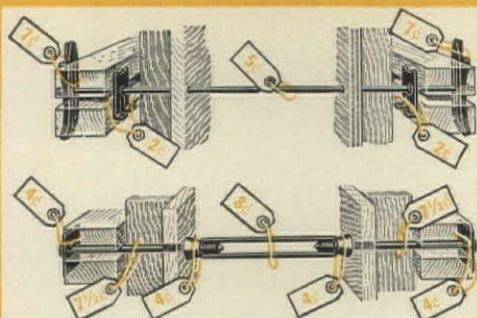
MONEL • "K" MONEL • "S" MONEL • "R" MONEL • "KR" MONEL • INCONEL • NICKEL • "Z" NICKEL  
Sheet ... Strip ... Rod ... Tubing ... Wire ... Castings





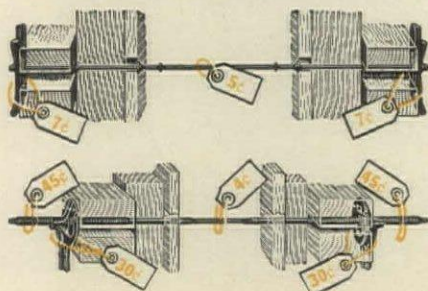
Ewing Galloway

**We Sell All Types . . . We Recommend Only Prefabricated Ties . . . They Cost Less!**



**Figure it for yourself!  
HERE ARE THE PRICES\***

ALL PRICES F.O.B. BROOKLYN, N. Y.  
\*BASED ON A 12" CONCRETE WALL



## **CLANK! CLANK! CLANK! THE TANKS ARE MARCHING!**

Way back where glowing steel billets bloom, is the starting place for that "Big Parade" of tanks, so essential to our National Victory. Could be, that monster you see in the picture is made of steel saved by some builder or contractor, who abandoned, the wasteful practice of using "make-shift", "home-made" wire, band or rod ties, and turned to Richmond's complete line of more than 85 different prefabricated devices specifically engineered to meet every concrete form-tying need. For, you see—

### **Richmond Makes 1 Ton of Steel Do the Work of 3 Tons**

—and that's not all! The "Richmond Way" is the profit making way on any sort of concrete job, because it gives you advantages available nowhere else. Advantages that mean a better, faster job at less cost and with greater profit. *For instance*, Richmond form-tys help you erect and strip your forms in less time. *For instance*, from our technical and estimating service you get, without cost, a job plan showing the number and location markings of the ties needed for each section. *For instance*, you do not tie up your funds in working parts such as Tylags, Tycones, Flat Washers, Tywrenches, etc. Richmond loans them to you! We're not just selling products or devices. From Richmond you get a service, a method, a way by which you can make many an unexpected dollar—and gain a name for contributing vitally to the "stock-piles" of steel for armaments. Specific figures to back-up all these statements are yours for the asking.

# **RICHMOND** SCREW ANCHOR CO., INC.

816-838 LIBERTY AVENUE

BROOKLYN, N. Y.







*How to do two wartime jobs at the same time...*

## SPECIFY THE NEW GOLD BOND EXTERIOR BOARD



**G**OLD Bond Exterior Board is National Gypsum's answer to the government's demand for faster erection of wartime buildings. This new product combines sheathing and siding *in one material*, and enables builders to complete as much as 20 square feet of exterior wall area in a single, simple operation!

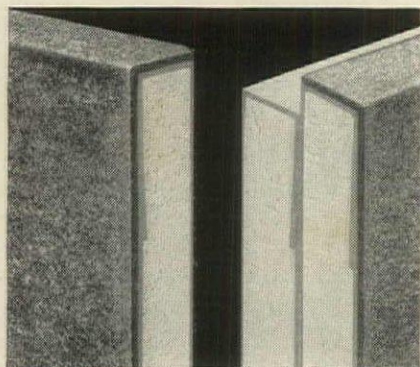
**RIGID, FIRE-RESISTANT, WEATHERPROOF.** There's nothing "ersatz" about Gold Bond Exterior Board, either. You can put it up in a hurry, but it's tough enough to withstand the

hardest kind of wear. The core of processed gypsum rock provides tremendous bracing strength, with the fire-resistance and durability of stone. It's weatherproof, unaffected by moisture or sudden temperature changes, and can't buckle or shrink to cause gaps at joints.

**A PLENTIFUL SUPPLY.** You'll find this latest development of Gold Bond Research made to order for the hundreds of temporary hospitals, dormitories, warehouses, offices, munition plants, and

other emergency buildings in the war construction program. The supply is prompt and plentiful, too—because Gold Bond's huge plants are already producing millions of feet for quick delivery. Write for complete details and specifications—and speed-up your next emergency building with Gold Bond's new Exterior Board.

**NATIONAL GYPSUM COMPANY**  
EXECUTIVE OFFICES, BUFFALO, N. Y.



### Sheathing and siding in one quick application!

This new double-duty board is available in 2' panels 8', 9', or 10' long, for direct nailing to studs spaced 24" o.c. Square edge 1/2" panels applied vertically; 1" ship-lap panels applied either vertically or horizontally. Face side and long edges protected by asphalt roofing overcoat. Weatherproof, fire-resistant, tough, strong, low in cost—and plentiful!



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More than 150 products including  
WALLBOARD...LATH...PLASTER...LIME  
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SALTVILLE, VA. . . . NILES, O. . . . MOBILE, ALA. . . . NEWBURGH, N. Y. . . . ALEXANDRIA, IND. . . . DUBUQUE, IA. . . . DOVER, N. J.



# THE MONTH IN BUILDING . . . NEWS

Nelson, Somervell give War Housing blessing (this page) . . . Priorities as usual (this page) . . . Prefabs before the millions (p. 34) . . . War Guest program starts (p. 34) . . . Lanham funds may be delayed (p. 34) . . . Housing mileage (p. 34) . . . Blandford and Emmerich name starting players (p. 94) . . . Embattled Willow Run (p. 98) . . . Ceilings too low for comfort (p. 100) . . . Temporary housing (p. 100) . . . Bond buyers (p. 102) . . . Shopping centers (p. 102) . . . War damage insurance (p. 102).

## BROADCAST STATIC

At 10:30 p.m. on the evening of July 9 NHAdministrator John Blandford lit a fresh cigar and allowed himself the luxury of a faint smile. Mr. Blandford's good humor was not prompted by the successful completion of his war housing program or even of any major part of it. Mr. Blandford smiled because, at long last, he had produced a public declaration of cooperation between the war housing agencies and those staunch defenders of critical materials, the WPB. For 30 minutes the air waves were loaded with talk about housing, and while the program did not replace Jack Benny in the hearts of the masses, it did produce two important commitments. Said Donald Nelson:

*"War workers must be provided with housing—since housing is absolutely essential to the war program itself.*

*"In some war industries, a serious shortage of labor and a serious turnover in labor are caused in part by housing shortages. As a result, war production is threatened.*

*"It is waste in training men who leave after a brief period, and it is waste of money and effort on the part of these men and on the part of those who replace them.*

*The effects must be avoided. Correspondingly, the materials for this wartime housing must be made available. It is the job of the War Production Board to see that this is done—and done quickly."*

A few minutes later echoed Lieut.-General Brehon Somervell, chief of the newly formed SOS:

*"I am certainly in complete agreement with the objectives of the National Housing Agency. In my job commanding the Services of Supply of our Army, I should say that the housing of war workers to insure the steady flow of material to our fighting forces is essential to victory.*

*"Indeed I consider a good worker's housing program an essential if the Services of Supply is going to keep on fulfilling its function of allocating more and more tools of war to our fighting men. When we move soldiers, shelter is considered part of their equipment . . . for their efficiency. Why shouldn't that apply equally to workers?"*

## PRIORITY CUL-DE-SAC

At month's end there was little over-all improvement to be seen in the over-all priority tangle. Architects, builders and shack-quartered workers were commenc-



**War Housing Aired** in national hookup. Broadcasting from Washington I. to r.: Philip Murray, Glenn L. Martin, Donald Nelson, William Green and Earl Godwin, commentator. Not pictured are Lt.-Gen. Somervell, and John Blandford, who spoke from New York.





### Goes Another House!

By WARNER OLIVER



"But that house  
wasn't there 10 hours ago!"

THE CHASE NATIONAL BANK  
OF THE CITY OF NEW YORK

Time and Satevepost's pages: an ad, a story take prefabrication to their hearts. (See col. 2.)

ing to wonder whether there ever would be. The daily press was filled with reports that builders refused to bid on housing projects, and an unofficially confirmed Washington rumor held that more than 175 FPHA projects on which plans had been completed and contracts awarded were completely blocked in the priority cul-de-sac. Despite its move from Washington into Al Smith's Empire State tower, WPB's Construction Division had thus far smashed but few bottlenecks on the sidewalks of New York.

### WASHINGTON REVEILLE

The pressure for housing in the nation's capitol however was producing some results. Last month saw the completion of the super-rooming house, the Meridian Hill Hotel (see FORUM, p. 60), financed by Uncle Jesse Jones, and the Scott's Hotel (p. 62), privately financed, both intended to house 968 single-girl Government

employees. About to leave paper and start building was a group of dormitories from designs by George Howe's PBA, on ground between the Capitol and the Union Station. With characteristic southern hospitality some of the Senators from below the sunny Mason-Dixon line were preparing to hatchet a proposal to provide several units for Negro workers as part of the group. Further reason: many of the Senators live in hotels neighboring the proposed project, and their good-neighbor policies vanish at the thought.

### PREFAB SUCCESS STORY

3,049,402.72 Time readers did a double take at a page in the July 20 issue, signed by the potent Chase National Bank. Behind the marble columned facade of the world's richest bank some advanced official had discovered that prefabrication is "here to stay." In black and white the Chase was telling the world in words of conscious pride that it had made "a substantial loan to a manufacturer who was building houses in 9½ hours flat." And if this was not enough, last month's prefabrication cup ran over with a second tribute, this time in the *Saturday Evening Post* in a feature story glamorizing Homasote Houses and its fast-talking, fast-stepping, vice-president F. Vaux Wilson. Manufacturers of building products and conventional house builders referred both exhibits to their handwriting-on-the-wall dept.

### WAR GUESTS IN THE HOUSE

One obvious out of the war housing dilemma which to date has been ignored is the possibility of sheltering workers in existing buildings which heretofore have housed only the owner plus his family. Surveys in key centers convinced Administrator Blandford that there are real possibilities in this approach. Appeal will be made on patriotic grounds without hint of compulsion. If this fails, compulsion may come later; it is rumored that communities which do not absorb workers practically to capacity will be denied new housing until they fall into line. First

state to launch a War Guest program was New York, prodded by Gov. Lehman and State Housing Commissioner Weinfeld.

**Variation:** Denver, Colorado's Realty Board, finding that the War Guest plan was impossible (available room is 100% occupied) has initiated a program to convert small-store vacancies to war workers' housing quarters. Working with the city authorities' full cooperation, the plan would accommodate the city's substantial 10% growth (circa 50-75,000 persons). Drawback: the Board finds obtaining priorities for critical materials, additional plumbing and electric wiring needed for conversion of stores almost impossible.

### DOUBLE OR NOTHING — AND WHEN?

Six long months after the President had called for upping Lanham Act funds from \$600 million to \$1,200,000,000, Congress got down to work and heard a parade of experts—not one of whom contested the appropriation. Reason: during those six months Congress had been hearing from the public and the unions, and with elections in the offing Congressional eardrums were keenly acute to public demands.

Last minute rumor: Lanham appropriation will not be introduced until after Congressional recess.

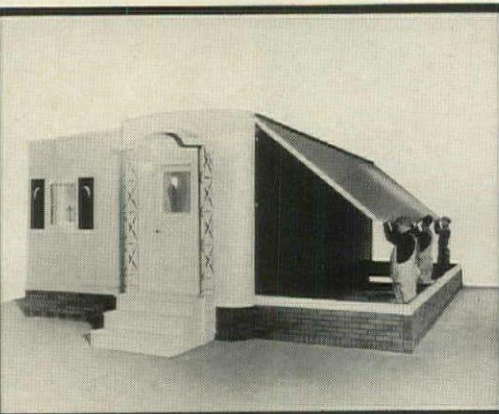
### TRANSPORTATION TROUBLES

If possible, things were getting worse. With gas rationing threatening extension farther and farther west, with rubber shortages staring everyone in the face:

►FWA found that a transportation crisis was approaching in a West Virginia ordnance plant: 300 cars now carrying 500 workers will be laid up, another 100 will be retired after 6,000 more miles, another 200 after 10,000. This is 2/3 of those in use at the plant. Local bus company declares it is operating at maximum capacity. What next? State Road Commission proposes a "survey" to find an answer.

►Calif. cities Whittier and Ventura are establishing new bus systems.

(Continued on page 94)



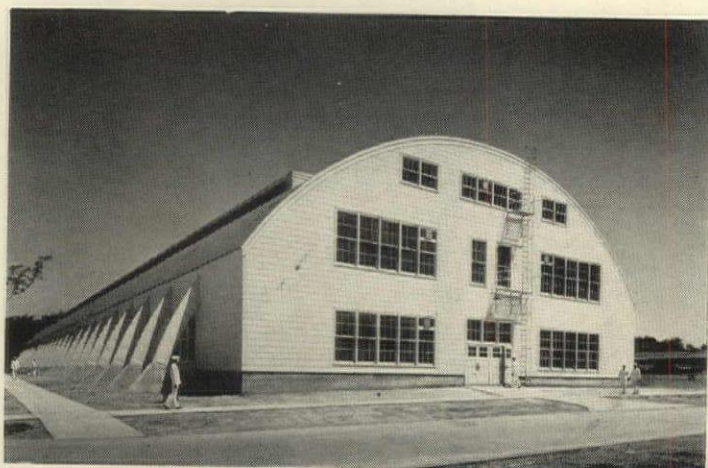
Palace Travel Coach Corporation's factory-fabricated portable house made news due to one brand-new feature: complete bath and kitchen equipment installed at the factory. Moved on wheels (see first picture), foundation posts are provided prior to its arrival. Wing sections unfold (second picture), sewer and water lines are connected

to site lines, an extension cord to the electric distribution poles, and the house is ready for occupancy. Other features: many cupboards and closets, ice box, space heater, sink. Cost (including installation): \$2,588. Palace Corp.'s plant says it can produce 30 units per day.



# NAVAL TRAINING STATION

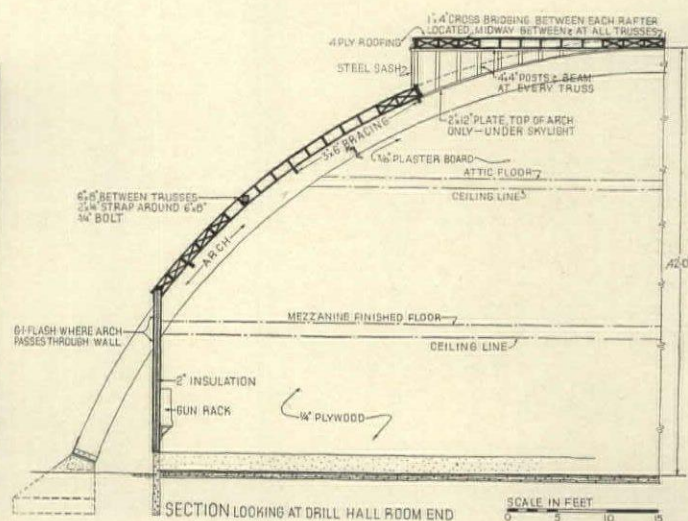
GREAT LAKES, ILLINOIS



DRILL HALL AND ADMINISTRATION BUILDING

NAVAL TRAINING STATION, DESIGNERS

JOHN GRIFFITHS & SONS, GEN'L. CONTRACTORS



*Photos, Hedrich-Blessing*





# NAVAL TRAINING STATION



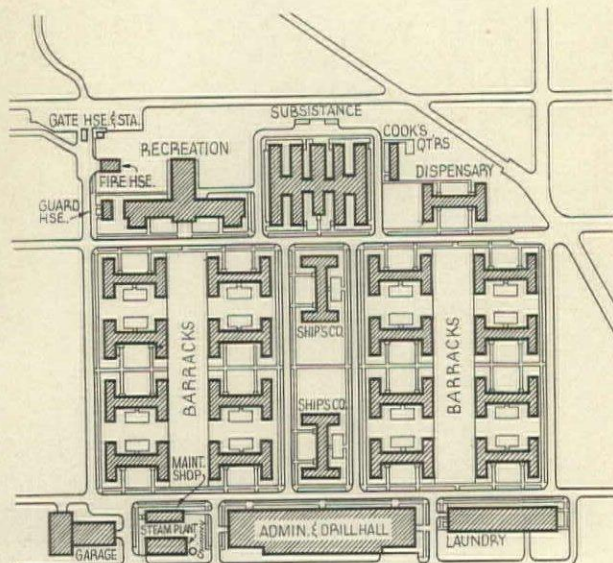
On any large, successful project the credit for outstanding achievement belongs to a great many people. This is certainly true of the Great Lakes Naval Training Station. Nevertheless, architects, contractors and Navy officers alike vociferously nominate Captain R. D. Spalding as the man who made it work. A graduate of the Naval Academy, Rensselaer Polytechnic Institute and the Naval War College, Captain Spalding has had a career of over thirty years of active service. Quiet and soft-spoken, he makes decisions quickly and enforces them with no apparent difficulty. When questioned on how he made so many normally competing firms function in harmony, he replies "It was very simple. I called them together and told them they were no longer in competition. It took twenty minutes." "Simplicity" is the essence of Captain Spalding's methods. No warehouses were needed on this enormous job because of the "simple" expedient of having all materials marked by the building materials dealers and delivered directly to the site as they were needed. There was no haggling or delay on account of price arguments, because all suppliers of materials were brought together to set fixed prices. Contemporary architects did some of their best work here because Captain Spalding, satisfied beforehand with their competence, found it "simpler" to leave them alone. The results are to be seen in the following pages, in the impressive saving of time and money, and in the quality of the men who come out of the Station.

The Great Lakes Naval Training Station is one of our large military establishments which dates back to many years before World War I. Created in 1904 by an act of Congress, construction was begun on a 167-acre tract of land donated for the purpose by citizens and organizations of Chicago. In 1911 the Station was opened officially by President Taft. Three months before we entered the last war, the Station had a maximum capacity of 1,500 men and a normal complement of around 1,000. By the time the Armistice was signed, the tract had swelled to 1,500 acres, the original buildings had multiplied from 33 to 950, and the Station's population was close to 45,000. The expansion during this brief period was of a transitory nature, with many of the men living in tents and most of the new buildings of temporary construction. Ten years later the Station had shrunk enormously in area, number of buildings and men.

As the crisis in Europe developed, plans were projected for expansion of the Station. New camps were planned, and work began on barracks, mess halls, drill halls and other service buildings, with construction proceeding at peacetime tempo. On the morning of December 8 of last year, a vast building program was added. Work went ahead on a 24-hour, seven-day-week basis with no delay. Today the job is done.

The Great Lakes Naval Training Station is a place where civilians are turned into sailors. Here, while the enlisted men are taught the fundamentals of seamanship, they live in a number of camps, each of which is a self-contained unit with its own barracks, galleys, drill hall, recreation building and other necessary structures. In addition there are buildings which serve the entire Station, such as the auditorium, reception building, hospital, and the service schools and shops.

As remarkable as the size and speed of the construction is the manner in which the work was handled. Expenditures ran as high as \$10,000,000 in a single month, on some days 1,500,000 board feet of lumber were delivered, and there was never more than a 48-hour lag between delivery of materials and their use. The entire job could have been done by a single large firm of architect-engineers and by three or four Chicago contractors. The Navy chose to use some 30 architects, 14 general contractors and 163 sub-contractors. That there was no friction between the many firms involved and that the work was done for five millions under the budget is evidence enough of the soundness of this rather unconventional arrangement and the efficiency of the Station's organization.



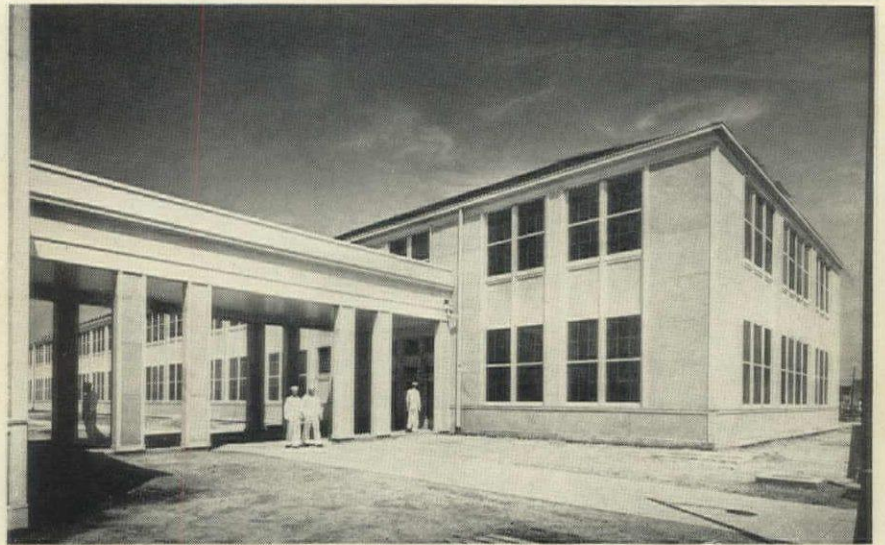
TYPICAL CAMP PLAN



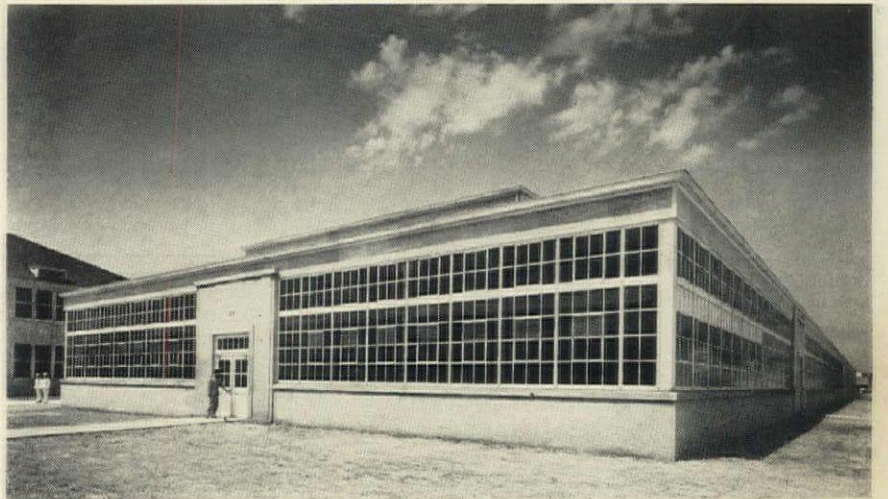
The design quality of the Station's buildings varies greatly from one unit to another, and occasionally from one part of a building to another. The shop interior below, for instance, leaves little to be desired in the way of clear space, good lighting and handsome appearance. Entrances to the shop, however, are pseudo-monumental portals, quite unrelated in character or scale to the building they adorn. The school building, a pleasant two-story structure, shows similar leanings: in actuality of light construction, its appearance suggests the classical stability of stone. The curious combinations of advanced and backward-looking design are particularly apparent at the Great Lake Station because here, more than in any of our other military establishments, the best of the buildings is so good that run-of-the-mill jobs in the conventional military manner no longer seem entirely satisfactory.

**BURNHAM & HAMMOND,  
ARCHITECTS**

**HENRY ERICSSON CO.,  
GEN'L CONTRACTOR**



**SCHOOL BUILDING**



**TRAINING SHOP**



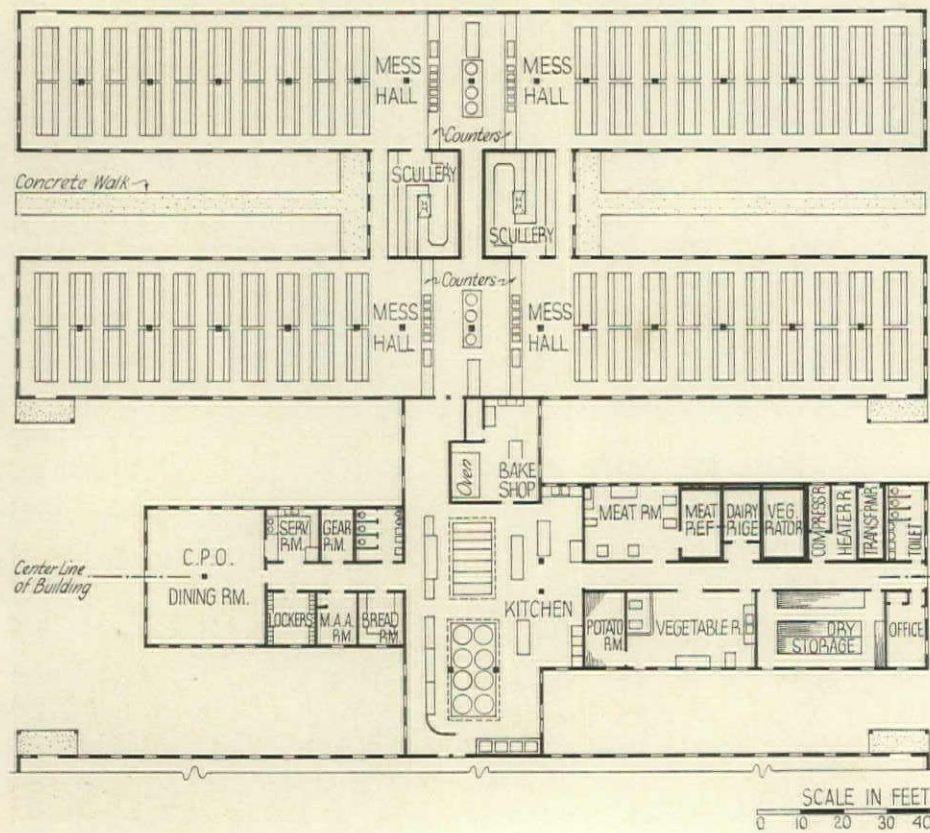


NAVAL TRAINING STATION



SUBSISTENCE UNIT

Among the best-planned buildings in any Army or Navy camp is the mess hall shown here. The study given the kitchen and serving counters makes it possible to serve a meal to over 2,000 men in nineteen minutes without hurrying or crowding. Secret of the plan is the centralized location of the kitchen and its adjuncts, and the division of the dining space into four rooms of moderate size.

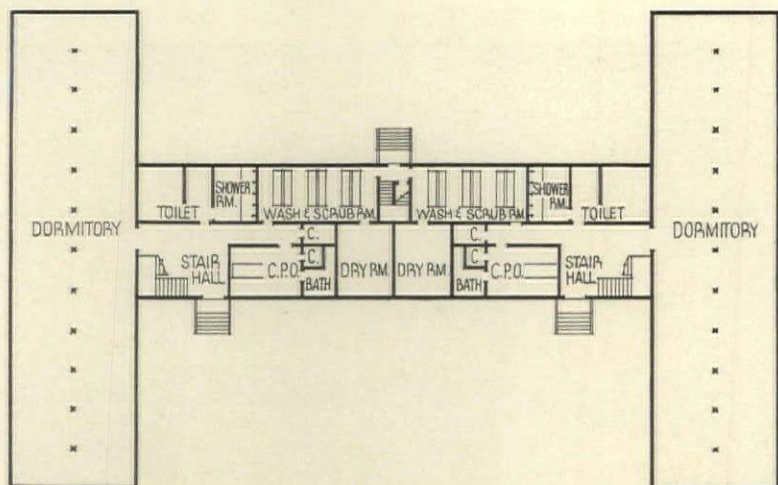


NAVY DEPARTMENT,  
DESIGNERS

HENRY ERICSSON CO.,  
GEN'L. CONTRACTORS

HALF-PLAN OF UNIT



NAVY DEPARTMENT,  
DESIGNERSHENRY ERICSSON CO.,  
GEN'L. CONTRACTOR

FIRST FLOOR

SCALE IN FEET  
0 10 20 30

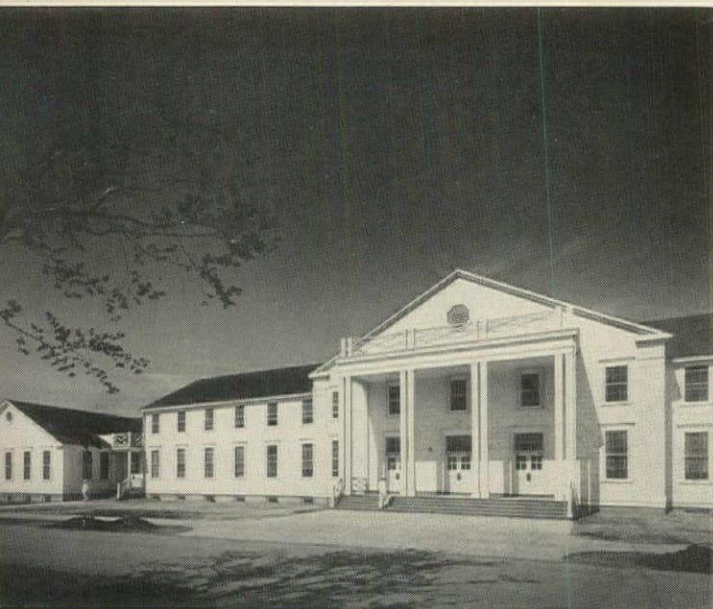
The barracks, like the subsistence building on the opposite page, is a standardized unit developed many years ago by the Bureau of Yards and Docks and subsequently repeated without change. The plan is in the form of an H, with all elements symmetrically disposed. The small illustration at the right shows a typical barracks partially camouflaged with the use of vari-colored roof and wall shingles. While this type of camouflage does not solve many of the problems of concealment, it is naturally less conspicuous than the usual white-painted building below.

TYPICAL BARRACKS





NAVAL TRAINING STATION

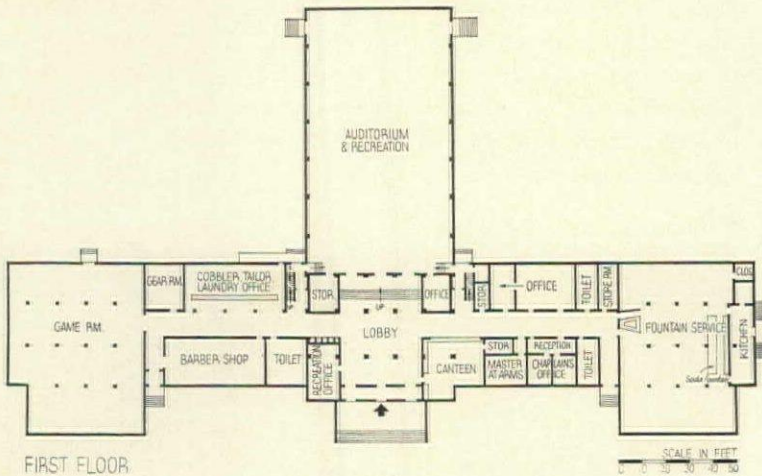


RECREATION HALL

ALLEN & WEBSTER, ARCHITECTS.

Each camp at the Station has its own recreation building, in which there is a store, a gymnasium (right), a reading and writing room, and various other rooms for the use of the men. In some of the buildings a swimming pool is located under the gymnasium. Where the swimming pool occupies a separate building, it has the handsome interior shown below with a gracefully curved ceiling formed by laminated wood arches.

HENRY ERICSSON CO., GEN'L. CONTRACTOR





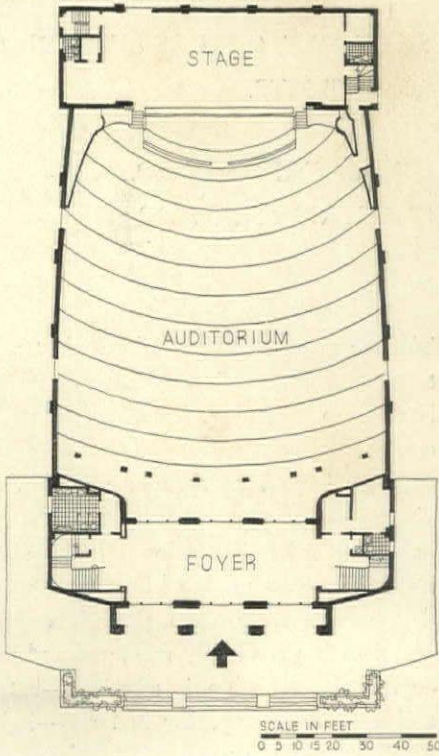


The theater (used also for meetings and religious services) is located near the Station's original permanent buildings, and it meets very successfully the requirements of modern theater design and harmonizes at the same time with the neighboring structures of brick. The interior has comfortable seating for 1,200 men, acoustical treatment, and a stage designed for plays, moving pictures, church services and other uses.

HENRY ERICSSON CO., GEN'L. CONTRACTOR



C. W. & GEO. L. RAPP, INC.,  
ARCHITECTS







GAME ROOM

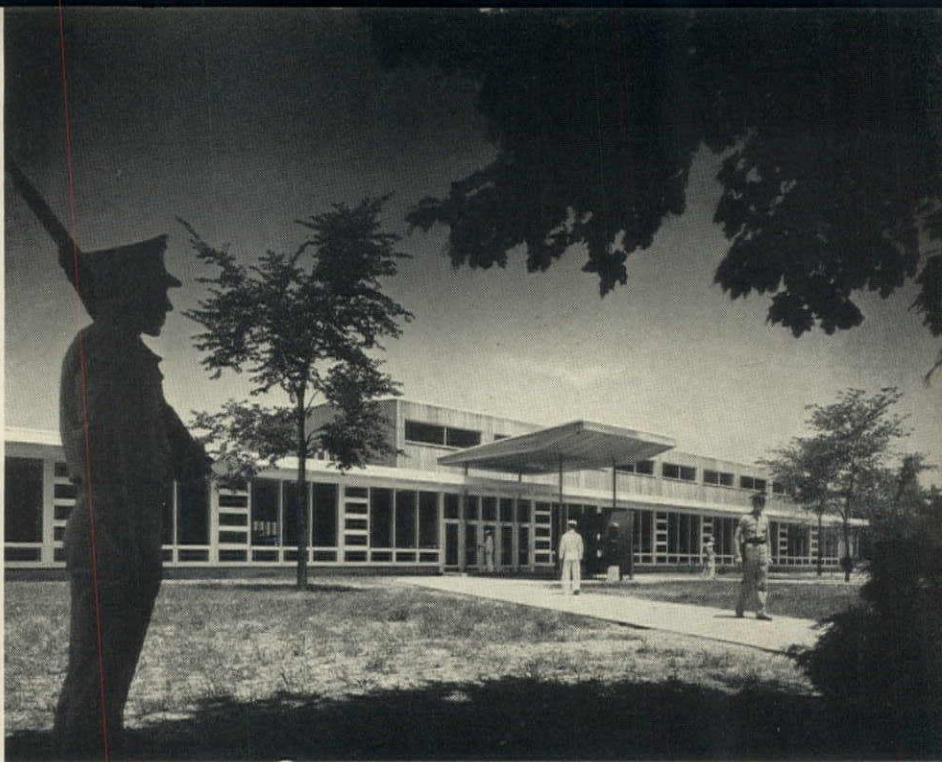
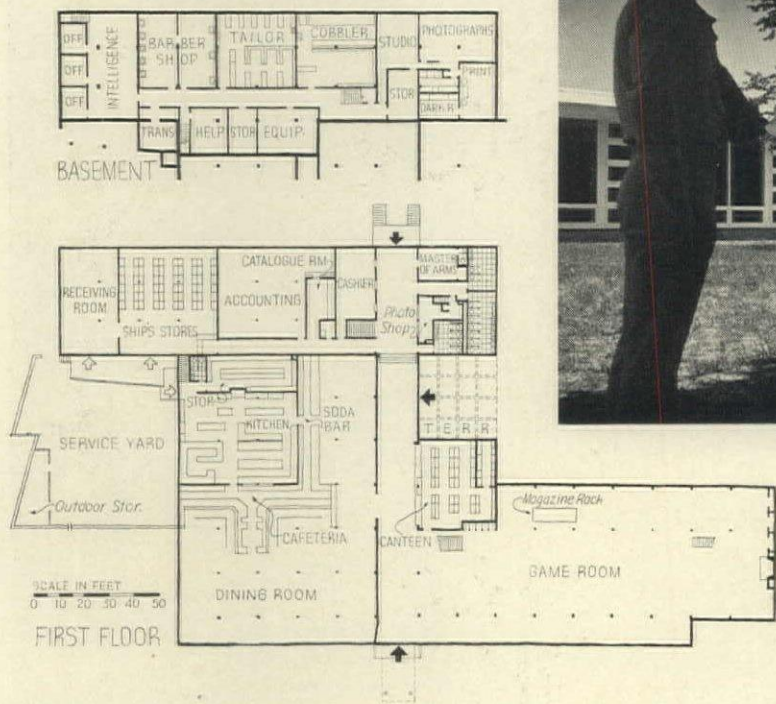
SKIDMORE, OWINGS & MERRILL,  
ARCHITECTS.

HENRY ERICSSON CO.,  
GEN'L. CONTRACTOR

The reception building is located at one of the entrances to the Station and is used as a meeting place for the enlisted men and their friends and families. It makes no concessions whatever to the style of the older buildings and has been very popular with both service men and visitors. Most striking feature of the building is not its boldly articulated exterior, but the main hall, supported on rigid arches made of laminated wood. In addition to this large meeting room, there is a cafeteria and a shop. The plan is very freely arranged and very open. Where a degree of separation is required—between the cafeteria and entrance lobby, for instance—light screens of perforated metal are used.







ENTRANCE



SIDE & REAR



# NAVAL TRAINING STATION

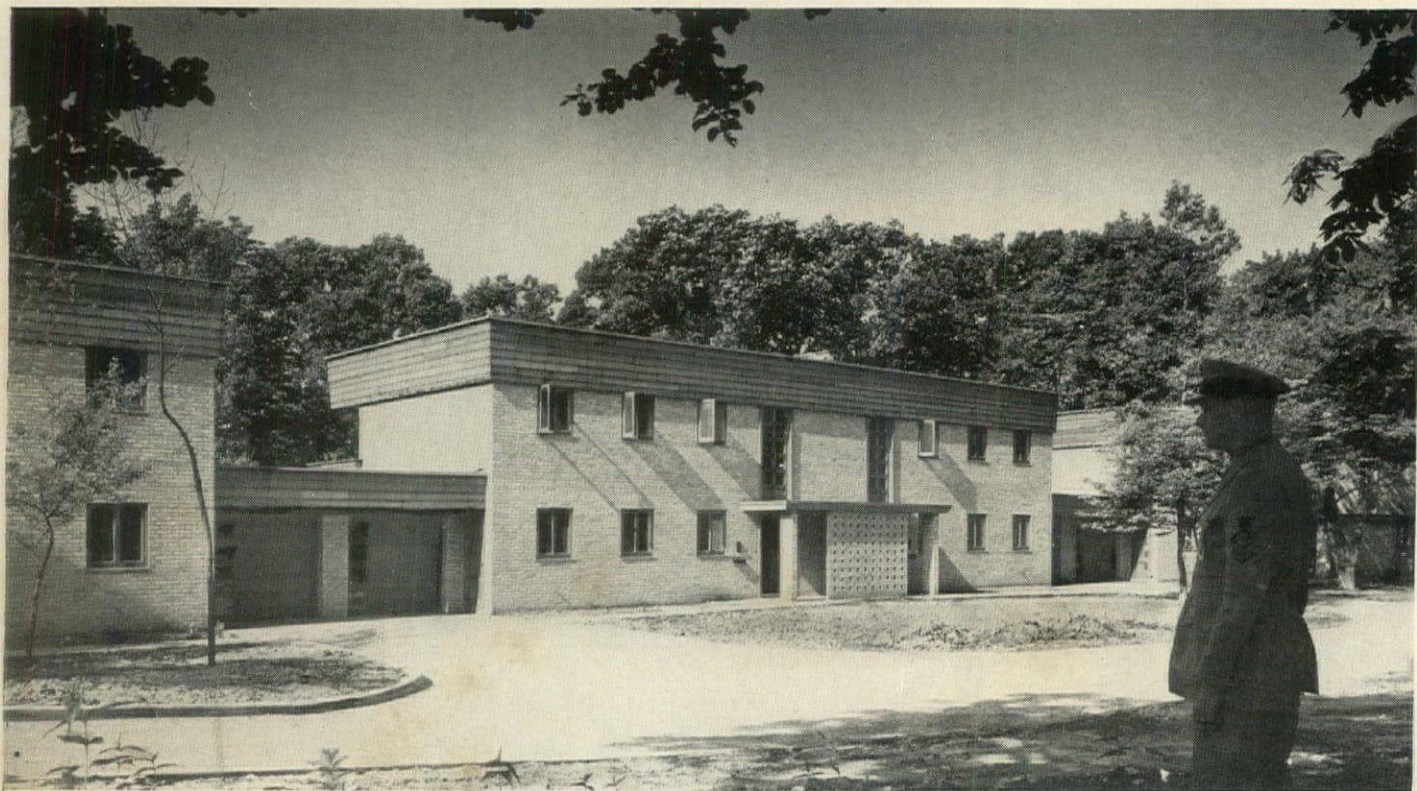


REAR VIEW

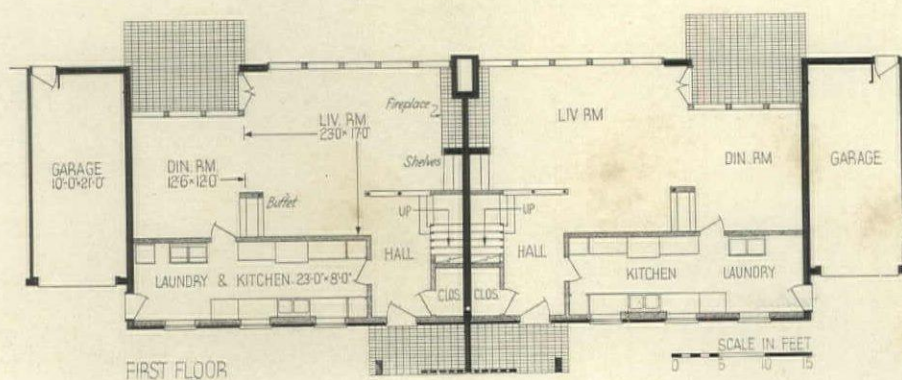
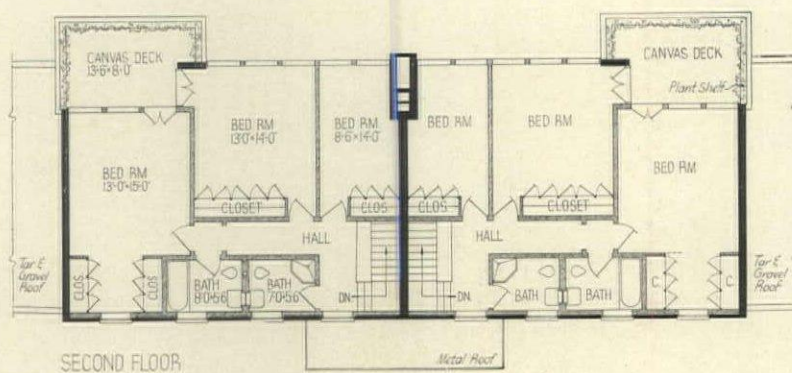
ELTINGE, LAMB & SCHWEIKHER, ARCHITECTS

HENRY ERICSSON CO., GEN'L. CONTRACTOR

ENTRANCE VIEW







The problem of these officers' houses was to produce accommodations, for less than \$10,000, which would be acceptable to families previously stationed in larger residences. As an economy measure a row-house scheme was developed, but very pleasantly varied by the entrance shelters, balconies and double garages. The houses are strung along the edge of a wooded ravine, and walls on this side are largely of glass. The view of the living room above shows how successfully an effect of spaciousness has been created in a rather compact plan.



# FLYING BOAT FOR TRANSATLANTIC SERVICE

VOUGHT-SIKORSKY AIRCRAFT, BUILDERS

HENRY DREYFUSS, INTERIOR DESIGN

*Driz Duryea*

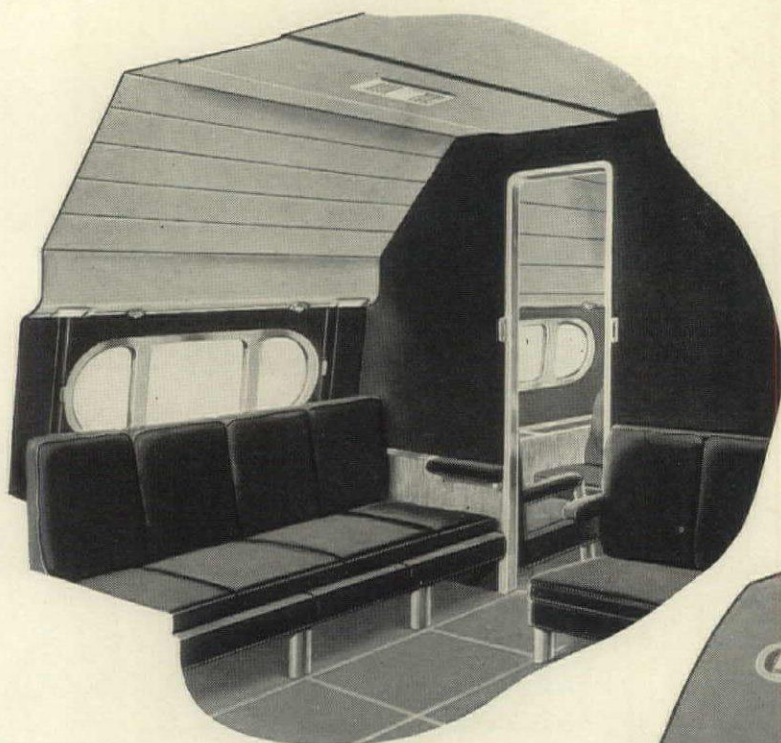




American Export Airlines have inaugurated a transatlantic service using three new "Flying Aces" built by Vought-Sikorsky Aircraft with interiors by Henry Dreyfuss, shown here in renderings and photographs. The planes seat 32 passengers and have sleeping accommodations for 16. Interiors are roomy and comfortable, and windows have been designed to take advantage of the high wing-position and give maximum view to all passengers. Three colors, soft blue-green, rust and gray-beige, are used throughout. The floor has taupe gray carpeting, and ceilings are gray beige; windows have special shades of accordion-pleated material which can be pushed back and forth across the opening.



*Driz Duryea*



Sloping ceilings above seats conceal folding upper berths, seats are transformed at night into lower berths. This sketch shows the lounge, which is similar to the typical compartments except that it has long divan along one side. It corresponds approximately with the photograph on the opposite page.



Sketch at right shows entrance compartment of the plane. Dark sections of wall are blue-green and upholstery is rust broadcloth. Trim around windows is molded plastic.

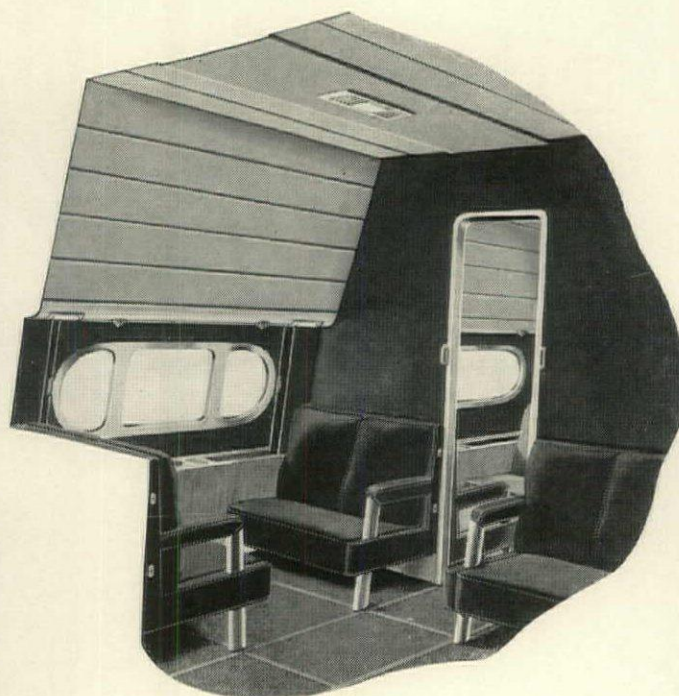




This sketch shows another view of the entrance compartment. Wall facing entrance door is finished in pickled walnut Flexwood, with the American Export insignia in metal.

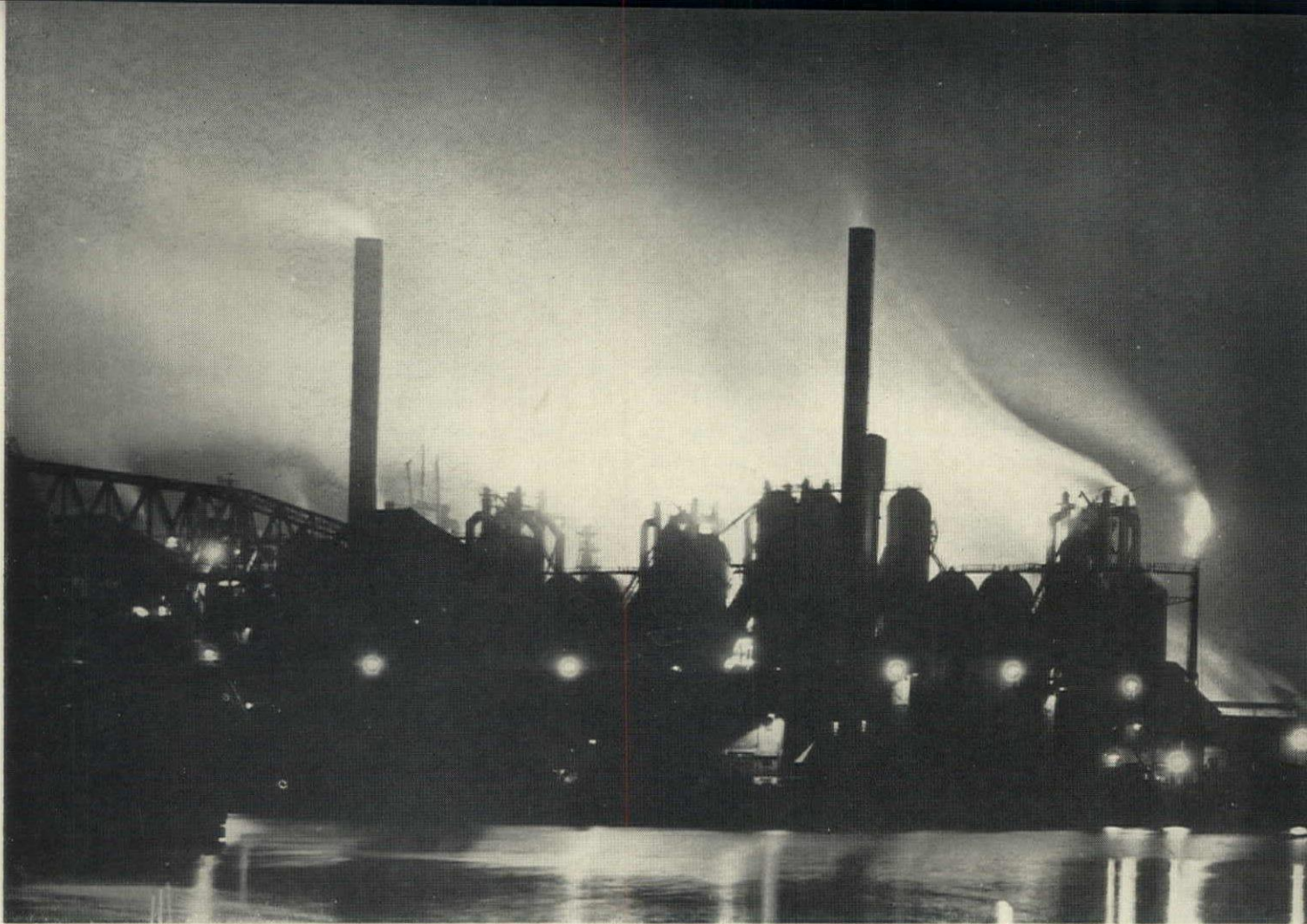


Driz Duryea



Photograph and sketch show typical compartment, which seats eight passengers and sleeps four, in two-level bunks on either side. There are seven such compartments in the plane, and a similar compartment converted into a lounge by the use of a long divan in place of the two chairs on one side.





*Wallace W. Kirkland*

# INDUSTRIAL PLANT PROTECTION

Industrial plants, unlike any other building type studied thus far in THE FORUM's Civilian Defense series, are primary objectives of the enemy. If enemy bombers succeed in breaking through our coastal defenses, it will be to bomb our plants and factories. If enemy agents succeed in evading the FBI network, their sabotage will be aimed at crippling war production, in most instances directly at its source: the armaments plant.

The problem of plant protection is consequently not merely a matter of passive defense, but an integral part of the war effort of prime military importance. Plant protection techniques—camouflage, anti-sabotage, blackout and smokeout, and internal plant organization—are thus primarily the responsibility of military and Governmental authorities, and only secondarily questions of civilian defense.

Nevertheless, the problem of war production is not one that can be left to military authorities alone. Essential also is unselfish, disinterested cooperation between state and private owner, between municipality and individual, between national agencies and local interests. The techniques of smokeout and blackout, of successful camouflage, of anti-sabotage and plant organization are dependent on this unified action; without it, war production can be seriously threatened.

Thus, plant protection is essential to the maintenance of production forces of the nation. Its importance makes it necessary that each procedure be carefully planned, that nothing be left to chance or luck. It is an over-all, 24-hour job—just as production is—and it requires continual, vigilant maintenance. A protective lighting system, a camouflage net, a paint job are not simple installation problems, like pails of sand and stirrup pumps and fire buggies. To keep them up to a level of efficiency is a primary part of the problem.



## CAMOUFLAGE—INDUSTRIAL PLANT PROTECTION

In the eight months since Pearl Harbor, methods of industrial camouflage have been worked out to meet specific American conditions and are now being put in effect in many parts of the country. While both control and technique are still undergoing various changes, it is now possible to sketch the broad outlines of the picture as it exists at the present time and, to a certain extent, to project future trends.

The most important points to be stressed in examining this picture are (1) that the initiation of all camouflage projects must come from appropriate military authorities or the OCD, and (2) that their execution is a scientific rather than an intuitive process. To date, these considerations have not, however, eliminated the private professional from the camouflage field; in fact, most of the work now being done has been planned by private architects, engineers and industrial designers. The tendency is for the Army or OCD to take over direct responsibility for design, but until a great many more

technicians have been trained than are presently available it will still be necessary for private practitioners to plan much of the work needed.

Most camouflage, as it is now being carried out, begins with the Army Services of Supply. After weighing such factors as the relative importance of various plants in the war effort, their relative vulnerability, etc., SOS decides which plants are most in need of protective concealment and the order in which work should be done. Having made its decision, it notifies the management of the plant in question that camouflage is required, and turns over supervision of the actual installation to its District Engineers. It is then up to the plant management to see that appropriate measures, meeting the approval of the Army, are executed. Usually, outside designers are called upon to solve the problem, working in conjunction with a technician assigned by the Army and following substantially the methods shown on this and the following page.

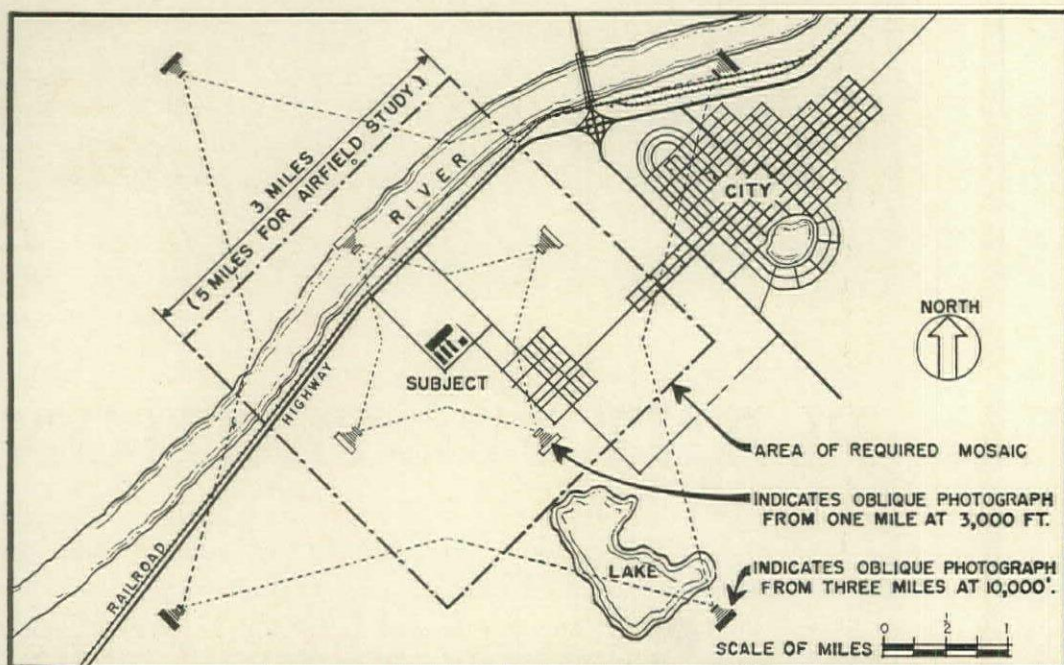


Illustration from OCD's "Protective Concealment."

Step one is to prepare, on an ordinary Geodetic survey map, a diagram of the required aerial reconnaissance. Diagram shows 8 oblique photographs usually required, and normal areas for mosaic map.

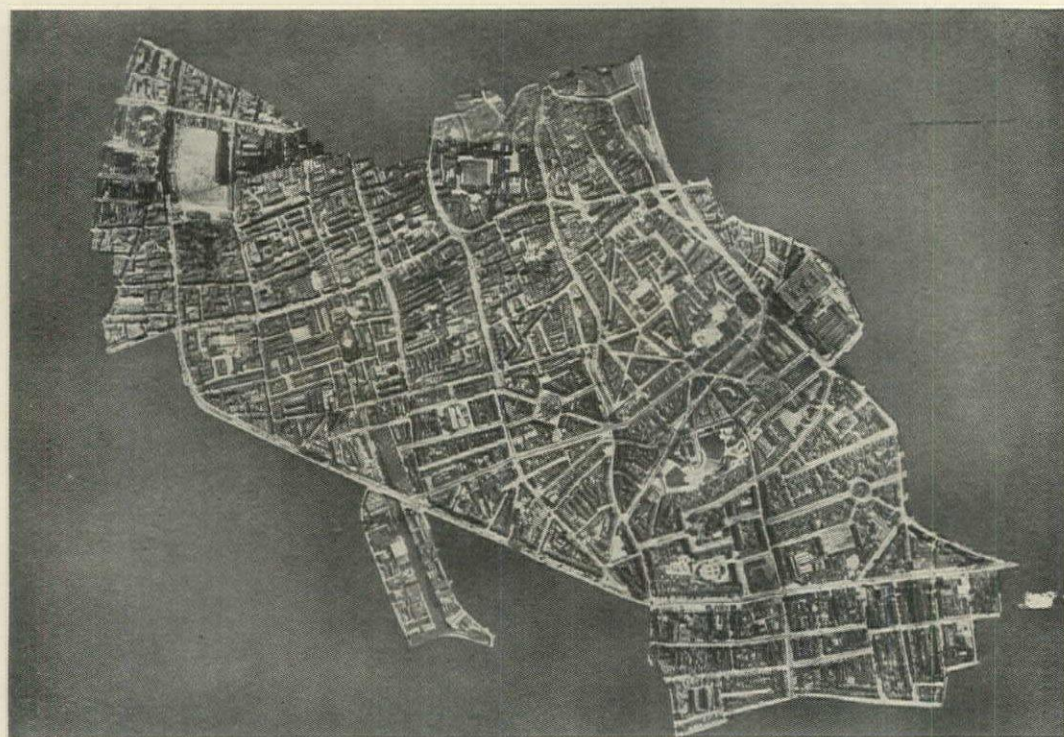


Illustration from Tecton's "Planned A. R. P."

Resulting mosaic is then studied for light areas, distinctive features and vulnerable points. Distinctive landmarks anywhere in the area must be concealed if their position and character are such as to provide guidance for the bombardier.





1

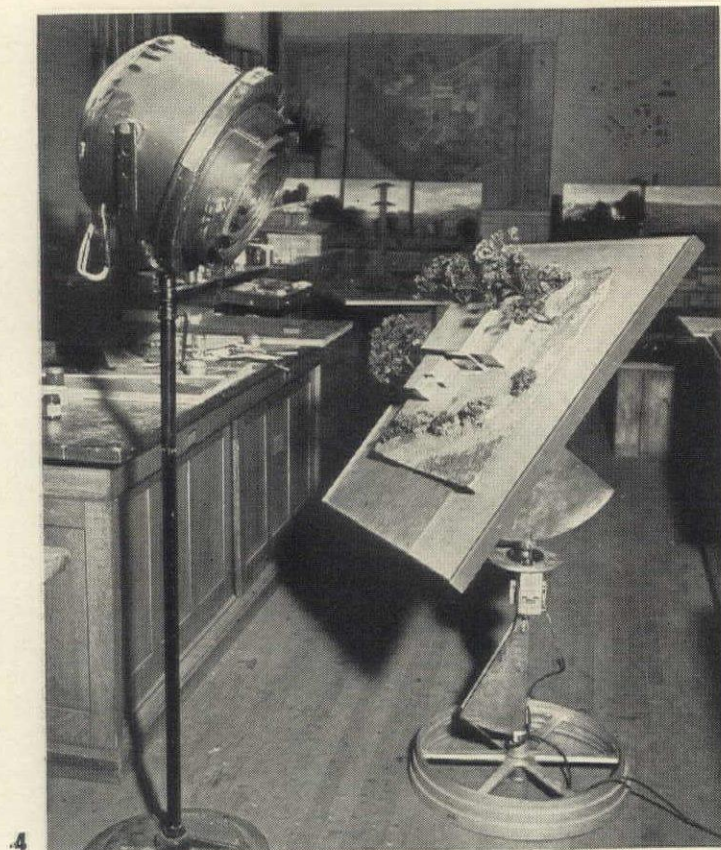


3

Step three is to prepare a model for study and experimental treatment. Model must show contours to scale (1) and all essential details (2). It must be continually checked against original source material (3), and should be studied on a Heliodon, or sun-machine, for lighting conditions at various seasons and hours (4). Finally, the model is carefully photographed under lights placed to simulate various conditions (5). An even better arrangement is to study the model out of doors, under actual sunlight, from a movable, two-level platform scaled to represent the angle of view from critical altitudes. Still another quick and inexpensive method is to install experimental treatment at the actual job and check the results by aerial observation. This procedure should be followed even where model-studies have been made before going ahead with any substantial portion of the work.



2



4



5

Photos, Pratt Institute



CAMOUFLAGE — INDUSTRIAL PLANT PROTECTION

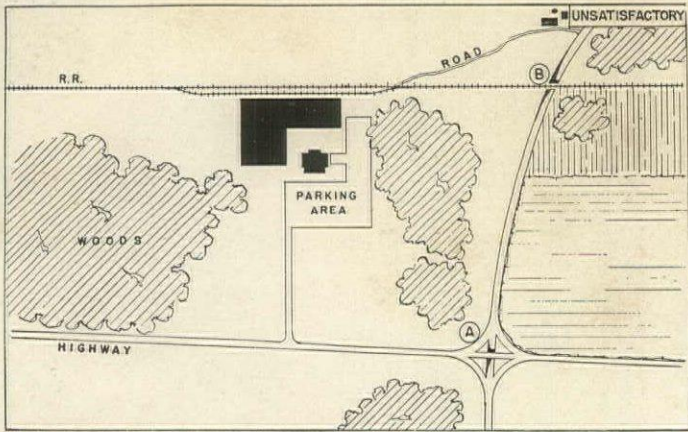
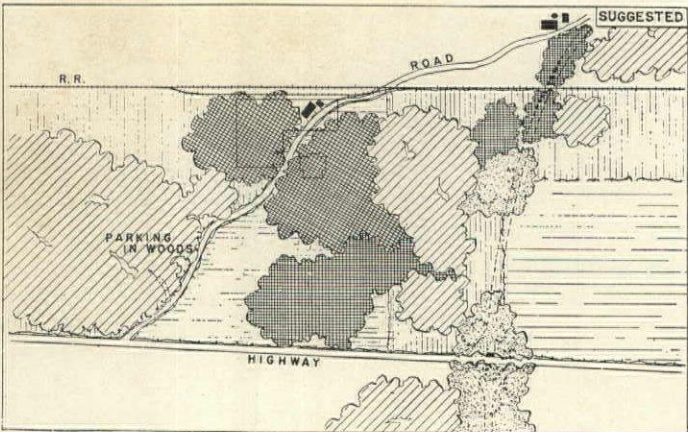


Illustration from OCD's "Protective Concealment."



Working out a particular camouflage project depends upon the buildings and other structures to be obscured, the character of the surrounding landscape and the kinds of materials to be used for obsuration. In the typical example above, the entrance road and parking area form conspicuous landmarks which must be obscured along with the plant itself. The character of the surrounding landscape is rural, calling for a naturalistic treatment. In the suggested solution, simulated planting obscures the factory, parking area and factory entrance, and a combination of simulated trees, transplanted

trees and simulated fields covers the intersecting highway, which is continued in the form of a false roadway extending diagonally across the factory site and meeting the cross highway at an angle.

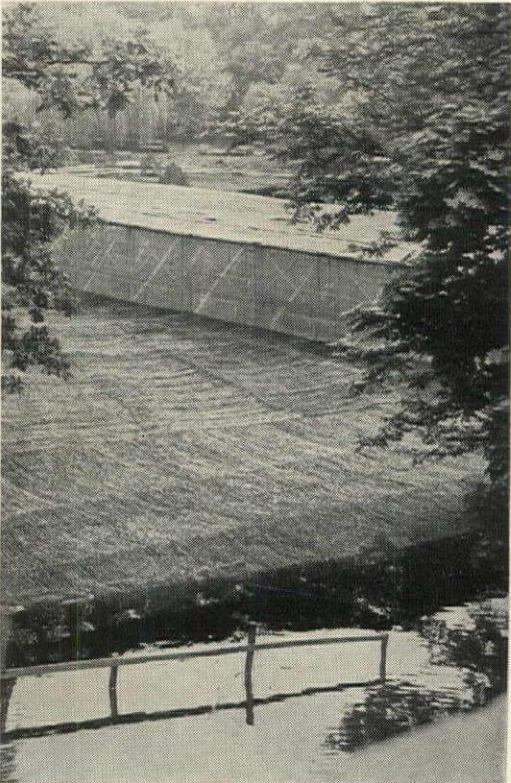
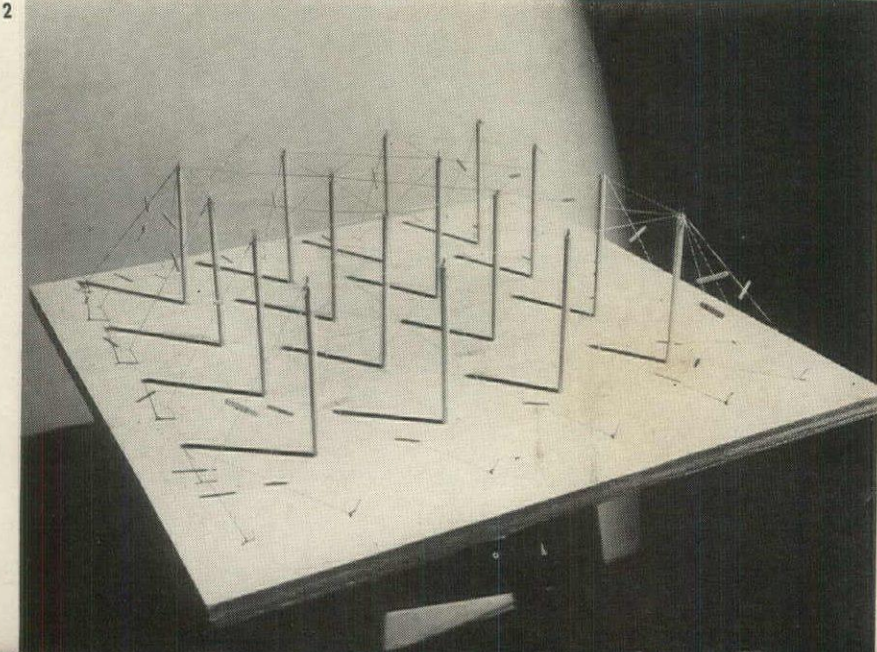
Such a treatment might be carried out in a combination of cable-supported nets, paint, gravel, cinders, etc., and transplanted trees and bushes. Nets, which are easy to alter and remove, are popular at the front, but are not being used extensively in civilian camouflage because they are expensive and require elaborate maintenance. For parking areas, however, they are almost the only way to conceal

the shadows and reflections of regular ranks of parked cars. Nets may be supported by cables attached to growing trees (1) or by wooden posts (2) spaced about 50 ft. on centers and holding the cables about 12 ft. above the ground. Netting is usually chicken wire, which may be supported by an under-layer of welded steel mesh. Sometimes two thicknesses of chicken wire are used, with a garnishing material such as steel wool or mineral wool between. Netting may be pre-garnished, or garnished in place. Picture 3 shows a German lake, which provided a reference-point for bombers, concealed by netting simulating a building on a green lawn.



Pratt Institute

Ehrenberg



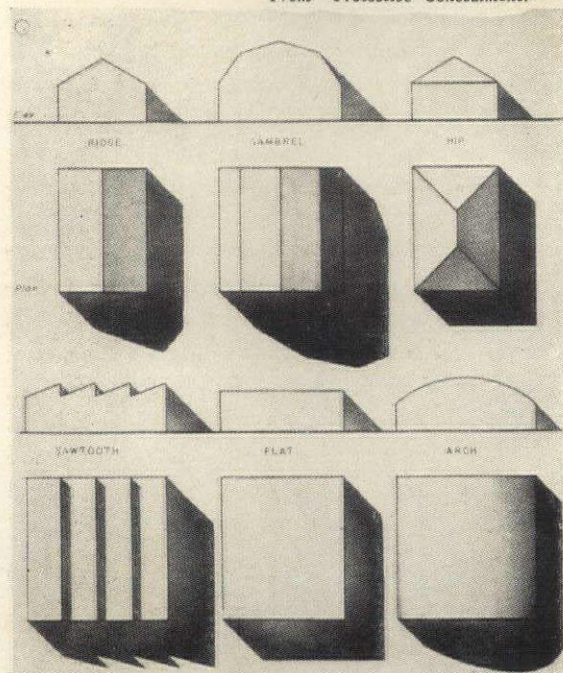
Passed by U. S. Censor



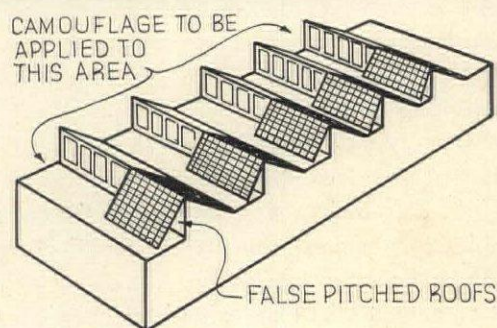


From "Protective Concealment."

Ehrenberg

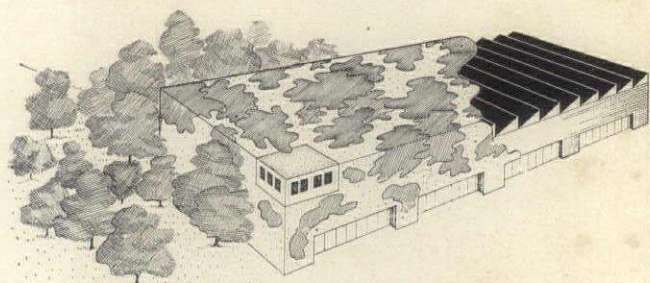


SHADOW PATTERNS



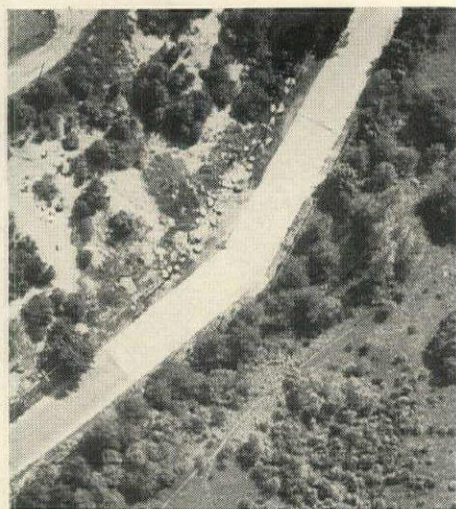
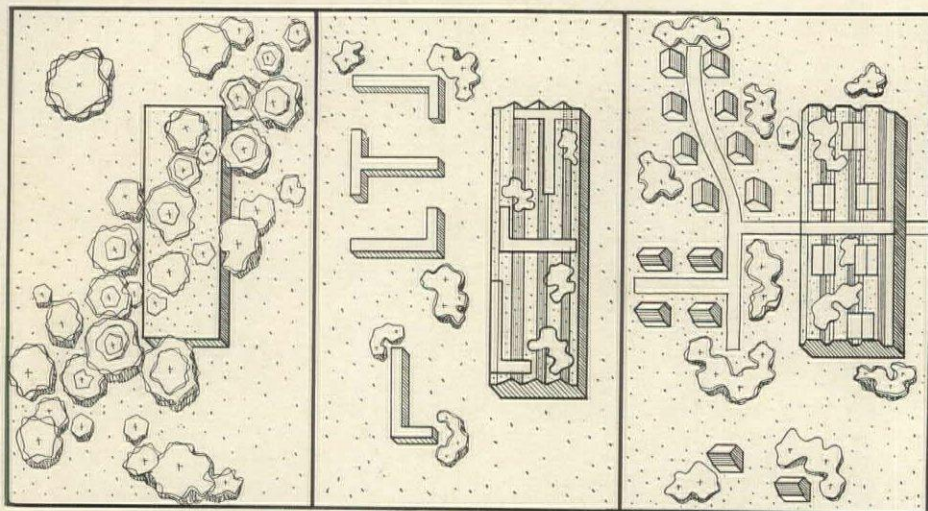
Man-made structures, such as houses, barns, sheds, etc., may be simulated in the same way as natural forms like trees and bushes, and do not require modification with the seasons. English experience with dummy structures has not, however, been very successful. One reason for this is that the normal signs of activity around such buildings are usually lacking, thus arousing the suspicion of the bombardier. Nevertheless, such dummies are frequently employed and may be successful here.

The large photograph above shows a model of a typical camouflage project where the problem is one of concealing an industrial plant and warehouse in the midst of a number of smaller structures, mostly houses. False gables on the factory roof (built like those in the sketch below the photograph), together with dark and light painted areas, seemingly divide the factory into three houses like those in the surroundings, while the roof of the warehouse has been treated to represent a grassy knoll bearing several more smaller structures that conceal protruding parts of the building. Design of false forms should be based on a study of the shadows cast by the type of structure to be simulated, and particularly the surface tones of roofing materials. Shadow and tone patterns for a number of typical structures are shown in the diagram at the left. Still another kind of false form is a shell completely surrounding the structure to be concealed, as in the bottom diagram, which shows how camouflage may be applied where it is desired to protect the exterior of the building from permanent damage which might result from applying the treatment direct. In projects of this type, and wherever natural forms are simulated by painting on cubical forms, the structure itself should be "planted out" by trees carried close to the side walls.



FALSE SHELL



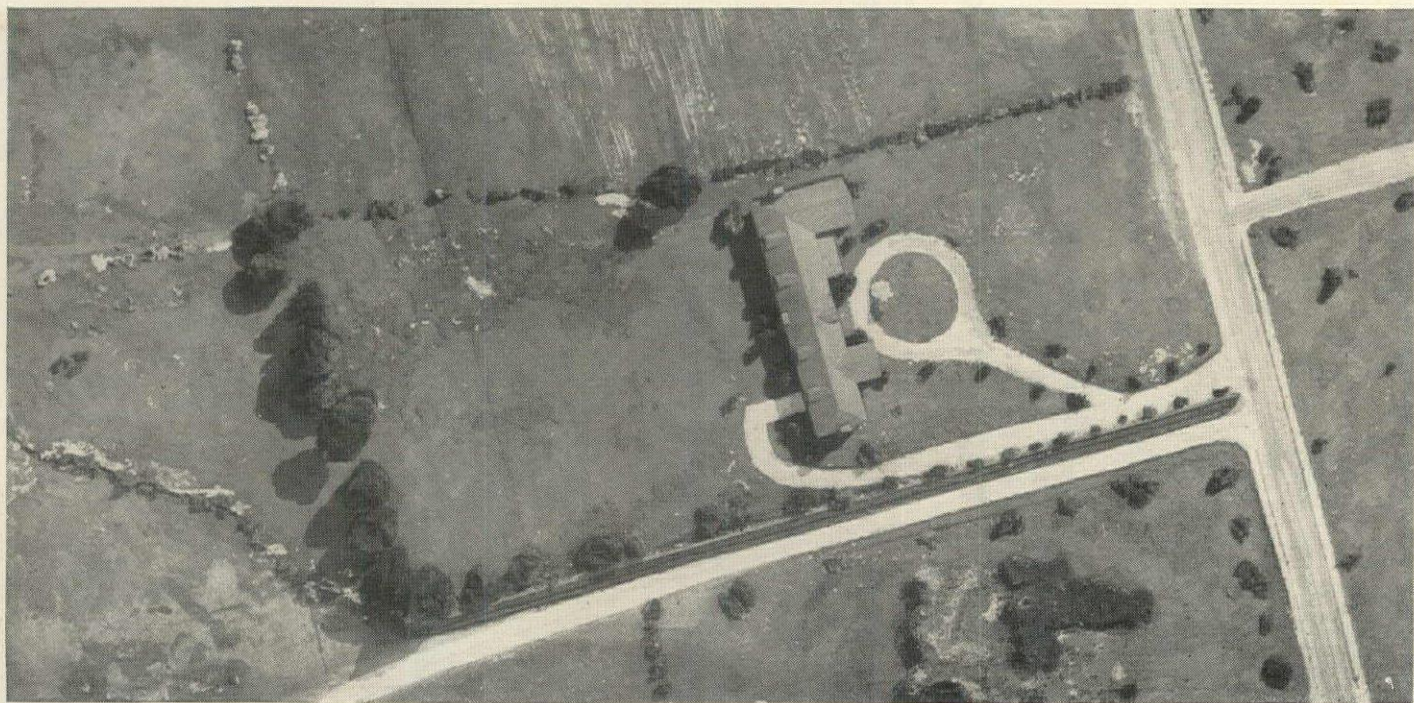


Camouflage which consists of painted representations of natural or man-made forms, has the disadvantage that it does not cast appropriate shadows, nor does it conceal the characteristic shadows of the object to be obscured. Also, unless infra-red-reflecting paints are used, it may be detected by aerial photography. However, these considerations are important only where the enemy has the advantage of frequent reconnaissance flights. Where this is not the case, the simplicity, economy and ease-of-maintenance of painted camouflage are important considerations which recommend its use in civilian plant protection.

In the sketches above, the left-hand diagram shows a plan view of the traditional type of painted camouflage in which the tree pattern of the surroundings is simulated on the flat roof of a factory with various colors of paint. Note that the trees on either side of the building and the simulated trees on the roof form a line at an angle to the long axis of the building, thus contributing to obscuration by altering the line of vision. The second diagram shows use of a painted simulation of building forms which occur in the surroundings, together with scattered planting, and the third diagram a more elaborate project involving a simulated roadway, which might be connected to actual roads leading to the plant by falsework "ramps."

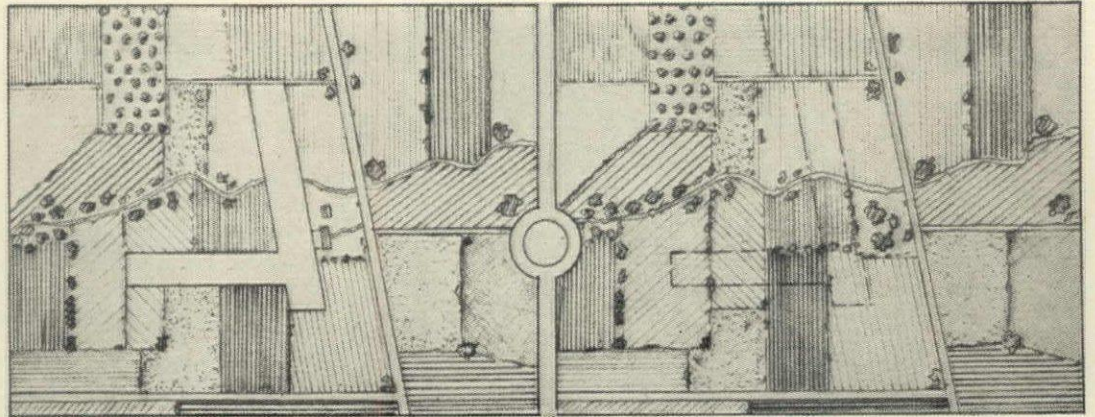
The photograph at the top of the page shows how visible white roads are from the air. These may be altered in width or obscured altogether with paint, gravel and other materials in appropriate colors. However, it must be remembered that important highways have many identifying features, such as straight lines and sweeping curves, which do not depend on color alone. While the problems these characteristics create are difficult to solve, judicious use of oil, stain or paint can tone down the principal highways throughout an area, thus presenting the bombardier with a confusing pattern minus the tell-tale articulation which the highway system normally affords. Naturally, clover-leaf intersections, especially overpasses, are harder to obscure and must be particularly well-concealed.

The photograph at the bottom of the page shows how the geometric forms of approach-driveways may be more visible than the buildings they serve. A landmark such as this anywhere in the vicinity of a plant which must be concealed, if its location relative to the plant-site is known to the enemy, may require concealment even more than the plant itself. White or light-colored roads and driveways of this type are visible at a much greater height than are buildings, and should be among the first items given attention.

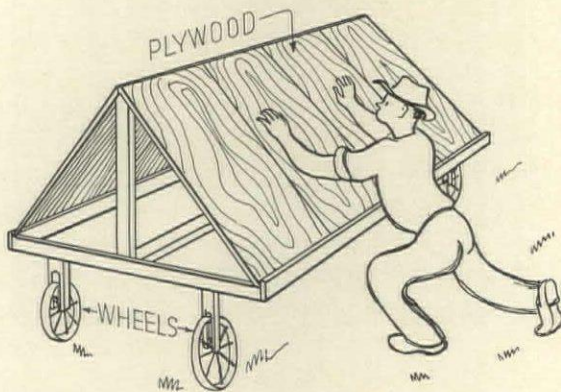
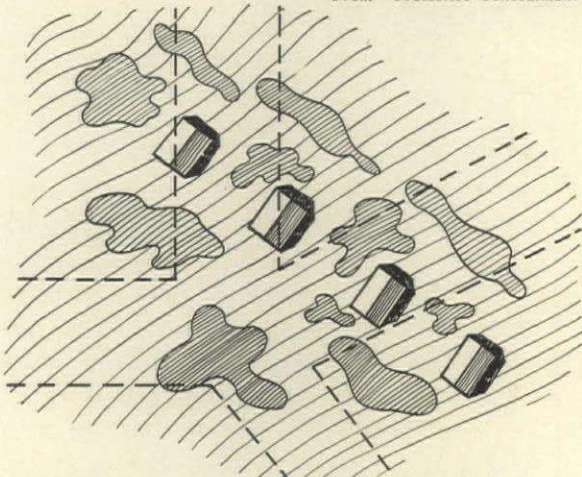


*Photos, Pratt Institute*



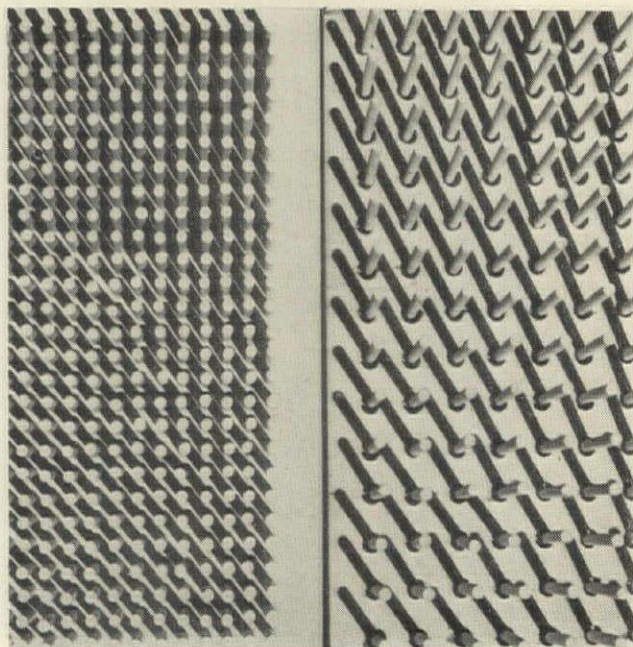


From "Protective Concealment."

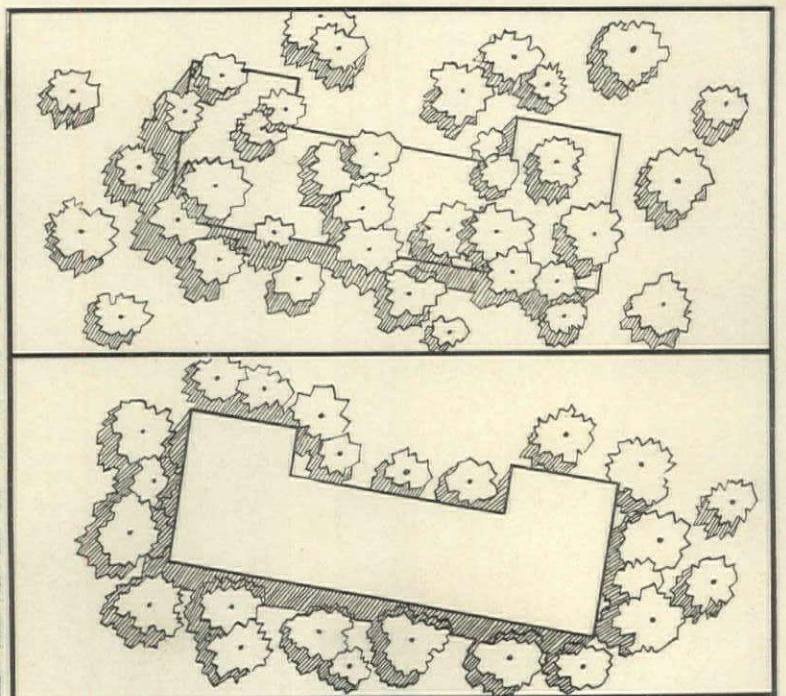


Camouflage methods used in the concealment of military and civilian airports offer valuable lessons to the industrial camoufler, particularly in what is called "texturing." Since airports are normally located in open country, their concealment is usually a matter of restoring the typical pattern and "texture," of the countryside. And, since cultivated fields must also be simulated in addition to pasture and woodland, airport concealment frequently involves actual planting over considerable areas to make the job of obliterating the runways easier. For runways, which of course cannot be planted with actual crops, the concrete or macadam surface is covered with gravel, cinders, sawdust, etc., and painted to destroy its reflecting value and simulate the adjacent fields.

The diagrams at the top of the page show such a camouflage project, before and after treatment, while those at the left and below show how it might be carried out. Airport camouflers sometimes use small structures on wheels (left) which can be rolled onto the runways when the latter are not in use, and rolled away to make way for the planes. However, such structures present operational dangers which may be more important than the additional camouflage they provide, and should be used with caution. In "texturing," the important thing to remember is appearance of the growth-pattern viewed from a great height. At high altitudes all detail, and even the sensation of color may disappear, but this simply makes the eye even more critical of the over-all texture. The result is that the slightest deviation from the pattern of the surroundings is immediately evident—any discernible order in supposedly natural growth, for example, destroying the illusion.



Ehrenberg





## ANTI-SABOTAGE—INDUSTRIAL PLANT PROTECTION

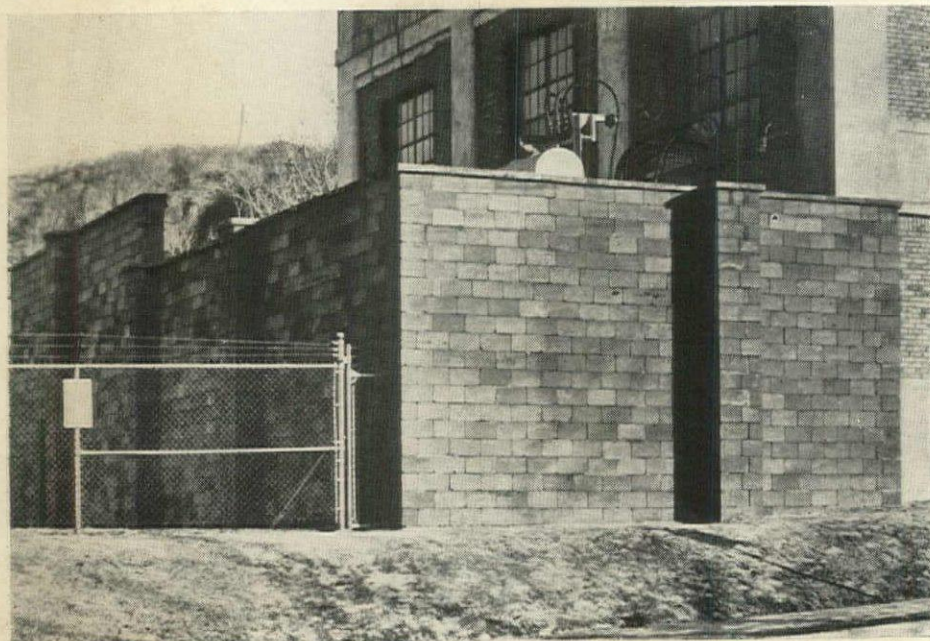
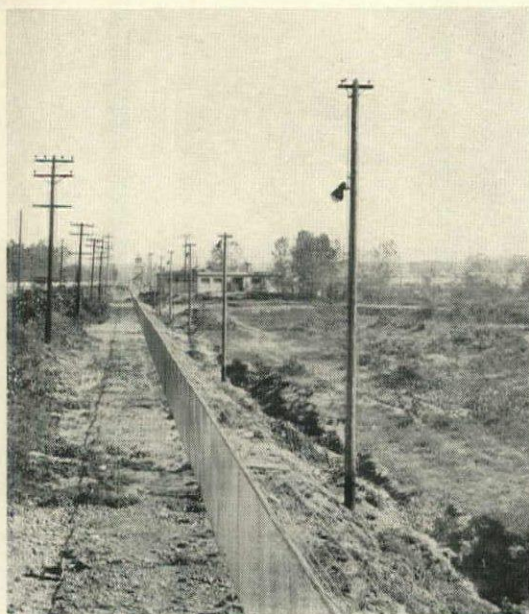
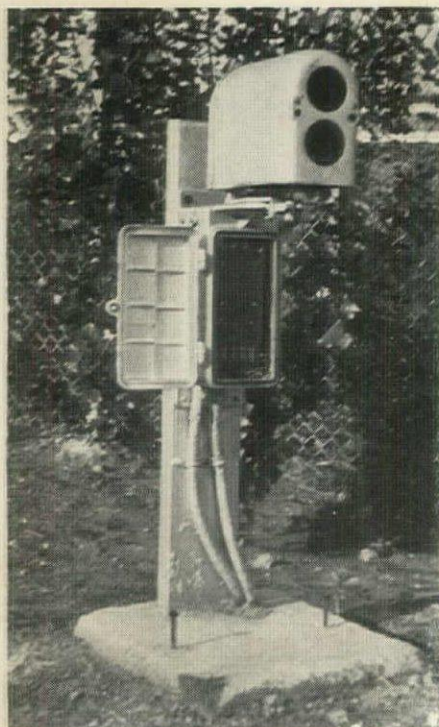


Photo at left shows concrete block wall protecting outside transformers of a power house. Cores of blocks are concrete-filled to provide additional protection against bomb splinters; for protection against saboteurs, a concrete slab should be added to cover the enclosure and guard it against hand-thrown bombs. The picture immediately below shows a daytime view of a protective fence, equipped with double slanting barbed-wire sections to discourage climbers, and protective lights on 150 ft. centers. The large picture at the bottom of the page, which spreads over to the opposite page, shows a night view of the protective lighting in operation.

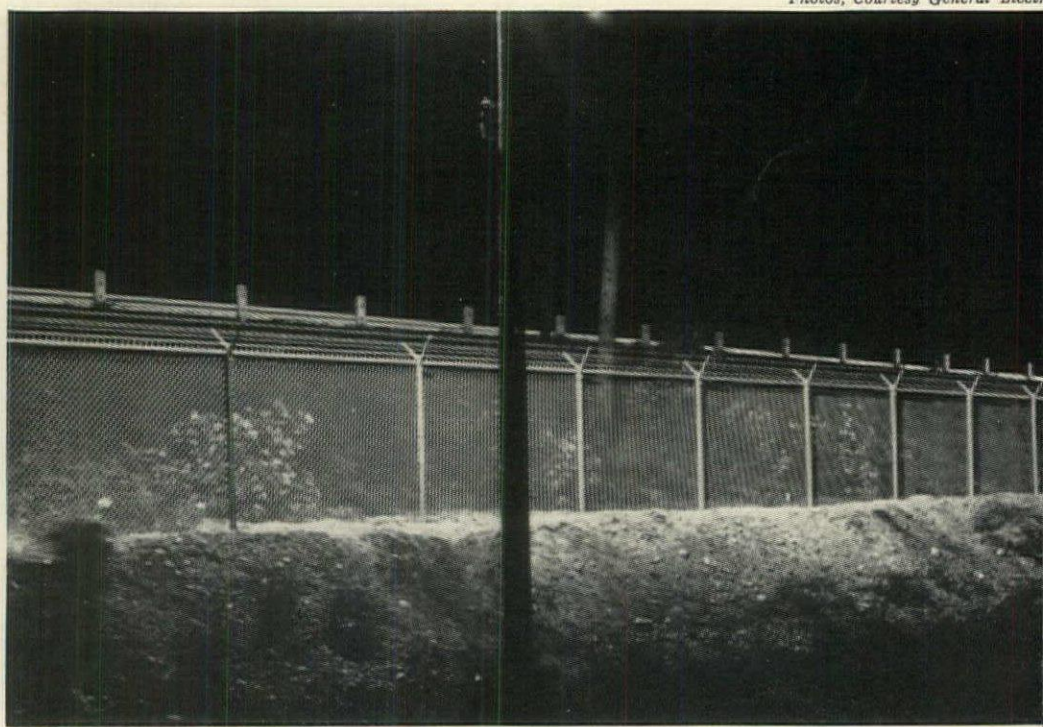
The eight Nazi saboteurs recently landed on the Long Island and Florida coasts came fully equipped for a first-class job of industrial sabotage. Fortunately, American industry, to an ever-increasing extent, is equipping itself against any enemy agents who succeed in slipping through the FBI net to actual plant gates. Such equipment takes four forms: walls and fences, guard towers, protective lighting, and "magic eye" alarms. Not content to place full reliance on any one of these protective measures, most plants use two or three, or all four methods to reinforce one another. Thus while protective lighting alone has only a psychological protective value, its use in conjunction with other protective measures, such as fixed or patrolling guards, fences, automatic alarms, etc., renders its value very real. Similarly, an alarm is not of much value unless lights are available to show the exact location of the person trying to break into the plant when the alarm sounds, guards are of little use unless they are able to see clearly, and the best fence can be scaled by any determined person who comes adequately prepared. No plant can be considered properly protected unless it has at least two of the types of equipment shown here; all four are necessary for the degree of certainty often needed.



### LIGHT SOURCE



Courtesy American District Telegraph Co.



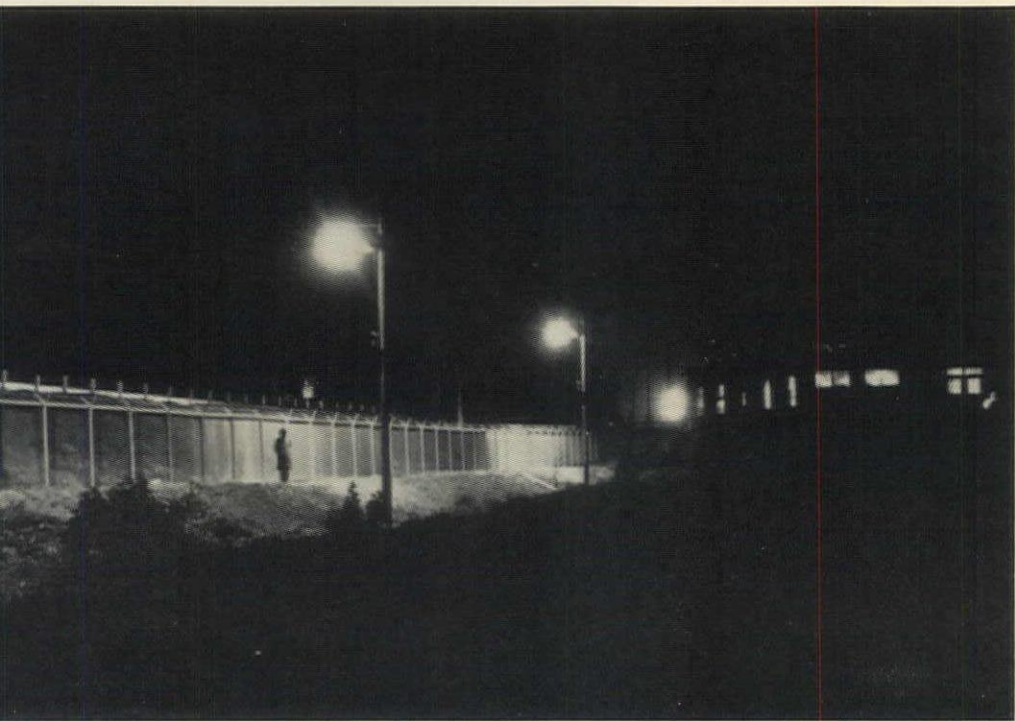
Photos, Courtesy General Electric



Elevated, search-light-equipped guard tower used in conjunction with the fence at the bottom of the page. Seemingly elaborate equipment of this type may actually save money because of the smaller number of guards needed and, regardless of cost, is essential where full protection is required. Photos in the opposite bottom corners of this and the facing page show "magic eye" automatic alarm equipment. "Tuned" to a particular frequency of light waves, these instruments may be separated as far apart as necessary, but must, of course, be duplicated wherever a change in direction is needed.



Photos, General Electric

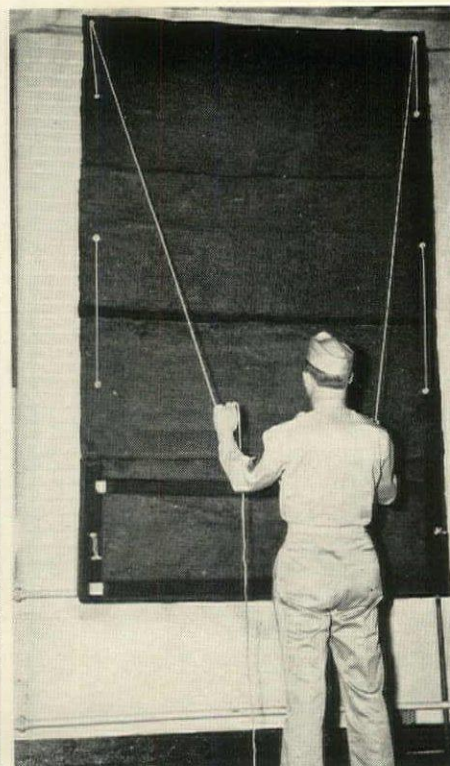


RECEIVER



Courtesy ADT





Courtesy Clinton Carpet Co.

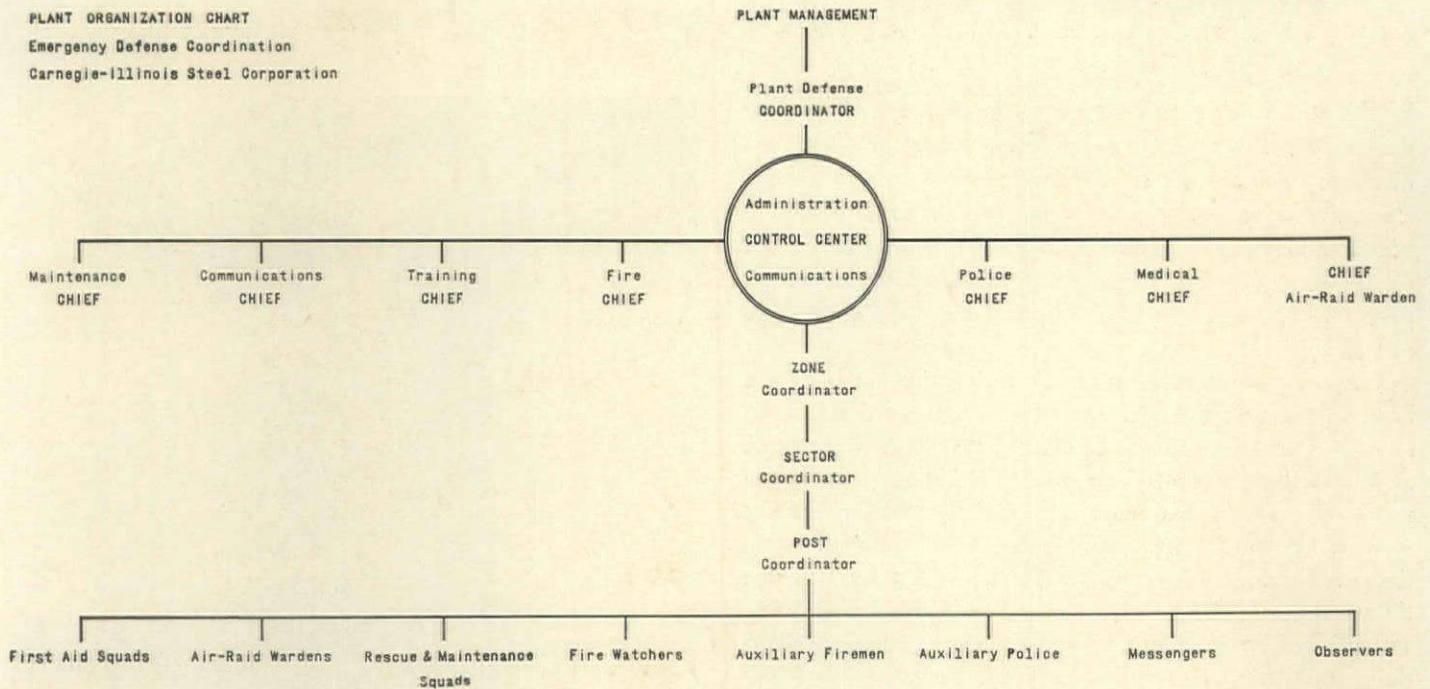
Smokeout and blackout are both effective only when carried out on a community scale. Blacking out a particular plant, if the surroundings remained fully lighted, would frequently merely accentuate its visibility from the air. Isolated smoke generators, while obscuring a small area to the leeward of the smoke source, are themselves highly visible. When applied throughout a considerable area, however, both blackout and smokeout offer considerable protection against aerial bombardment, and when used in conjunction with one another are a highly effective means of obscuration. Smokeouts are of particular importance to the industrial plant because, in addition to being the passive object of smokeout obscuration, many plants will be called upon to contribute actively to this type of protection by generating smoke. Typical smokeout technique, while still largely experimental, calls for a great many smoke generators, spotted throughout the windward side of the area to be obscured at intervals that will produce a well-blended smoke blanket in which individual sources will not be evident. By far the best sources for the bulk of the smoke are the boilers of industrial plants and public institutions such as schools, especially those equipped with high stacks, fired in such a way as to produce as much smoke as possible. These are then supplemented by smudge pots around the windward border of the smokeout area in order to conceal target-sources on the periphery. Since smokeout preparations must allow for a wind in any direction, this means that all of the good sources of smoke within the area are likely to be called upon at one time or another. Smokeout procedure is mostly a matter of planning, carried out by appropriate civilian defense officials. Smokers must be designated, tests made and a smokeout organization created. Experiments by the Cleveland civilian defense council (see illustrations) already have demonstrated that, with the cooperation of industrial plants and public officials, a very effective smudge can be generated within a half-hour's time and maintained for a considerable period without impairing war production. Such organiza-



tion, supplemented by a minimum of smudge equipment requiring extra personnel, may become a principle means of obscuration for plants in metropolitan districts. Blackout, a year ago a mystery to most Americans, is today something with which we are all fairly familiar. In industrial plants, the principal thing we have learned is that blackout can be a two-edged sword, and must be used with discrimination. Practice blackouts, so necessary to prepare the civilian population for emergencies, present numerous hazards which in industrial plants cannot be permitted to interfere with war production or provide opportunities for sabotage. Here the "lights-out" type of obscuration, still the rule for many homes even in vulnerable areas, cannot be employed, and it is essential that blackout equipment which permits operation and protection of the plant on as nearly normal a basis as possible be provided. This means blackout shades or coverings for windows, light-trapped entrances and particularly, low-level blackout illumination (on the order of starlight) for plant yards and approaches.



PLANT ORGANIZATION CHART  
Emergency Defense Coordination  
Carnegie-Illinois Steel Corporation



## BASIC ORGANIZATIONAL PLAN

In developing the basic plan above, officials of the Carnegie-Illinois Steel Corporation took into account recommendations and suggestions of the Army, Navy and OCD, as well as similar programs initiated by other large industrial organizations. The booklet from which the plan is taken explains that all training of personnel is to be done on company time, paid for as part of the regular work period. Plant Defense Coordinator selects seven "service" chiefs, establishes a control center which will serve as headquarters of the defense organization, of sufficient size to house all personnel involved. Charts and communication facilities essential to the direction of emergency defense coordination will be located here.

Maintenance Chief sets up and maintains lighting, plant camouflage, blackout needs. Communication Chief operates warning system, report center, messenger services. Training

Chief prepares charts, maps, other needed control material. Fire Chief, together with customary duties, inspects fire hazards, water supply. Police Chief has anti-sabotage and espionage responsibilities along with the usual ones. Zone Coordinator is Plant Coordinator's representative in one zone of the factory; Sector and Post Coordinator have similar duties in smaller units. Other positions are self-explanatory. The Company observes that this scheme can be supplemented or curtailed according to size of plant. Its success is based on three main considerations: 1) The setup and selection of proper personnel. 2) The survey and recommendations by each staff chief. 3) The training of the basic organization. With these clearly in hand, any plant of any size can develop a similar plan, increase worker morale and provide for worker protection in efficient and economical fashion.

## The Builder today—and the Camoufleur:

The techniques of plant protection take into consideration all the drawbacks of present day construction from the point of view of aerial bombardment—and there are many. The newest and most attractive industrial buildings, like the newest and best hospitals, are white, of clean, sharp design, of long, distinctive diagonals. They are designed to *look like* industrial plants, and so deny the basic necessity of successful camouflage, that the building look like anything but what it is.

If the camouflage applied to the structure works well, it breaks up the long diagonals, sends the bombardier's eye in another direction. It breaks the single building, built in this way to make production continuous and to eliminate confusion and traffic problems, into smaller units forming a ground pattern analogous to the surrounding terrain and to the pattern of camouflage adapted. It changes the clean, sharp lines to blurred ones. When the job is done, the plant has sunk into the landscape in some predeterminedly planned manner; nothing that the original architect strove to attain can remain visible. All this points clearly to the new paths industrial building must follow in the war years. The architect is now faced with the problem of camouflaging his building *as he builds it*, of abandoning the hard-won principles of straightforward, clean construction. It is ironic that, like the strip-teaser who reverses her act at the first hint of the police, industrial building must return—if only in theory—to the old masquerading days when plants ashamedly hid themselves behind Gothic facades.



# 2 WASHINGTON, D. C. HOTELS

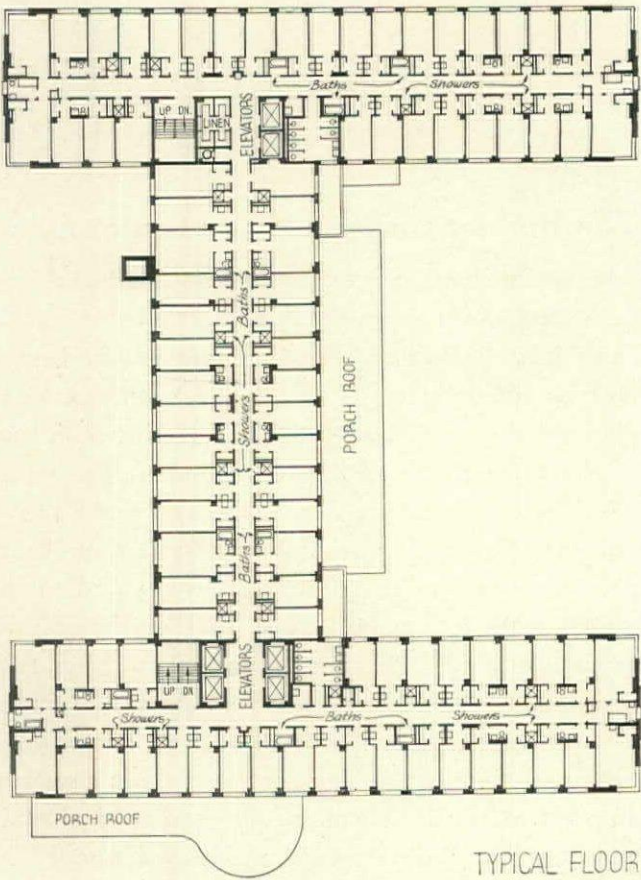
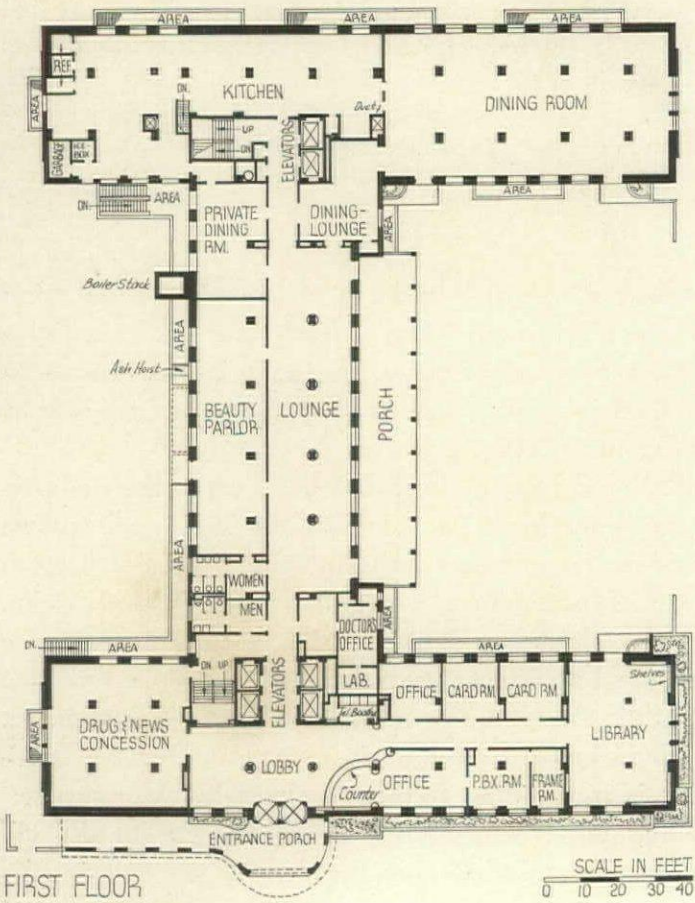
Washington's war housing problem is nowhere more acute than in the shortage of accommodations for the thousands of single women newly employed in clerical jobs in various emergency agencies. One step that has been proposed to relieve this shortage is the projected construction by the FPHA of temporary, publicly owned dormitories (reported on page 34.) Another, which has already been taken, is the completion of the two permanent (one privately, the other Government-owned and operated) residential hotels shown here. While the combined capacity of the two units is not enough to make a substantial dent in the existing shortage, and while the price of the accommodations is beyond the reach of most single women employed by the Government (almost two-thirds of whom earn less than \$1,600 a year), the new buildings do supply excellent housing for almost a thousand young girls who are sorely in need of it, at a charge which is reasonable considering the present cost of construction and the kind of facilities provided. Rentals in the Meridian Hill Hotel, which has a capacity of 718, range from \$8.25 to \$9.50 a week for single rooms, and from \$7 to \$7.75 per person per week for double rooms. Scott's Hotel has 250 single rooms renting for \$34.50 per month. Only a few of the rooms in the Meridian have private baths, although there is running water in all rooms of both hotels. Each offers maid service and such special features as roof gardens, meeting rooms, "beau parlors," etc.



Photos. Rent

## I MERIDIAN HILL HOTEL

LOUIS JUSTAMENT, ARCHITECT





## MERIDIAN HILL HOTEL



Meridian Hill Hotel, located on fashionable 16th Street and commanding a fine view of the city, has been criticized for its swanky location, its private swimming pool and its high prices. Housing officials explain that it was planned as a "class" hotel from the beginning, and is designed to accommodate higher-paid Government employees, who are as badly in need of housing as any. As these photographs indicate, it lives up to this intention in exterior appearance, interior furnishings and in the commodious planning approach.



### LIBRARY



### LOUNGE





HOTEL IN WASHINGTON, D. C.



**2** SCOTT'S HOTEL

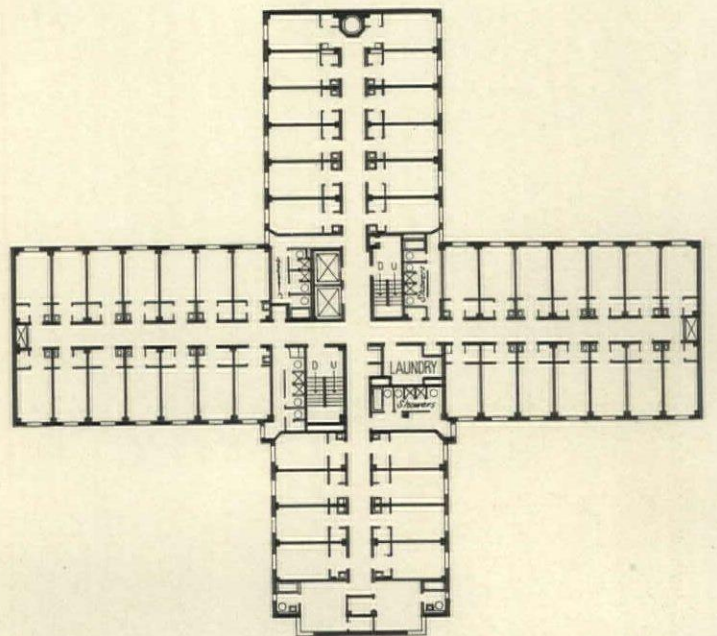
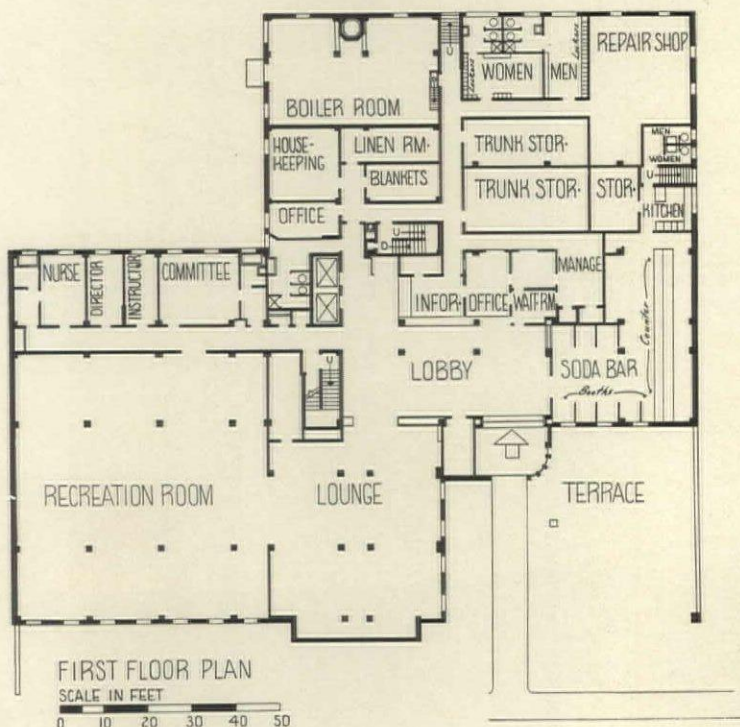
PHILIP M. JULLIEN & CO., ARCHITECTS







Scott's Hotel, smaller and more simply conceived than the Meridian, is the outgrowth of a flourishing rooming-house business which according to its owner, Ralph S. Scott, "started with a frying pan." Rooms and prices are identical throughout the building, and there are no double rooms. A bath is provided for each four bedrooms. Public facilities include a lounge adjoining the lobby, a ballroom-meeting room, a coffee shop, six "beau parlors," a piano-practice room, and four separate roof decks, equipped for picnics, sports, sunbathing and dancing. Laundry rooms are provided on each floor, and the "party" roof has an outdoor fireplace and an indoor kitchen where the girls can prepare snacks.



TYPICAL FLOOR



# PERMANENT EXHIBIT

NEW YORK CITY

FOR THE SONOTONE COMPANY

EMRICH NICHOLSON & DOUGLAS MAIER, DESIGNERS

*Eva Stoller*



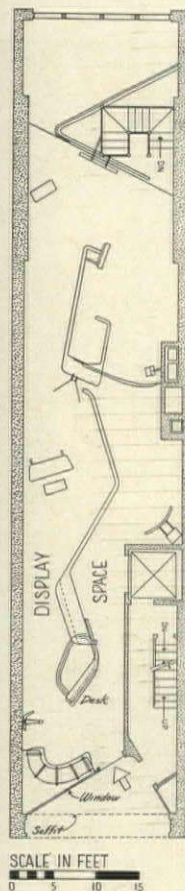
*Sonorama*

A PERMANENT EXHIBITION  
DEVOTED TO SOUND  
AND HEARING

OPEN TO THE  
PUBLIC  
FREE

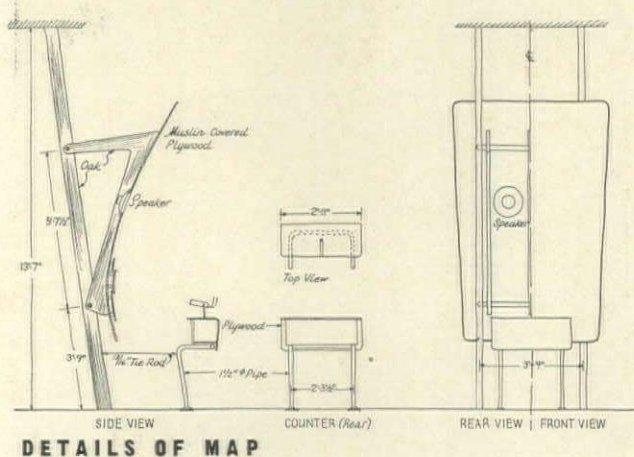
AN EAR TO  
FIFTH AVENUE





The value of expert architectural guidance in arranging exhibit space is well illustrated by this example, where a narrow, Fifth Avenue store has been converted by an adroitly curved partition into an attractive and instructive showplace which seems twice the size it really is. Equally important in creating this effect are the mountings of the exhibits, which preserve the maximum amount of openness for the space as a whole, while permitting placement of the various panels and machines at interesting angles to the direction of circulation. Built by the Sonotone Company, manufacturers of hearing aids, the exhibit was designed jointly by the architects and company sound engineers as a popular exposition of the mechanics of hearing. Permanent in character, the display is open daily during store hours. An automatic sound recorder in the show window, called an "ear to Fifth Avenue," registers variations in street noises graphically on a moving tape and attracts the attention of passersby to the material inside. Circulation through the exhibition is in a clockwise direction (plan, left), and takes about fifteen minutes, including a recorded "play back" of the visitor's voice, made in the soundproofed booth at the rear.

Photos, Ezra Stoller



Sarra, Inc.

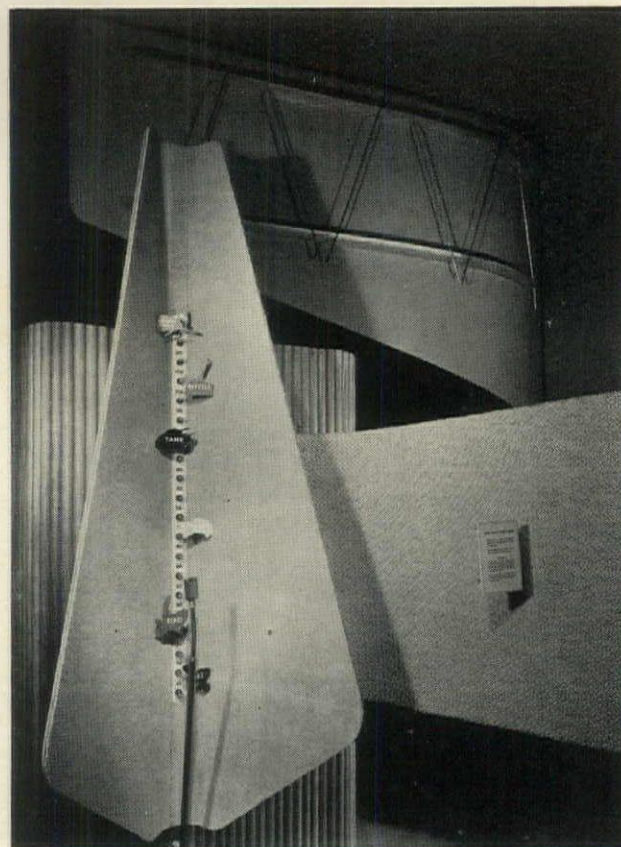




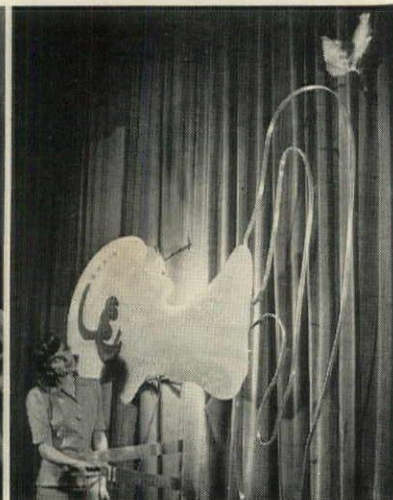


Photos, Ezra Stoller

An interesting and appropriate feature of the exhibition is the "magic trumpet" shown in the third picture from the left at the bottom of the page. Such a trumpet (actually a very low-power crystal radio receiver with a range of a few feet) is given to each visitor on entering, and permits him to listen to recorded explanations of the more complicated exhibits that are "broadcast" from behind the various panels, and are otherwise inaudible. Result is, that while a number of explanations are being broadcast at the same time within the confines of a comparatively small space, there is not the confusing babel which would result if they were audible to the unaided ear. Picture above shows the soundproofed booth where voice recordings are made, upper picture, right, a shelf bearing the Sonotone device itself, which enables the visitor to hear through the bones of his head, and the lower picture, right, a gadget which measures how loud you can shout. Pictures below show, left to right, a tuning fork whose vibrations are made visible by stroboscopic illumination, interior of the voice-recording booth, the magic ear and a panel illustrating the passage of sound into the inner ear.



Photos, Sarra, Inc.





# A PORTFOLIO OF MODERN HOUSES

GEORGE FRED KECK, ARCHITECT

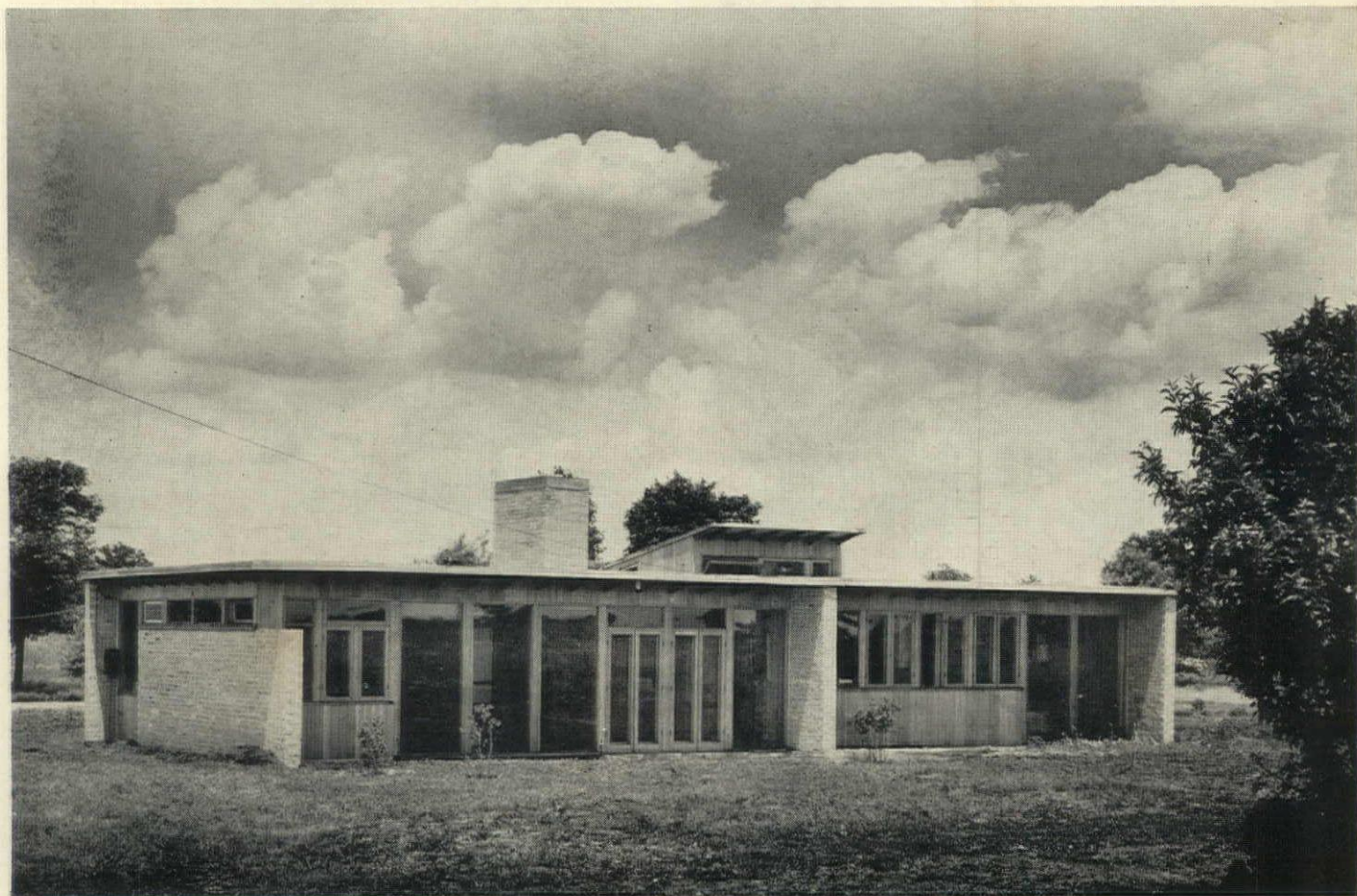


Illinois, Hedrich-Blessing

George Fred Keck, of Chicago, is an out-and-out modernist who splits no hairs in declaring his belief in contemporary design. According to Architect Keck, "No intelligent person would build in the traditional manner today; it is only the badly trained architect who still harps on traditional at all. Houses, like religion, are bound up with emotion and tradition, both obscure and vague and indefinable terms. Get rid of emotion and tradition and get to the facts and needs of contemporary construction, and you get good results. Young men learning architecture today are not interested in tradition, and they will be the architects of tomorrow. The old crop must die off, and I hope it will die off soon, for there has been too much muddled thinking in architecture. . . ."

That this forthright credo has appealed to Keck's clients is evidenced by scores of modern houses scattered throughout the midwest; that it "gets good results" is shown by the five houses in this portfolio, located as far apart as Illinois, Wisconsin and Missouri. Two of the houses are quite small, two are medium-sized, and the one is large. All show the same purpose—an evident effort to provide the best possible living accommodations in the simplest and most effective way.

## HOUSE IN FLOSSMOOR, ILLINOIS





# I HOUSE IN FLOSSMOOR, ILLINOIS



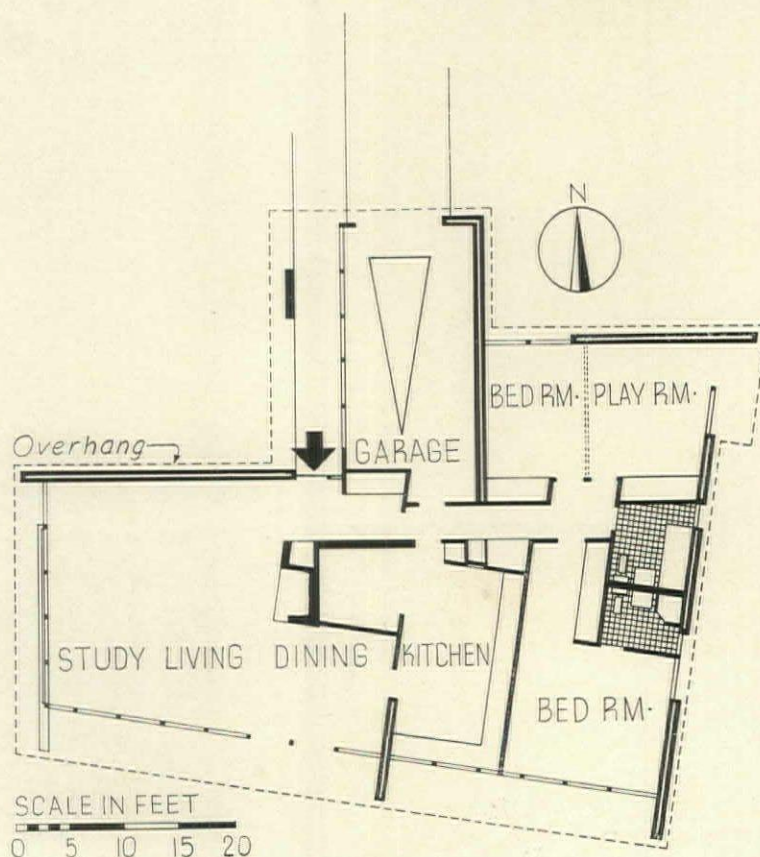
LIVING ROOM

## *The architect comments:*

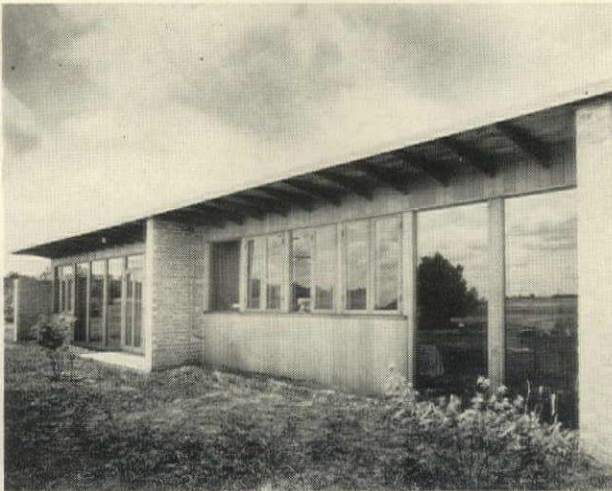
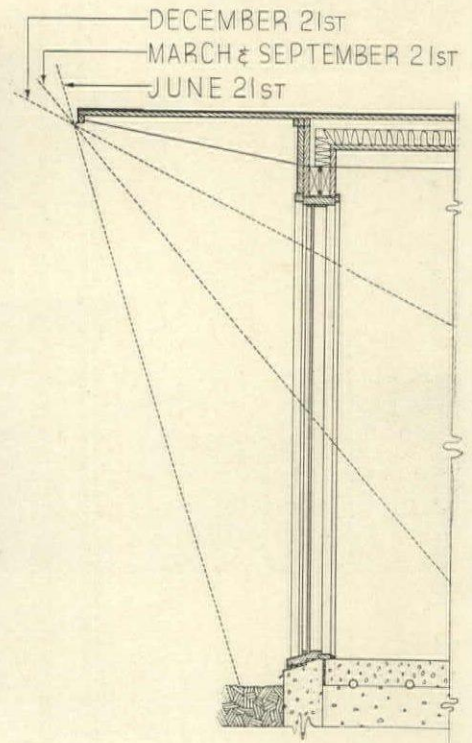
"This small house was built on an acre of flat, treeless Illinois farmland. The street is to the north, and the house is oriented so that the more important rooms face south. The south elevation is largely of glass (double glazed), so as to admit the maximum amount of winter solar heat. The wide overhang on this elevation shuts out the intense summer sun.

"The large living-dining room may be divided by a folding partition to form a guest room in its west end. The sizable children's room, which for the time being houses two very small children, can be divided later into two rooms. The kitchen and utility room are in the middle of the house, and receive additional daylight through clerestory windows in a raised portion of the roof.

"The brick walls are of the cavity type, with the cavity filled with insulating aggregate, forming a well-insulated finished outside and inside wall. The roof is dead level except for the clerestory, and carries a sheet of water as insulation against summer sun-heat. The floor throughout the house is integrally colored cement, and is heated by hot water which circulates through pipes buried in the concrete slab, providing heat for the entire house." Cost: \$11,000 (1941-42).

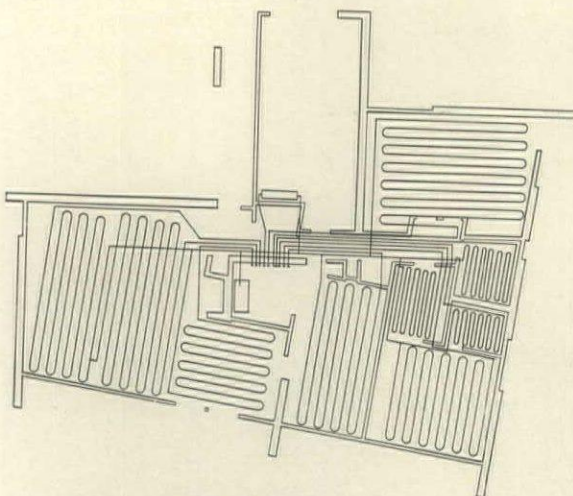






REAR VIEW

Diagram above shows relationship of sun angles to living-room roof overhang on south wall, upper picture northwest corner of living-room, middle picture south facade of house. In the picture below shows the kitchen-utility room. In the latter, note clerestory windows in roof monitor to admit daylight to back portion of kitchen. Diagram (below, left) shows piping layout for floor heating system.

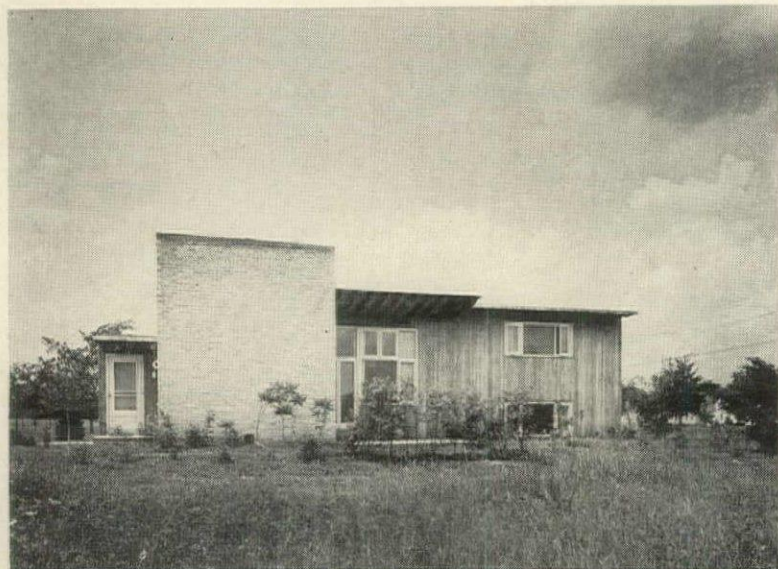


PANEL HEATING PLAN





## 2 HOUSE IN LA GRANGE, ILLINOIS



Photos, Hedrich-Blessing

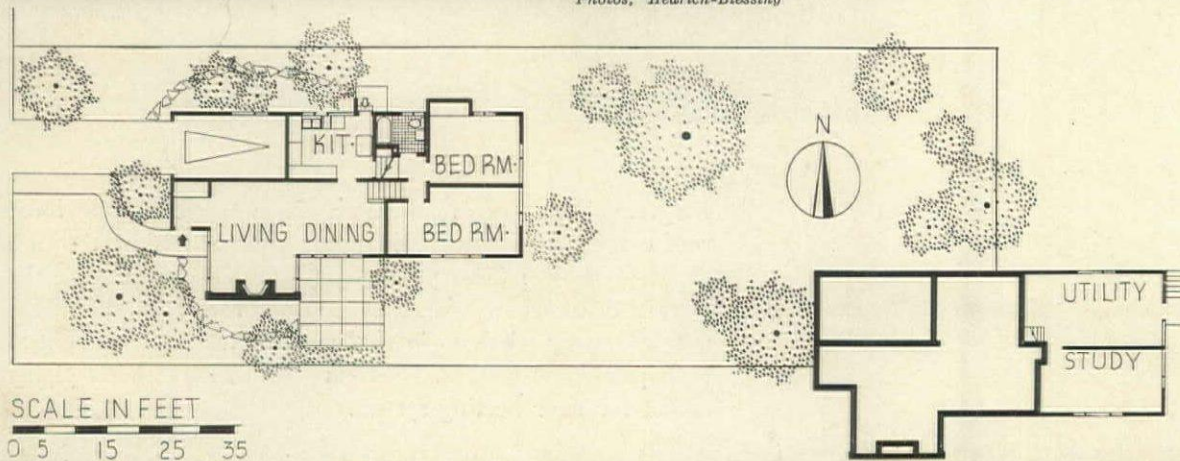
### *The architect comments:*

"This house was built on a small, suburban lot, facing a street to the west. A three-level plan was used to cut down the length of stair runs and to make use of basement space; also because of a dubious sewer condition which precluded a full basement.

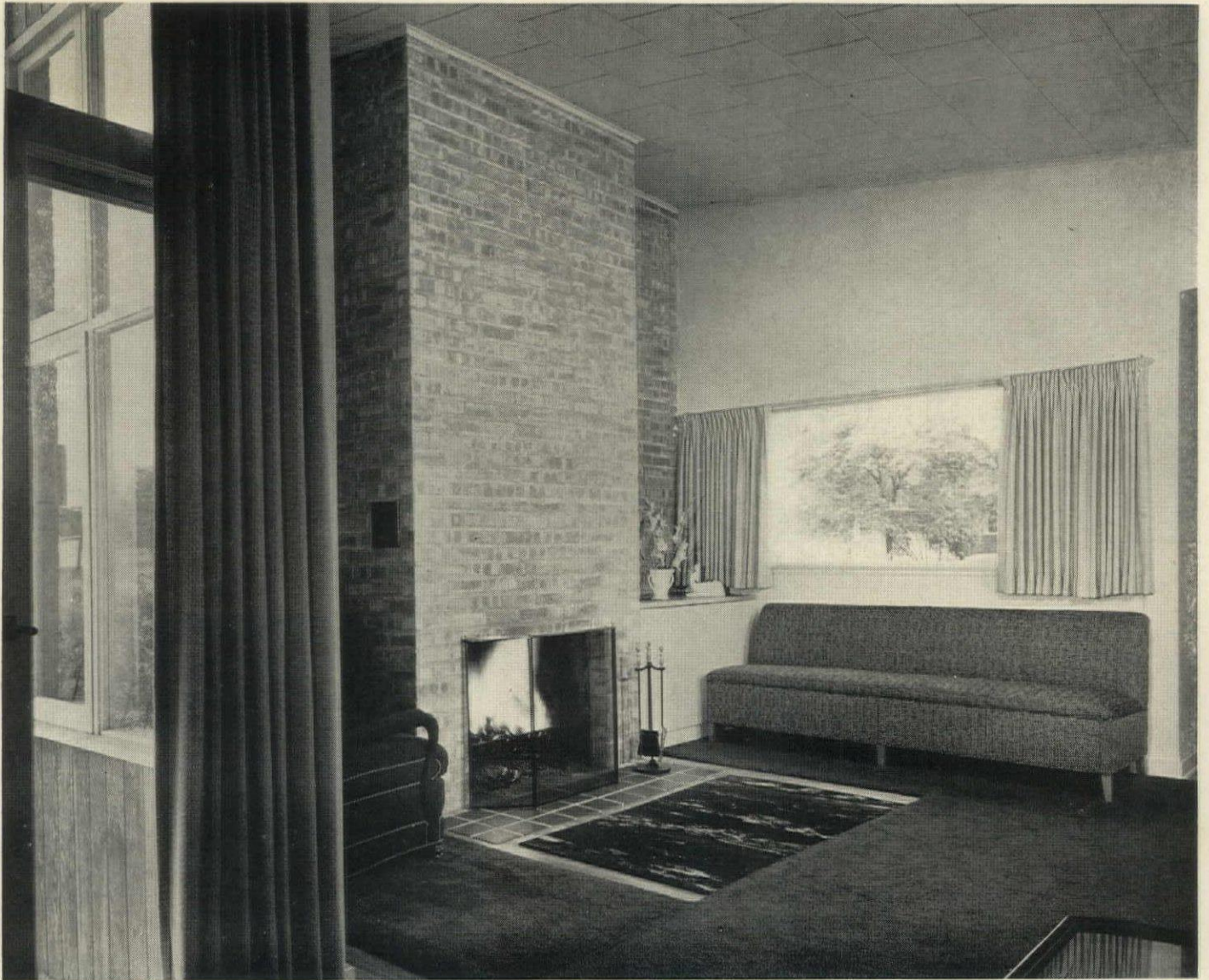
"The house was planned for a family of three. The large, high-ceilinged living room is its outstanding feature; this room functions for living and dining, with room for breakfast furniture in the kitchen. The study in the basement is 3 ft. below finish grade.

"The owner's hobby is radio and sound equipment, which has been installed in this basement room.

"Construction is balloon frame, with an exterior of vertical fir boards in natural finish. A shed roof pitches in opposite directions above the two levels of the plan." Cost: \$7,500 (1941).

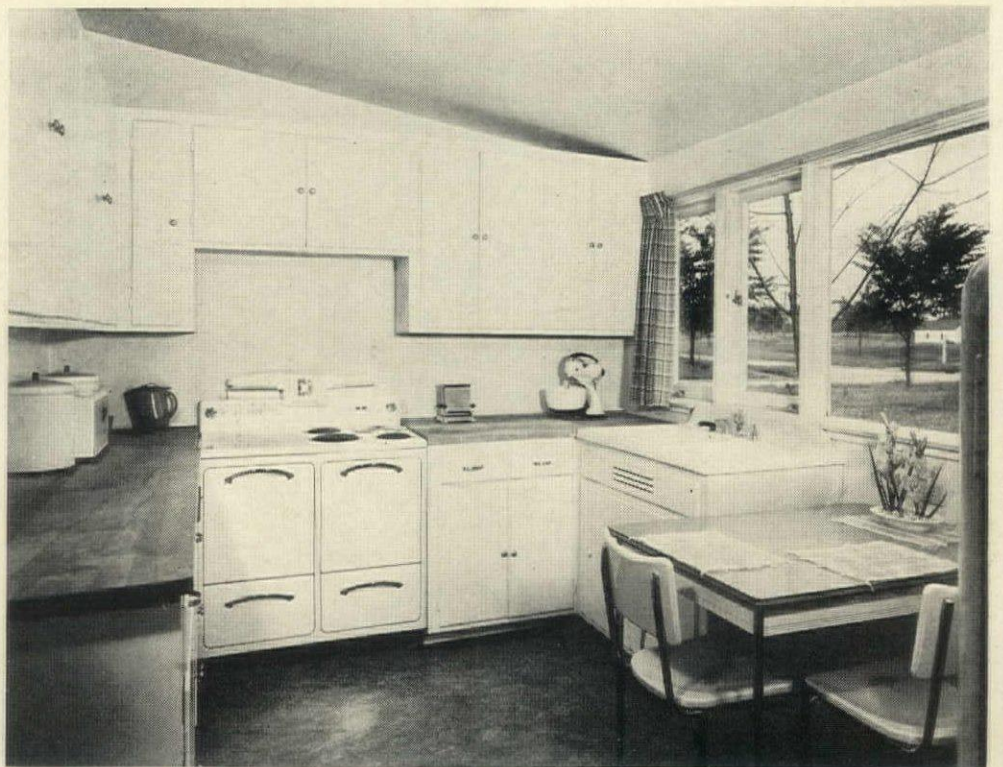






LIVING ROOM

KITCHEN





### 3 HOUSE IN COLUMBIA, MISSOURI



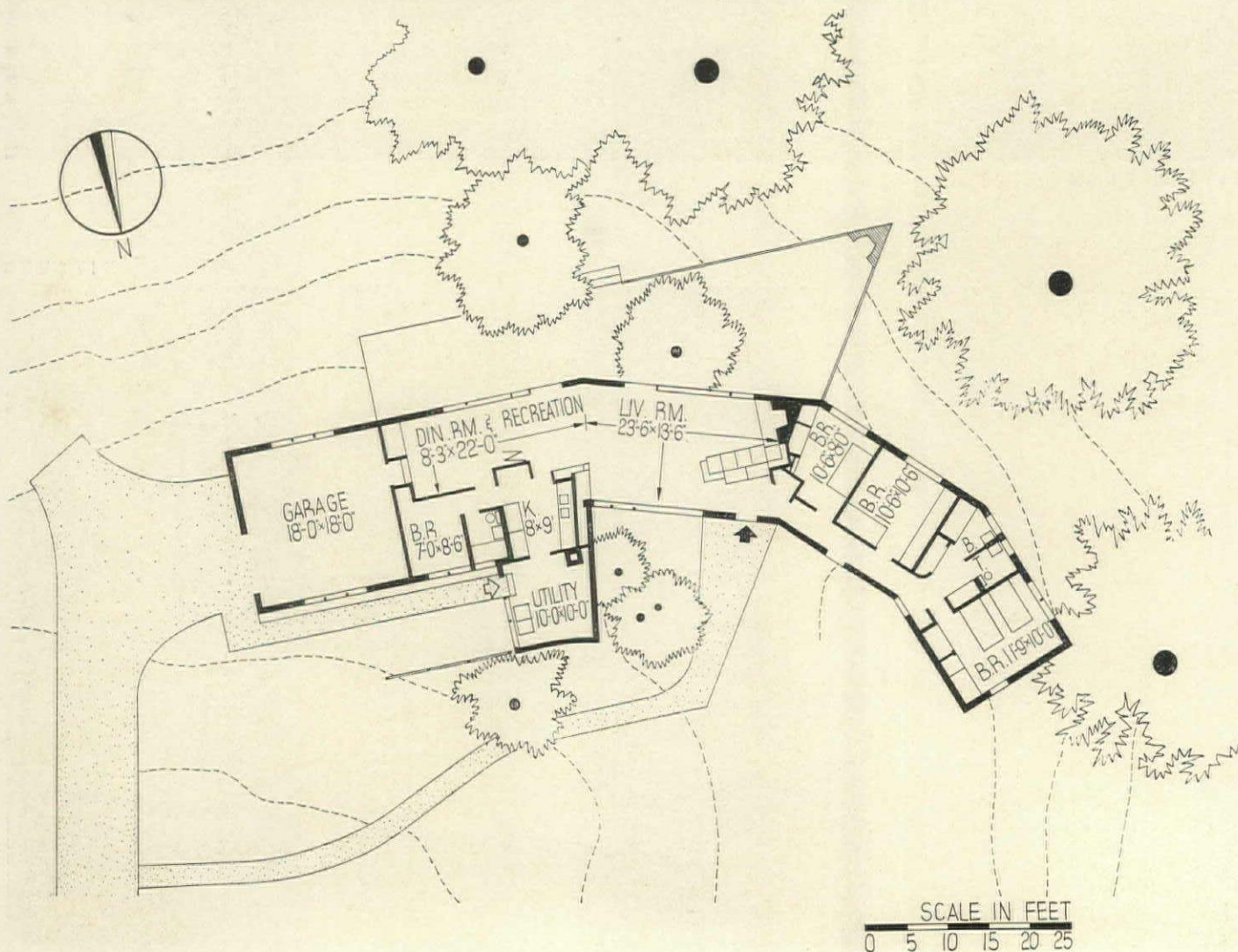
Photos, William Keck

#### The architect comments:

"This house is situated on the edge of a bluff overlooking a ravine. The land comprises several acres and is densely wooded, and was disturbed as little as possible in building the house. The ground is carpeted with wild flowers, and in laying up the sidewalks the workmen were asked to protect the natural beauty of the plants.

"The house was built for a college professor and his wife and their three young boys. Often large teas are given for

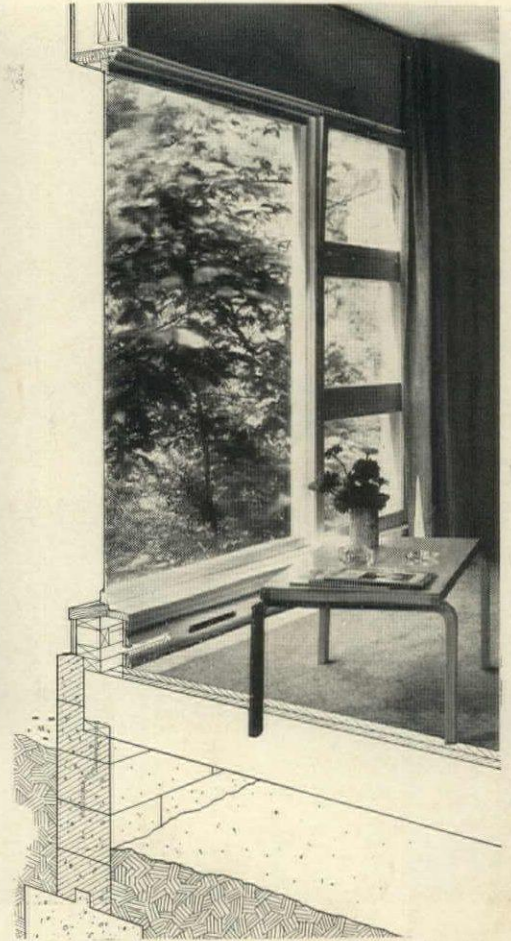
the faculty, so a plan was devised permitting expansion of the living room to large dimensions. The living room, dining room and recreation room can be thrown into one by opening folding doors; the recreation room can also be used as a guest room and is accessible from the second bath. The master bedroom suite at the other end of the house has a divided bath. This end of the house is curved to follow the edge of the sloping ground.







LIVING-DINING ROOM



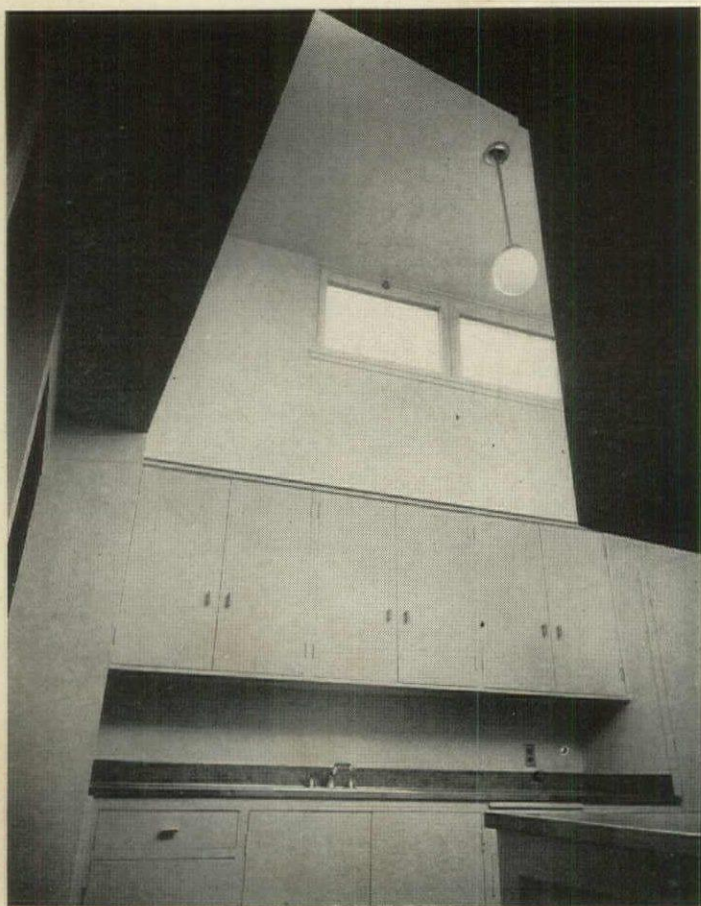
LIVING-DINING ROOM WINDOW

"The exterior walls are insulated cement block, stuccoed on the outside and plastered on the inside. The first floor is of standard joist construction, as is the roof. Much of the furniture was built in. Ventilating windows are of the transom type. The owners report that the water on the roof, plus excellent shade and a well-insulated house, results in temperatures 15 to 25 degrees below the outside temperature in hot weather." Cost \$13,200 (1938).

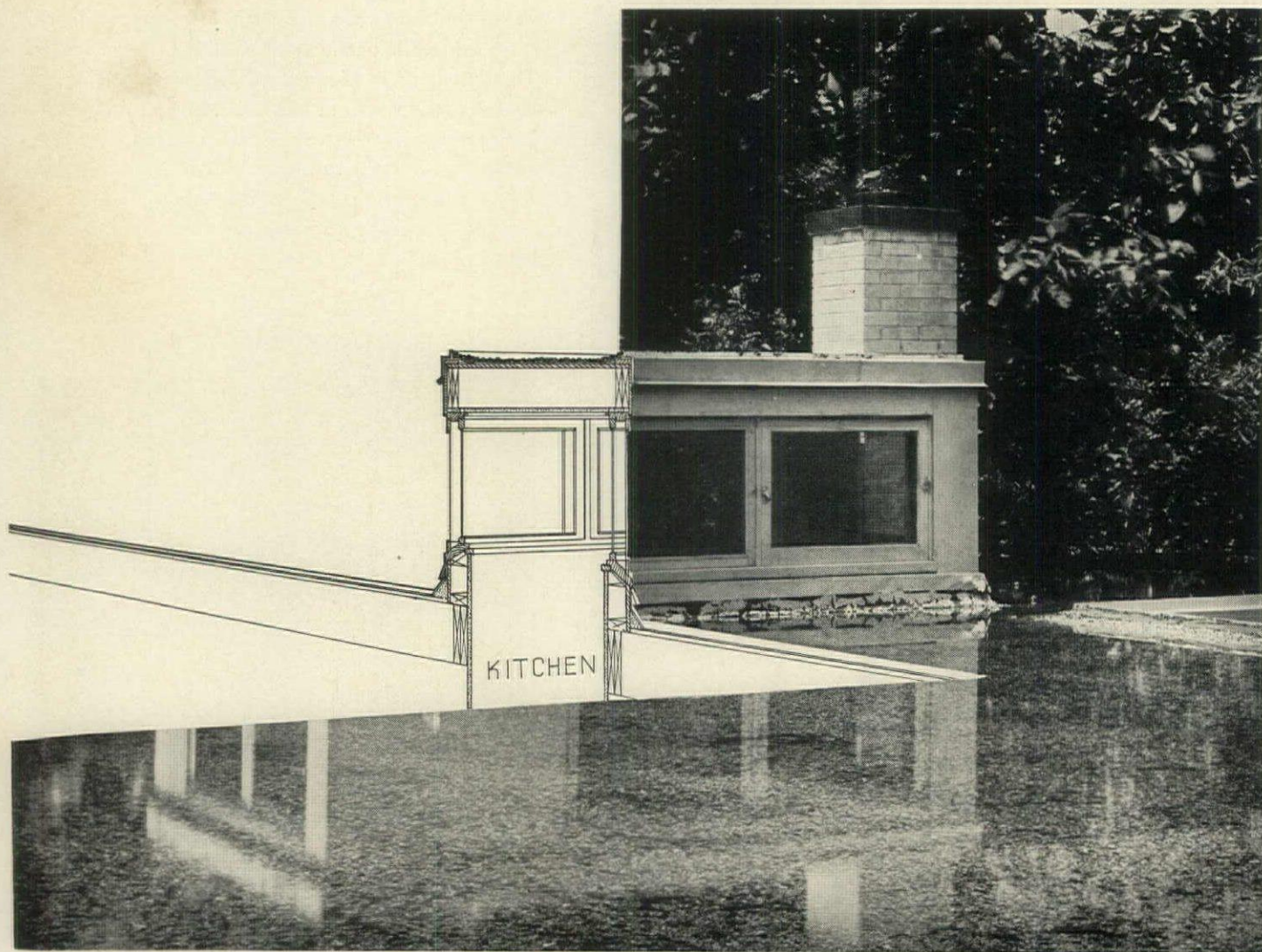
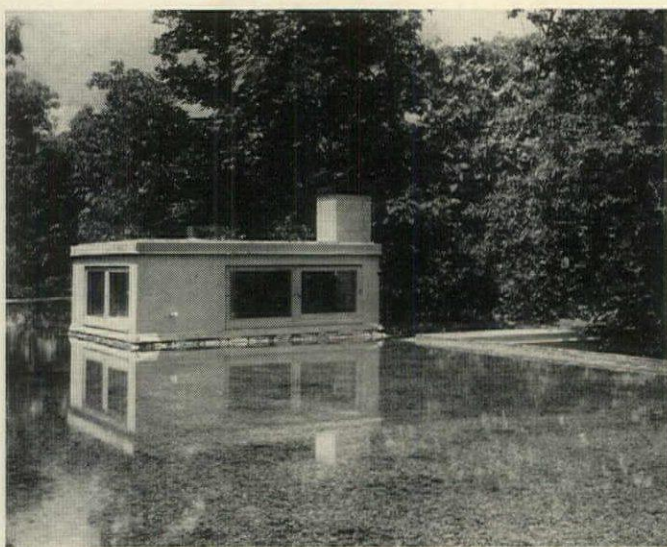




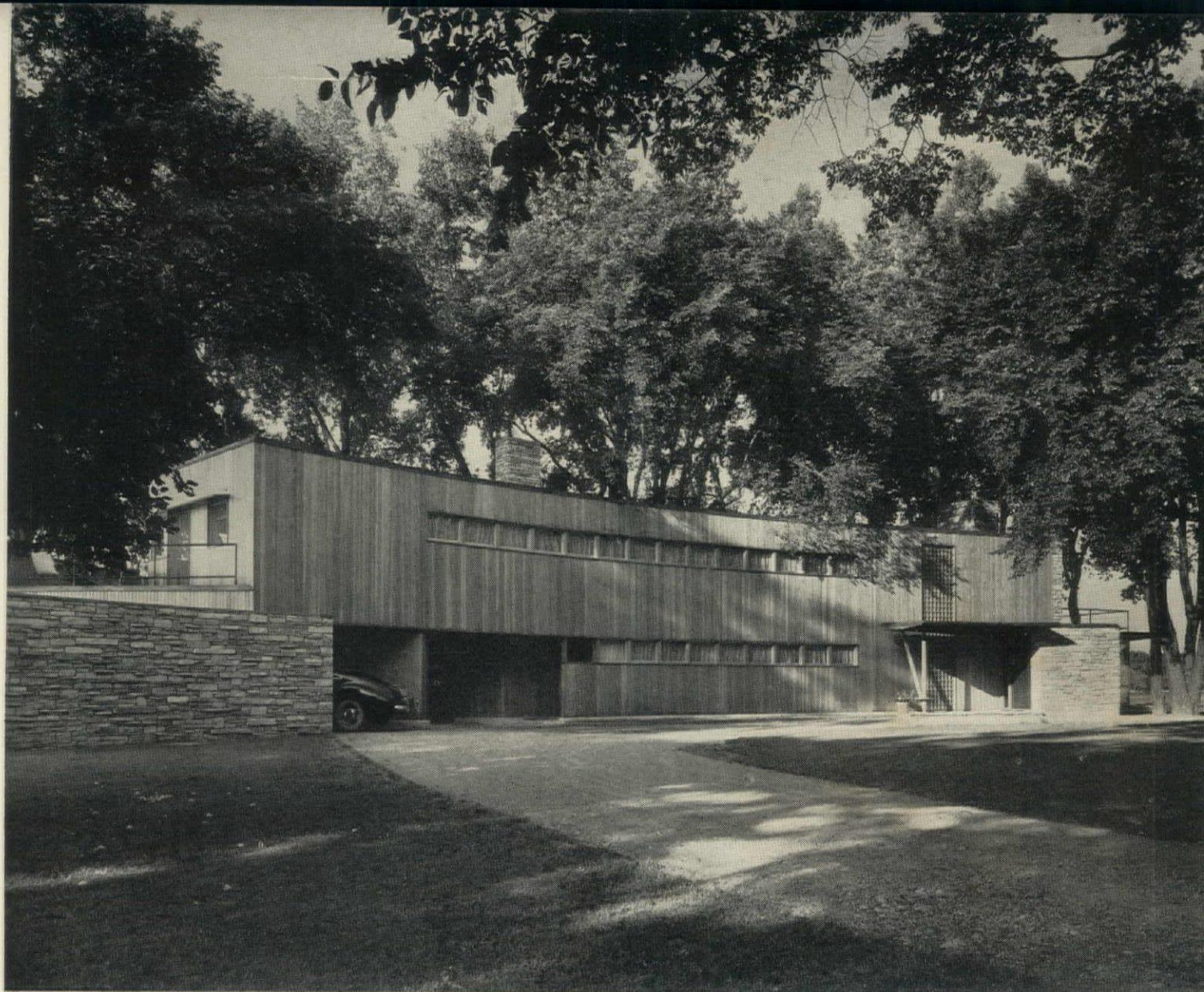
### 3 HOUSE IN COLUMBIA, MISSOURI



Photos and photo-drawing on this page show the use of a clerestory monitor to provide light and ventilation for the inside kitchen, also standing water on roof used to insulate the house against the rays of the summer sun. Roof is dead level.







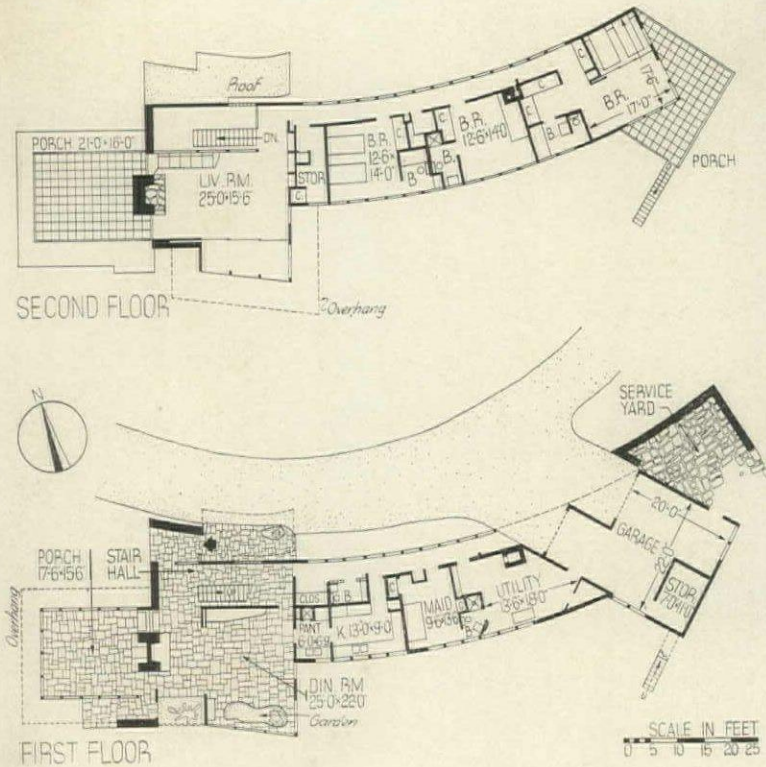
*Photos, Hedrich-Blessing*

## 4 HOUSE IN MENASHA, WISCONSIN





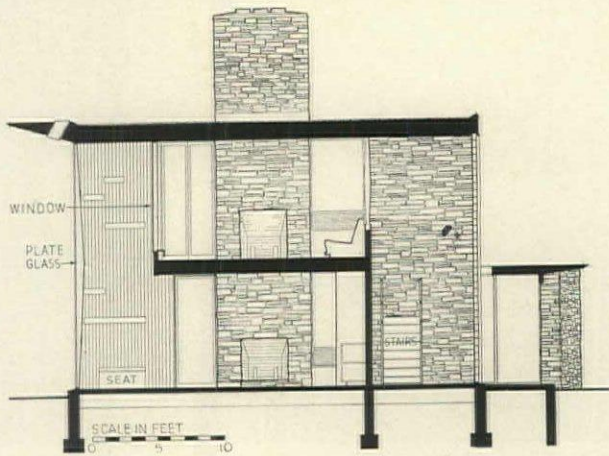
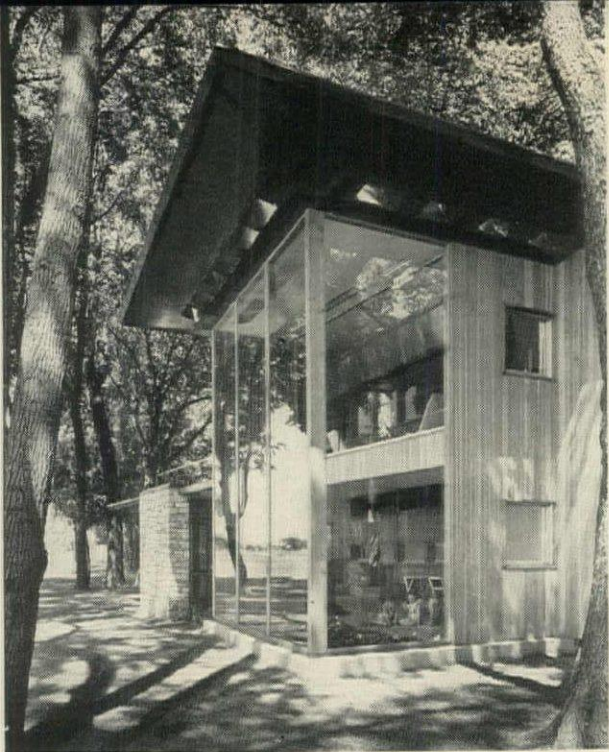
HOUSE IN MENASHA, WISCONSIN



*The architect comments:*

"This house is built on low land, not more than 4 ft. above high water level, on a finger of property extending into the north end of Lake Winnebago. An abundance of large trees precluded changes in the grade levels. For this reason no basement was used, and the building was planned with a second-floor living room so as to have a better view of the water. The plan of the house was worked out to fit between the trees, with a slight curve to conform to the lake shore.

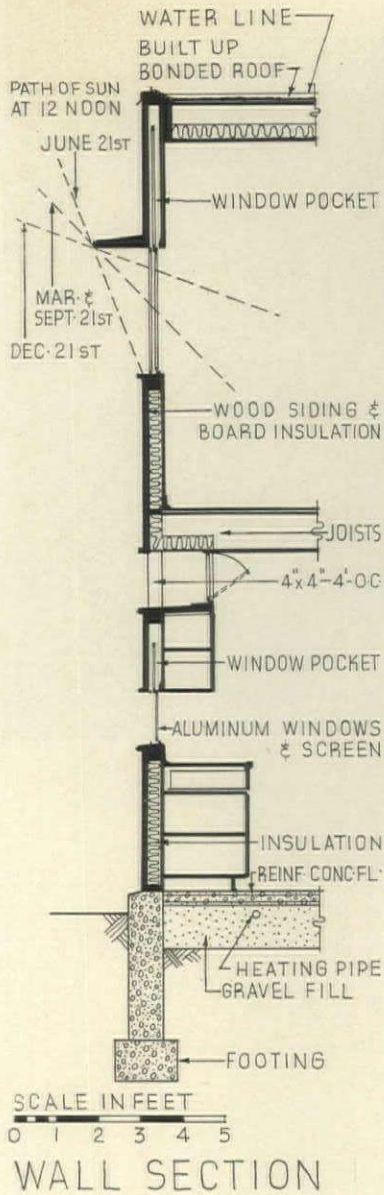
"The north view is unimportant; therefore all of the rooms face the lake, towards the south. The west view up the Fox River is fine, so the west end of the porch was covered with plate glass."



REAR VIEW







DINING ROOM

"The house was built for a family of four, with one servant. The owner is an engineer, and sympathetic to new ideas in construction and equipment. The porch has a fireplace equipped to prepare meals, with plate warmers, broiler shelves, etc. The master bedroom suite has built-in closets and desk, and a sliding partition in front of the beds, making it possible to shut them off from the rest of the room. This partition is black glass. Double windows and screens slide up into a pocket in the wall above the opening. The first floor is heated by hot water circulating through a pipe coil in the gravel fill beneath the slab." Cost: \$32,500 (1940-41).

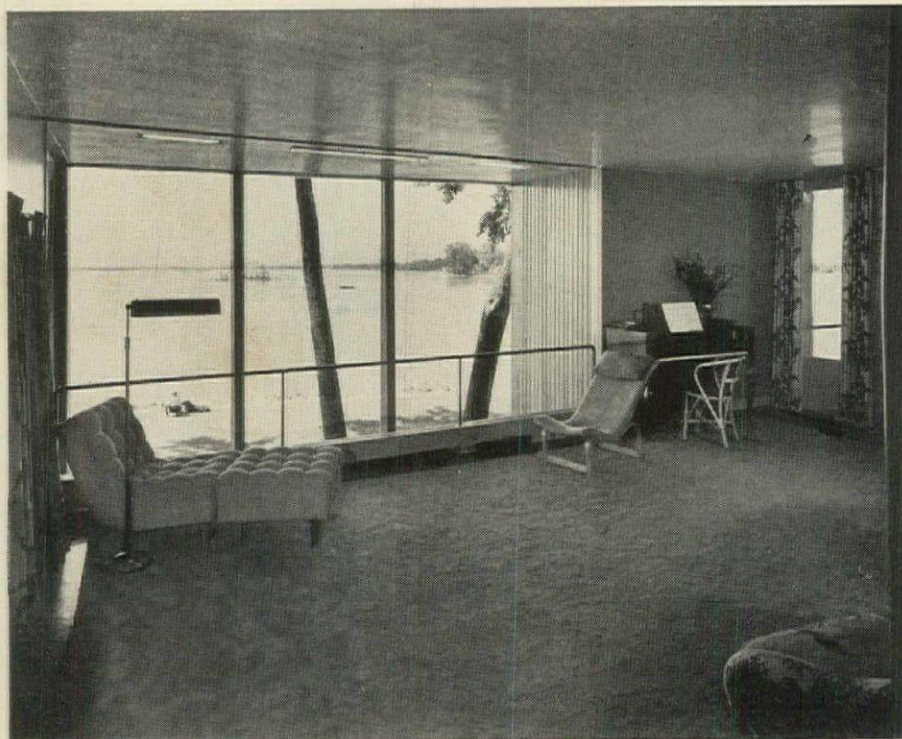
DINING ROOM

KITCHEN





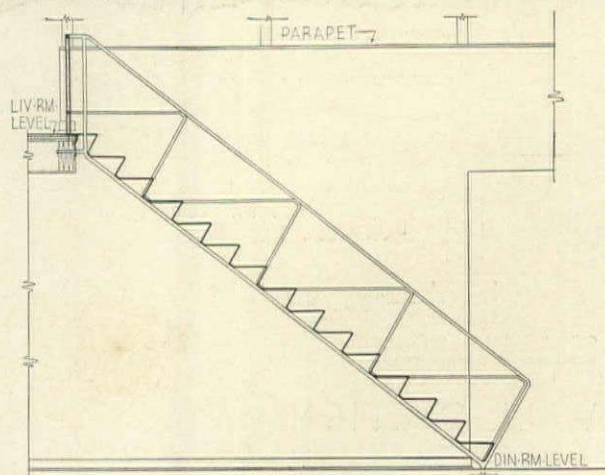
# 4 HOUSE IN MENASHA, WISCONSIN



LIVING ROOM

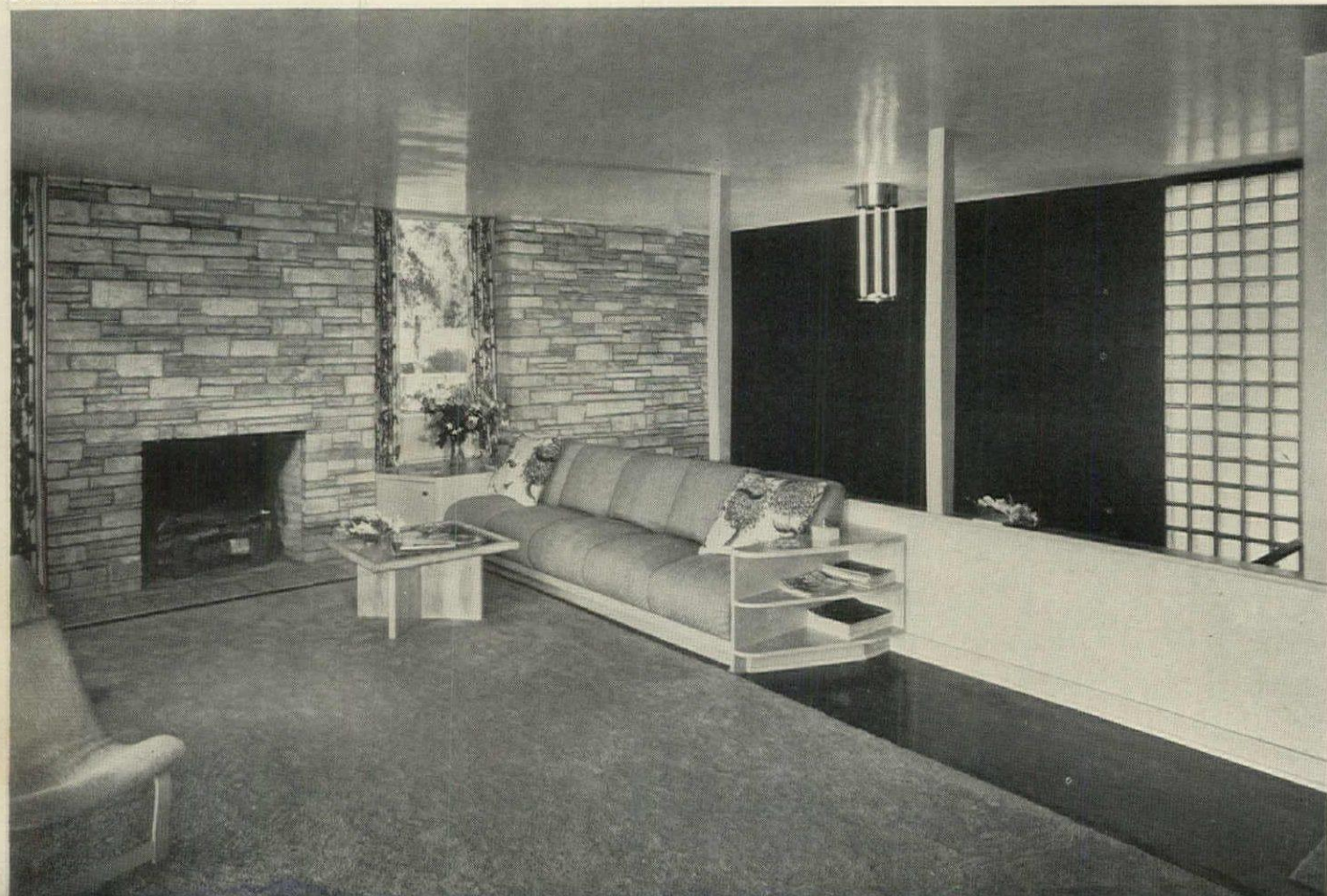


The handrails of the stairway form a truss which supports the bent, sheet-steel treads and risers; the rug is attached with rubber cement. Upper picture (left) shows the view of the lake across the open well of the dining-room planting space, lower picture a view of the fireplace end of the living room.

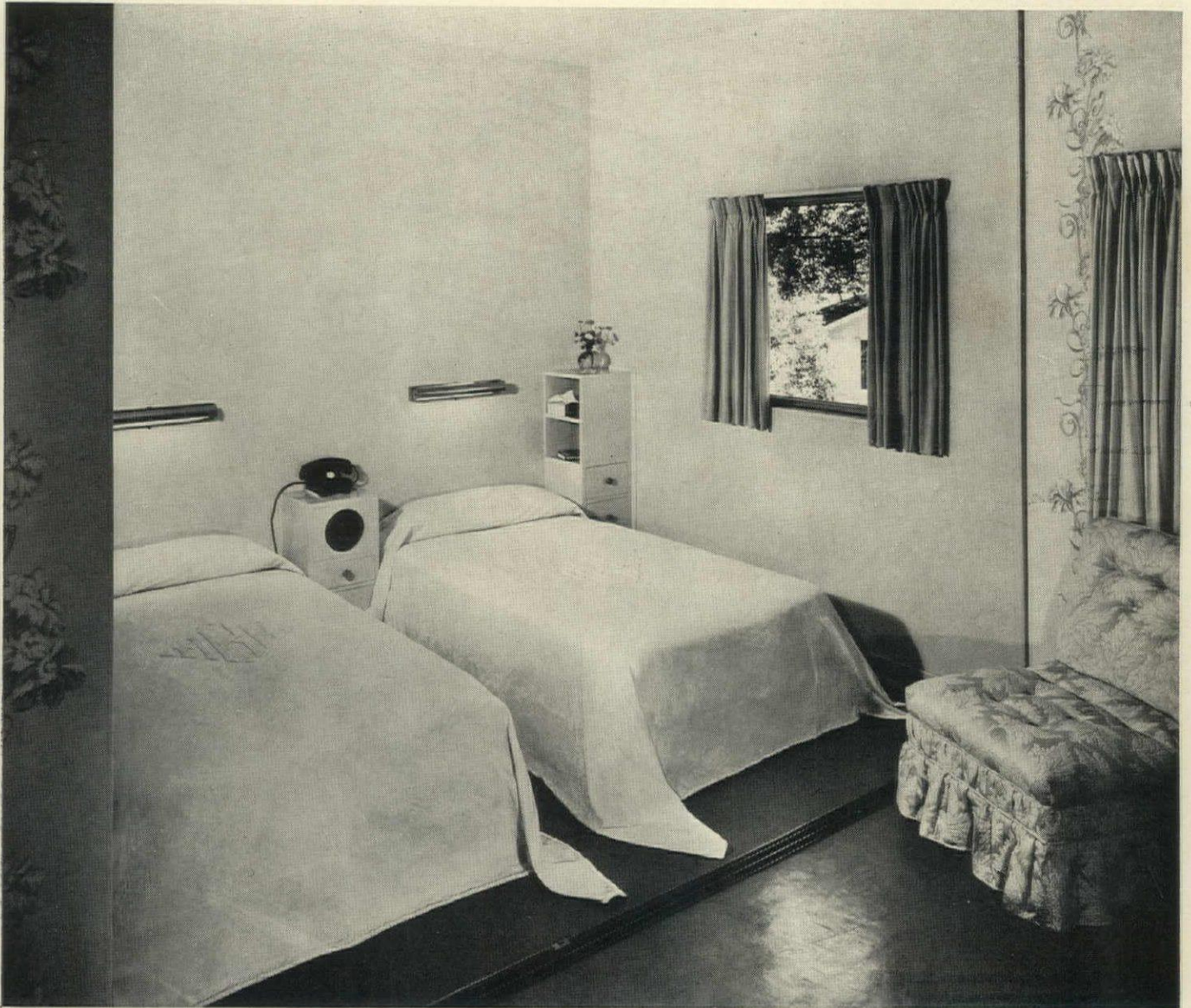


STAIR DETAIL

LIVING ROOM







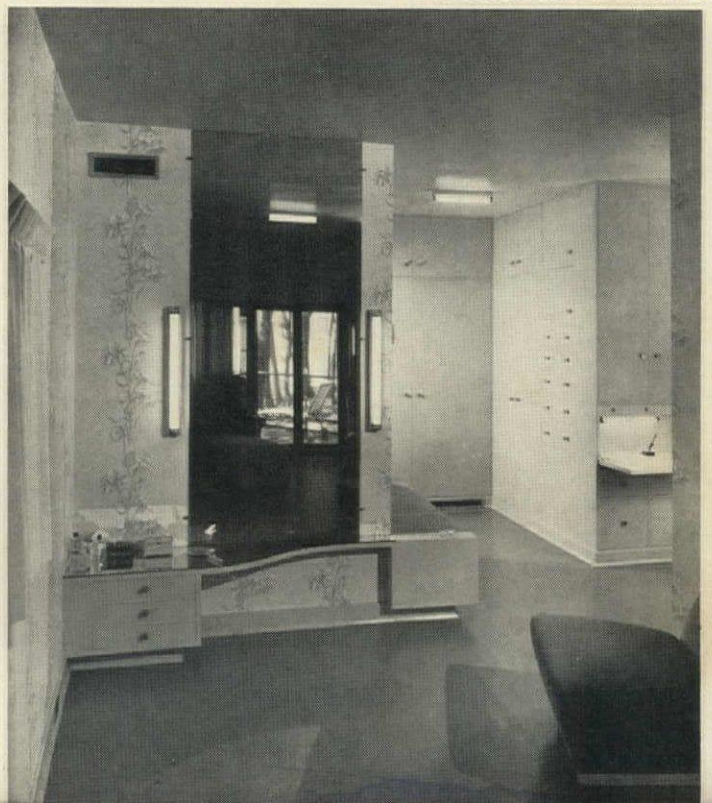
BED ROOM

The upper picture on this page shows the twin-bed alcove in the master bedroom, which may be separated from the balance of the room by a sliding, black glass partition. Lower pictures show one of the children's bedrooms (left), and a built-in dressing table in the master bedroom.

CHILD'S ROOM



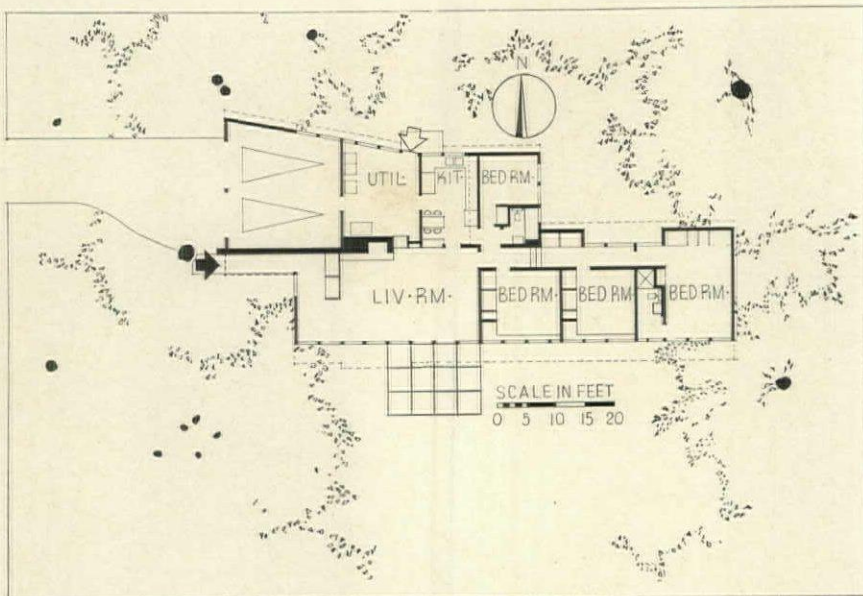
BEDROOM DETAIL





## 5 HOUSE IN HIGHLAND PARK, ILLINOIS

Designed to intercept and utilize a maximum quantity of winter sun-heat, this house has most of its rooms facing due south and equipped with generous windows. A portion of the living room ceiling slopes up under a shed roof, providing extra height for the windows in this part of the facade. The floor slab, laid directly on the ground, is heated by hot water circulating through wrought-iron pipe coils. The plan, which is extremely orderly and compact, provides a living-dining room, three master bedrooms, one with private bath, and an additional bedroom which may be used either as a maid's room, guest room or another master bedroom. Since the house is basementless, a generous utility room has been provided between the kitchen and the garage.



### LIVING ROOM

Photos, Hedrich-Blessing



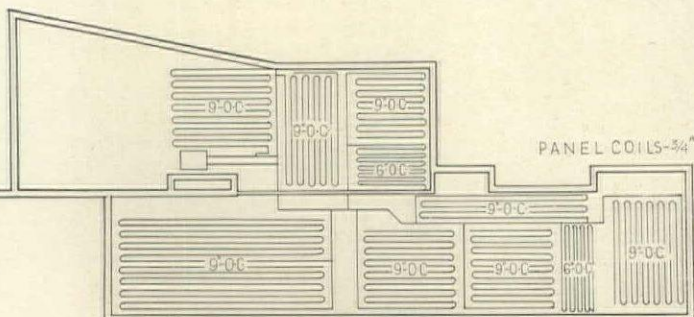




SIDE VIEW

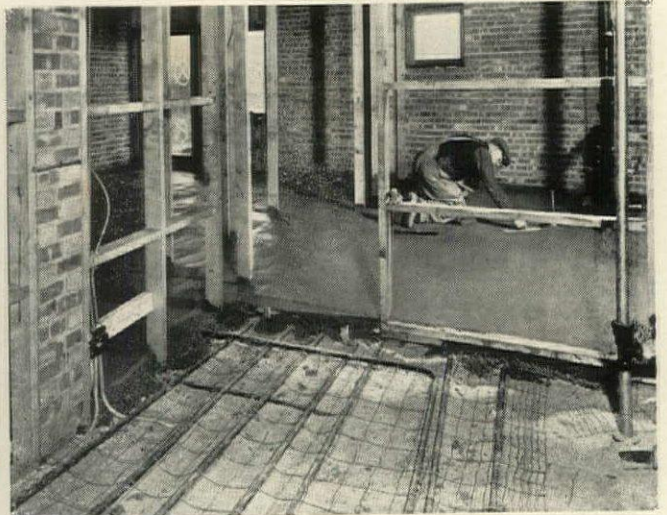
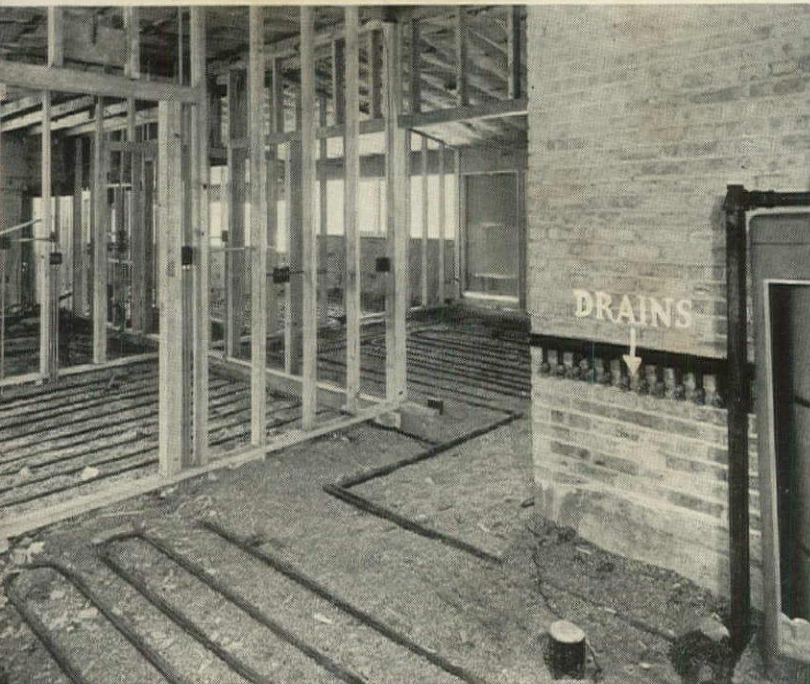
Exterior finish is vertical fir boarding, except for the brick sidewall of the garage, alongside the entrance porch. Interiors are plywood. The greater part of the glass area is fixed in large panes, with the operable sash in wood casements. Upper picture shows south side of house, picture at right shows entrance side. Below is a plan showing the arrangement of the pipe coils for floor heating.

ENTRANCE



PANEL HEATING PLAN





Construction photographs show the arrangement of the pipe coils for floor heating in the Highland Park house, and are typical of the method employed in several of the Keck designs. Coils are placed in a gravel fill on top of the floor slab, and covered with concrete reinforced with light wire mesh.

## CONSTRUCTION OUTLINE

### HOUSE IN LAGRANGE

**STRUCTURE:** Balloon construction, fir; inside—Sheetrock and plaster, U. S. Gypsum Co.  
**INSULATION:** Rockwool, U. S. Gypsum Co.  
**SHEET METAL WORK:** Flashing—galv. copper bearing steel, Republic Steel Corp.  
**WINDOWS:** Glass—Pittsburgh Plate Glass Co.  
**PAINTS:** Pittsburgh Plate Glass Co. and Pratt & Lambert, Inc.  
**DOORS:** U. S. Plywood Co.  
**HARDWARE:** Sargent & Co.  
**KITCHEN EQUIPMENT:** Sink—Crane Co.  
**BATHROOM EQUIPMENT:** Crane Co.  
**PLUMBING:** Water pipes—copper bearing steel, Crane Co.  
**HEATING:** Forced warm air system, winter conditioning. Water heater—Westinghouse Electric & Mfg. Co.

### HOUSE IN FLOSSMOOR

**STRUCTURE:** Cavity brick and balloon construction; inside—fir and brick.  
**ROOF** (all houses): Built-up or tar and gravel, Johns-Manville.  
**INSULATION:** Kimsul, Kimberly-Clark Corp.  
**SHEET METAL WORK:** Flashing—galv. copper bearing steel, Republic Steel Corp. Drains—Josam Mfg. Co.  
**WINDOWS:** Glass — Libbey-Owens-Ford Glass Co. Weatherstripping (all houses)—Monarch Metal Weather Strip Co.  
**FLOOR COVERINGS** (all houses): Kitchen and bathrooms—linoleum, Congoleum-Nairn, Inc.  
**PAINTS:** Pratt & Lambert, Inc. Floor coloring—A. C. Horn Co.  
**DOORS:** U. S. Plywood Co. Garage doors—Overhead Door Co.  
**HARDWARE:** P. & F. Corbin. Door closers (all houses)—L.C.N., Lasier-Norton Co.  
**ELECTRICAL EQUIPMENT** (all houses): Wiring system—conduit, General Electric Co. Switches—Bakelite Corp. and Hart Mfg. Co. Fixtures—Victor Pearlman Co.

**KITCHEN EQUIPMENT:** Range and refrigerator—General Electric Co. Sink — Crane Co.  
**LAUNDRY EQUIPMENT:** Washing machine—Bendix Home Appliance Co., Inc.  
**BATHROOM EQUIPMENT:** Crane Co.  
**PLUMBING:** Soil pipes (all houses)—cast iron, Crane Co. Water pipes—copper bearing steel, Crane Co.  
**HEATING:** Floor panel heating. Boiler — Triad Mfg. Co., Inc. Panel pipes—A. M. Byers Co., Circulating pump—Bell & Gossett. Regulator — Minneapolis-Honeywell Regulator Co. Water heater—Crane Co.

### HOUSE IN COLUMBIA

**STRUCTURE:** Insulated cement block, Haydite Co., stucco outside, plaster inside.  
**INSULATION:** Haydite Co. and U. S. Gypsum Co.  
**SHEET METAL WORK:** Flashing—galv. copper bearing steel, Republic Steel Co.  
**WINDOWS:** Glass — Libbey-Owens-Ford Glass Co.  
**PAINTS:** Pyroxylin Coated Fabrics Material Div. and Medusa Products Div., Medusa Portland Cement Co.  
**DOORS:** Rezo, Paine Lumber Co.  
**HARDWARE:** P. & F. Corbin.  
**KITCHEN EQUIPMENT:** Sink—American Radiator-Standard Sanitary Corp.  
**LAUNDRY EQUIPMENT:** Washington machine—Bendix Home Appliance Co., Inc.  
**BATHROOM EQUIPMENT:** American Radiator-Standard Sanitary Corp.  
**PLUMBING:** Water pipes—copper, Revere Copper & Brass, Inc.  
**HEATING:** Forced warm air system. Boiler — Mueller Co. Regulator — Minneapolis-Honeywell Regulator Co. Water heater—American Radiator-Standard Sanitary Corp.

### HOUSE IN MENASHA

**STRUCTURE:** Balloon construction, fir; rough sheathing, building paper; inside—lath and plaster.  
**INSULATION:** Kimsul, Kimberly-Clark Corp.

**SHEET METAL WORK:** Flashing—copper, Revere Copper & Brass Co. Drains—Josam Mfg. Co.  
**WINDOWS:** Glass — Libbey-Owens-Ford Glass Co. Sash and screens—aluminum, Adams Westlake Co. Glass blocks—Owens-Illinois Glass Co.  
**WALL COVERINGS:** Main rooms—wallpaper, Kimberly-Clark Corp.  
**PAINTS:** Pratt & Lambert, Inc.  
**DOORS:** Rezo, Paine Lumber Co.  
**HARDWARE:** Sargent & Co.  
**BATHROOM EQUIPMENT:** Kohler Co.  
**PLUMBING:** Water pipes—copper, Revere Copper & Brass, Inc.  
**HEATING:** Combination panel and radiator system; air conditioning, Carrier Corp. Radiators — American Radiator-Standard Sanitary Corp. Regulator—Johnson Service Co.

### HOUSE IN HIGHLAND PARK

**STRUCTURE:** Balloon construction, T. & G. fir, shiplap sheathing; inside—studs and plywood. Ceilings—Weatherwood tile, U. S. Gypsum Co.  
**INSULATION:** Red Top Rockwool, U. S. Gypsum Co.  
**SHEET METAL WORK:** Flashing—Tongan iron, Republic Steel Corp.  
**WINDOWS:** Glass — Libbey-Owens-Ford Glass Co.  
**WALL COVERINGS:** Main rooms—plywood. Kitchen and bathrooms—plaster on Sheetrock, U. S. Gypsum Co.  
**PAINTS:** Pratt & Lambert, Inc., Johnson Wax Co. and A. C. Horn Co.  
**DOORS:** Rezo, Paine Lumber Co.  
**HARDWARE:** Sargent & Co.  
**KITCHEN EQUIPMENT:** Range and refrigerator—General Electric Co. Sink—Crane Co.  
**BATHROOM EQUIPMENT:** Crane Co.  
**PLUMBING:** Water pipes—copper, Revere Copper & Brass, Inc.  
**HEATING:** Floor panel heating. Boiler — Triad Products Corp. Panel pipes—A. M. Byers Co. Thermostat—Minneapolis-Honeywell Regulator Co. Water heater—Crane Co.



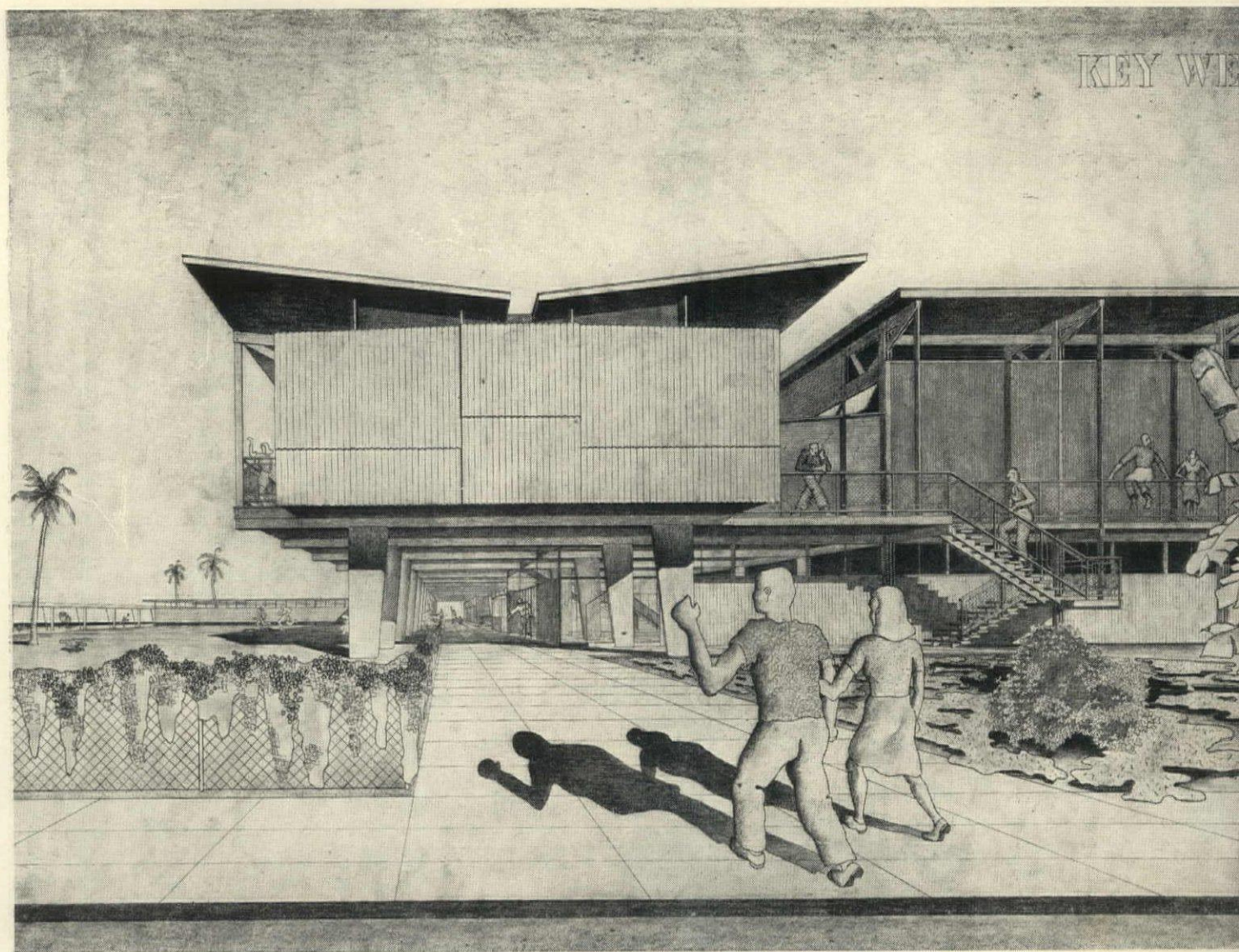
# RECREATIONAL CENTER

PROPOSED FOR KEY WEST, FLORIDA

WALTER GROPIUS, ARCHITECT

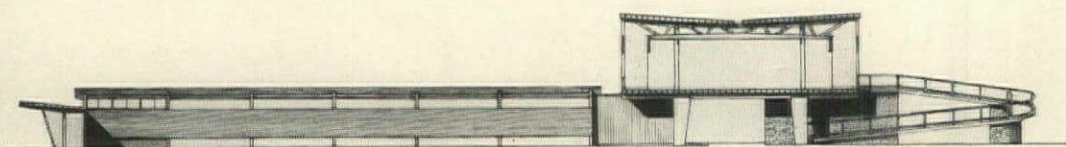
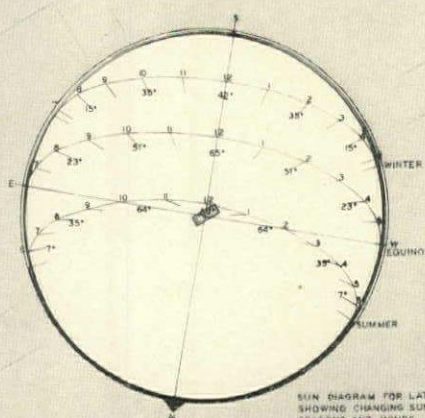
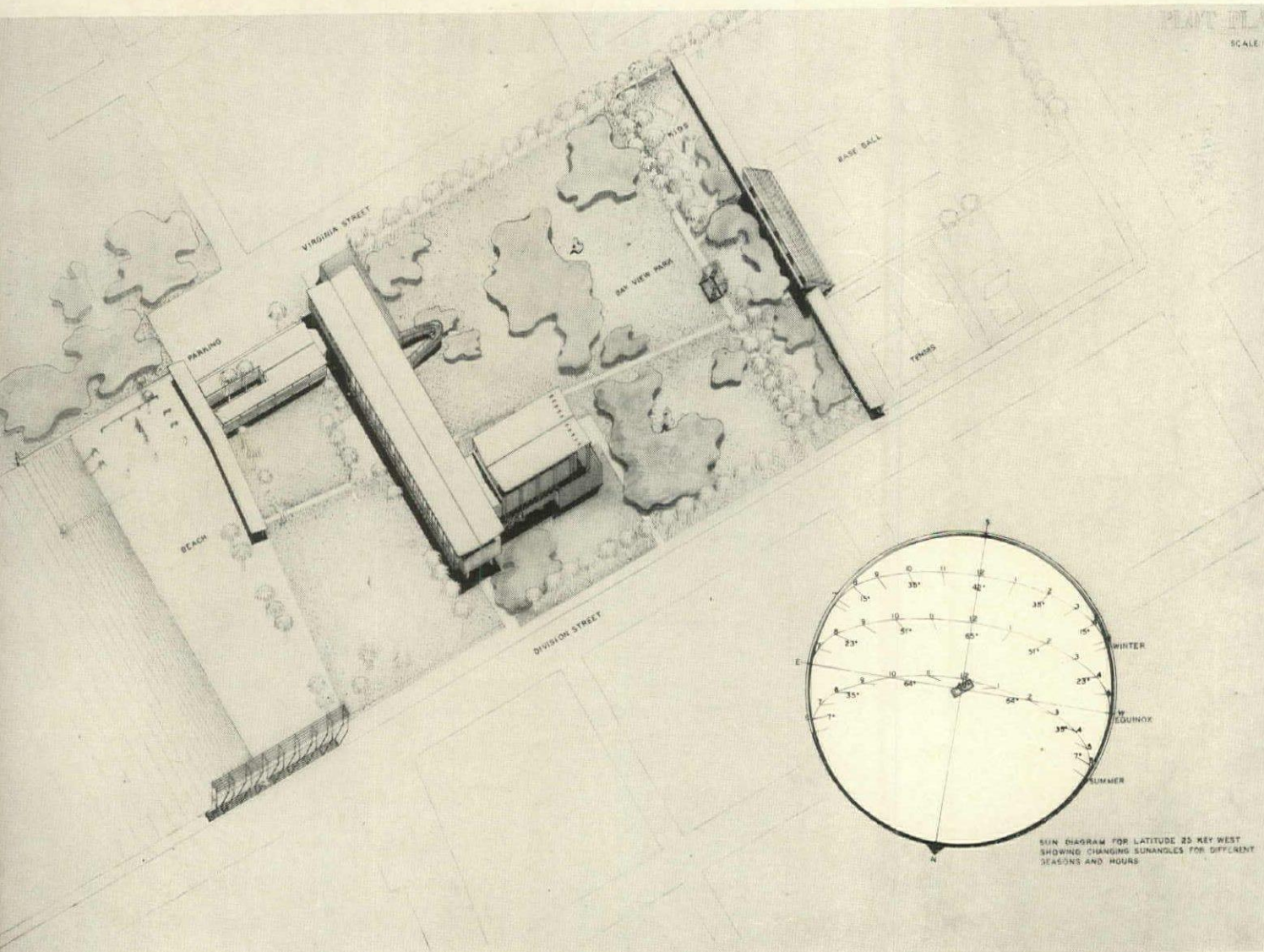
KONRAD WACHSMANN, ASSOCIATED

Projected as a center to serve the diverse needs of a medium-sized community with a considerable tourist trade, this recreational center comprises a bathing beach and bathhouse (capacity 200 bathers per hour), a club and game building, elevated so as to form a shaded terrace, and a meeting hall seating 520. While intended primarily for permanent, peacetime use, its construction at the present time is being urged to contribute to the relief of an acute shortage of such facilities for service men—both Army and Navy—now stationed at Key West. The design is worked out for minimum use of strategic metals, and for the tropical climate of the location. Double roofs, supported on wooden cantilever trusses from which balconies are hung, shade the club building and meeting hall from the hot sun and provide ample space for air to circulate and carry off the heat absorbed by the upper surface of the roof.

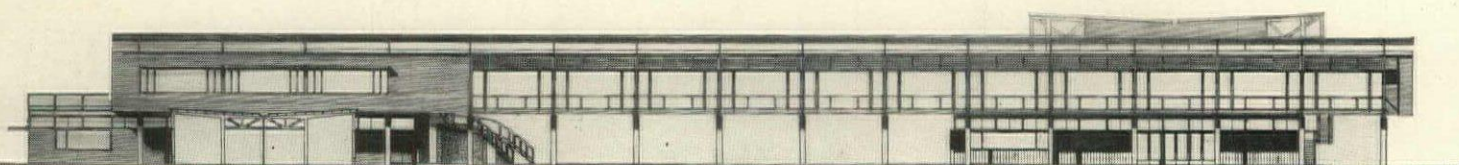
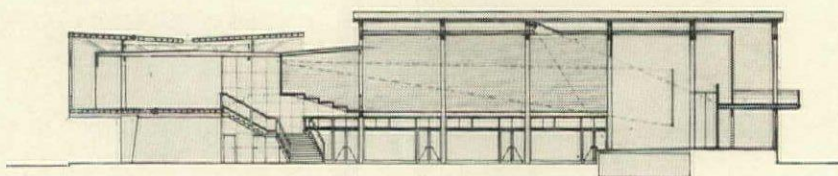




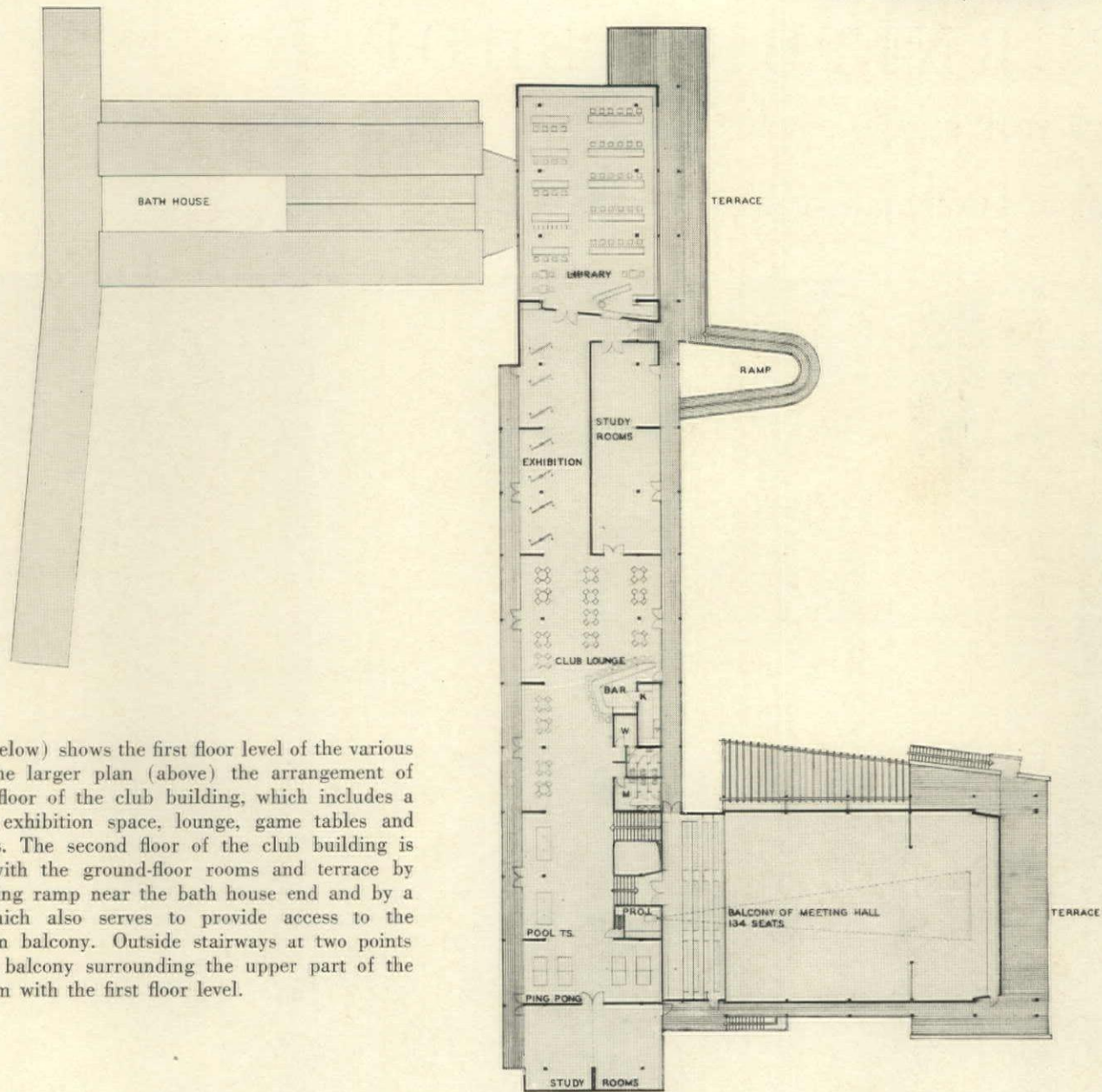
# RECREATIONAL CENTER



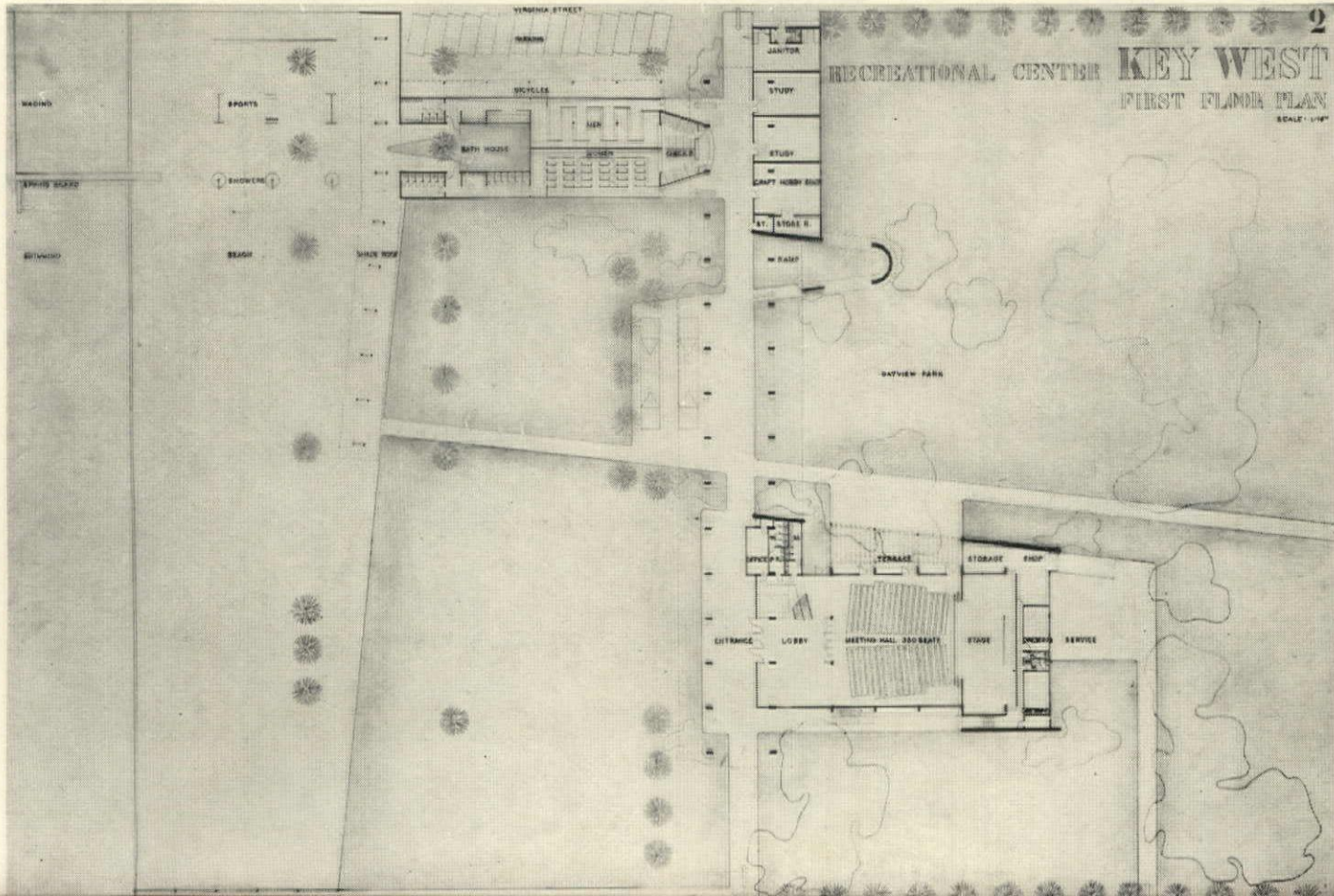
Isometric airview (above) shows the relationship of the various buildings to the beach, park and baseball field. The drawing immediately above is a section through the club and game building—which shades a generous terrace—looking towards the bath house connecting the club building with the beach shelter. The drawing at the right is a longitudinal section through the meeting hall and the end of the club building; the drawing below a front elevation of the club building and section through the bath house.







Site plan (below) shows the first floor level of the various buildings, the larger plan (above) the arrangement of the second floor of the club building, which includes a library, an exhibition space, lounge, game tables and study rooms. The second floor of the club building is connected with the ground-floor rooms and terrace by a free-standing ramp near the bath house end and by a stairway which also serves to provide access to the meeting-room balcony. Outside stairways at two points connect the balcony surrounding the upper part of the meeting room with the first floor level.





# FURNITURE SHOP

NEW YORK CITY

MORRIS KETCHUM & FRANCIS X. GINA, ARCHITECTS

*Photos, Ezra Stoller*



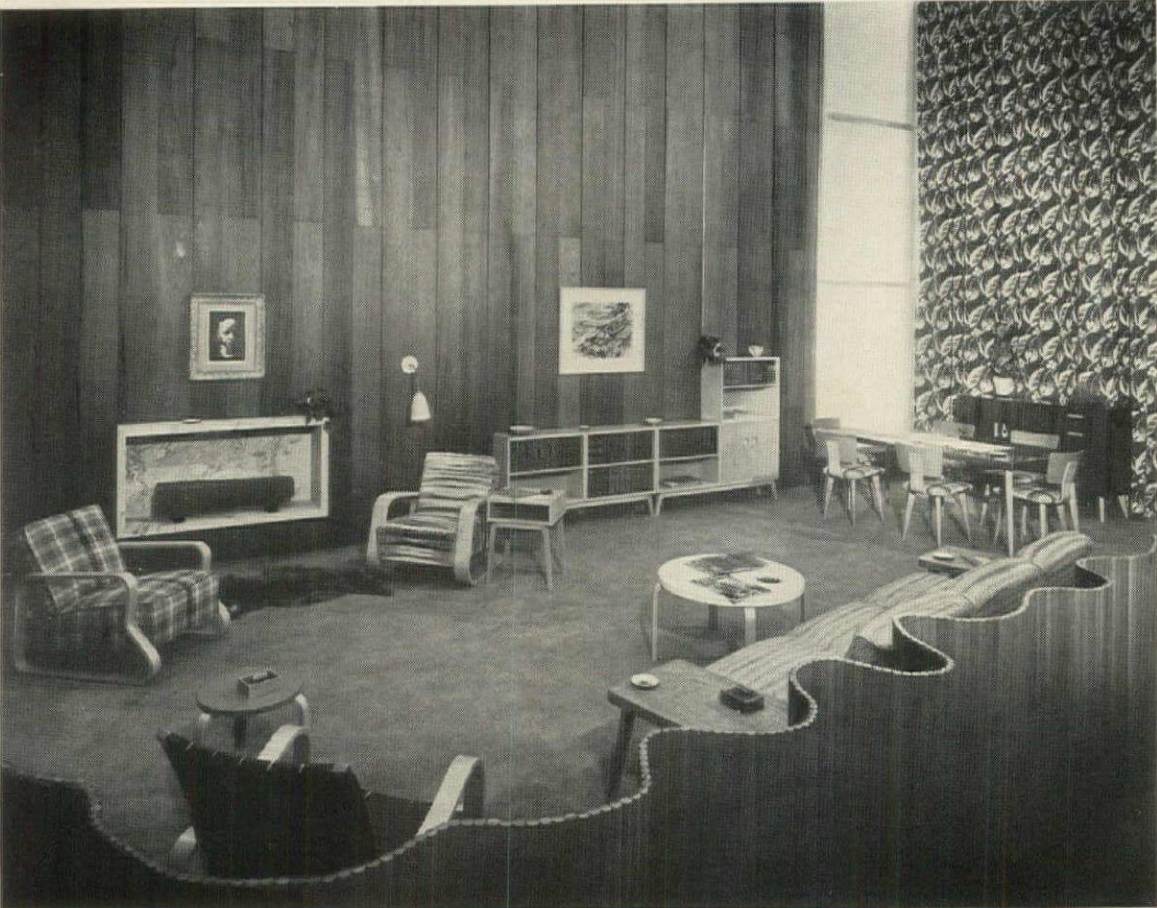




In this salesroom for the well-known manufacturers of modern furniture, Artek-Pascoe, the entire front portion of the shop has been treated as a huge show window, two stories in height, designed to provide a frame and background for the displays similar to a modern house. The new store occupies a taxpayer erected on the site of an old brownstone, and provides a 25 ft. by 90 ft. first-floor sales area, basement storage and a mezzanine gallery with offices for the firm at the rear. The general arrangement of the space is exceedingly simple and effective, with the added height of the front of the store adroitly used to provide accent and drama. Interior finishes, mostly wood and fabric, are warm and attractive, and have the added advantage that virtually no critical materials were used in the construction. The open stairway to the mezzanine gallery was used so as not to obstruct the view of the rear of the first floor; a flexible, serpentine wood screen alongside the entrance door steers the entering customer past the display space and towards the sales area.



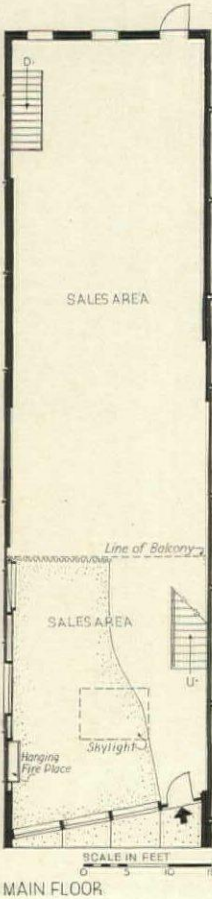
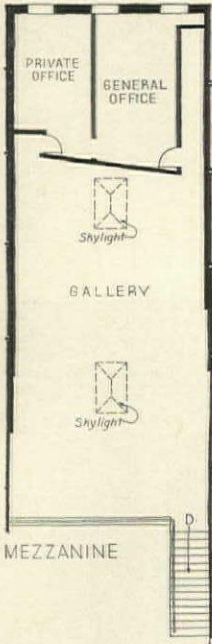




FINISHES AND EQUIPMENT

FLASHING—galvanized iron. INSULATION—rockwool. SHOW WINDOWS: Sash—wood. Glass—plate. FLOOR COVERINGS: (1st.)—cork, Kennedy & Co. Mezzanine—oak strips. DOORS—Johns-Manville. HARDWARE—P. & F. Corbin Co. PAINTS—Sherwin-Williams Paint Co. ELECTRICAL INSTALLATION: Wiring—BX. Fixtures—Kurt Versen, Inc. Panel board—Westinghouse Electric & Mfg. Co. PLUMBING: Fixtures—American Radiator-Standard Sanitary Corp. HEATING: N. Y. Steam Co. Radiators—American Radiator-Standard Sanitary Corp.

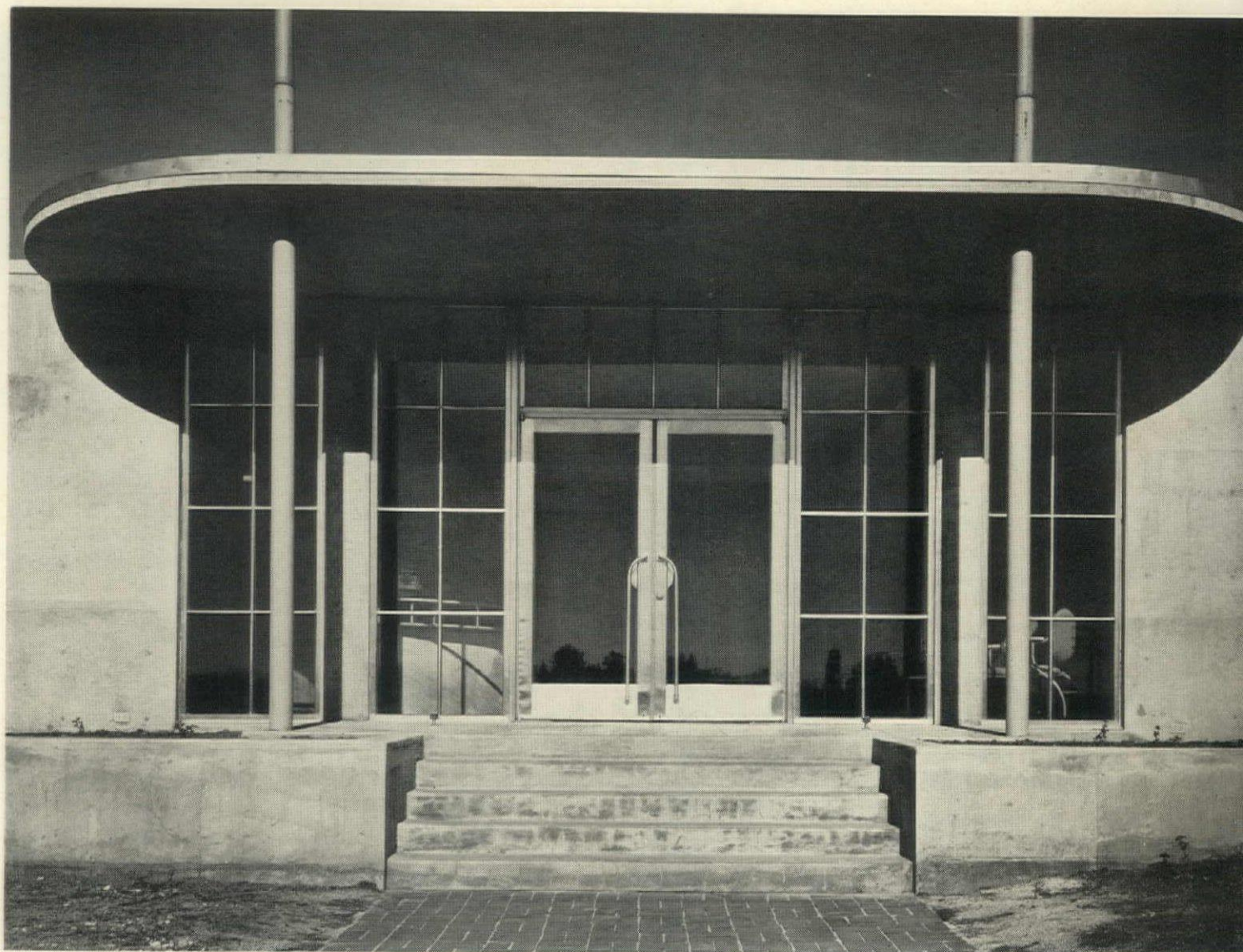
Plans (right) show the arrangement of the first floor and mezzanine sales areas, and mezzanine office space. View above shows the front of the shop from above the entrance door, photograph below is taken from a point about at the middle of the store, looking towards the back.



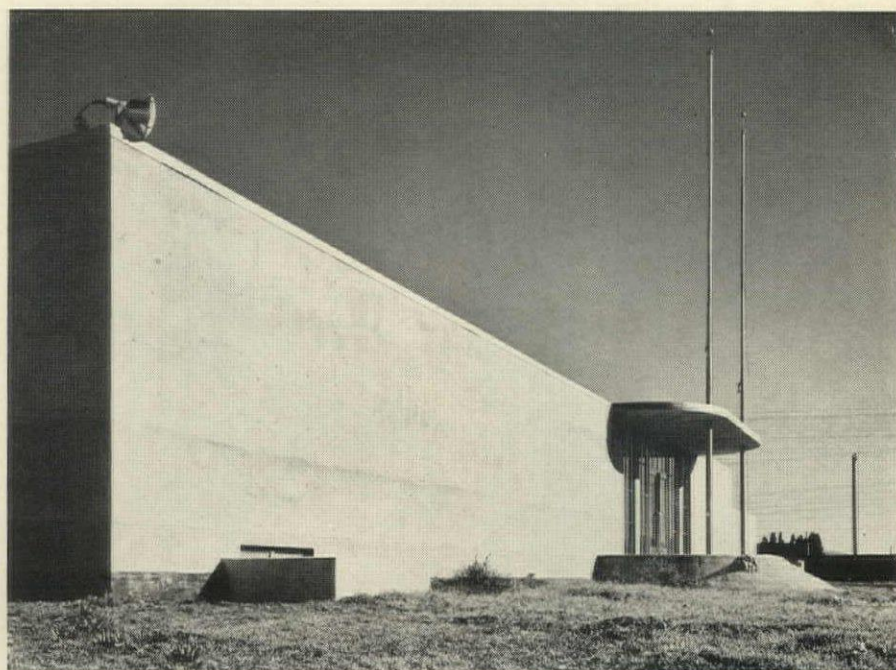


# ADMINISTRATION BUILDING

FOR AN INDUSTRIAL PLANT IN CALIFORNIA



ELDRIDGE T. SPENCER, ARCHITECT



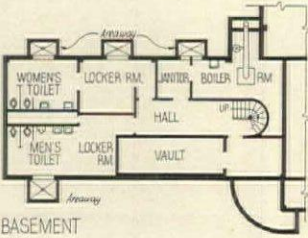
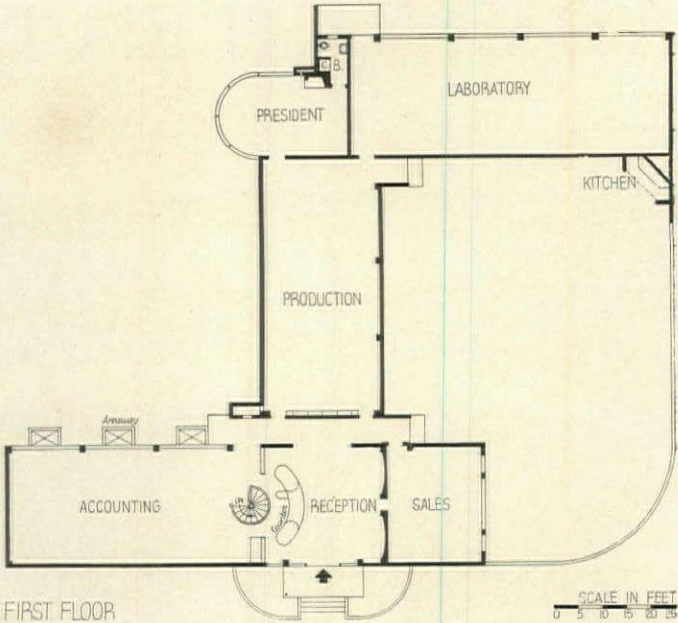
Photos, Ansel Adams



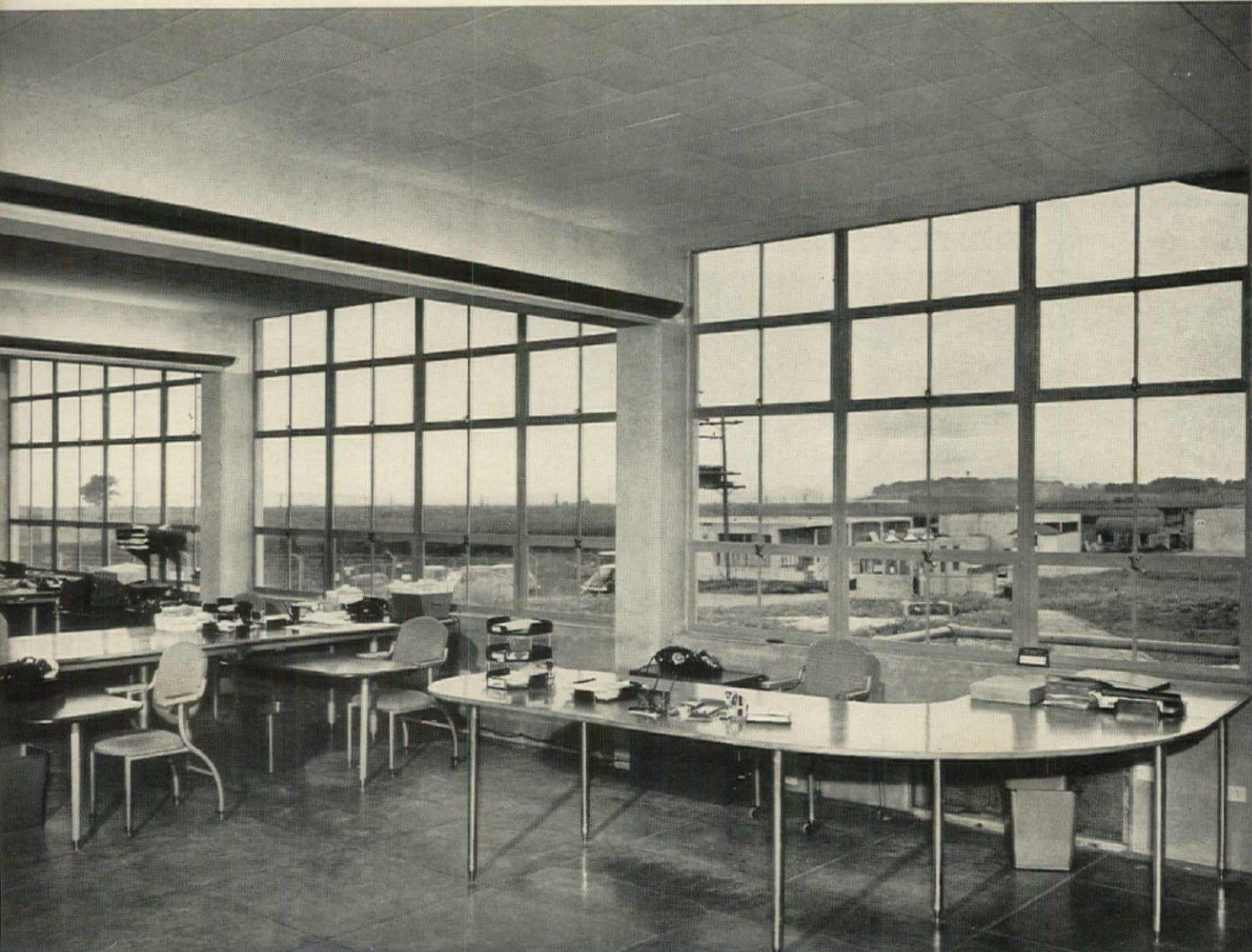
ADMINISTRATION BUILDING

This administration building for a California chemical plant is located on an Indian mound 15 ft. high and 300 ft. in diameter in the middle of an area of level ground on which the manufacturing buildings are dispersed. The building comprises general office space for accounting and administration, a reception room and sales office, the office of the president of the company and a research laboratory. Construction is reenforced concrete without interior furring on walls. The cement floor is heated by hot water circulating through hard copper tubing; ceilings are finished with acoustical tile. All sheet metal on the exterior is stainless steel, the building having been completed in 1941 when this material was still available.

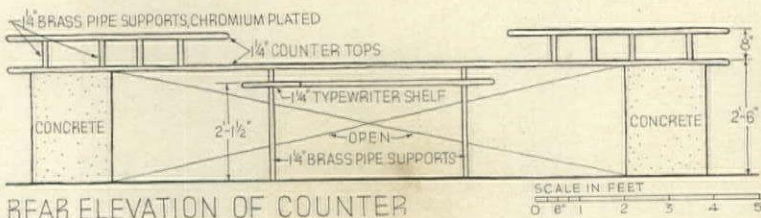
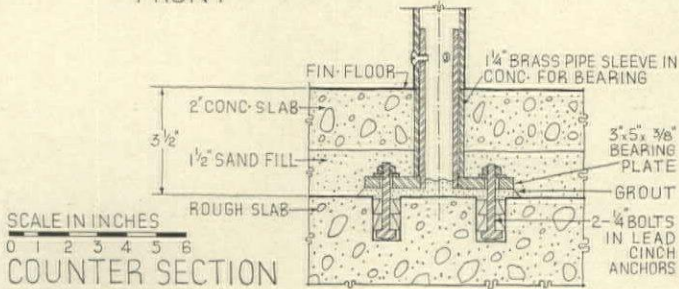
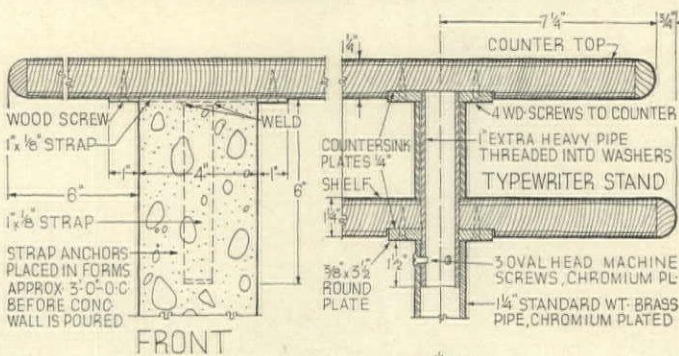
A thorough study of office procedures was made by the client before the building was designed, and the architect was assigned to the task of working out suitable furniture and fixtures along with the building plans. Individual desks in the general office space (photo below) have been replaced with 16 ft. by 5 ft. two-level work tables with adjustable side tables for office machines. American walnut, natural finish, is used for table tops and as a veneer on screens which control sight lines. The reception desk in the main lobby (photo and details, opposite page) is worked out on the same scheme with a solid base of concrete. Special chairs, designed for use on the cement floors, have backs and seats padded with latex cushions and covered with woven material.



GENERAL OFFICE







Backs of special chairs (above) are reversible to give two heights of back. Note that bent back legs, used for chairs shown in view of general office space on the opposite page, have been changed in this design to a straight member. This change was necessitated by a shortage of pipe-bending equipment on the Pacific Coast. Details (left) show construction of reception desk shown in the photo at the top of the page.





**PRESIDENT'S OFFICE**

The president's office is located to give sight-line control over the operation of the entire plant. His desk (above) provides plenty of room for conferences and space for drawings or models needed for study or discussion. Sun curtains are Fiberglas.

## CONSTRUCTION OUTLINE

**FOUNDATION:** Reinforced concrete, Waterproofing—integral, Sullivan Co.

**STRUCTURE:** Exterior walls—concrete; inside—Weldwood, U. S. Plywood Co. Floors—concrete. Ceilings—soundproofed with Siliclar, Western Siliclar Corp.

**ROOF:** Asphalt roofing, U. S. Gypsum Co.

**SHEET METAL WORK:** Stainless steel, U. S. Steel Corp.

**WINDOWS:** Sash—steel, projected. Glass—quality A, single strength, Libbey-Owens-Ford Glass Co.

**WALL COVERINGS:** President's office—Fiberglas drapes, Owens-Corning Fiberglas Corp.

**FURNISHINGS:** Designed by architect.

**DOORS:** Stainless steel and walnut.

**HARDWARE:** P. & F. Corbin Co.

**PAINTS:** W. P. Fuller & Co.

**ELECTRICAL INSTALLATION:** Westinghouse Electric & Mfg. Co.

**PLUMBING:** Fixtures—American Radiator-Standard Sanitary Corp. Soil and vent pipes—U. S. Steel Co. Water pipes—A. M. Byers Co.

**HEATING:** Radiant heating system. Thermostats—Minneapolis - Honeywell Regulator Co. Valves and water heater—Crane Co.







*One thing this War Proves!*

Warehouse of American Stores Co., Baltimore, Md. Equipped with 7 Ro-Way Doors. Consolidated Engr. Co., Contractors.

## ..You can't WIN with Weapons of 25 years ago

We can thank our lucky stars that American inventive genius and manufacturing skill have never been satisfied with past achievements!

Perhaps you haven't thought of the importance improved overhead type garage doors are playing today. Quick, easy action . . . plenty of power and freedom from annoying delays. That's what America's Armed Services and the essential War Industries demand. That's why you'll find so many Ro-Way Doors selected to serve the Armed Services. That's why you'll see so many of them in use in plants of essential industries.

State Armories, Methuen, Mass. Equipped with 42 Ro-Way Doors. J. E. Bennett Co., Boston, Contractors.

Here are some of the improved features of . . .

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### OVERHEAD TYPE DOORS

—that make them as modern and efficient as the latest implements of war:

**"Crow's Foot" Outer Bearing Support**—Rigidly holds the chain sheave wheel in permanent alignment. No twist . . . no sag to cause friction.

**"Zip-Lock" Adjustment**—Used on Ro-Way Doors having Twin Torsion Spring Power. Permits instant easy adjustment of spring tension.

**"Tailor Made" Springs**—Each spring is individually made for the Ro-Way Door on which it is used. Each is power-metered to the weight of the door.

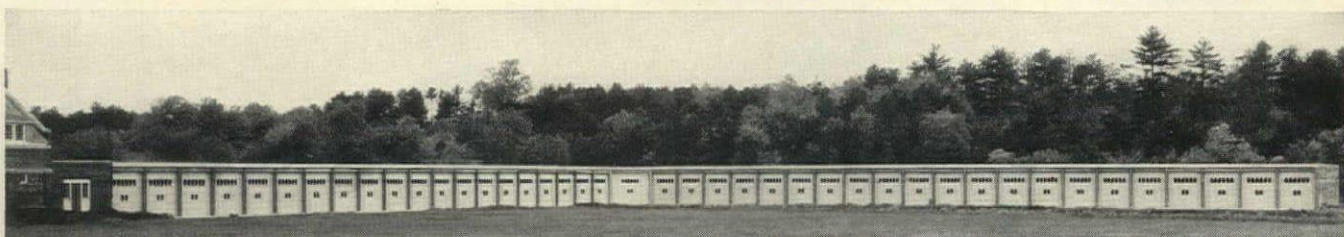
**Track Rollers**—Made on our own specially-designed machines. All Rollers have "double thick" wearing tread, and full ball bearing (7 to each roller.)

**New Friction-Reducing Track**—Track is formed so rollers ride well away from the track side wall, giving extra clearance and easier operation. This track design also gives extra strength and rigidity. No counter-sunk holes in track—no flat head stove bolts used.

**Rust-proof Hardware**—All Parkerized and Painted after fabrication.

Write for Ro-Way's 72-page "Time-saving Specification Book" for Architects, with detailed drawings on all models of Ro-Way Doors for Residential, Commercial and Industrial uses. Sent free on receipt of Professional Card or Letterhead.

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# Efficient Illumination

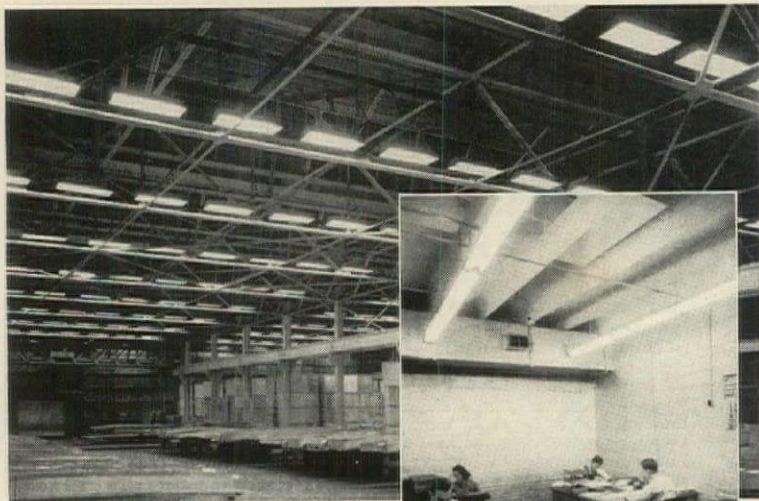
## for WAR PLANTS and OFFICES!

# Guth FLUORESCENT



## Dependable Fixtures---Quick Service!

We offer you and your clients two of the most important essentials for today's Production demands. *First*, as the result of our 40 years of lighting experience, we manufacture the efficient, high-quality Fluorescent Lighting Equipment necessary to provide good illumination. *Second* — our entire factory and force is geared up to give quick delivery on jobs of 1 to 1000 units. Write or wire us today.



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FORTIETH YEAR OF **Guth** LIGHTING LEADERSHIP

THE EDWIN F. GUTH CO. • 2615 Washington Ave. • St. Louis, Mo.

## MONTH IN BUILDING

(Continued from page 34)

► Joseph Eastman, ODT's Director, sent 48 letters to 48 Governors urging careful use and conservation of the country's 5,000,000 motor trucks.

► Started in Pontiac, Mich., a "Share-A-Ride" movement, to encourage group riding on a planned basis in order to ease transportation congestion, conserve gas and tires. The ride-sharing experiment has been placed in operation in Dallas, Detroit, Chicago, Houston, Seattle, Providence, many more small cities.

## FACES—NEW AND NOT SO NEW



JACOB CRANE: Engineer

Universal Press

Spring practice was over, and Coaches Blandford and Emmerich were ready to name their varsities. Most of the players were familiar oldtimers, carried over from Spring practice, whom the crowd in the stands could identify without numbers on their backs. Some of the faces:

## NHA

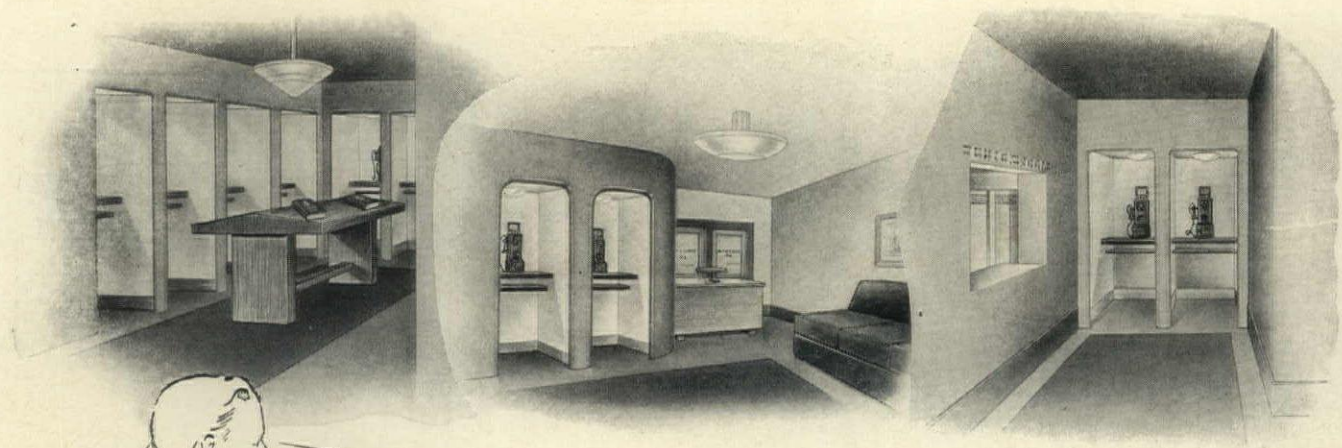
► Leon H. Keyserling, General Council, NHA, LL.B., Harvard, legislative expert to Senator Robert F. Wagner, Mr. Keyserling is generally credited with having drafted the original public housing legislation.

► Clarence W. Farrier, Director, Technical Division, NHA. His job: to untangle problems of standards of design, materials and methods of construction; to get materials for housing. Once with NBC, TVA and Chicago World's Fair, he has a degree in architecture, is both a lecturer and writer on architectural and housing problems.

► Jacob Crane, Director of Urban Studies, NHA. Mr. Crane is a civil engineer, city planner, lecturer, author, with a long record of planning experience for NRPB, FHA, PWA and foreign governments.

(Continued on page 96)





# A SIMPLE WAY *to design* BUILT-IN TELEPHONE BOOTHS



## Here's why this Acousti-Booth is quiet inside

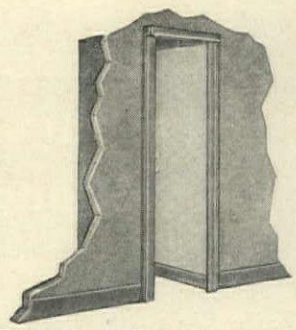
Behind the perforated wall of this booth is a thick blanket of sound-absorbent material which soaks up noise. Privacy is thus assured without doors.

Built-in booths are the modern way to provide public telephone facilities. They are compact, attractive, and easily matched to any interior decorating scheme. When your plans call for built-in telephone booths, consider Burgess Adaptor Acousti-Booths. These complete units are easy to install in any modernization or building project. In addition, they offer acoustic telephone booths of modern design with a minimum of planning.

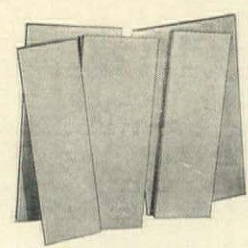
Patented Burgess construction makes these booths quiet and easy to use. They have no doors because the acoustic construction makes doors unnecessary. Users like these booths because of their comfort, and operating men appreciate the fact that no maintenance of mechanical parts is necessary.

Burgess Adaptor Acousti-Booths are supplied unfinished and without trim for easy installation in any outer housing designed by the architect. Acousti-Panels are also available for use in old-style built-in booths. The door can be removed from old booths after this acoustic lining is supplied. For further information about Burgess Acousti-Booths, mail the coupon.

Operating under Burgess Patents

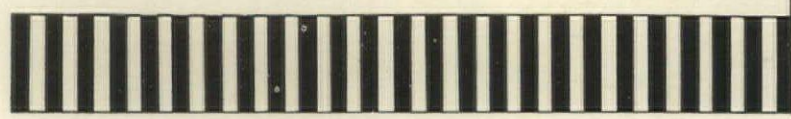


Burgess 209 Adaptor-type Acousti-Booth for built-in construction.



Burgess Acousti-Panels for modernizing existing built-in booths.

# BURGESS *Acousti-Booths*



## MAIL COUPON FOR DESCRIPTIVE LITERATURE

Burgess Battery Company  
2821-B West Roscoe Street  
Chicago, Illinois

Please send literature showing construction of all types of Burgess Acousti-Booths.

Name .....

Address .....

City .....

State .....



# JUST PUBLISHED

## TECHNICAL DATA ON PLYWOOD

...the first 2 chapters of a  
new engineering handbook  
on Douglas Fir Plywood

Write for your free copy of this loose-leaf data book now.  
Additional chapters will be sent you as they are completed!

● This engineering handbook contains data on the mechanical properties of Douglas Fir Plywood never before available to engineers and architects. You will find that this data makes Douglas Fir Plywood far more useful to you... that it will enable you to specify this "miracle wood" as a pinch hitter for unavailable materials, as a structural material and for countless other purposes.

This handbook also contains the new U. S. Commercial Standards for Douglas Fir Plywood, CS45-42, established in cooperation with the National Bureau of Standards. It describes the revised types and grades of Douglas Fir Plywood in detail and tells you how to use them.

Write now for your free copy of "Technical Data on Plywood." It is in loose-leaf form, and you will be sent additional chapters as they are published. Douglas Fir Plywood Association, Tacoma Bldg., Tacoma, Washington.

### DOUGLAS FIR PLYWOOD

*Real Lumber*  
**MADE LARGER, LIGHTER  
SPLIT-PROOF  
STRONGER**

"A PRODUCT OF AMERICA'S ETERNALLY REPLENISHING FORESTS"

## MONTH IN BUILDING

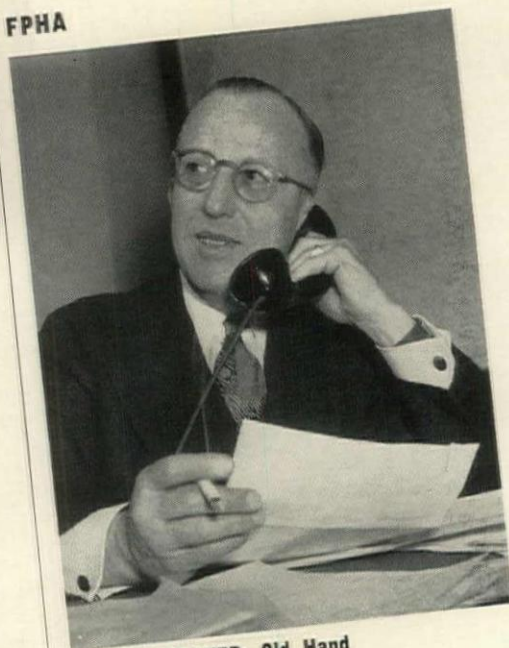
(Continued from page 94)



**COLEMAN WOODBURY: Scholar** *Harris & Ewing*

► Coleman Woodbury, Assistant Administrator, NHA. Scholar (Assistant Professor of Economics at Northwestern University), economist (President's Conference on Home Building and Home Ownership).

## FPHA



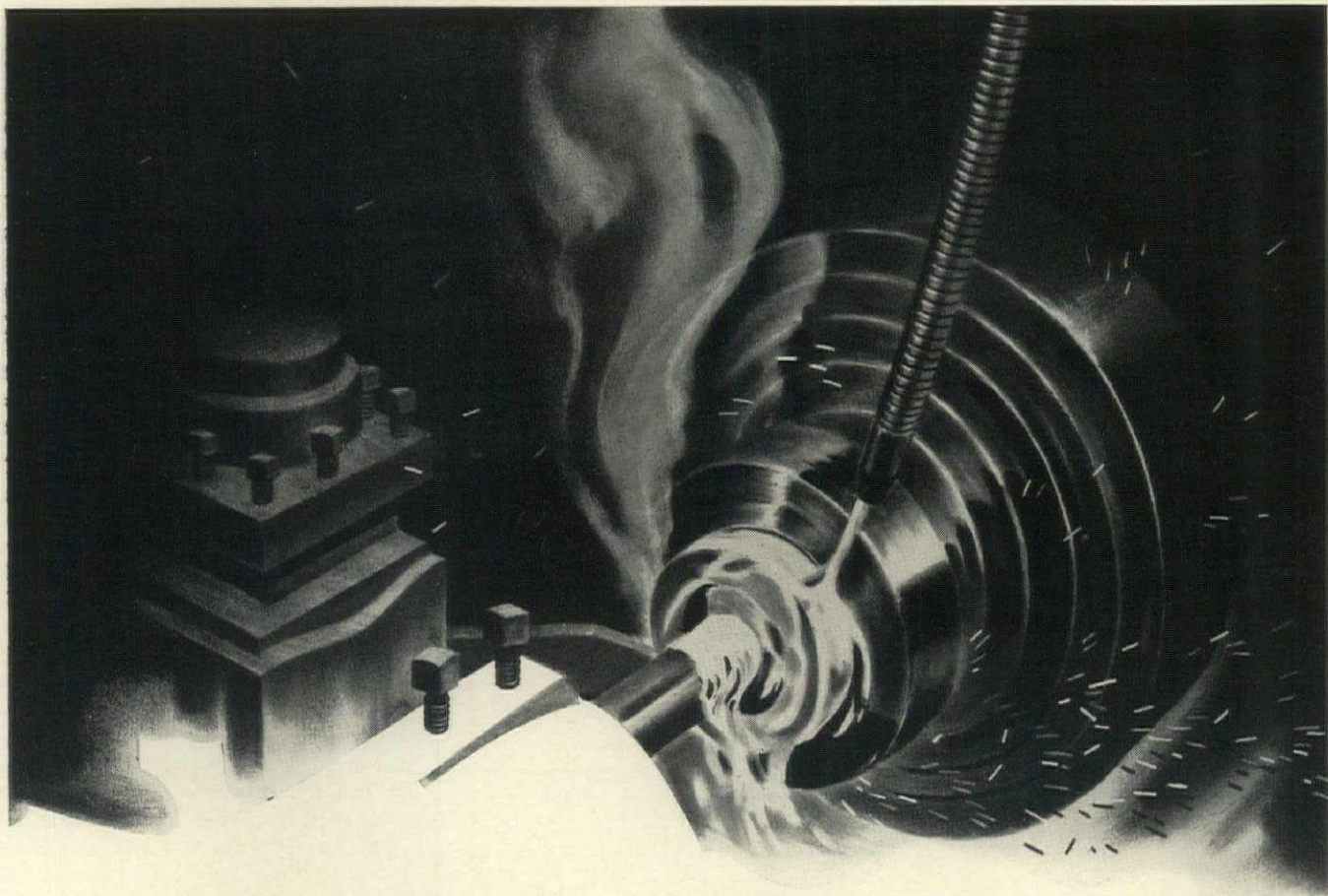
**WILLIAM SEAVER: Old Hand**

► William P. Seaver (pictured above), Assistant Administrator of FPHA, in charge of Project Development. Previously: Assistant Administrator of USHA in charge of Project Management. Architect and engineer of 35 years construction experience.

► Hirst Sutton, Executive Assistant to Commissioner Emmerich. Once City Manager of Saginaw, Mich., he was on the staff of Public Administration Service in Chicago.

(Continued on page 98)





## THE RISING SMOKE OF BATTLE

Inside factories where America's production battle goes on night and day, walled-in smoke and haze are being whisked away as if by magic.

The elimination of smoke and dust within these war plants helps keep men and their production at peak efficiency. In many such industries, our engineers are creating dirt-free circulating air with PRECIPITRON\*—the Westinghouse air cleaner that operates by electricity.

Precipitron removes 90% of all air-borne particles even as small as  $1/250,000$  of an inch in diameter. Its operation is simple. All particles in the circulating air are given an electric charge and then drawn out of the air stream by oppositely charged plates. It brings an entirely new meaning to industrial air cleaning.

Today, Westinghouse electric air cleaning

protects super-finished surfaces of airplane engine parts from air-borne grit and corrosive specks. To reduce the threat of maintenance shut-downs, it cleans ventilating air for large rotating electrical machinery in steel mills and power generating stations. Ventilating air in lens grinding and precision instrument plants and film laboratories is cleared of damaging dust and dirt. And in windowless blackout plants, Precipitron clears industrial haze that rises from vaporized machine tool coolants.

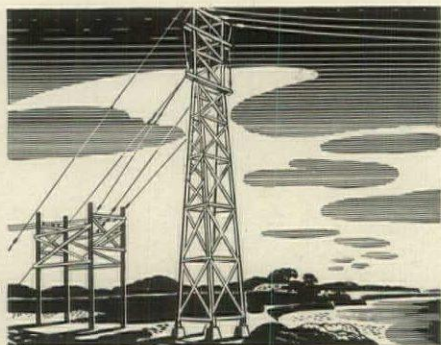
We would like to tell you more about electric air cleaning, and how it rids the smoke of battle from war industries. Just write Westinghouse Electric & Manufacturing Co., Edgewater Park, Cleveland, Ohio, for our new Precipitron folder B-3083.

\*Trade-mark registered in U. S. A.



Westinghouse *Precipitron*





# You know it's O.K. when they cross rivers with wood

**WOOD TOWERS** are carrying power lines across rivers, supplying electricity to plants making vital war products. Wood releases steel for munitions and fighting equipment. Wood goes up quickly, yet has the high strength and the light weight required for "high line" towers.

**WOLMANIZED LUMBER\***—wood that is vacuum-pressure impregnated to make it resistant to decay and termite attack—assures long life for these structures. Service records on millions of feet of Wolmanized Lumber, some of it in use for more than fifteen years, are evidence of its lasting ability.

**WARTIME CONSTRUCTION** employing Wolmanized Lumber shows how engineers are looking to the future. They are meeting the demands for speed, but they're also making certain that maintenance costs will be low when these structures are switched to peacetime service.

**WHEN YOU ARE ABLE** to resume peacetime construction, think of Wolmanized Lumber as a means of defeating decay and termite attack. We'll gladly send you information on its use. Write American Lumber & Treating Company, 1647 McCormick Building, Chicago, Ill.

\*Registered Trade Mark

## WOLMANIZED LUMBER



### MONTH IN BUILDING

(Continued from page 96)

►John N. Edy, Assistant Commissioner for Administration, FPHA. Formerly executive officer of FWA, Assistant Director of U. S. Bureau of the Budget, City Manager of Toledo, Ohio.

►Lee F. Johnson, Assistant Commissioner of Project Management, FPHA. A native of Colorado, Johnson assisted Nathan Straus at USHA, was consultant to the National Resources Committee.

These are the boys who will carry the ball, determine whether housing in the next year will lose more ground or complete some significant and sorely needed forward passes.

### TIT WILLOW RUN

Detroit last month provided the Gilbert and Sullivan-esque spectacle of bomber-maker Ford shooing Government surveyors from his property which FPHA had selected for a permanent housing project. Early this month came word that Blandford, after making a personal investigation, had decided for Ford and against the public housers. It seemed likely that if the Bomber City project proceeded at all it would be cut down to 2,500 units as compared to the originally projected 6,000. Five interested observers of this reducing exercise were the architects, each of whom had been assigned 1,200 units. Now they wonder whether there will be any units at all, and if so, whether two of the architects would get all of them, or whether the 2,500 remaining, a figure evenly divisible, would be handled on a five-way split.

Submitted to the Truman Committee on July 16 by Blandford was a much scaled-down Bomber City project: 2,500 family homes, temporary dormitories for 3,000 single workers, 1,000 2-person, light-housekeeping apartments and 4,500 privately financed homes. Even this program met with no enthusiasm from the Senate Committee, which wasn't convinced of the necessity of the Bomber City at all. "Why not subsidize the transportation (to and from Detroit) and save all this outlay of money and materials for construction?" asked Senator Harley Kilgore. Committee recessed its inquiry until WPB officials provide more adequate data on the materials required.

### GREENER PASTURES

Meanwhile, myopic utopians of the Urban Land Institute issued a report to its members which proposed a "long-range program" for postwar Detroit. Not to be fazed by "the immediate tangles in accommodating war workers, transportation of city residents to outlying factories, movement of suburbanites to centrally located work centers, and hotly debated housing

(Continued on page 100)





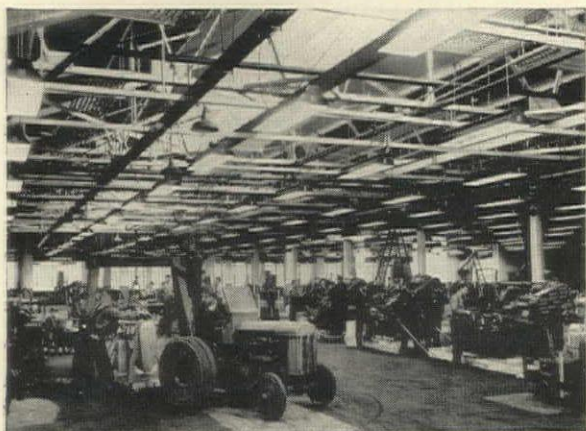
Make this label  
your key to new  
or conversion  
lighting



# For large plants or small

wherever fluorescent lighting  
is needed to speed the job...

**specify FLEUR-O-LIERS**



Precision and speed are uppermost in this airplane engine plant. These sturdy 100-watt FLEUR-O-LIER units are helping to keep production in high gear.



FLEUR-O-LIERS provide even, shadow-free light in this fabrics shop helping to prevent cutting mistakes which would mean accidents and waste.

With War needs forcing plants to cram three days' work into one, the value of dependable fluorescent lighting is making itself more evident than ever. Whether it's in an office, drafting room or out in the shop, you can specify FLEUR-O-LIERS, and be sure of getting fixtures built for dependable service and maximum lighting performance. The FLEUR-O-LIER label is your key.

FLEUR-O-LIERS are made in various sizes and designs by over 45 leading fixture manufacturers located at important points all over the country. This means better service on war plant orders, for either new or conversion lighting.

FLEUR-O-LIERS are *tested* and *certified* by impartial Electrical Testing Laboratories of New York as meeting 50 definite Standards set up by MAZDA lamp manufacturers for balanced performance and satisfactory operation.

A vital tool in wartime production, fluorescent fixtures now require a suitable WPB priority rating. Any of the FLEUR-O-LIER Manufacturers will be glad to work with you on this to get the best lighting possible.



Get this new booklet for full details and list of manufacturers. Write FLEUR-O-LIER MANUFACTURERS, 2119-8 Keith Building, Cleveland, Ohio.

## FLEUR-O-LIERS

CERTIFIED FIXTURES FOR FLUORESCENT LIGHTING

Participation in the FLEUR-O-LIER MANUFACTURERS' program is open to any manufacturer who complies with FLEUR-O-LIER requirements



# .....WHAT IS THE LINOLEUM SITUATION TODAY?

BECAUSE of the shortage of strategic cork and burlap, the Government has issued orders restricting the use of these materials in the manufacture of linoleum. Consequently, Armstrong is now making burlap-backed, cork-content linoleum for wartime uses only. The Army, Navy, Coast Guard, and Maritime Commission have first call on this material. Whatever remains goes into essential war construction that has been given a high priority rating.

However, for those jobs that cannot be classified in the above categories, there is still an assortment of Armstrong Flooring products available. Development work was begun on these products long before the present emergency; and, as a result, Armstrong is able to offer: (1) cotton-backed linoleum made without cork; and (2) a special new felt-backed product with the same wearing surface as linoleum and in Heavy ( $\frac{1}{8}$ " ) and Standard

( $\frac{5}{64}$ " ) Linoleum Gauges. This product also is made without cork. We are not calling it linoleum simply because its "super" felt backing cannot be classified as a woven fabric. On the other hand, it should not be confused with Linoflor, in which the over-all gauge is only  $\frac{1}{16}$ " , and in which a lower-priced felt is used.

These wartime products are as good as we know how to make them—and as good as they have to be to earn the right to wear the Armstrong trade-mark. You can specify them with complete confidence if you specify that they be installed strictly in accordance with our instructions. When they are so installed, we stand behind them 100%.

For your convenience, we are summing up the linoleum situation in the handy table below. Extra copies for pasting into your copy of Sweet's—are available upon request. Armstrong Cork Co., Floor Division, 1203 State St., Lancaster, Pa.



	RESTRICTED USE	NONRESTRICTED USE	
	BURLAP-BACKED (Cork content)	COTTON-BACKED (No cork)	FELT-BACKED (No cork)
PLAIN (Battleship)	$\frac{3}{16}$ " and Heavy ( $\frac{1}{8}$ " ) Gauges in K-20 Brown, K-21 Evergreen, and K-25 Terra Cotta for Army, Navy, Coast Guard, or Maritime Commission only.		Selected colors in Heavy ( $\frac{1}{8}$ " ) and Standard ( $\frac{5}{64}$ " ) Gauges. "Super" felt backing.
MARBELLE		Selected colors in Heavy ( $\frac{1}{8}$ " ) and Standard ( $\frac{5}{64}$ " ) Gauges.	
JASPE			Selected colors in Heavy ( $\frac{1}{8}$ " ) and Standard ( $\frac{5}{64}$ " ) Gauges. "Super" felt backing
STRAIGHT LINE INLAID			Selected colors in Standard ( $\frac{5}{64}$ " ) Gauge. "Super" felt backing.
EMBOSSSED INLAID		Selected colors in Heavy ( $\frac{1}{8}$ " ) and Standard ( $\frac{5}{64}$ " ) Gauges.	
LINOWALL		Selected marble colors as usual.	
LINOFLOR			Marbleized and patterned effects in $\frac{1}{16}$ " gauge. Standard felt backing.

ARMSTRONG'S LINOLEUM

MADE BY THE MAKERS OF ARMSTRONG'S LINOWALL AND RESILIENT TILE FLOORS

## MONTH IN BUILDING (Continued from page 98)

shortages," Detroit Realtor Carl S. Wells worried about shaping the hasty building of the present into an "orderly and livable pattern" in the postwar era.

### CEILING NO LONGER ZERO

OPA this month announced long-awaited imposition of rent control by Federal Government in 54 cities effective July 1. Simultaneously Federal rent control administrators were appointed for these places. This brings to 75 the number of cities in which the Government has taken a hand in keeping down rents, has taken over control itself. 248 other defense rental areas still remain where the sixty-day grace period allowed state and local officials to bring about the desired reductions have expired. Boss Henderson said the fact that these places were not included does not mean they are not being watched. OPA will get to them in its own sweet time.

The rent program, however, was not proceeding unopposed. In Chicago a group of landlords and real estate owners from 20 cities organized the National Federation of Property Owners Association to battle for strata ceiling rents which would recognize increased local taxes and other uncontrolled operating expenses. Accepting the ceiling idea in principle, they contended that the ceiling date imposed prejudiced their reasonable profit. The session closed with a demand that OPA administrator Henderson call a meeting of interested groups within ten days to explore the whole situation. More belligerent were 500 Mobile, Ala. landlords who denounced the Rent Contract Act as confiscation, dictatorial, anti-constitutional. Study was to be given to the possibility of carrying the matter into court.

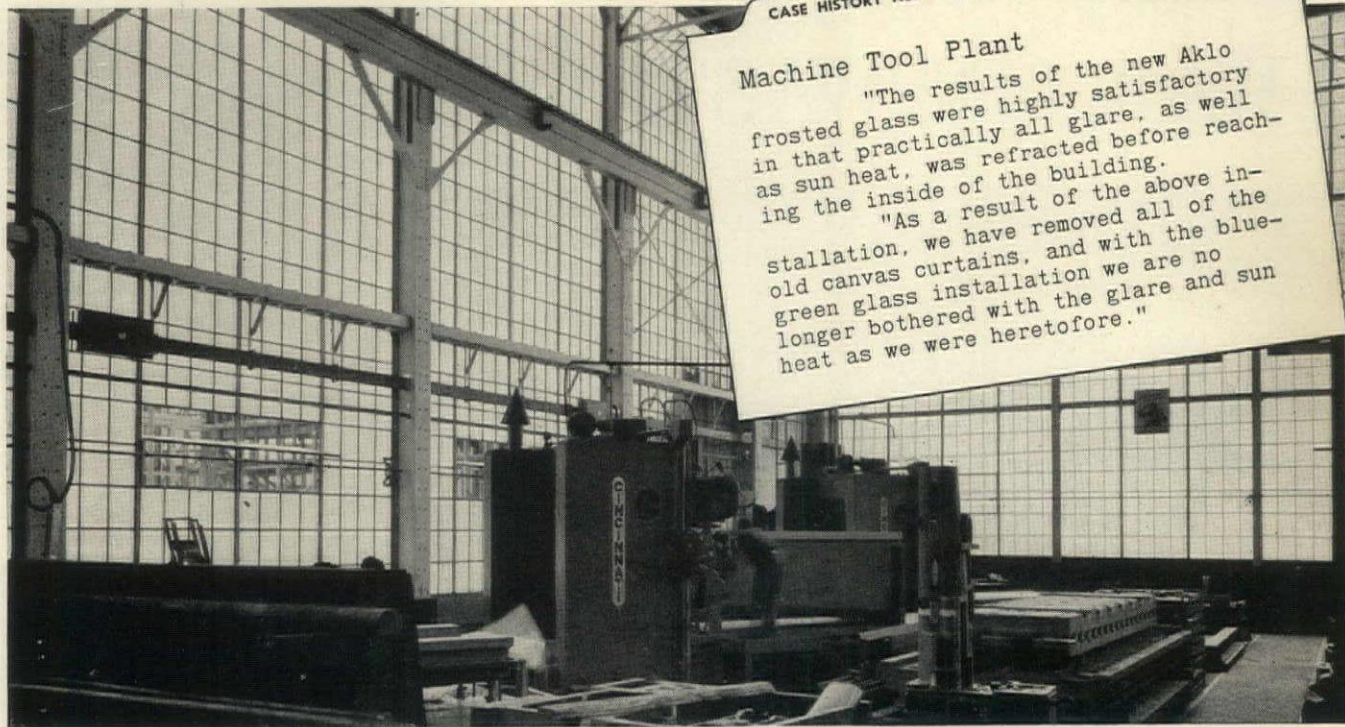
### DORM HOUSING

One thing became increasingly clear. National emphasis would move rapidly to temporary dormitory housing for which alternate plans had been prepared by FPHA's Paul Nelson and Public Housing oldster Frederick L. Ackerman. These dormitories will decently house single workers and childless couples. To provide for families with children, which meant facilities for 3, 4, 5 or more people, of whom only one is a war worker, was obviously a waste of materials and space. (Statistic: 1 water closet in a single-family house will service average of 2 persons per day. Same 1 water closet in dormitory for single workers on a 3-shift day will service 15 people.) But no better solution than apartment and single-family houses seemed in sight. No one questioned the difficulty of estimating the proportion of in-migrants who might be single, childless couples or families with children. But all recognized

(Continued on page 102)



# NO LONGER BOTHERED BY GLARE AND SUN HEAT



CASE HISTORY No. 8

## Machine Tool Plant

"The results of the new Aklo frosted glass were highly satisfactory in that practically all glare, as well as sun heat, was refracted before reaching the inside of the building.

"As a result of the above installation, we have removed all of the old canvas curtains, and with the blue-green glass installation we are no longer bothered with the glare and sun heat as we were heretofore."

**Frosted Aklo Glass admits glareless Daylight, eliminates costly shades, keeps interiors Cooler**



**REDUCES GLARE**—eliminates eye-strain and employee fatigue.

**RETARDS SUN HEAT**—keeps workers comfortable on their jobs.

**RENDERS SAVINGS**—eliminates shades or painting of glass.

From scores of plants come enthusiastic reports on Frosted AKLO glass installations. By reducing eyestraining glare, this scientific diffusing glass helps employees do more and better work. Errors are eliminated, production speeded up. Costly shades or bothersome painting of glass are eliminated.

By absorbing most of the sun's heat—about 97½% of the infra-red rays—Aklo keeps factory interiors cooler in summer. This is doubly important where precision work must be held to close tolerances. Operating costs are substantially reduced in air-conditioned areas.

AKLO glass is manufactured by Blue Ridge Glass Corporation, Kingsport, Tenn., and sold by Libbey-Owens-Ford through leading glass distributors. It is available in hammered and ribbed pattern, both wired and unwired. For full information, write Blue Ridge Sales Division, Room 1274, Libbey-Owens-Ford Glass Company, Toledo, Ohio.



## BLUE RIDGE AKLO GLASS

Heat-Absorbing • Glare-Reducing • Figured and Wire Glass





# Paint is all-important in the WAR ON WASTE!



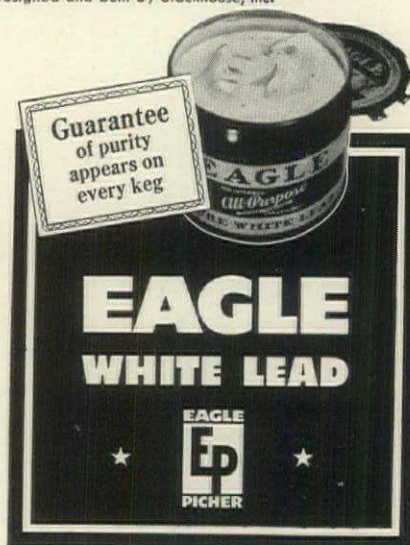
Designed and built by Stackhouse, Inc.

**Save . . . save . . . save!** That's a vital watchword these days.

And it demands that houses now be painted with greater care than ever before. Every extra year of service a paint can give conserves both materials and man power.

No wonder the demand for Eagle White Lead is heavy. The paint made with Eagle White Lead has demonstrated exceptional wearing qualities. Its film is tough and elastic. Weathering does not cause cracking and scaling. And because it wears slowly and evenly, it leaves a perfect surface for repainting when repainting finally becomes necessary.

Eagle White Lead has been protecting and beautifying American homes, through war and peace, since 1843.



**THE EAGLE-PICHER LEAD COMPANY**  
Cincinnati, Ohio

Member of the Lead Industries Association

## MONTH IN BUILDING

(Continued from page 100)

the unhappy fact that more and more young workers are needed for combat service, and the percentage of working families with children was more likely to go up than down.

### HOUSINGS: ONE FOR THE MONEY

"We're witnessing the initial developments in a new field designed for the public welfare generally and benefiting the financial markets particularly," wrote S. F. Porter, N. Y. *Post's* girl financial-whizz on July 15. Big investors, professional traders are investing funds in public housing securities at an unbelievable rate, pointing the way "to a building trend that will be of vast importance to all of us in the postwar construction era." Initial timidity on the part of banks and insurance companies having completely vanished, the week of July 13 saw \$66,000,000 of public housing issues ("housings") sold for various authorities. "Here is at least one financial market that is growing instead of dying as a result of the war," declared business-wise Miss Porter.

### CENTER PIECE

With no provision in the Lanham Act for store facilities in connection with large housing projects, alert directors of the National Association of Real Estate Boards are currently discussing with Washington officials the prospect of getting priority approval for shopping centers. The realtors point out that gas and rubber shortages make it imperative to bring the stores to the tenant. Apparently Washington does not view the proposal with alarm.

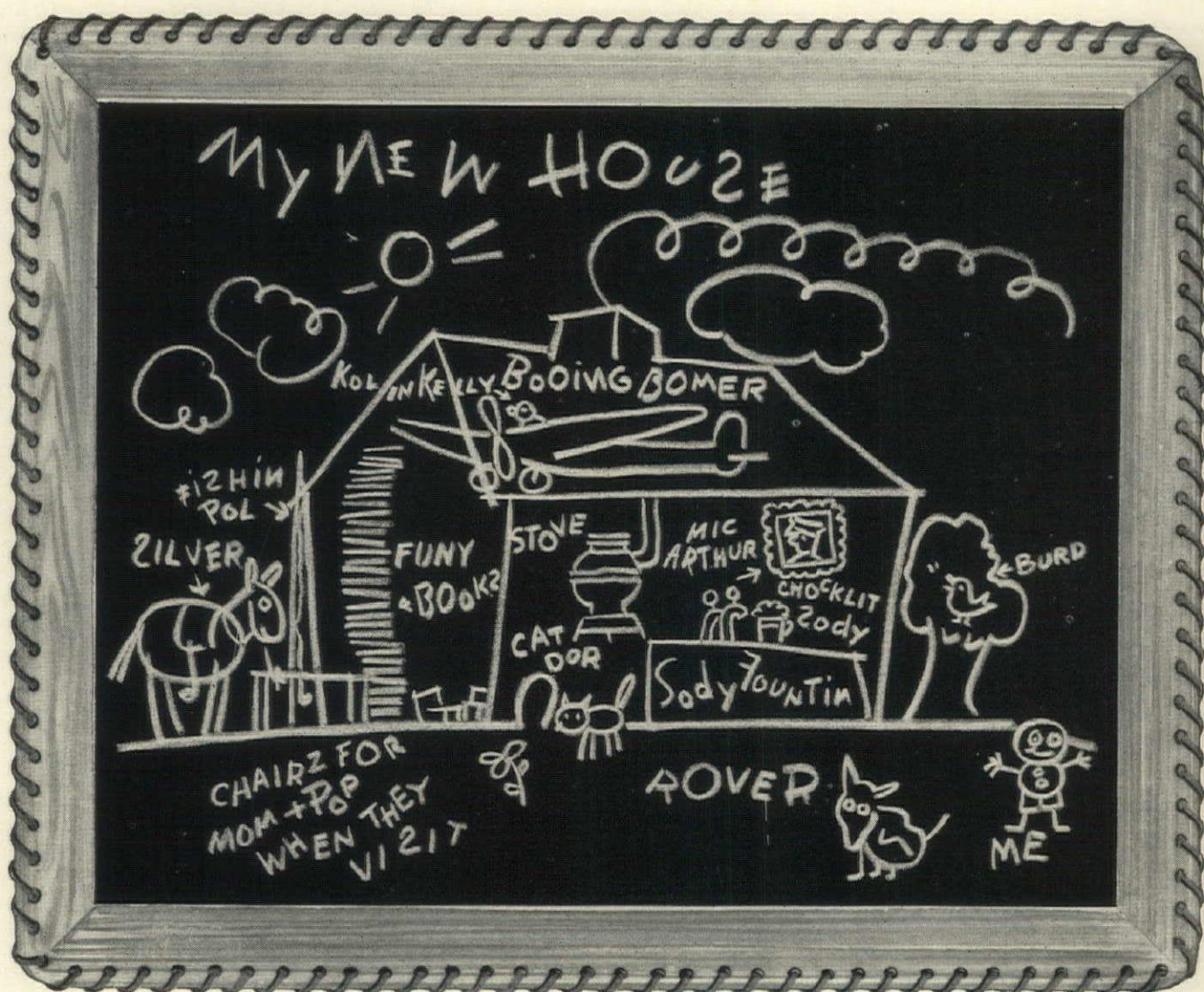
### REALTY NOTE

Tender-hearted at the thought of service men caught in rent obligations (to the extent of \$80 a month or less) when the call to colors sounded, Congress proposes a Soldiers' and Sailors' Debt Relief Act to ease payment on debts incurred prior to October 17, 1940. Among other provisions, it allows the family of the service man to remain in its quarters for three months at the discretion of the court, also gives the courts authority to make such modifications in mortgages as they may see fit. Exception: no relief debts incurred after October 17, on the theory that these men had sufficient notice of their liability to be drafted. Possibility of cancelling this exception exists because, since the age limits of the first draft law have been raised, men have been thrown unexpectedly into debtors' position.

### WAR DAMAGE INSURANCE

Item: On July 7 Gov. Lehman declared that all state buildings in urban centers of New York are now protected by bond insurance. Cost: about \$150,000 per year.





## Johnnie has the Right idea!

Johnnie knows it's the things he puts *inside* his house—that give the kind of “Livability” he wants. So Johnnie plans accordingly . . . and there's a heap of wisdom in his boyish designs.

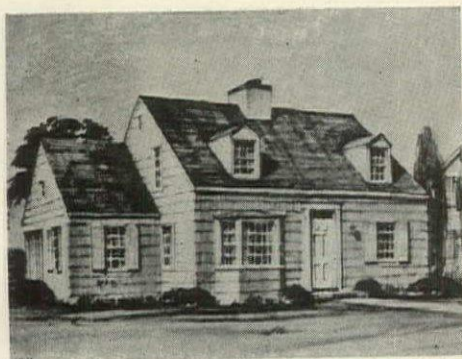
Homes tomorrow will be Completely Equipped for Better Living . . . and the operating equipment, so important to “livability,” will be chosen for its efficiency and low operating cost.

# GENERAL ELECTRIC

Home Bureau, Bridgeport, Connecticut







*Cabot Stained house, Osseo, Minn.  
Architect: James B. Hills*

## Haste does NOT make waste

Cabot's Creosote Shingle Stains are easier and quicker to apply than paints. Yet they do not peel or blister when used on green lumber or on a building not thoroughly dried out. And they protect the wood for years with their vehicle of pure creosote—best wood preservative known.

### FREE BOOKLET—STAINED HOUSES

Generously illustrated. Complete information. Write for your copy and color card today. (Or look up Cabot's Stains in Sweet's.) Samuel Cabot, Inc., 1272 Oliver Building, Boston, Mass.

## Cabot's Shingle Stains

Creosote

Heavy-Bodied



*Cabot Stained house, Redding, Conn.  
Architect: William A. Grey, Redding*

## LETTERS

(Continued from page 28)

### CANADIAN CAMP

#### Forum:

... This is a camp of people who had to leave Germany and other Nazi-occupied countries for political and racial reasons. They represent almost every conceivable trade and profession, and thus it was only natural there were also architects and students of architecture amongst them.

Our group dates back to our arrival here in October 1940, when the architects had occasion to plan for structural alterations and additions on buildings in the camp. All those who could contribute to this work, and also students who were eager to assist and to learn at the same time, started to collaborate.

It was the desire of the students to further their studies, and they therefore approached the older ones to instruct them in architectural subjects. As instructors we had three young architects, graduates of Cambridge, London and Berlin respectively. At that time there were three students who had previous university training but whose studies were interrupted. In the course of time the group of students increased as younger boys who learned of our work became interested and joined us. We had regular lectures on the following subjects: Building Construction, Architectural Drawing, Mechanics, Statics (Timber, Steel, Reinforced Concrete), History of Architecture, Design and Planning, Professional Practice.

As there were no books in the beginning the lecturers had to rely on their memory only. After some months we were able to procure books, magazines and drawing materials with the assistance of the authorities, committees and private persons. In this connection I wish to acknowledge the generous help given to us by THE ARCHITECTURAL FORUM, which has been of greatest value for our design work. All drawings boards, T- and set-squares were made by us. We also built a small drawing office to give us the necessary privacy. Four hours a day we spend in the workshops attached to the camp where we have the opportunity to help the Canadian War Effort and at the same time earn some pocket money.

For study purposes we were eager to develop a big planning subject in which everybody could participate. Our first choice was a design for an "Industrial Settlement." A site was assumed, and a population and its requirements were laid down. It included small houses for childless couples, semidetached houses for small and big families, flats for single couples, hostels for men and women, administration and shopping centers, sport facilities, entertainment center, schools,

church, hospital, railway, bus and filling stations. The general layout was agreed upon after everybody handed in suggestions, the housing was developed in competition, the other subjects were designed by individuals, each taking a subject according to his abilities and interest. Also sectional drawings to 1/4 in. scale were worked out. The whole scheme was exhibited in the camp at a special exhibition. Some of us worked on design of our own choice, partly according to testpapers of English colleges. Our next general subject was designs of communal buildings for Canada as we would imagine them; suggestions were: school, church, Y.M.C.A. center, ski hut, forest watch station, prefabricated defense house.

Lately we have made designs, each on his own, for a house with quite definite requirements for a Canadian here, with whom we are in frequent contact and who intends to build his own house sometime in the near future. This subject gave us an opportunity to plan something for a client, who, as we went along, could modify our design by expressing personal wishes and criticism.

During the Christmas holidays the International Students Service exhibited our drawings in Toronto on the occasion of their annual congress.

We gained some practical experience during our time here, as all building connected with the camp was under the supervision of one of our members, who employed the assistance of other members in working out details, specifications and estimates.

Meanwhile four members have returned to England, two were able to continue their studies at Canadian universities (one just sitting for third year's examination) and two will take up work in the war industry in this country. Some remain and will continue their studies as best possible, hoping that their turn to leave will come soon.

ROLF DUSCHENES

*Refugee Camp  
Sherbrooke, P. Q.  
Canada*

### PRINCIPLE, NOT PARADOX

#### Forum:

On page 37, column 3, of the July FORUM you say, "The substitution of machines for hand labor has in turn resulted in cheaper products, larger sales and, paradoxically, more persons employed than before."

Almost invariably the introduction of machinery has, after a short-run effect, resulted in an increase in employment. As examples, there are perhaps all of our large industries.

You have no paradox but an economic principle.

WILLIAM SCHROEDER

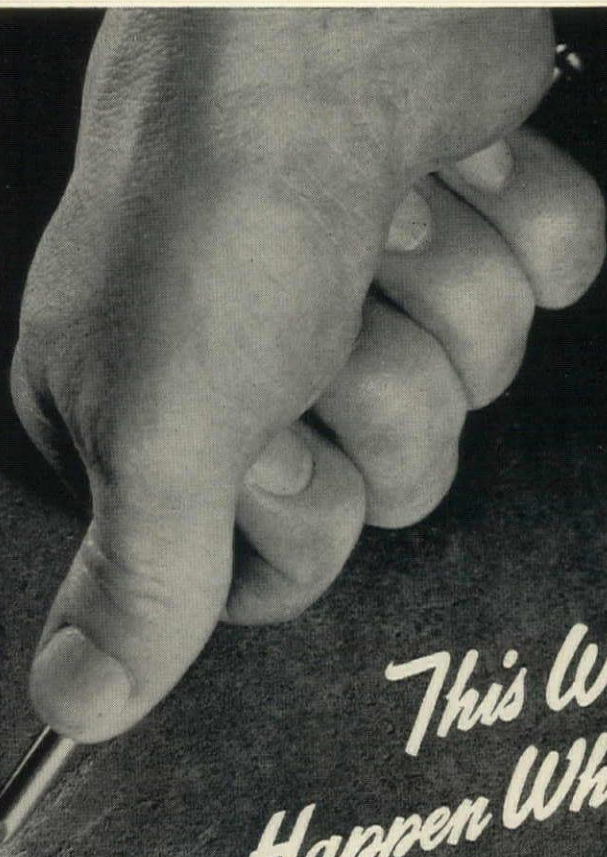
*Chattanooga, Tenn.*



SONNEBORN'S

**LAPIDOLITH  
LIQUID**

Patented  
Concrete Hardener  
and Dustproofer



*This Won't  
Happen When You  
Specify LAPIDOLITH  
LIQUID*

**T**ODAY—more than ever, you have to be sure that the concrete floors in the building you are designing will stand up under heavy-duty use.

Once production begins, hours lost, whether due to the necessity of repairs or to the labor expended in keeping concrete floors dust-free—means money lost.

A twenty-five year performance record shows that a Lapidolized concrete floor is capable of withstanding the hardest punishment to which industrial floors are exposed.

The new patented features found only in Lapidolith assure even greater effectiveness

—deeper penetration, and greater hardness.

Tests conducted in outside engineering laboratories amply demonstrate that Lapidolized concrete is more than twice as hard as untreated concrete.

Lapidolith Liquid is easy to apply and its use on new or old floors will not interfere with the occupation or use of a floor.

Write today for the free booklet, "Concrete & Lapidolith," with a Lapidolized sample which is suitable for a paperweight. It gives accurate, factual performance data. It shows why Lapidolith Liquid is the wisest choice for protecting old and new concrete floors.

*Where Results Count—Count on Sonneborn*

**L. SONNEBORN SONS, Inc.**

88 LEXINGTON AVENUE

NEW YORK, N. Y.



**PAINT THEM DARK**  
*and*  
**KEEP THEM COOL**



## ARCO INFRAY\* DOES BOTH

When the American Transit Association resolved to paint bus tops dark for concealment in case of air attack, bus operators turned to Arco INFRAY. Ordinary dark-colored paints absorb heat, raise interior temperatures, but INFRAY reflects the infra-red rays of the sun, keeps buses cooler and more comfortable. Arco INFRAY is a development of Arco Research for the protective concealment of America's vital defense structures and conveyances.

\* Patents Applied For

**THE ARCO COMPANY**  
CLEVELAND, OHIO • LOS ANGELES, CALIF.

**ARCO**  
Paints for Industry

## FORUM OF EVENTS

(Continued from page 6)

### ANNOUNCEMENTS

Gearing itself to the demands of the war emergency, the Albright Art Gallery, Buffalo, N. Y., is going on a wartime summer schedule of being open every night of the week. Beginning Monday, June 8, the gallery will be closed every morning, open until 9:30 every night in order to give people occupied by war activities an opportunity for relaxation.

In a concerted effort to aid in the achievement of victory, Artists for Victory, Inc., has been formed, an incorporated group of artists, sculptors, muralists, graphic artists and architects dedicated to coordinated contribution to the war effort. Hobart Nichols is president, the vice-presidents include J. Scott Williams, Hugo Gellert, Edgar I. Williams, Bianca Todd and Paul Manship. Chairman in charge of architecture is Julian Clarence Levi.

### EDUCATIONAL

The School of Design in Chicago announces that it has received a grant-in-aid of \$7,500 from the Rockefeller Foundation to enable it to incorporate into its curriculum work with silent and sound motion pictures. The School will offer fundamental training for students as well as amateurs who want to learn cinematic technique. L. Moholy-Nagy will direct the program, with the assistance of Edward Rinker, photographer, Robert Lewis, technical assistant, and others.

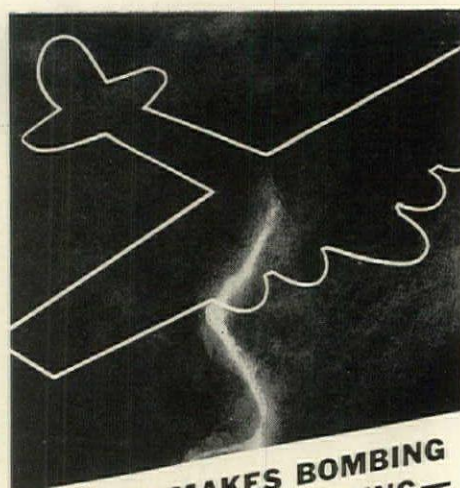
For the first time in its forty-six-year history, the School of Architecture at Columbia University will provide an evening curriculum leading to the degree of Bachelor of Architecture. The evening courses, beginning in September, will parallel those given in the day school in subject matter, but two years of evening courses will be required to cover the number of hours included in one year of day classes.

Robert Gwathmey, a member of the painting and design faculty of the Carnegie Institute of Technology for the past three years, has been appointed to the faculty of Cooper Union Art School.

### AWARDS

To Andrew E. Kuby Jr., 21, of Evanston, Ill., first prize in the architectural competition held by the American Academy in Rome. The award, \$1,000, replacing the Prix de Rome which was discontinued a year ago, was given to Mr. Kuby for the best design of a supply and maintenance depot for the United States Air Corps, "the various parts to be dispersed in such a way as to make them less vulnerable

(Continued on page 108)



**NATURE MAKES BOMBING  
RAIDS WITH LIGHTNING—**



**BUT YOU CAN PROTECT  
VITAL WAR PRODUCTION  
AGAINST THIS HAZARD**

★ Protection of vital war production against accident and sabotage is an important consideration today.

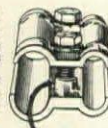
Lightning is Nature's bombing weapon. It can act either as a demolition or an incendiary bomb—can result in disastrous loss and delay.

That is why West Dodd Lightning Protection and static control equipment is being widely used on Army Ordnance Plants. Helping protect ammunition loading lines, standard magazines, underground magazines and bag loading buildings. That is also why many important industrial plants have West Dodd protection on power stacks.

### TWO IMPORTANT FACTORS

The 12 old line companies, including the famous Dodd & Struthers Company, pioneer of modern approved lightning protection, are consolidated in West Dodd. This wealth of experience in building and installing lightning protection, and a long proved record of responsibility, are two important factors in your choice of such equipment.

The exclusive, West Dodd, easy-on, solderless bonding clamp. Eliminates hand-wrapping and soldering. Quicker to install. More permanent. Better electrical bond. Made of copper-bronze, tinned when necessary to prevent electrolytic corrosion. Note how boss provides greater number of threads to practically eliminate screw slippage.



**WEST DODD**  
LIGHTNING CONDUCTOR CORP.

A RELIABLE PROTECTION AGAINST  
A LEADING CAUSE OF FIRE



GOSHEN, INDIANA

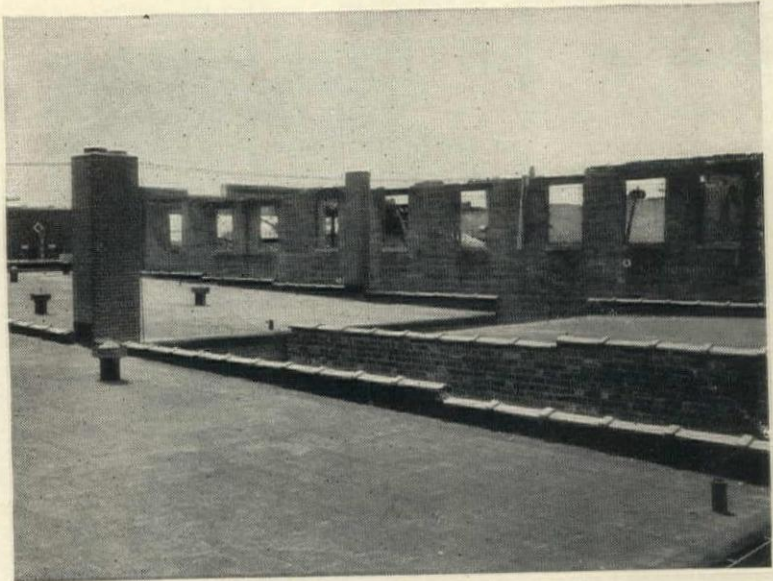


# Here's **DOUBLE** Fire Protection!

Two more striking examples of the way buildings can be safeguarded against destruction . . . of the way fires can be prevented from spreading . . . with a Johns-Manville ASBESTOS Built-Up Roof

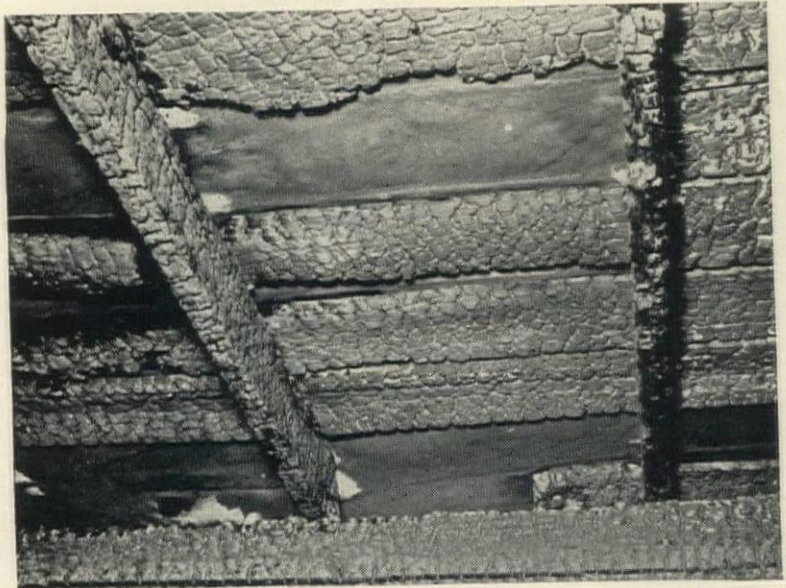
## Against Outside Fires! ➡

When fire broke out in a two-story laundry in a large midwestern city, the building was completely destroyed, as you can see from the ruins in the background of the photograph at the right. The building next door in the foreground of the photograph, a bank, was subjected to intense heat and burning embers from the blaze. Under the shower of burning brands, the tile coping on the bank's roof was cracked. But the flaming embers that fell on the roof flickered out harmlessly . . . *unable to pass the barrier of the Johns-Manville ASBESTOS Roof!*



## Against the Spread of Inside Fires! ➡

In areas where combustible buildings are located, J-M ASBESTOS Roofs do another important job. They help confine *inside* fires. The photograph at right provides a graphic example. When fire broke out in this garage, it was of terrific intensity because the building housed cars filled with gasoline. Note that the wood deck was completely burned through in places, exposing the roofing felts. Yet the 28-year old J-M ASBESTOS Roof remained intact . . . prevented the fire from spreading to nearby buildings and simplified the job of bringing it under control!



★ ★ ★

These two cases are representative of scores where J-M ASBESTOS Roofs have meant the difference between safety and destruction. And J-M Roofs offer other vital advantages. Because asbestos has the durability of stone—sun, rain and weather have little or no effect on these durable roofs. They are rotproof, need no periodic coating, require little maintenance throughout their long life.

For complete details and specifications, write Johns-Manville, 22 East 40th Street, New York, N. Y.

**Johns-Manville**  
*Asbestos*  
**Built-Up Roofs**

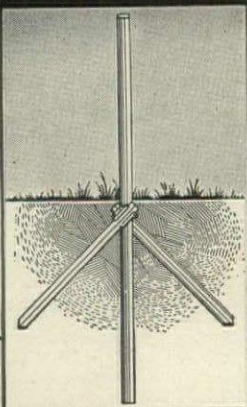




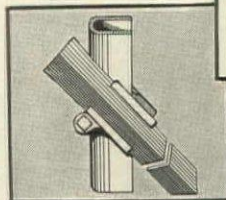
# Why ANCHOR FENCE *Stands Rigid in Any Soil*

## Special "DRIVE-ANCHORS"

driven deep into the sub-soil hold posts permanently erect. The angle-shaped "anchors" extend at right angles to the fence-line, and are clamped to the posts to form a three-point "tree-root" anchorage. Strain severe enough to bend the posts will not shift the anchorage below the ground.



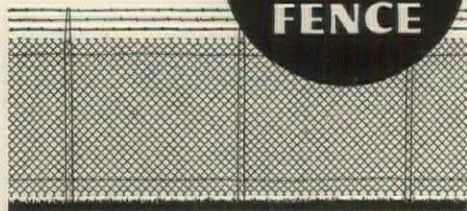
**Anchor Post Clamps**  
(left) hold the "anchors" firmly in position, yet permit them to be withdrawn and re-used if the fence is moved.



THE first chain link fence in America, installed in 1907 with "drive-anchor" post foundations, is still erect and in line, despite the years. You can specify drive anchors with complete confidence that they will keep the fence erect and in line in any soil, in any weather. The fence can be installed with drive Anchors even in frozen ground and can be moved without loss in case of plant expansion. Get the facts about "Drive Anchors" and other Anchor Fence features. See how Anchor Fence gives extra protection, longer life, lower maintenance costs. Write for Anchor Protective Fence Catalog, and name of nearest Anchor Fence Engineer. Address: Anchor Post Fence Co., 6600 Eastern Avenue, Baltimore, Maryland.

**1892-1942 Fifty Years of Service**

**Nation-Wide  
Sales  
and Erecting  
Service**



## FORUM OF EVENTS

(Continued from page 106)

to air attack." Members of the camouflage section of the War Department assisted in judging.

To Nathan Straus, for his work on behalf of low-rent public housing and slum clearance, the third annual award for Meritorious Housing Service given by the United Tenants' League of Greater New York. Mr. Straus, who was first Administrator of the United States Housing Authority, received the customary plaque at a dinner in his honor on May 21.

To Leo Stillman, architect, first prize in the 1940 remodeling competition of the East Side Chamber of Commerce, New York City, for the apartment structure at 310 East 12th Street, New York City, owned by Rigid Equities, Inc.

To Temple W. Tutwiler, chief engineer of Cities Service Co., the degree of doctor of laws from the University of Alabama, in recognition of his part in the war program. Mr. Tutwiler has been active in planning new facilities for the manufacture of synthetic rubber, aviation gasoline, toluol and other products.

To William F. Dominick, New York, N. Y., Arthur H. Goddard, Bayside, L. I., and Harry C. Starr, New Canaan, Conn., certificates from the American Institute of Architects, New York Chapter, for "good design and sound planning in the small-house field."

To Hayden Johnson of Jackson Heights, N. Y., first prize in the Henry Wright Memorial competition at Columbia University School of Architecture, for his sketch plans delineating a possible solution to a serious defense housing problem existing in a central Atlantic coastal city. To Edwin and Robert Grabhorn, duplicate medals of the American Institute of Graphic Arts for "outstanding contributions to the graphic arts." The Grabhorns have been designing fine books since 1919.

To Clarence W. Brazer, architect, the degree of Doctor of Science from Drexel Institute of Technology, his alma mater. Architect for many public buildings in Pennsylvania, New York and Delaware.

### PERSONALS

Penn Building Block Company announces the removal of its main office from 1600 Arch Street, Philadelphia, Pa., to Oak Avenue and the Pennsylvania Railroad, Primos, Delaware County, Pa. Harvey Wiley Corbett, architect has moved to 300 Fourth Avenue, New York, N. Y.

Eldredge Snyder, architect, announces that he has been called to active duty in the United States Navy, and is discontinuing his practice for the duration of the war.

(Continued on page 110)

## REZNOR GIVES YOU A GOOD HEATING PLANT

# Quickly



FRONT VIEW

BACK VIEW

### INSTALLATION ADVANTAGES...

Far less installation time . . . Requires fewer men . . . Uses 89% less vital materials

### BROAD PERFORMANCE...

Moves more air . . Moves air over wider areas . . Air circulation in summer

### LOW COSTS...

Lower investment . . Lower maintenance cost . . No boiler room help . . Low fuel expense



Reznor Heaters operate with gas from a suspended position. They give ideal heating and ventilation in factories of all types and sizes. Whether it be for plant additions or for auxiliary heating and ventilation within existing properties, Reznor Unit Heaters offer benefits in installation time, floor space economy, and costs. One hundred and thirty-seven Army and Navy establishments and plants of countless war contractors use them. Reznor Heaters are available in all types and in a complete range of sizes. Write today for literature.

### REZNOR MANUFACTURING CO.

203 James St.

Mercer, Penna.

"GAS HEATERS EXCLUSIVELY SINCE 1888"



# 150,000 More Homes Available

**Without building a single new one!**

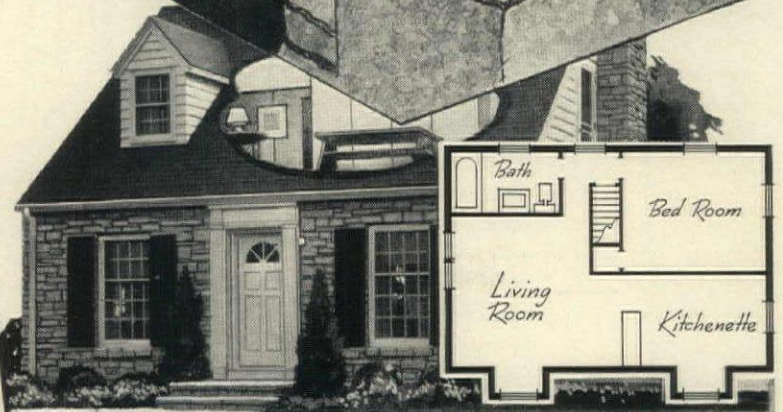
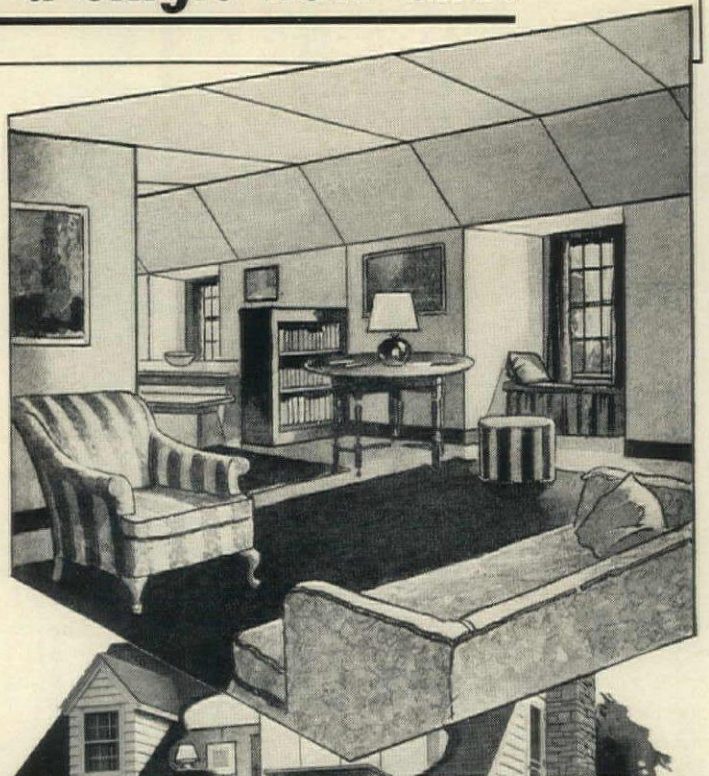
FOR more efficient war production, our workers need comfortable, healthful housing. Today, this country faces a housing shortage for defense workers.

In the past four years, more than three-quarters of a million homes have been built with stairways accessible to unfinished attics.

The equivalent of 150,000 new homes can be made available by finishing these attics into small apartments.

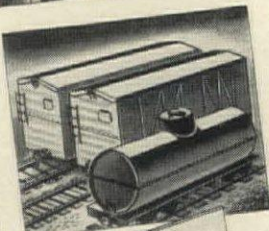
Insulite is easily, quickly and economically applied to studding or existing walls. A few hours will convert unused attic space into charming, healthful living quarters.

Our country's workers need decent living quarters. Don't let unused space go to waste—build a "victory apartment" with Insulite.



## Saves Time

Insulite is quickly applied. The panels fit easily into place, and provide serviceable, attractive interiors, without plastering, papering or painting.



## Saves Fuel

Insulite insulates as it builds. There is a shortage of freight and fuel cars. Insulite insulation saves freight shipping space; only a minimum of space is required for Insulite as compared with other materials. One car of Insulite, used in insulating walls and ceilings, can save up to half a tank car during one heating season.



## Saves Lumber

The use of Insulite releases much needed lumber for other uses where Insulation board cannot be used—such as for framing members, floors, etc. If you use Insulite, you save lumber for other much needed purposes.

INSULATE WITH  
**INSULITE**  
THE ORIGINAL WOOD FIBRE STRUCTURAL  
INSULATING BOARD

INSULITE  
Minneapolis,  
Minnesota



Division of  
Minnesota and Ontario  
Paper Company

REG. TRADEMARK



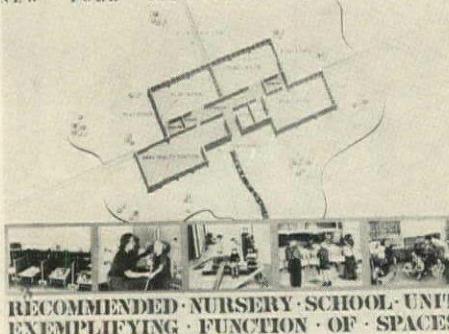
## FORUM OF EVENTS

(Continued from page 108)

### CHILDREN'S CENTERS

In carrying on research in connection with its housing work, the New York City Housing Authority found that it had to know something about child care. Research, experimentation and consultation with specialists produced a standard nursery school unit which was displayed at the Conference of the National Association of Day Nurseries, and has since been widely shown with considerable success. Basis of the Authority's design is a flex-

NEW YORK CITY HOUSING AUTHORITY



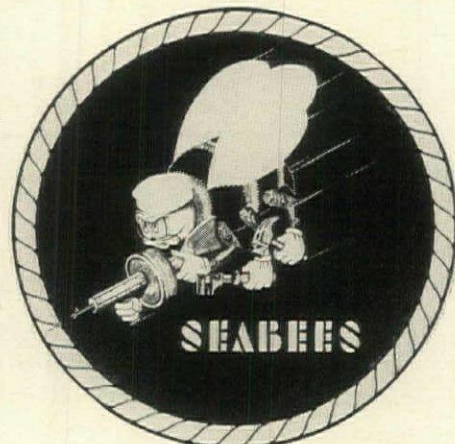
RECOMMENDED NURSERY SCHOOL UNIT  
EXEMPLIFYING FUNCTION OF SPACES

ible plan, with three playrooms, a baby health station and small service rooms. Outdoor play spaces are provided on three sides of the symmetrically planned struc-

ture, allowing for simultaneous indoor and outdoor supervision.

### SEABEES

"Seabees"—a phonetic spelling of the abbreviation for Construction Battalions—is the Navy's new name for its Construction Regiments, which are entrusted with the building of any structure the Navy may happen to require. The sea-going insect was concocted by officers of the Naval Air Station at Quonset Point, Rhode Island, and the insignia was designed by Frank Iafrate, civilian employe at the Station.



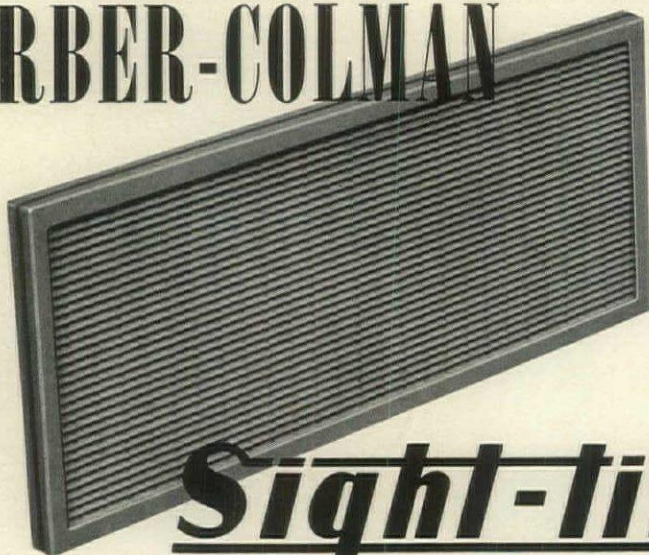
The insignia shows a flying bee, fighting mad, with a sailor hat on its head. In its foreleg is clutched a spitting Tommy Gun, and farther back are a wrench and a carpenter's hammer. The hawser surrounding the design indicates the connection with the Navy.



### INDIAN ART

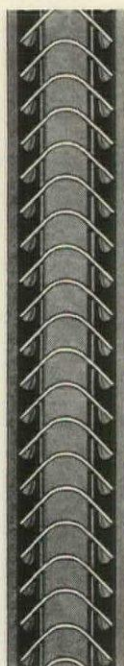
For a number of years Government Schools on Indian Reservations have been learning that among their pupils there existed a remarkable talent for drawing and painting, and an intelligent combination of judicious encouragement with a "hands-off" policy as far as influencing the young painters' style was concerned, has produced some work of extraordinary merit. With the commissioning of the Indian Murals in the Interior Building, this indigenous school of painting has been given official recognition and support. The illustration shows Woodrow Crumbo at work on his "Wild Horses" in the recreation room. Painter Crumbo did the job on a leave of absence from Bacone College, where he is an art instructor.

# BARBER-COLMAN



## Sight-tite

CROSS-SECTION



## VENTILATING GRILLES

"VENTILATION WITHOUT VISION"

FROM ABOVE  
You can't see  
through it...

FROM STRAIGHT ON  
You can't see  
through it...

FROM BELOW  
You can't see  
through it...

IT'S  
SIGHT-  
TIGHT

**T**HE core of the Barber-Colman SIGHT-TITE Ventilating Grille consists of overlapping fixed louvers of an inverted-vee shape. It is not possible to see through this grille from any angle, yet adequate flow of ventilating air is assured. The louvers are smoothly curved to offer minimum resistance to air flow. The construction is rattle proof, rigid, and strong, and will withstand severe abuse. These grilles are usually furnished, to specified dimensions, with a simple frame as shown, to be fastened in place by screws, bolts, clamps, or welding. Many have been used as transition grilles in doors. Two units, placed face to face, will effectively block the passage of light, thus providing an efficient light-tight ventilator. Write us, or see your Barber-Colman representative, for further particulars.



# BARBER-COLMAN COMPANY

1242 ROCK ST., ROCKFORD, ILLINOIS





## How architects can shorten the war

Your work may take you to rehabilitation and other war housing projects or to industrial war plants. Your trained eye will probably see many sources of scrap metal that have been overlooked . . . old useless bathtubs, water heaters and tanks, furnaces, or abandoned industrial machinery.

The United Nations vitally need all this scrap to *shorten* the war. For scrap must be mixed with pig iron *half and half* to make *new* iron and steel for tanks, trucks, ships and guns . . . weapons America must have *ahead of any metal building materials for civilian construction*.

Remember, too, all steel scrap collected will be purchased by the steel industry at prices set by the Government.

Your experience and training is invaluable to the Salvage Committee of your community. Help them get in the scrap, including rubber and other needed waste materials. For there are millions of tons of idle iron and steel and other metals — priceless to our country's drive for a *quicker* victory. The American Rolling Mill Company, 2411 Curtis Street, Middletown, Ohio.

THIS ADVERTISEMENT IS IN SUPPORT OF THE SALVAGE PROGRAM OF THE BUREAU OF  
INDUSTRIAL CONSERVATION, THE WAR PRODUCTION BOARD





## BOOKS

(Continued from page 14)

**LA ARQUITECTURA EN EL VIRREINATO DEL PERU Y EN LA CAPITANIA GENERAL DE CHILE**, by Alfredo Benavides Rodriguez. Distributed by Wittenborn & Co., New York. 358 pp., 256 illustrations. 7½ x 11. \$8.50.

It is unfortunate that this book is available only in a Spanish edition, as it covers a section of South American architectural history which is not at all well known.



18TH CENTURY CHILEAN DINING ROOM

The author is a Chilean architect and has taught the history of architecture in the University of Chile for the past twenty years. His book deals with the residential

and ecclesiastical architecture of the Viceroyship of Peru in the 18th century (which included present-day Bolivia) and the Capitanía General of Chile. These countries carried on an extensive trade during this period, and their buildings show Hindu, Chinese and even Bavarian baroque influences. In addition to the period mentioned above, there are several introductory chapters on the earlier work in these countries. The illustrations are well selected to show the remarkable richness of the buildings and the extraordinary technical proficiency of the craftsmen, but the photographs are not particularly good and the reproductions are very poor.

**CLOUDS, AIR AND WIND**, by Eric Sloane. The Devin-Adair Company, New York. 74 plates with accompanying text. 9¼ x 12¼. \$2.50.

An unconventional primer of meteorology, presented in the form of chalk or charcoal sketches similar to the example illustrated. The author seems equally interested in clouds and aircraft, and he generally manages to include one or more of the latest planes in his illustrations. There are almost fifty full-page plates, each of which shows clearly one of the major cloud forms, and in every instance there is a



CUMULONIMBUS

brief, clearly written description accompanying the picture. About half of the book is devoted to general information on meteorology, with special emphasis on the importance of certain weather phenomena in relation to flying. This section is very amusingly illustrated in a kind of newspaper cartoon technique which succeeds very well in presenting the facts with a minimum of confusion. While the book has apparently been aimed at the general public, it has a number of special uses. The reader, for instance, will find it a very handy reference manual, and it should be equally useful to landscape painters.

*New* ★ **PERMAFLECTOR FLOODLIGHTS**

★ **Permaflexor**, the silver mirrored glass reflector which provides engineered light control, from extreme concentration to extra broad spread!

FOR  
*More*  
PRODUCTION

FOR  
*More*  
PROTECTION

Combat sabotage! Maintain 24-hour production with New enclosed Permaflexor Floodlights • Quality-built of spun steel. Rugged. Weather-proof, will withstand heat, cold, rain, snow! • Specially finished to resist corrosion • In 4 Wattages, 3 Light Distributions – concentrated, broad and intermediate • Complete • Ready to install • Quickly, easily mounted on horizontal or vertical surface, or 2" pipe • Adjustable to almost any position • Ideal for all outdoor floodlighting • Write for literature, prices!

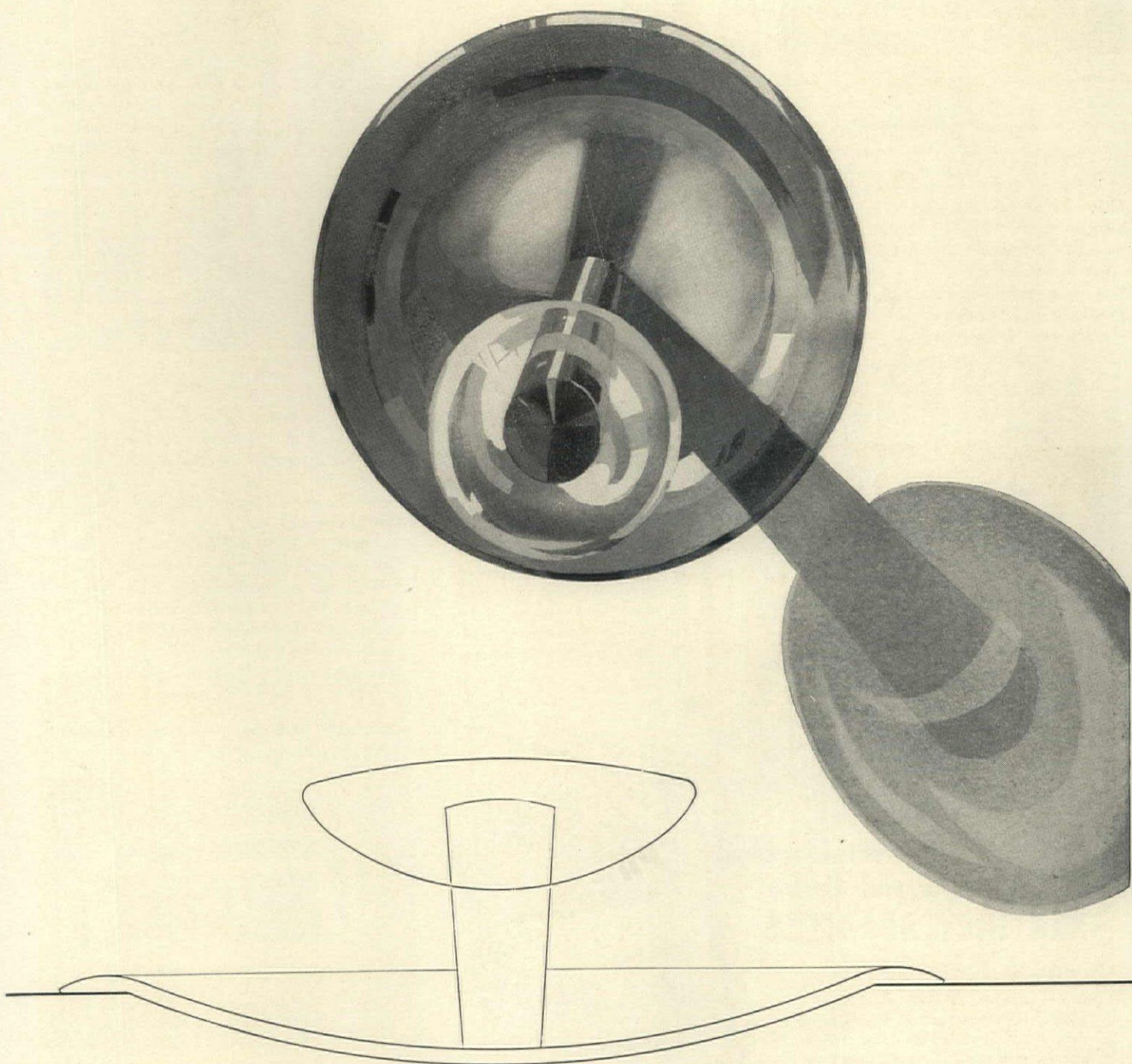
**PITTSBURGH REFLECTOR CO.**  
Pittsburgh Permaflexor 4-15 OLIVER BLDG. - PITTSBURGH, PA.

*Tear Off*  
Clip to letterhead  
Sign Mail for  
complete information,  
prices.



"... an ugly doorknob made by hand is a regrettable incident, but a million vulgar doorknobs in use are a calamity."

DOUGLAS COCKERELL, London, 1942, at a meeting of the Royal Society of Arts



*Architect Alden B. Dow presents a unique idea in hardware, using a saucer shaped phosphorescent shield behind a translucent plastic knob with polished brass shank.*

READING presents the sixth of a series of hypothetical designs submitted by members of the profession as a stimulus to better design in hardware for building post-war America. READING HARDWARE CORPORATION, READING, PENNSYLVANIA

GOOD HARDWARE

READING

SINCE - 1851



## Building Reporter

(Continued from page 2)

open position. Frames are completely factory-fitted and all sash prefitted to exact size so as to minimize the installation labor in the field. All parts are treated with a toxic preservative. Screens are installed from inside the building; windows may also be washed from the inside. Although manual operation is intended, various types of mechanical devices are available for long line sections of horizontally projected ventilators.

Manufacturers: Members of the National

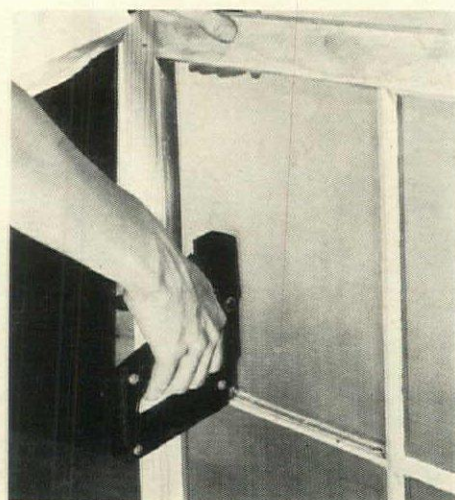
Door Manufacturers' Assn., Inc., 332 South Michigan Ave., Chicago, Ill.

**PLASTIC GLASS.** New type window pane withstands bomb explosions.

Name: Reinforced Vuelite.

Purpose: For use in military construction and industrial plants in potential air raid zones.

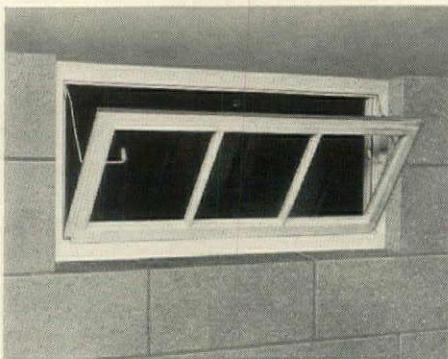
Features: Material consists of standard 16-mesh wire screening sandwiched between two sheets of Vuelite, a transparent cellulose acetate sheeting originally developed for fluorescent lighting fixtures. Unlike the plastic-coated cloth and wire previously used to replace "bombed out" glass in England, it is as clear and trans-



parent as a screened window of glass and can easily be installed in any conventional, multi-paned, steel or wood sash. Sheets of the laminated plastic can be drawn or formed to almost any desired shape. For economy in manufacture, however, panels of eight standard sizes are recommended, ranging from 9½ in. square to 19½ x 24½ in. The standard panels are drawn with a quarter-inch flange which can be easily and quickly fastened to wood sash with an automatic stapler, then puttied to form a weather-tight, permanent installation (see cut).

Manufacturer: Monsanto Chemical Co., Plastics Division, Springfield, Mass.

**BASEMENT WINDOW.** Wood frame prefitted with glazed sash at the factory.



Name: Basement Unit Window.

Purpose: For low-cost war housing.

Features: Unit is designed to use a minimum of critical materials. Made of clear W. P. Pine, the frame boasts less weight and bulk, with two to four times the strength of ordinary wood frames. Standard size: 2 ft. 8 9/16 in. x 1 ft. 3 9/16 in. over-all, which conforms to standard cement block construction. All wood parts are chemically treated. Especially noteworthy is fact that only hardware consists of two pieces of steel rod, which replace both hinges and lock. This unique hinging device permits the sash to be swung in from either the top or bottom and retains the sash in either open position.

Manufacturer: Carr, Adams & Collier Co., Dubuque, Iowa.

(Continued on page 116)

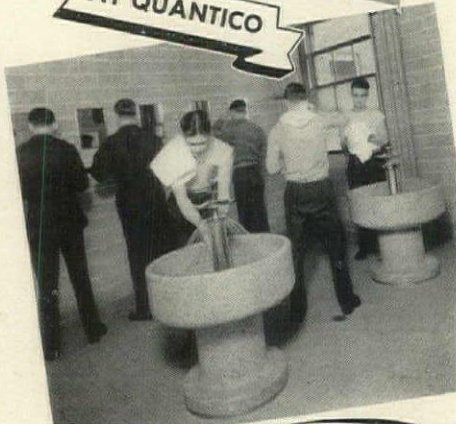


AT GREAT LAKES

This great naval training station uses economical sanitary Bradley Group Wash Fixtures... while in another part of the world...at Hickam Field, U. S. Fighting Forces clean-up in the same way... as do also the marines at Quantico



AT HICKAM FIELD



AT QUANTICO

### Soldier, Sailor and Marine SANITARY BRADLEYS Keep Them Clean!

● As in the Nation's War production plants, and wherever large numbers must be furnished adequate, time-saving, and sanitary wash fixtures, Bradley Washfountains invariably will be found.

Groups wash simultaneously at Bradleys...as many as 8 to 10 at the 54-inch model. Clean running water is served each person...bowls are self-flushing, chance of contamination eliminated. And physicians rate sanitary washing as a recognized preventive of Dermatitis.

A 54-in. Bradley takes the place of 8 to 10 "single-person" wash basins, thus reduces piping connections by 80%. The pre-cast stone models use practically no critical materials...and Bradley design and engineering have reduced the use of brass by 90%.

Bradley Washroom Plan Book contains suggestions of value to every architect and builder. A copy is yours for the asking... BRADLEY WASHFOUNTAIN CO., 2235 West Michigan Street, Milwaukee, Wis.

**BRADLEY**  
Washfountains



# NO "TIME-OUTS" FOR BLACKOUTS

in today's air conditioned factories ...

**T**HERE'S no precious time lost in the plant with its own "indoor weather." Production goes on, regardless of outside conditions. And it's *better* production—better in *quality* and in *quantity*.

Here, for example, are but a few of the ways that Carrier Air Conditioning is serving war industries as a production tool—in the specially constructed "blackout" plant—and in existing plants converted to "blackout" operation.

**1. PRECISION WORK** such as machining, tooling and finishing is accomplished more quickly, more accurately with Carrier Air Conditioning. Reasons: Controlled

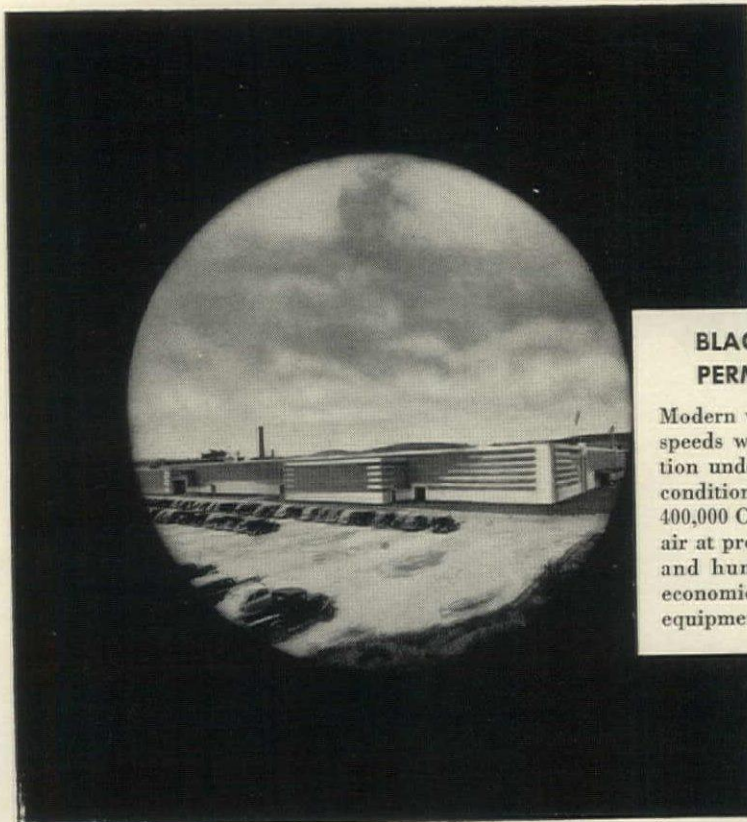
temperature prevents expansion or contraction. Controlled humidity prevents corrosion and rusting. Air cleanliness prevents damage to delicate parts from dust and grit.

**2. PROCESSING** of hygroscopic products or products affected by change in temperature is a simple matter with Carrier Air Conditioning. Absolute control of temperature and humidity keeps the product safe—through processing, inspecting, packaging and storage.

**3. EMPLOYEE EFFICIENCY** goes up, absence due to illness goes down. By controlling air temperature and humidity and by keeping air clean and wholesome, Carrier Air Conditioning provides ideal working conditions . . . reduces fatigue . . . helps to prevent minor illness.

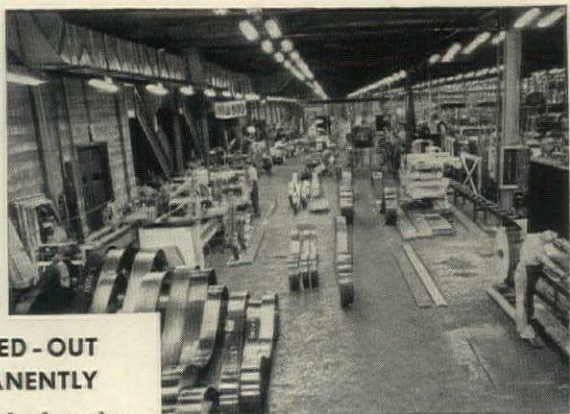
**4. FOOD PRESERVATION** is a big problem where thousands of workers are to be fed daily. Carrier Air Conditioning and Refrigeration solves the problem—with equipment to meet every need—efficiently, economically and dependably.

Uninterrupted, continuous production can be controlled by the proper temperature, humidity and air cleanliness conditions that make your manufacturing processes independent of changes in weather. To help insure this production goal, Carrier engineers bring to architects and consulting engineers experience gained in both peacetime and wartime industries.



## BLACKED - OUT PERMANENTLY

Modern windowless plant speeds war work production under ideal working conditions 24 hours a day. 400,000 CFM of controlled air at proper temperature and humidity supplied economically by Carrier equipment.



The Navy "E", one of the U. S. Navy's most coveted honors, has been awarded to the Carrier Corporation for excellence in war production.

**Carrier**  
**Air Conditioning**

CARRIER CORPORATION, Syracuse, N. Y. Desk H29  
"Weather Makers to the World"

Please send complete information regarding Carrier Air Conditioning and Refrigeration equipment as applied to operation of "blackout" plants.

Name.....  
Company.....  
Address.....  
City.....



## Building Reporter

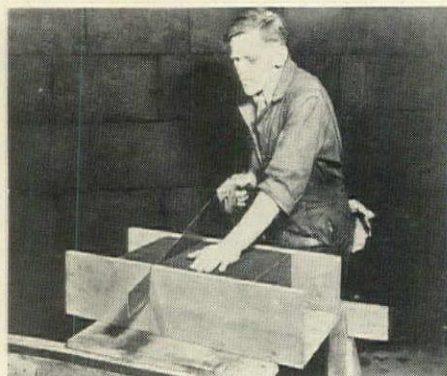
(Continued from page 114)

**INSULATION.** Foaming process make glass a barrier to heat and vapor.

**Name:** Armstrong's Foamglas.

**Purpose:** To insulate cold storage rooms, other low-temperature applications.

**Features:** This non-priority material presents glass in still another versatile new form. It is made by firing ordinary glass which has been mixed with a small quantity of pure carbon. At the proper temperature, the glass softens, and the carbon



turns into a gas which then acts upon the molten glass to produce thousands of tiny airtight cells. The "cellulated" glass

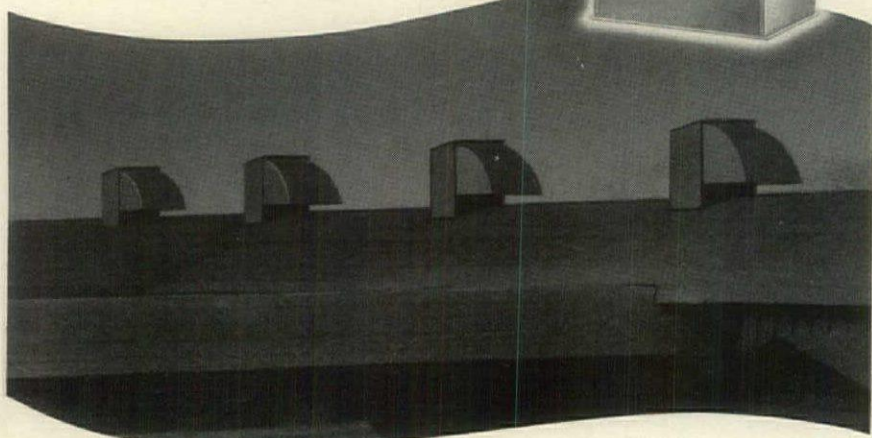
weighs only one-fifteenth as much as ordinary glass. It acts as a barrier to the passage of both heat and moisture-bearing air. Other virtues: fireproof, rotproof, verminproof, odorless. It can be sawed and worked with ordinary tools. For installing on ceilings, it is merely rubbed against the supporting T-iron until a perfect fit is attained. It can be sawed more easily than ordinary wood (see cut). Standard board measures 12x18 in., in thicknesses of 2, 3, 4½ and 6 in.

**Manufacturer:** Pittsburgh-Corning Corp.  
**Distributor:** Armstrong Cork Co., Building Materials Division, Lancaster, Pa.

**HEATER** fits into closet, requires no ducts, fires with gas or coal.

### HOW TO SOLVE THE PROBLEM OF

## BLACKOUT VENTILATION



**B**LACKED-OUT, closed windows,

accentuate the real need for positive, adequate ventilation! From coast to coast, "Blackout" Hoods on Ilg Power Roof Ventilators plus Hooded Fresh Air Inlet Louvers, are now blocking out light from plants, while "worn-out" air, odors, excessive heat, dust or harmful vapors are removed swiftly, quietly, effectively—at low cost—regardless of weather conditions!



### NEW BULLETIN 304 — GET YOUR COPY TODAY!

... gives you the complete story on "blackout" ventilation ... shows a typical Ilg engineered installation ... illustrates the design of "Blackout" Hoods (which are quickly, easily fabricated on the job) and positioning of Fresh Air Inlets.

**DIMENSION DRAWINGS**—of "Blackout" Hoods and Fresh Air Inlets for the specific job you are engineering will be promptly furnished upon request.

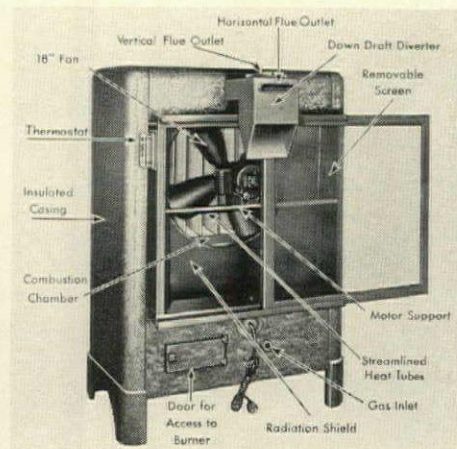
**ILG ELECTRIC VENTILATING CO., 2899 N. CRAWFORD AVE., CHICAGO, ILL.**  
OFFICES IN 41 PRINCIPAL CITIES CONSULT YOUR PHONE DIRECTORY



*Vitalized Ventilation*

AND AIR CONDITIONING

AIR CHANGE... NOT JUST AIR MOVEMENT!



**Name:** Kehm Free-Aire Heating Unit.

**Purpose:** For war housing.

**Features:** This self-contained central heating unit is made in two types—automatic firing with gas (illustrated), hand firing with coal. It can be quickly installed in a heater closet. Hallways and doors are used for recirculation of air, thus eliminating unnecessary ductwork, while downward deflection through wall grilles assures warm floors.

**Manufacturer:** The Kehm Corp., 441 North La Salle St., Chicago, Ill.

**WALL COVERING.** Washable fabric introduced in an Americanized version.

**Name:** Fabron.

**Purpose:** For interior wall and ceiling decoration.

**Features:** Like the Swiss-made *Salubra* which it now replaces, this covering is a specially treated, washable fabric. Besides its 100 per cent Americanism, it boasts improvements in its sturdy canvas base and a new range of colors, textures and patterns. It is also more economical.  
**Manufacturer:** Frederic Blank & Co., Inc., 230 Park Ave., New York, N. Y.

**CONVERSION GRATE** permits use of oil or coal in same heating plant.

**Name:** Convert-O-Grate.

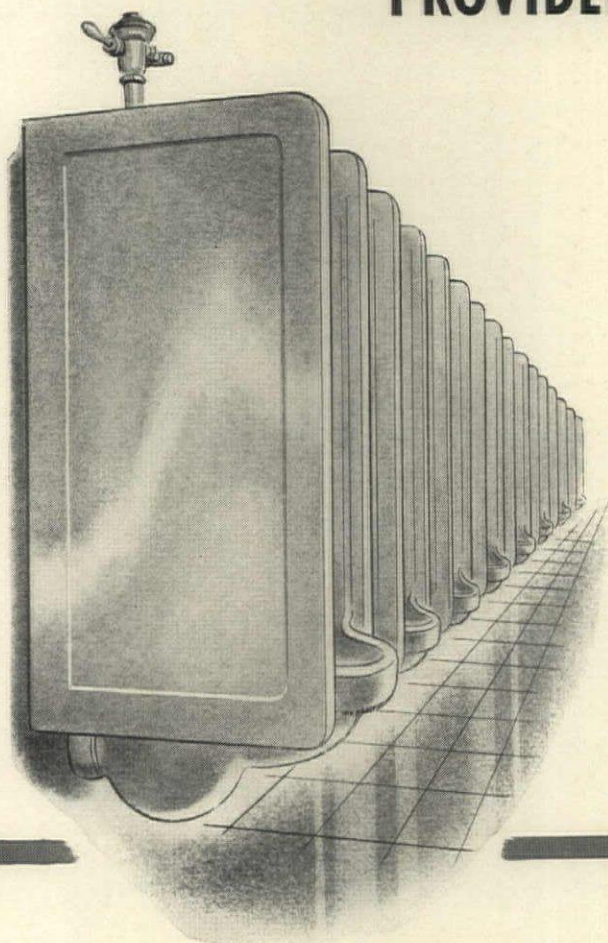
**Purpose:** To permit use of coal in heating boilers with gun-type oil burners.

(Continued on page 118)



# 4-Point\* Protection ON WALL FIXTURE JOBS

## PROVIDED BY ZURN ENGINEERED CARRIERS



\* PERMANENT FIXTURE ALIGNMENT

PERFECT

IN SPECIFYING wall type fixtures for use in permanent structures, you cannot safely disregard a definite provision for their permanent, proper support. Nor need you neglect this provision, even if speed in getting the job completed is vital. By specifying Zurn Engineered Carriers you not only make sure of perfect, permanent fixture alignment, but you make it possible for the contractor to save hours of installation time on every job. Zurn Carriers are engineered for fast, simple installation.

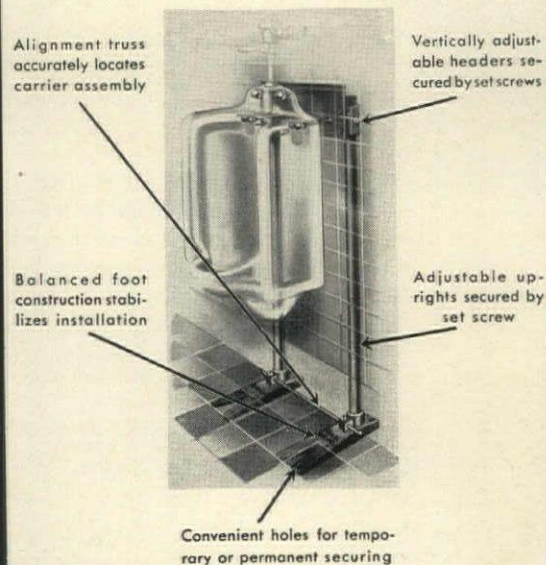
Before each Zurn Carrier leaves the factory it is adjusted for the make, model, and type of fixture it is to support, leaving only minor adjustments to compensate for structural variations to be made on the job. *Perfect, permanent fixture alignment* is most noteworthy of the 4-Point Protection on Wall Fixture jobs provided by Zurn Carriers because it includes and summarizes all the other protective features of these carriers. *Freedom from damaging strain on the wall; grief-free installation; positive horizontal and vertical adjustment* are the other reasons why you should always specify Zurn Engineered Carriers right along with the fixtures.

With time and labor as critical as they are today, clinging to the wasteful, haphazard practice of leaving the selection of the means of support to the judgment of someone less qualified than you is impractical. Specify Zurn Engineered Carriers for Wall Fixtures. Send for the Zurn Carrier Catalog today.

**J. A. ZURN MFG. CO. • Sales Office and Factory: ERIE, PA., U. S. A.**

**When You Specify Wall Fixtures, Specify Zurn Engineered Carriers To Support Them.**

### HERE'S WHY WALL FIXTURES STAY PERFECTLY ALIGNED WHEN SUPPORTED BY ZURN CARRIERS



**BUILDING • PLUMBING  
DRAINAGE PRODUCTS**

*Roof to Basement*

J. A. ZURN MFG. CO., Erie, Pa. • U. S. A.

Please send me a copy of the Zurn Carrier Catalog.

Name \_\_\_\_\_ Position \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

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

No. 4221

P. S. Please attach to your business letterhead



## Building Reporter

(Continued from page 116)

**Features:** Appliance consists of a series of grate bars mounted on bearing blocks across the top of the combustion chamber. Preliminary installation of bearing blocks and ash removal port requires about 2 hours time. If fuel tank should run dry it is then a task of about 8 minutes to ready the installation for coal burning. The oil burner remains in place, and its fan provides the air for the proper combustion of anthracite coal (pea size). The

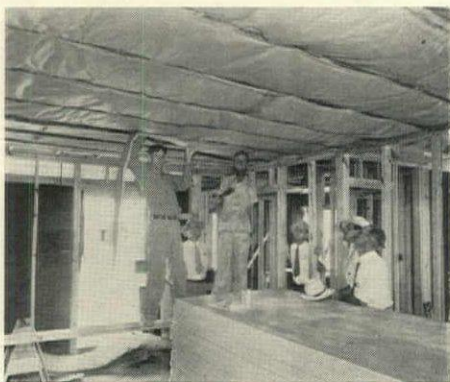
automatic features of oil heating plants are retained—coal firing and ash removal become the only manual tasks necessary. **Manufacturer:** Anchor Post Fence Co., Heating Division, 6635 Eastern Ave., Baltimore, Md.

**INSULATION.** Light-weight, low-cost, easily handled blanket developed for war houses.

**Name:** Defense Insulating Blanket.

**Purpose:** For war housing of all types, including prefab-demountables.

**Features:** Like the company's familiar Balsam-Wool, this product is a completely sealed insulation covered by waterproof paper on both sides and flanged for speedy application. Available in rolls, it can be cut into varying lengths to fit the job.



**Manufacturer:** Wood Conversion Co., First National Bank Bldg., St. Paul, Minn.

**PLUMBING CONNECTION.** One-piece plastic molding replaces usual copper.

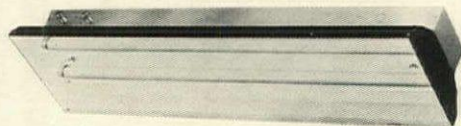
**Name:** American Flush Elbow.

**Purpose:** To connect the tank and bowl in water closets.

**Features:** Elbow is made of a tough, non-corrosive white plastic with a smooth, enamel-like finish inside and out. Size: 2-in. outside diameter in a 4x6 in. bend. It can be easily cut to shorter lengths.

**Manufacturer:** American Molded Products Co., 1753 North Honore St., Chicago, Ill.

**FLUORESCENT LIGHTING UNIT.** Time-saving features reduce maintenance costs.



**Name:** Streamlite.

**Purpose:** For industrial lighting.

**Features:** Included with each fixture are two slotted brackets which may be attached to the trough and used to hold the tubes while the fixture is being cleaned or relamped. This saves unnecessary trips up and down the ladder, lessens the chance of accidental breakage of tubes. Accessible starters, which can be replaced without removing the lamps from the fixture, and easily detachable reflectors also permit simpler maintenance. Both open-end and closed-end reflectors are included in the series. The latter type is made so that individual fixtures may be joined in continuous runs by using trough connectors. **Manufacturer:** Markel Electric Products, Inc., 145 East Seneca St., Buffalo, N. Y.

**TOILET COMPARTMENTS** converted from steel into wood.

**Name:** All-Wool Wartime Toilet Compartments.

**Purpose:** To substitute temporarily for the company's familiar steel-fabricated types. **Features:** Four models are available, each utilizing sturdy, 7-ply Douglas Fir plywood for partition panels and doors. They compare favorably in appearance with their longer-lasting steel prototypes.

(Continued on page 120)



RECREATION CENTER, YESLER HILL TERRACE (USHA) SEATTLE

**HERE'S** still another Laucks glue-laminated beam that speeded construction, saved money, saved valuable girder steel for war usage . . . and provided perfectly safe and beautiful structural members for a much-needed center in a wartime housing project!

These beams were 67' 2" long, 14" wide and 40" deep . . . used 7800 board feet of fir and spruce dimension lumber and 270 lbs. of Laucks Self-Bonding, Water-Resistant Casein Glue. Equivalent beams of girder steel would have weighed 10 tons and cost \$152 more. Attwell Construction Co., Seattle, sub-contractors, built them in 5½ days.

Investigate how Laucks Construction Glues can save time, money and critical materials on your jobs—in laminated arches or beams, in prefabricated and all types of dri-built construction with plywood and wallboard, in farm structures, etc.

For information, write Laucks, where 20 years laboratory research and practical experience guarantee the right use of the right glue.

**I. F. LAUCKS, Inc.**

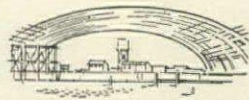
Seattle—911 Western Ave. Chicago—6 No. Michigan Ave.

Los Angeles—859 E. 60th Street

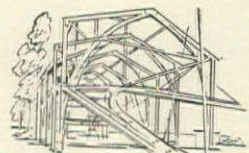
Portsmouth, Va.—Commerce and Broad Sts.

I. F. Laucks, Ltd.—Granville Island, Vancouver, B. C.

★Don't forget, LAUX REZ, the pioneer resin sealer and primer, protects wood as rust-proofing protects metal.



WOOD AND LAUCKS GLUE LAMINATED ARCHES FOR ARMY HANGAR



LAUCKS GLUE LAMINATED ARCHES FOR U. S. ARMY CHAPEL



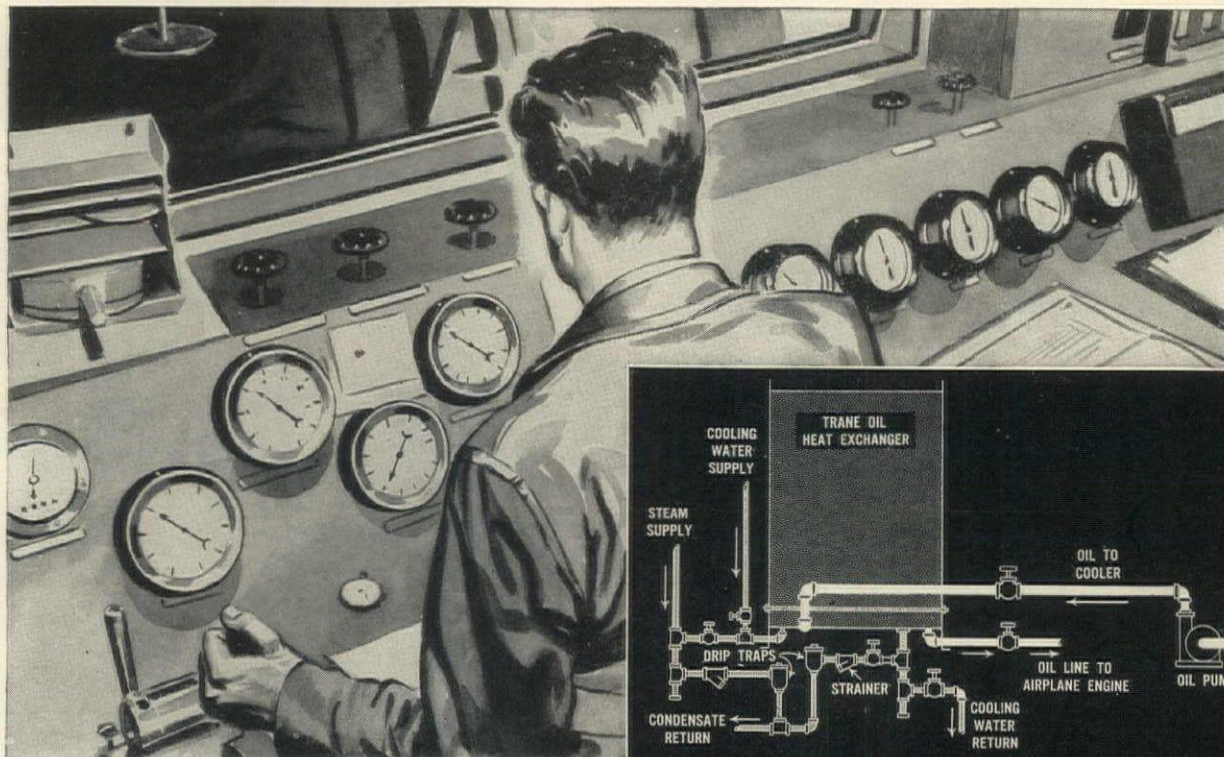
LAUCKS GLUE FOR PREFABRICATED WARTIME HOUSING



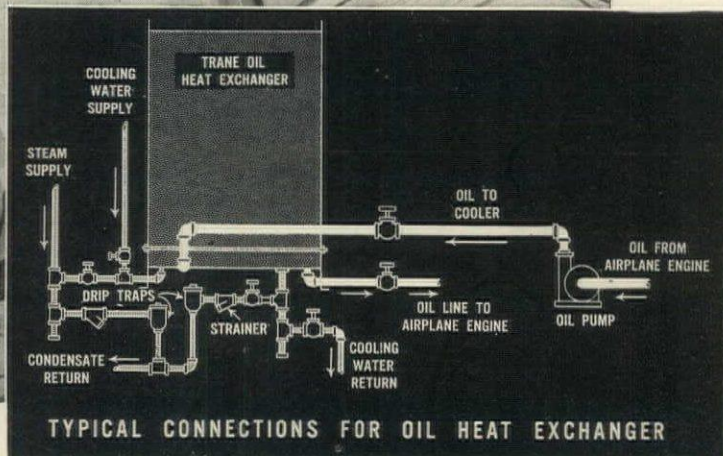
# LAUCKS CONSTRUCTION GLUES

Consult LAUCKS—America's Glue Headquarters



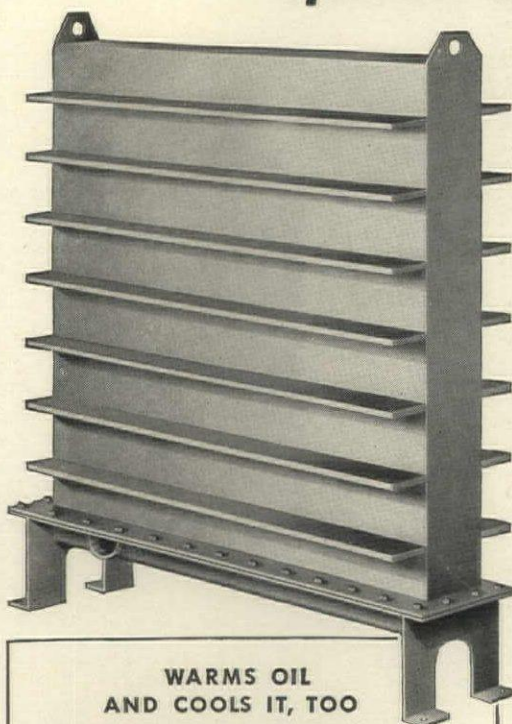


Showing piping connections which make it possible to use the Exchanger for warming oil as well as cooling it.



## NEW **TRANE** OIL HEAT EXCHANGER

*speeds aircraft engine testing*



### WARMS OIL AND COOLS IT, TOO

This Trane Oil Heat Exchanger warms the oil with steam, cools it with water. Externally ribbed to enable the flat surfaces to withstand the necessary pressure without excessive weight. This represents another of the many problems solved through the use of Trane heat transfer equipment of both standard and special design.

**A**N IMPORTANT producer of airplane engines needed a combination unit to control oil temperature of engines on test.

During the starting-up period, the unit was required to deliver warm oil to the engine, and during the running period the unit was required to hold the temperature below a certain limit.

Specifications called for a light, compact, durable heat exchanger that would be easy to mount and take down for cleaning. It had to have a casing that would withstand 30 pounds oil pressure, and, finally, only a limited amount of cooling water could be used.

The Oil Heat Exchanger illustrated here was designed by Trane engineers to fill the requirements. Going a step beyond the letter of the specifications, Trane engineers produced a unit that could be thoroughly cleaned without disconnecting any of the heating, cooling, or oil line piping.

### Ask the Trane Man

The facilities of the Trane design engineering department are at the disposal of government and industry in the design of new and refined equipment to meet the many demands created by a nation at war. Because standard Trane heating, cooling, drying, air handling and related products are used in so many fields of industry, Trane engineers have a thorough knowledge of the equipment requirements of industry. Your nearby Trane field office will be glad to furnish additional details.

# THE TRANE COMPANY

LA CROSSE, <sup>AIR</sup> WISCONSIN

Also TRANE COMPANY OF CANADA LTD., TORONTO, ONTARIO  
HEATING • COOLING • AIR CONDITIONING EQUIPMENT FROM 85 OFFICES



## Building Reporter

(Continued from page 118)

**Manufacturer:** The Sanymetal Products Co., Inc., 1697 Urbana Rd., Cleveland, Ohio.

**BOARD.** Asbestos-faced lamination designed primarily for return duct fabrication.

**Name:** Carey A-D Board.

**Purpose:** For return ducts, joist liners, pan construction, spray booths, clothes chutes, dumb-waiter lining, elevator-shaft protection, attic and basement finishing.

stairwells, shop and factory ceilings, etc. **Features:** Strong and tough, this laminated board is double-faced with white asbestos. Sheets measure 33x60 in. in approximately  $\frac{1}{8}$  in. thickness, can be easily cut or sawed to shape and applied with nails or staples. A center line lengthwise readily locates center joist when ducts, for instance, are fabricated by nailing across two joist bays. Other virtues: sound-deadening, flameproof, rustproof, moisture resistant, non-conductor of electricity. It readily takes cold-water paints, or lead and oil after sizing, but requires no additional finish.

**Manufacturer:** Philip Carey Mfg. Co., Dept. 21, Lockland, Cincinnati, Ohio.

## NEW PRODUCT LITERATURE

**CONCRETE FLOORS.** *Folder Sheet No. ST-51*, 6 pp.,  $8\frac{1}{2}$ x11. Specific recommendations on the design and construction of concrete floors cast directly on the ground or on fill in buildings used for industrial purposes, garages, hangars and the like. Also applicable to basement floors which are not subject to water pressure. Portland Cement Assn., 347 Madison Ave., New York, N. Y.

**PRECAST FACING.** *Duracon*. Folder, 4 pp., with insert reprint,  $8\frac{1}{2}$ x11. Featured: prefabricated exposed aggregate slabs and other architectural shapes, generally 2" to  $2\frac{1}{2}$ " thick, which serve as a strong, permanent veneer for new buildings or for the modernization of old structures. Reprint describes product's use on the walls of the Navy medical buildings at Bethesda, Md. Federal Seaboard Terra Cotta Corp., 10 East 40th Street, New York, N. Y.

**WATERPROOFING.** *How to Waterproof Concrete, Stucco and Masonry*. Booklet, 12 pp.,  $8\frac{1}{2}$ x11, explains how lack of waterproofing causes water damage in buildings, the various methods of waterproofing and the special advantages of integral proofing to prevent water damage. Medusa Portland Cement Co., 1000 Midland Bldg., Cleveland, Ohio.

**INSULATION.** *Sprayo-Flake*. Catalog, 8 pp.,  $8\frac{1}{2}$ x11. Description of the use of a unique process which fabricates and applies insulation in a single operation. Sprayo-Flake Co., 2715 Irving Park Rd., Chicago, Ill.

**ENTRANCE FRAMES.** *Fifty in One*. Circular, 4 pp.,  $8\frac{1}{2}$ x11, features a low-cost frame for front entrances in war dwellings. Adaptable to any size door opening up to 3x7 ft. Outside appearance can be varied widely by simply applying different types of standardized ornamentation. Farley & Loetscher Mfg. Co., Dubuque, Iowa.

**SHOWERS.** *American Maid Custom-Built Plastic Shower Doors and Enclosures*. Catalog folder, 6 pp.,  $8\frac{1}{2}$ x11. Handles, thresholds, jambs, channels, frames, other parts illustrated and described are all solid, extruded plastic. American Shower Door Co., 6057 San Vicente Blvd., Los Angeles, Calif.

**ELECTRIC SWITCHES.** *Condensed Catalog 426*. 84 pp.,  $8\frac{1}{2}$ x10. Superseding Catalog 421 issued last January, this new one lists and describes various safety switches, lighting panels, service equipment, etc., eliminates certain items which contain critical war materials. Bulldog Electric Products Co., 7610 Jos. Campau Ave., Detroit, Mich.

**CERMICIDAL LAMPS.** *Equipment For the Reduction of Air-Borne Bacteria*. Catalog, 8 pp.,  $8\frac{1}{2}$ x11. Virtually a treatise on the application of germicidal ultraviolet, plus a presentation of various lamps designed to bar passage of bacteria in various types of buildings. The Art Metal Co., 1814 East 40th St., Cleveland, Ohio.

**LIGHTING.** *Specifications for Productive Lighting in War Plants*. Manual, 32 pp.,  $8\frac{1}{2}$ x11. Main section presents solutions for 21 lighting problems most commonly encountered in plants converting to war production. Both fluorescent and incandescent fixtures are covered. Neat, attractive format. Benjamin Electric Mfg. Co., Des Plaines, Ill.

**FLUORESCENT LIGHTING.** *What You Should Know About Fluorescent Lighting*. Pamphlet, 8 pp.,  $8\frac{1}{2}$ x11. Featured: power unit fluorescent lighting apparatus in four designs. Fluor-A-Beam, Inc., 60-06 Roosevelt Ave., Woodside, N. Y.

**FLUORESCENT LIGHTING.** *Catalog No. FL-5*. Covers: Wiremold "V"-Type Cover Units and Line-O-Lamps adaptable to a wide range of fluorescent applications in industrial plants, factory offices, engineering offices, inspection departments, so on. Equipment offers flexibility in installation. The Wiremold Co., Hartford, Conn.

**UNIT HEATERS.** *The Doors of Victory Are Opening*. Folder,  $8\frac{1}{2}$ x11, unfolds to 17x22 spread, features the use of gas-fired unit heaters in various war factories and Army and Navy installations. Reznor Mfg. Co., Mercer, Pa.

**HEAT CONTROLS.** *Sarco Temperature Regulators for Heat Control in Industry*. Catalog, 16 pp.,  $8\frac{1}{2}$ x11. Featured: simple thermostatic valves, entirely self-contained and self-operated. Sarco Co., Inc., 475 Fifth Ave., New York, N. Y.

**VENTILATION.** *Catalog No. 28*, 8 pp.,  $8\frac{1}{2}$ x11, presents a newly developed line of registers and grilles. These devices have been approved for use on the Navy's vessels. They are also applicable for air conditioning and ventilating systems in buildings. Davies Air Filter Corp., 118 East 25th St., New York, N. Y.



## TECO CONNECTORS

spread the load on a timber joint more equally over the cross-section of the wood

**READY!** There is no shortage of timber - immediate deliveries are certain.

**RUSH!** Prefabrication by the TECO Connector System of timber construction speeds the job and gets the contract.

**REDUCES COST!** The TECO Connector System cuts man-hours and material costs because fabricators deliver members ready to install—and permits lighter timber to do the work.

Get Complete Details—Mail Coupon!

**Timber**  
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WASHINGTON, D. C. PORTLAND, OREGON

**TIMBER ENGINEERING COMPANY**  
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Please send me without cost or obligation complete information on the TECO Connector System of construction. 8-E

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



# HAVE YOU HEARD

the

# NEWS

about

# MENGEL

# FLUSH

# DOORS?



ASK a hundred architects or contractors whether they prefer *flush* doors or *panel* doors, and ninety-nine will probably say "I prefer flush doors, of course, but I can't always afford them".

*Today the big news in the door industry is that Mengel is making really fine grid-core flush doors that sell at little if any higher prices than panel doors!*

Mengel, as you probably know, is America's largest manufacturer of hardwood products. Mengel Flush Doors are made from our own lumber and veneers, in our own big factories. This manufacturing advantage, plus quantity production, means *greater values*.

Yes, Mengel Flush Doors *are* greater values. Faces, rails, stiles and lock-blocks—all wood

parts—are *genuine hardwood*. Corner connections are made with tight, strong, *lock* joints. Grid cores, frame members and faces are permanently resin-bonded in hot-plate presses. The door is sealed *tight* against moisture.

Whatever your needs, get all the facts about Mengel Flush Doors before you buy or specify any other kind. If your usual source can't help you, mail the coupon below. *That's all we ask!*

The Mengel Company, Incorporated  
1126 Dumesnil Street, Louisville, Ky.

Gentlemen: Please send me full information about Mengel Flush Doors ☐. Also about Mengelbord ☐.

Name

Street

City  State

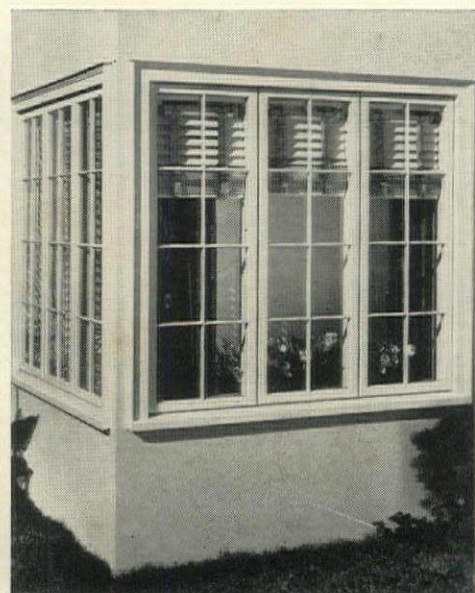




**CORNER** of kitchen-dinette showing how Curtis Silentite windows can add utility and interest to small homes—at low cost. Several sash styles are available.



**EXTERIOR VIEW** of corner Silentite double-hung windows—a modern arrangement that is easy with Curtis stock sizes. Ideal for small homes.



**SILENTITE CASEMENTS**—"Insulated," trouble-free, fuel-saving, quickly installed. Can't rattle or swing in the wind, no exterior hardware, opened from inside only, several sash styles.

## FOR WAR HOUSING—OR ANY HOUSING— IT'S SILENTITE WINDOWS AND CURTIS WOODWORK

**O**WNERS want Silentite Windows—architects recommend them—builders prefer them! That's the story of Curtis Silentite pre-fit windows in war housing . . . in any housing.

Today, these modern wood windows are winning 100% approval in small house projects from coast to coast . . . because they cut installation time and cost . . . because they are delivered promptly . . . because they lower heating costs to a minimum . . . because they have Curtis built-in quality! For the houses of today—and of tomorrow—the wide range of Curtis

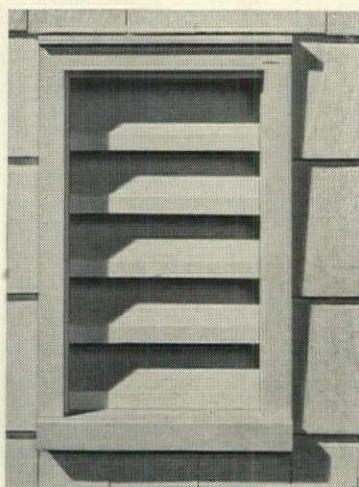
window applications assures the *right* answer for every window problem.

Curtis makes windows for every purpose. Today's demands call for speed—and for known, dependable quality. There's no time for guessing or experimenting. That's why CURTIS fits in so well—whether the job calls for a few sash or several carloads.

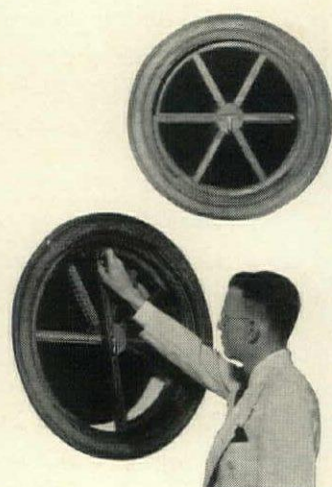
We'd like to tell you how you can be sure of woodwork satisfaction with Silentite Windows and other Curtis stock architectural woodwork. Mail the coupon today—or wire us if your need is urgent.



**FOR LOW COST**—speedy installation—use Curtis Silentite pre-fit basement sash. Made in sizes ranging from 2—2 x 1—6 $\frac{1}{2}$  to 3—0 $\frac{1}{4}$  x 1—10 $\frac{1}{2}$ . Unit includes weatherstripping, screen, hardware. Carton packed and ready to set in wall. A real buy for any house or building!



**NEW STYLE** Curtis louvre sash. Back is covered with 16-mesh wire cloth. Rough opening 14 inches by 23 inches. Fine for small house. See other styles in Curtis Catalog.



**CURTIS ROTOVENT WINDOW** for balls, lavatories, vestibules, attics, basements. Notice that it opens, is screened, weatherstripped. Complete unit carton packed.

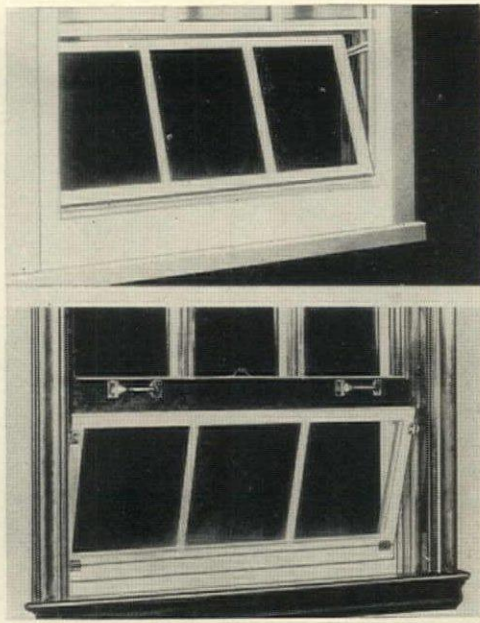




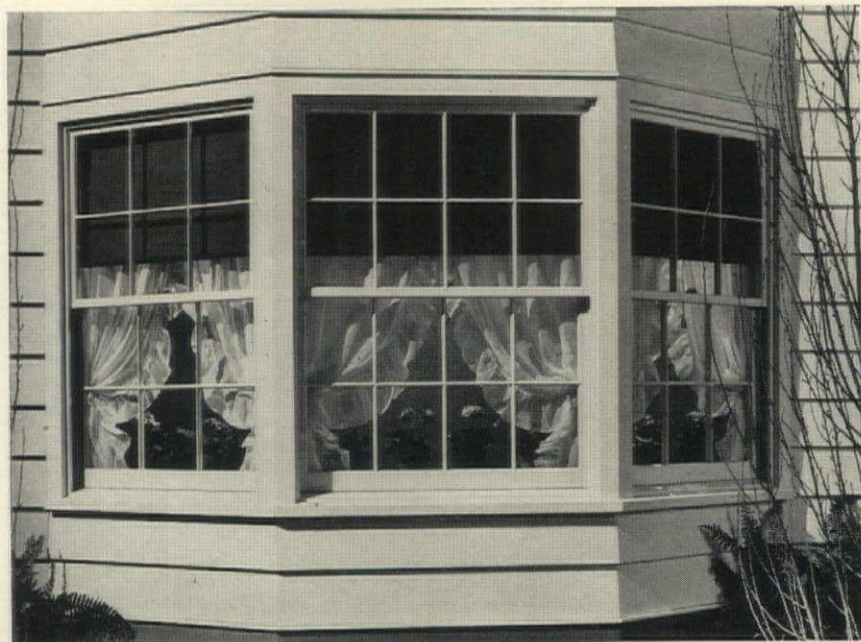
**BEAUTIFUL AND PRACTICAL** is this Curtis "view" sash. Provides modern way to assure maximum light in small homes. Several sizes and styles available.



**JUST A MINUTE OR TWO** is all it takes to hang a Curtis storm sash or screen, from either inside or outside. Order your screens and storm sash with your windows.



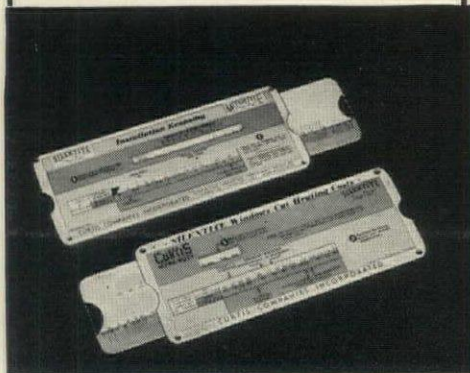
**STORM SASH** are made by Curtis in all stock sizes and styles. This is a close-up of "Protector-vent" sash which gives controlled ventilation. Use storm sash to save fuel.



**BAYS ADD NEEDED SPACE** and give style and beauty to small homes as well as large ones. Silentite double-hung windows offer all the improvements that made Silentite America's most popular window. Several bay styles are available—larger and smaller. Ask for bay details and illustrations of other types.

#### CURTIS MAKES ALL THESE PRODUCTS—

Silentite Windows • Kitchen Cabinets • Exterior and Interior Doors • Frames • Trim • Entrances Molding • Panel Work • Cabinet Work • Mantels Stairways • Shutters • Screens • Storm Doors and Windows • Garage Doors • Miterite Door and Window Trim • **EVERYTHING IN BUILDERS' WOODWORK FOR HOME AND WAR BUILDING.**



**HERE'S PROOF** that Curtis Silentite windows save money—both in installation and in fuel. Write today for this **FREE "economy calculator"** and for fully illustrated literature on Curtis windows.

1866

CURTIS

WOODWORK

SILENTITE

PRE-FIT

the "Insulated" window

CURTIS COMPANIES SERVICE BUREAU  
Dept. AF-8 Curtis Building, Clinton, Iowa

Please send me information about Curtis Silentite Windows and Curtis Stock Woodwork for low cost housing. I am especially interested in—

.....  
.....  
.....

Name.....  
Address.....  
City.....State.....

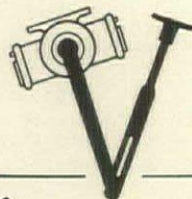




## We were ready!

When the order came to stop making door closers, LCN swung easily and quickly into step. For years we have been building LCNs to the most exacting standards of quality and precision, and in recent months we had devoted a greater and greater share of our plant capacity to production for war. So we were ready with the experience, the skill and the will to do the exacting all-out job to which we have now been assigned.

When we're back in civvies, we'll have some interesting developments in door closer design to show you. Until then—yours for Victory!

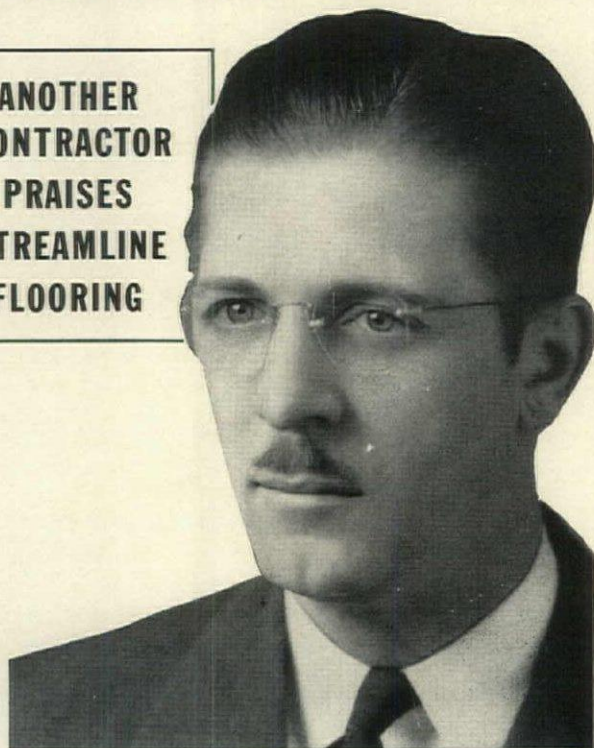


466  
West Superior Street  
Chicago, Illinois

Copyright 1942 Norton Lasier Co.

## WAR HOUSING JOB FINISHED 10 DAYS AHEAD WITH FACTORY-FINISHED STREAMLINE FLOORING

ANOTHER  
CONTRACTOR  
PRAISES  
STREAMLINE  
FLOORING



Wm. M. Irion, Whittenberg Construction Co.  
Louisville, Ky., writes:

"Occasionally, during the conduct of our business, we come across some unusual building product. It is not often, however, that we have a completely satisfactory experience such as that which we have had through the use of your Streamline Flooring on the Louisville Defense Housing Project at Camp Taylor, Ky.

"Quick delivery, ease of installation and the fact that Streamline Flooring is 'Prefinished' all resulted in a surprising low cost.

"The use of Bruce Streamline Flooring obviated the necessity for finishing machines, floor finishing materials, and painters. We estimate that our completion date was advanced at least ten (10) days through its use.

"Its ability to withstand rough usage due to the hardness of its surface is to our way of thinking one of its most outstanding features. Bruce Streamline Flooring produces a superior floor and we are definitely sold on its use."

E. L. BRUCE CO.  
1628 Thomas St., Memphis, Tenn.  
Please send me a copy of your new book—  
"Low Cost Floors for War Housing."

Name.....

Address.....

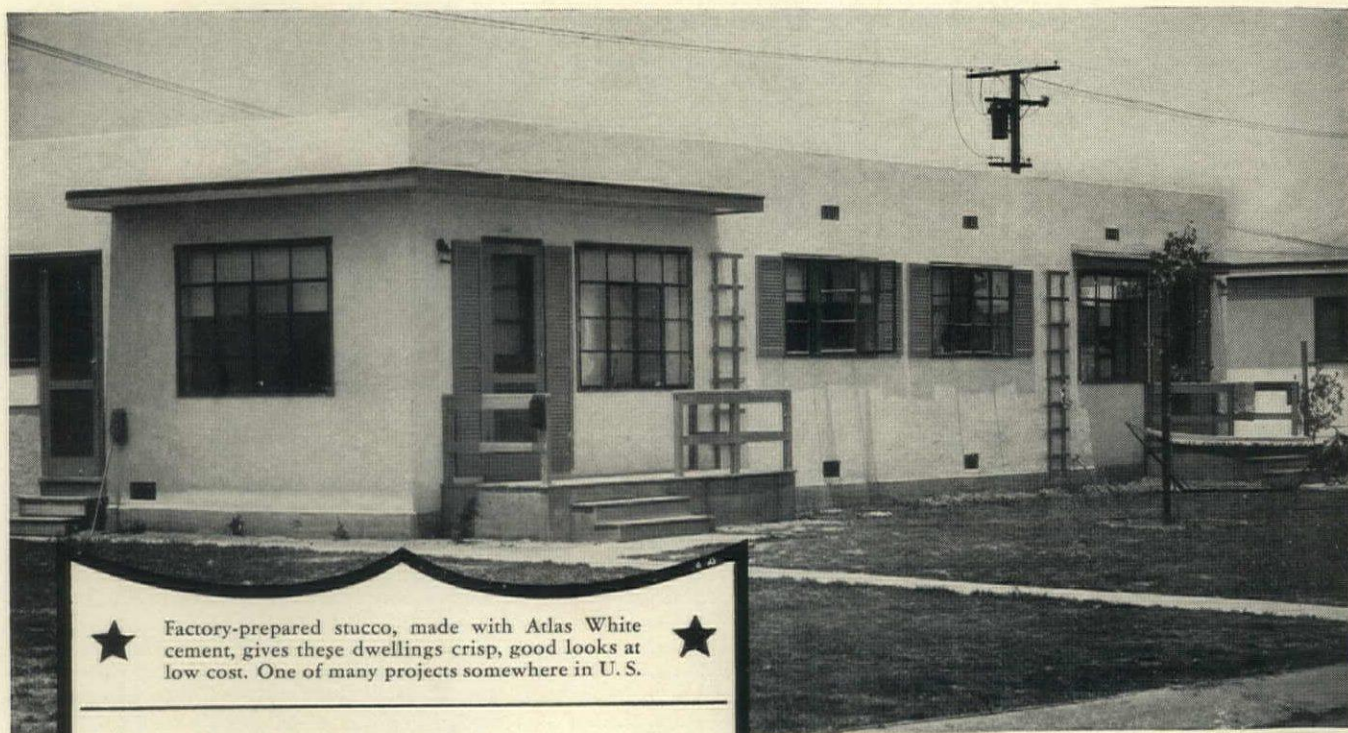
City.....State.....

Send for  
FREE  
BOOK



Factory-Finished  
**STREAMLINE** HARDWOOD  
FLOORING  
FLOOR FINISHES • TERMINIX • LUMBER PRODUCTS





Factory-prepared stucco, made with Atlas White cement, gives these dwellings crisp, good looks at low cost. One of many projects somewhere in U. S.



# STUCCO ON ACTIVE DUTY AT U. S. AVIATION BASE



**275 dwelling units  
faced with Atlas White Stucco  
for Uncle Sam's forces!**

A LOT of stucco has been going into housing projects at various Government bases. Here is another case where it has enlisted for the duration. The 275 dwelling units shown here are all faced with factory-prepared portland cement stucco, made with Atlas White cement.

This stucco provides an exterior with clean, attractive lines for many types of buildings. It's a sturdy resister of weather attacks in any climate. It's fire-safe. It's low in first cost and needs little or no maintenance over its long life. And, what is important today in many places, stucco fits in with fast new construction or rebuilding.

There are more and more examples of the use of stucco for both exterior and interior facing over concrete block, cinder block, or tile.

You will find Atlas White factory-prepared stucco suitable for defense workers' houses, stores, hospitals, theaters and other buildings essential to community and national welfare. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

**OFFICES:** New York, Chicago, Philadelphia, Boston, Albany, Pittsburgh, Cleveland, Minneapolis, Duluth, St. Louis, Kansas City, Des Moines, Birmingham, Waco.

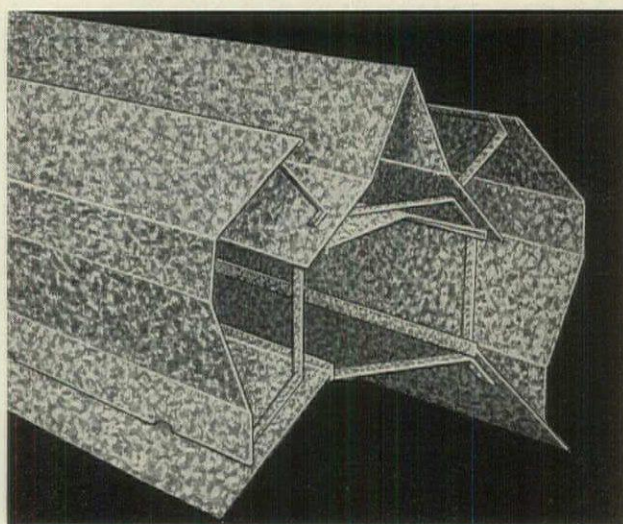
AF-5-30

## ATLAS WHITE CEMENT

A UNIVERSAL ATLAS PRODUCT







## Industry demands **FULLY ventilated buildings**

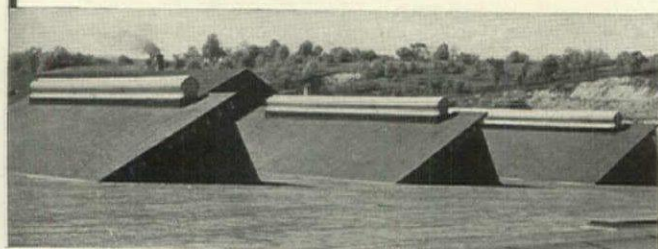
To keep workers at peak  
efficiency for war production

*"Give 'em Air"* with  
**SWARTWOUT-DEXTER HEAT VALVE**

Architects can play an important part in helping industry meet today's heavy production demands. Recommend Swartwout-Dexter Heat Valve for roof ventilation, to remove excessive heat, smoke and fumes so employees can work easier, *faster*.

Swartwout-Dexter Heat Valve provides efficient and economical *general ventilation*. Low air travel friction and maximum assistance from outside air currents are outstanding features. It's installed on any type of roof — full length or in sections where most needed. *Many miles* of Heat Valve now in use on government and industrial buildings. Write for new 1942 catalog.

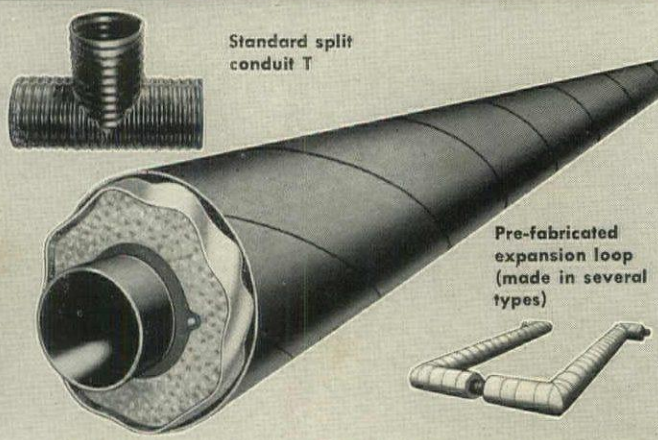
THE SWARTWOUT CO., 18617 Eucild Ave., Cleveland, O.



# Swartwout

**VENTILATION SPECIALISTS**

## PRE-FABRICATION for Speed!



Ric-wil Pre-Sealed Insulated Pipe Units are fully factory pre-fabricated. They include not only conduit, pipes, and insulation—but also pipe supports, pipe and conduit fittings, expansion loops, water-tight glands, pre-fabricated manholes, anchors, and other accessories. Maximum speed is attained on the site, with a minimum of labor, and no parts to wait for. Furnished for the underground or outside overhead distribution of steam, hot water, or oil. Completely engineered to your specifications. Ric-wil saves precious time and cuts cost on any war-program project! Write or wire for full information.

For Engineers on Defense Plants only: Ric-wil  
Engineers' Manual 420A sent on request.

**Ric-wil** INSULATED PIPE UNITS  
THE RIC-WIL CO., CLEVELAND, O.  
*Agents in Principal Cities*

## for Fast Installation Use Cabot's "Quilt"

It's the same permanent, rot-proof, vermin-proof, effective material that architects have used for more than half a century. Convenient fastening strip now gives fast installation in these days when speed is all important.

### For Sound Deadening, Too

Cabot's "Quilt" is the perfect answer to most sound deadening problems. For helpful data, write for our 32-page laboratory bulletin, 5-A.

**FREE BOOKLET** — *Build Warm Houses*. Write for this informative file size booklet today. Samuel Cabot, Inc., 1273 Oliver Building, Boston, Massachusetts.

## Cabot's "Quilt"

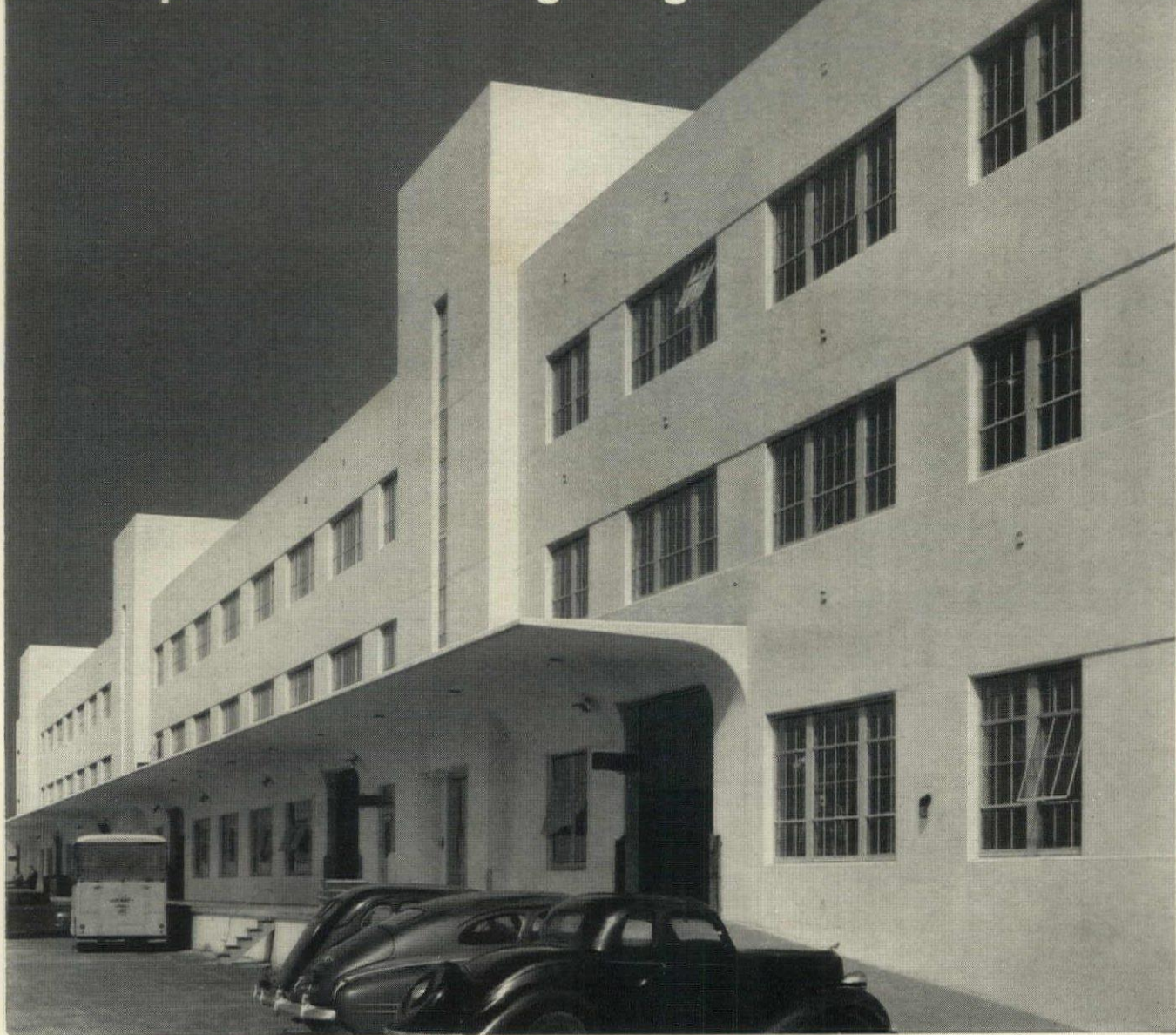
Heat Insulating

Sound Deadening



# ARCHITECTURAL CONCRETE

saves steel, transportation, time —  
simplifies war building design



This huge, heavy-duty, firesafe supply depot for a naval air station was planned by Robert & Co., of Atlanta, and built by Hillyer & Lovan, Jacksonville, contractors.

IT IS often an aid in the war program to design building walls in concrete as a unit with frame, floors and roofs, for these reasons:

1. Maximum fire resistance and structural integrity—vital protective factors—are obtained with minimum steel.
2. Transportation facilities are conserved, since the bulk of concrete material is usually found locally.
3. The job is speeded by simple, quick concrete methods, accessible materials, local labor.
4. Architectural distinction is easily given to war buildings of straight forward or even severe design, by interesting textures and simple decorative effects inexpensively produced in the forms.

To help get the maximum service which Architectural Concrete can render, the Portland Cement Association's specially trained staff of technicians is available to assist designers and builders of major war buildings.

Do not hesitate to call on us for this service or for concrete data on any type of war construction that will help expedite work or save steel and transportation.

**PORTLAND CEMENT ASSOCIATION**

Dept. 8-7, 33 W. Grand Ave., Chicago, Ill.

★ BUY WAR SAVINGS STAMPS AND BONDS ★





If you want it unique and different, Tufraw Genuine Rawhide fits in. Illustrated is a bar in the play room of Herbert Fischbach, Greenhaven, Rye, N. Y. The front of the bar is completely covered with Tufraw Rawhide. The room is western style, and the floor is of colored slate. You will find Tufraw to be a business developer and a source of enduring client satisfaction. Sample swatches will be sent on request.

**GUTMANN and COMPANY, INC.**  
Makers of Quality Leathers  
for Over Half a Century  
Dept. F8, 1511 Webster Avenue, Chicago

GENUINE TUFRAW  
*Rawhide*  
by GUTMANN

## JUST AROUND THE CORNER

Now — as always — Samson Spot Sash Cord is carried in stock by Hardware and Building Material Supply dealers in practically every town and city in the United States. It is easy to identify and easy to secure without delays. Spot Cord is the standard of quality and of real value. Its universal acceptance is a matter of slow, healthy growth created out of years of proven performance, proven satisfaction and proven economy.

There is no better way to hang windows than with weight, pulley and Samson Spot Sash Cord.

**SAMSON CORDAGE WORKS**  
BOSTON  
MASS.



REG. U.S. PAT. OFF.

**SAMSON  
SPOT**

**SASH CORD**

## INSULATION *Simplified*

WITH  
3 FORMS  
OF

**ZONOLITE**

### 1. HOME INSULATION

Zonolite Granular Fill is naturally permanent. 100% mineral: fire-proof, rot-proof, vermin-proof, moisture-resistant. Fast, easy installation... packs as it pours... no nailing... no cutting... no fitting... no waste. Extremely high thermal efficiency. Valuable on attic floors as protective barrier to downward spread of fire bombs.

### 2. INSULATING PLASTER

Zonolite All-Purpose Plaster Aggregate is clean and easy to mix and apply... 12½ times lighter than sand, with 5 times more insulating value. Non-freezing... crack-resistant... readily available.

### 3. INSULATING CONCRETE

When used with portland cement, Zonolite Concrete Aggregate combines permanence, extreme light weight—and insulation! Ideal for roof and floor fill; roof decks, cants, saddles, floors for livestock and poultry. Undamaged by moisture; absolutely fire-proof.



Write for free descriptive literature.

**UNIVERSAL ZONOLITE  
INSULATION COMPANY**

Plants in Principal Cities

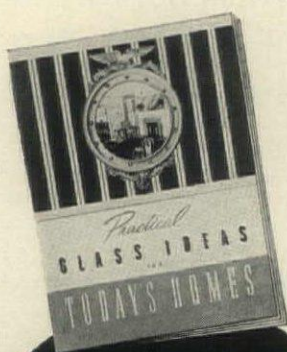
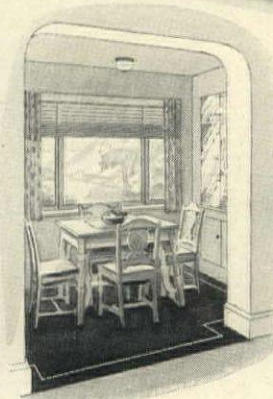
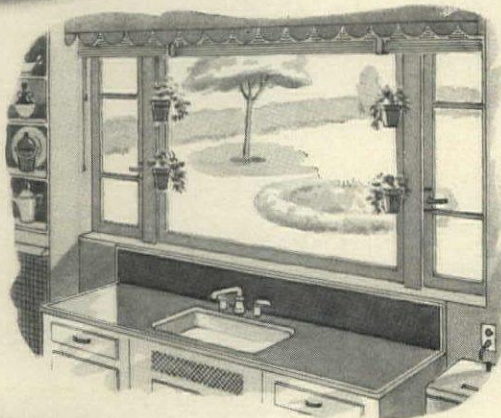
Dept. 58

135 S. La Salle St., CHICAGO



# How to make a home more modern today...

## *use* GLASS



SEND FOR  
YOUR COMPLIMENTARY  
COPY OF THIS NEW  
LIBBEY-OWENS-FORD  
GLASS FEATURES  
BOOK

Few avenues to home modernization remain practical or possible under today's conditions. That's one reason why more and more attention is being focused on remodeling with glass features. Glass is a noncritical material.

A more important reason, however, is the increased livability that comes from broader use of glass in the home. Larger window areas provide endless opportunities for brightening cheerless rooms. Practically every home is a potential prospect for window modernization. But in addition, scores of other modern comfort and utility features are made possible by the many different types of glass in the Libbey-Owens-Ford line.

These features are interestingly illustrated and described in a new consumer book we have just published. We think you'll be interested in the design and selling suggestions presented in this new publication just off the press. We will gladly forward a complimentary copy. Write Libbey-Owens-Ford Glass Company, 1209-A Nicholas Building, Toledo, Ohio.



**LIBBEY-OWENS-FORD**  
QUALITY *Flat Glass* PRODUCTS



A WAR MESSAGE FROM THE UNITED STATES TREASURY DEPARTMENT



*Next to the Stars and Stripes . . .*

## AS PROUD A FLAG AS INDUSTRY CAN FLY

Signifying 90 Percent or More Employee Participation in the Pay-Roll Savings Plan

IT doesn't go into the smoke of battle, but wherever you see this flag you know that it spells Victory for our boys on the fighting fronts. To everyone, it means that the firm which flies it has attained 90 percent or more employee participation in the Pay-Roll Savings Plan . . . that their employees are turning a part of their earnings into tanks and planes and guns *regularly*, every pay day, through the systematic purchase of U. S. War Bonds.

You don't need to be engaged in war production activity to fly this flag. Any patriotic firm can qualify and make a vital contribution to Victory by making the Pay-Roll Savings Plan available to its employees, and by securing 90 percent or more employee participation. Then notify your State Defense Savings Staff Administrator that

you have reached the goal. He will tell you how you may obtain your flag.

If your firm has already installed the Pay-Roll Savings Plan, now is the time to increase your efforts: (1) To secure wider participation and reach the 90-percent goal; (2) to encourage employees to increase their allotments until 10 percent or more of your gross pay roll is subscribed for Bonds. "Token" allotments will not win this war any more than "token" resistance will keep our enemies from our shores, our homes. If your firm has yet to install the Plan, remember, **TIME IS SHORT.**

*Write or wire for full facts and literature on installing your Pay-Roll Savings Plan now. Address Treasury Department, Section D, 709 12th St., NW., Washington, D. C.*

*Make Every Pay Day "Bond Day"*



U. S.

# WAR Bonds ★ Stamps

This Space is a Contribution to Victory by

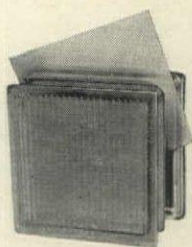
THE ARCHITECTURAL FORUM



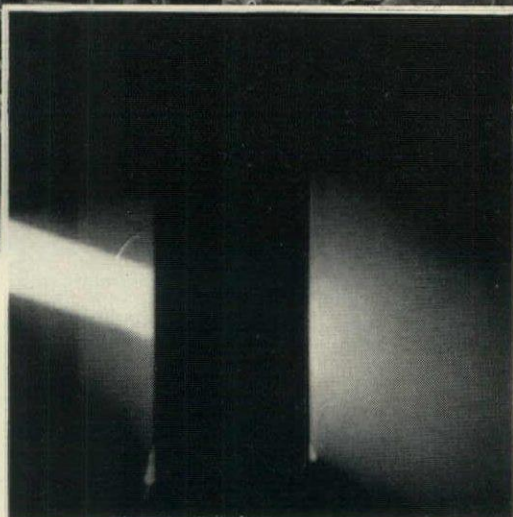


## PC BRISTOL LX-75

*Light-diffusing glass blocks*



THIS PC Glass Block is specially designed to accomplish three things: (1) to diffuse and soften transmitted daylight; (2) to decrease objectionable glare; and (3) to reduce solar heat transmission. It is therefore particularly suitable for use in defense plants, such as that shown above, and is being widely used in their construction today. A Fiberglas screen is inserted between the two halves of the block before they are fused together, and this insert, combined with the face pattern of the block, produces maximum light diffusion while sacrificing little in light transmission. And the appearance of a panel of these blocks is unusually attractive. Like all other PC Glass Block patterns, the Bristol LX-75 is immediately available. Complete information, including installation details, will be sent you upon request. Pittsburgh Corning Corporation, 2100-2 Grant Building, Pittsburgh, Pa.



THIS PHOTOGRAPH shows how PC Bristol LX-75 Glass Blocks diffuse transmitted daylight. The ray of light, striking the outside face of the block in concentrated fashion, is diffused by the Fiberglas screen and the face pattern of the block as it is transmitted into the room.




## GLASS BLOCKS

*Distributed by*  
PITTSBURGH PLATE GLASS COMPANY  
and by W. P. Fuller & Co. on the Pacific Coast

*"PITTSBURGH" stands for Quality Glass*

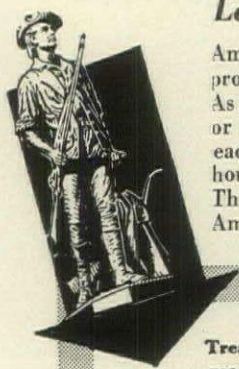




Meanwhile, we shall be able to supply hardware for only those buildings which qualify under current Government restrictions. The Stanley Works,  Trade Mark  
New Britain, Connecticut.

**STANLEY**  
Trade Mark

voluntary	{	helps	workers provide for the future
pay-roll		helps	build future buying power
allotment			
plan		helps	defend America today



America's talent for working out emergency problems, democratically, is being tested today. As always, we will work it out, without pressure or coercion . . . in that old American way; each businessman strengthening his *own* house; not waiting for his neighbor to do it. That custom has, throughout history, enabled America to get things done of *its own free will*.

**FREE - NO OBLIGATION**

Address \_\_\_\_\_

# 33

Top U.S. designers explore a mo  
The

top U.S. designers explore a major problem

The New House 194X



THE ARCHITECTURAL FORUM SEPTEMBER 1942

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

We believe, as a result, that the September issue which will present all of these ideas, can be one of the most useful and important issues THE FORUM has ever published.

☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆ ☆

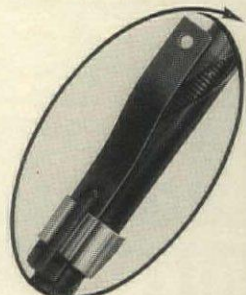
19 WEST 44th STREET, NEW YORK CITY



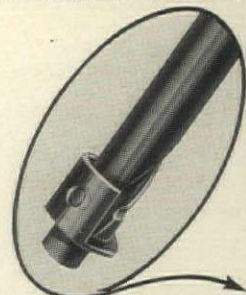
# Critical Areas but No Criticism of GRAND RAPIDS *Invisible* SASH BALANCE



Simplified Top Fastener. Easier to install. Permanent rigidity with one screw. Eliminates "play." Smoother, quieter operation.



"Spring-Flex" Bearing Arm. Spring steel arm adjusts automatically to different degrees of sash fit. Practically eliminates wood chatter. Always smooth, quiet, snug.



Play-Proof Guide Bracket. Guide bracket opening exact diameter of balance bottom, giving close, chatter-proof fit without binding.



Thousands of sets of Grand Rapids Invisible Sash Balances have been used, and are being used, in defense housing projects — in areas where all materials are subject to much critical inspection.

The fact that the simplicity of these installations has earned the hearty endorsement of all is but an additional point in their favor. The real test comes with use — the smooth, dependable performance under varying climatic conditions, the ease of tension adjustment, the absence of tapes or cables, and the actual invisibility of the entire working mechanism. Saves time, saves cost and saves on critical materials. This applies equally with either single or double balance installations.

Production is in high gear, but deliveries are governed by priorities as with other essentials. Get our 1942 catalog No. 42-SB-2, and we will gladly give you full delivery information. Grand Rapids Hardware Co., Grand Rapids, Mich.

**"GRAND RAPIDS"**  
*Sash Balancing Equipment*  
THE STANDARD FOR FORTY YEARS

## MASONRY JOINTS MADE PERMANENTLY WATERPROOF

### WEATHERCAP

IMBEDDED  
IN MINWAX



CAULKING  
COMPOUND



Weathercap was used in many of America's famous Schools. Illustration shows Rogers Building—Massachusetts Institute of Technology, Cambridge, Mass. *Welles Caswath, Architect—Coolidge and Carlson, Assoc. Arch.* Weathercap set in Minwax Caulking Compound for joints in dome masonry.

These are days of conservation—*protecting what we have.* It's a good time to waterproof those buildings that have been giving trouble. Those leaky masonry joints, for example, can be *permanently* waterproofed with Weathercap.

Weathercap is a formed strip of pure soft lead. It creates a permanent waterproof seal for horizontal and sloping joints in masonry, such as copings, cornices, water-tables, balustrades, steps, etc.

Embedded in MINWAX Caulking Compound, which provides an elastic adhesive, waterproof filler for the joint, Weathercap seals the compound permanently against deterioration from sunlight and atmosphere.

MINWAX offers a complete waterproofing service. Send for specifications and complete details. MINWAX COMPANY, INC., 11 West 42nd Street, New York City.



Waterproofings  
Dampproofings  
Caulkings

Wood Finishes  
Waxes  
Protective Coatings

COMPLETE CATALOGUES IN SWEET'S





## TIME • LABOR • MATERIALS

### TRIMPAK HELPS SAVE ALL THREE

Right now, when it is so important to avoid waste, Trimpak helps you *save* time, labor, and materials.

Trimpak's new lock-joint mitred trim saves 44% installation time—releasing important labor for defense. Trimpak saves transportation, too, by leaving the waste trim at the mill.

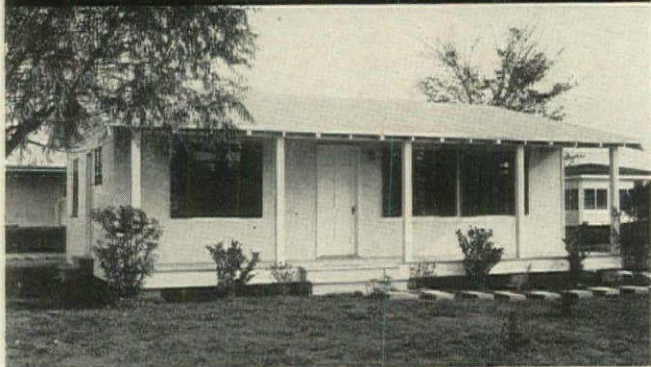
Trimpak is America's finest quality packaged window and door trim. It is precision cut, to assure perfect joint and is delivered to the job in strong cartons ready for installation.

Investigate Trimpak today at your local lumber dealer. For literature write direct to Dept. AF-8, Trimpak Corporation, 44 Whitehall Street, New York, N. Y.

# TRIMPAK

"THE ULTIMATE IN TRIM"

*...Designed for the South*



This new type **HOUSTON HOME**—five rooms with wide over-hang is thoroughly insulated for Southern weather conditions. It's durable and low in price.

- Our large completely equipped plant—now 100% in production of war contracts—will be on the alert to serve all post-war civilian needs.

**HOUSTON *Ready-Cut* HOUSE CO.**  
25 years Prefabricating Houses  
POLK AVENUE HOUSTON, TEXAS

Which fuel? Where? What burner? Who has one? Can it still be bought? When?

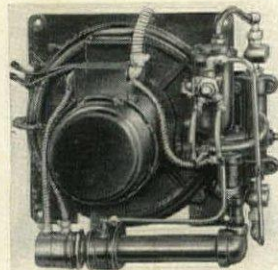
## Got a heating "headache"?

THERE may be a way to cure it. We don't want to make any rash promises . . . but in several recent cases we have been able to meet requests for equipment which a perplexed architect or engineer had thought unavailable.

Though we, too, are complying with the *spirit* as well as the letter of wartime restraining orders, there is still a fair chance that we can supply the oil-burning equipment you need for installations with A10-or-better Priorities.

Tell us the nature of your problem. We'll let you know immediately if we have what you want or can still make it. If not, we'll say "no" at once and give you every possible help in working out a satisfactory solution.

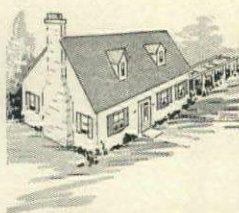
Believe us . . . we'll make a sincere effort to help.



The famous **JOHNSON 30-AVH** immediately available for industrial, institutional and military usage.

## S. T. JOHNSON CO.

940 ARLINGTON AVE., OAKLAND, CAL. 401 N. BROAD ST., PHILADELPHIA, PA.



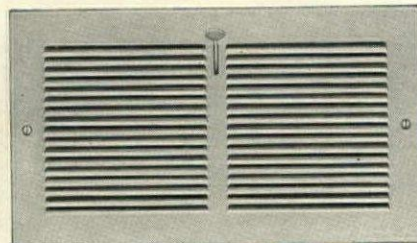
## REGISTERS for SMALL HOMES

## and GROUP HOUSING

With the widespread use of simplified heating systems, often stripped to the bare essentials, small homes and housing projects need the added efficiency of Auer Registers. There are many Auer warm-air models suited to low-cost house requirements, such as the Airo-Flex "7000" Series shown here. This is a single louvre register with downward directional fins, bendable for other angles if desired. If you are equipping small home jobs, it will pay you to know about the Auer line.

Write for Auer Register Book showing all models for warm air and air conditioning. Separate Catalog "G" also available on flat metal grilles.

The Auer Register Co.  
Cleveland, Ohio



Airo-Flex 7032 Single Louvre Adjustable Register

## AUER REGISTERS & GRILLES

For Air Conditioning and Gravity



**Prompt Delivery**  
**ANY AMOUNT, ALL TYPES**  
**OF DOORS FOR ANY KIND**  
**OF WAR HOUSING**  
**PROJECT!**



from **America's**  
**Largest**  
**Door**  
**Manufacturer!**

**NO RED TAPE—NO DELAY.** You can get as many famous Wheeler Osgood doors as you need for any of the thousands of war housing projects. Deal with Wheeler Osgood and you are doing business with a concern capable *now*—as for the past 52 years—of completely supplying your every need for doors. Interior doors. Exterior doors. Doors of Fir—one of the world's finest woods for door manufacture. Fir is uniform, super-strong, rot-proofed by nature and highly resistant to marring.

Remember—Wheeler Osgood can fill your whole order for doors *now*—no matter how big or how varied the order is.

**COLOR GRADED**—Now you can speed up the handling of war housing orders. Wheeler Osgood's sensational new "Color-Grading" system for doors shows you at a glance the grade, style, size and surface of every door in stock. Each door bears a distinctive colored label attached to the bottom rail. On DeLuxe Grade A doors this label features the famous Wheeler Osgood guarantee.

## COLOR GRADING



**DE LUXE GRADE A**—Bright blue label bearing the grade, size, style, surface and guarantee! Helps customers recognize quality.



**MASTER GRADE B**—Bright red label, bearing grade, size, style and surface.

• Wheeler Osgood "Color-Graded" Grade A and B Douglas Fir house doors are built in strict accordance with U. S. Department of Commerce Standards CS73-38 and CS91-41.

## WHEELER OSGOOD DOORS



A COMPLETE LINE OF INTERIOR  
 AND EXTERIOR DOORS

**FREE** Wheeler Osgood Sales Corp.  
 Dept. 10, Tacoma, Wash.

Gentlemen: Please send me free literature  
 on Wheeler Osgood "Color-Graded" Doors.

Name.....

Address.....

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



## To Cause Little or No Loss, Damage or Delay

• As an architect designing an industrial plant, you will allow for the probability of fires—and plan exactly how to handle them. In this creative function, you can imagine the fires, the location of each hazard, and mentally survey the appropriate methods of extinguishment—all *before* the plans are complete.

At this stage you will find two points about Cardox of interest: (1) Application of low-temperature CO<sub>2</sub> in mass discharge, is highly flexible. It can be engineered for uniformly-dependable performance on many hazards. Flexibility of these built-in systems makes them easy to incorporate in new construction or in the remodeling of occupied buildings. (2) Accumulated, large-scale experience in low-temperature CO<sub>2</sub> extinguishment is available to architects, through Cardox district managers and the Cardox technical staff.

Architects planning buildings for essential production are urged to *contact Cardox*. Write for Bulletin 682.

## CARDOX

NON-DAMAGING FIRE EXTINGUISHING SYSTEMS

### Architectural Advantages:

- Single discharge nozzle frequently ample protection for average large room. Pipe economized.
- Cardox Systems easily extended to additional hazards as plant expands.
- Piping installations tremendously simplified.
- Engineered systems for specialized or complete fire protection layouts. Manual or automatic controls as required.

### How Cardox Built-In Systems Extinguish Fires

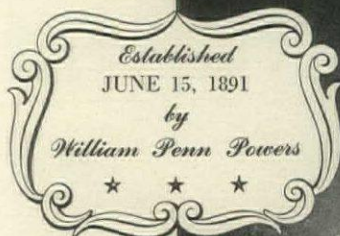
- Timed discharges, as needed, through built-in piping systems...supplied instantly from a single storage unit holding tons (if required) of liquid Cardox CO<sub>2</sub>.
- Mass discharge of Cardox CO<sub>2</sub> "knocks out" fire, by... concentration necessary for combustion, and...
- Reducing oxygen content of the atmosphere below the
- Cooling combustibles and fire zone below ignition temperature...
- Extinguishing fire quickly and completely, without damage from extinguishing medium.

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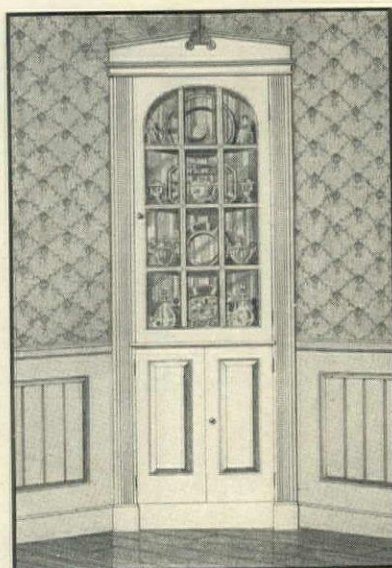
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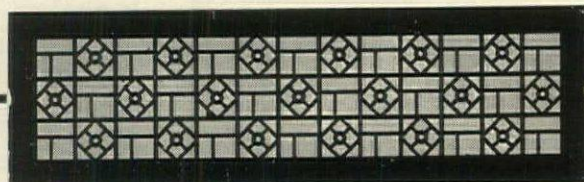
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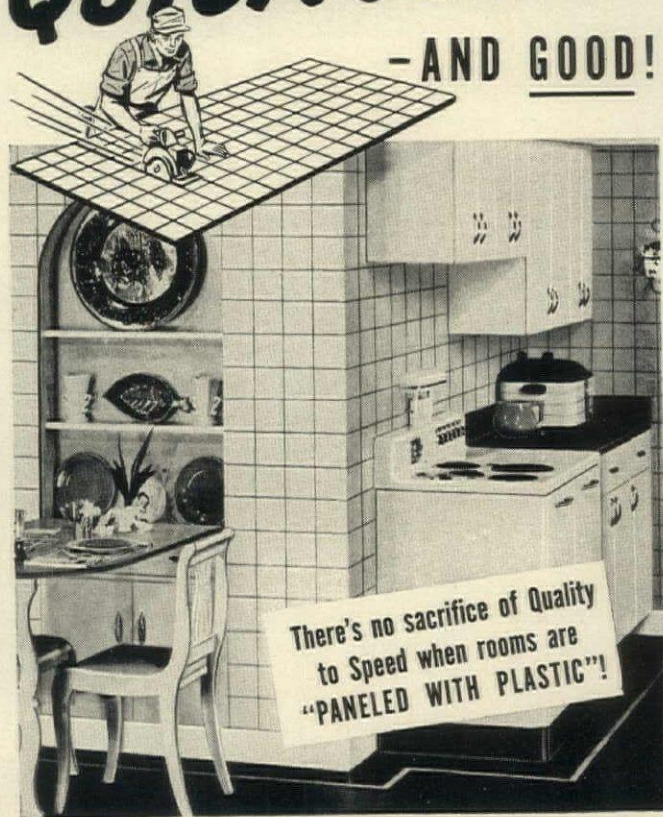
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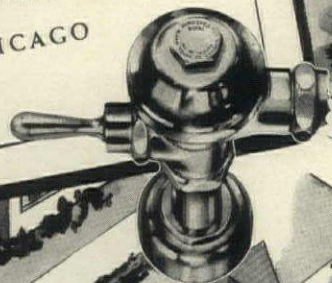
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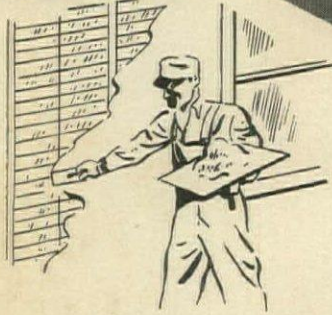
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# Looking ahead...

**Here is a preview of a post-war development in house construction**



Tomorrow, when Uncle Sam no longer needs all our steel to win the war, we may have complete houses framed with a light-weight material—which heretofore has not been done.

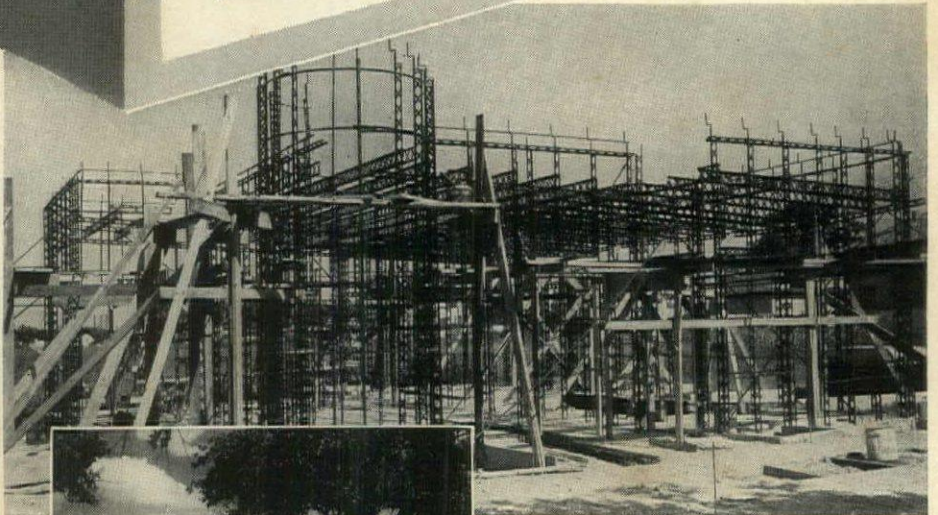
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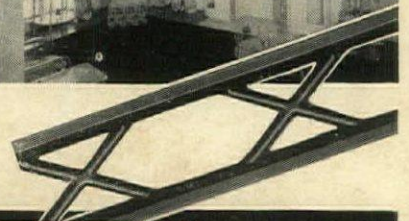
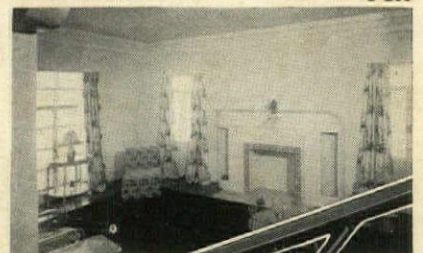


Milcor engineers are working on blueprints for the America of tomorrow — looking with an open mind at new ideas such as this one, checking, testing — to the end that you may find steel ever more useful in the buildings of that day.

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shall not be disappointed. So — don't look merely for "business as usual" — when Victory is won — but also for the new and unusual which building needs to strengthen its appeal to the public, and to improve the efficiency and economy of its structures.

F-239



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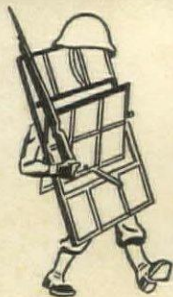
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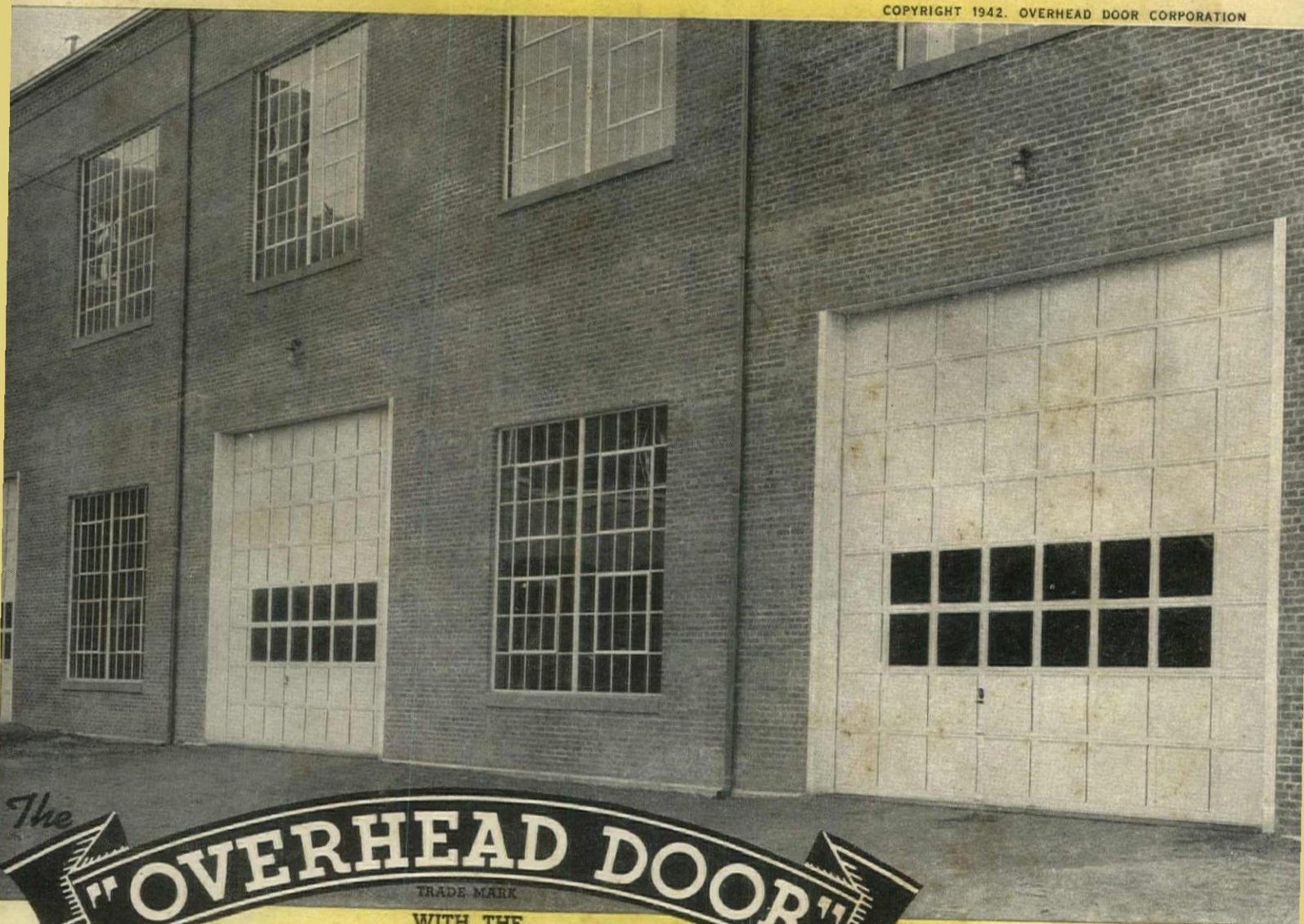


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