

THE ARCHITECTURAL
FORUM

MARCH 1949

A circular library stamp is located in the bottom right corner of the cover. The text within the stamp is partially obscured but appears to include "UNIVERSITY OF MICHIGAN" and "ANN ARBOR, MICH." around the perimeter.

RE

-CONDITION! . . .
-HABILITATE! . . .
-MODEL! . . .
-BUILD! . . .

THESE WORDS have slightly different shades of meaning. But they can all mean work for architects—particularly in areas where the war program has so shifted populations that present accommodations are inadequate.

Stores—schools—churches—theatres—restaurants—homes and apartments—all these must be remodeled to handle added thousands of people in hundreds of communities.

Celotex Building Products are non-critical. Let Celotex Vapor-seal Sheath-

ing replace other sheathing material; let Celotex Insulating Interior Finishes hasten the completion of remodeled store interiors and added living rooms by doing two or three jobs at one operation—and at one cost!

Celotex Shingles, Rock Wool and Gypsum Products, are all available—and can contribute to the economical completion of urgently needed space. In addition, there are new types of products to meet industrial needs for temporary emergency construction.

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Needs**

We can furnish information on Celotex Products which have been proved, under fire, in London!

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Building Reporter

Building Reporter, previously published as a mid-month supplement, now takes its place for the duration in the pages of THE FORUM.

ARP

American inventiveness, always at its best in an emergency, is turning out at a great rate materials and devices for building protection—camouflage paints, blackout paints, blackout awnings, blackout ventilators, blackout luminaires, safety coatings for window glass, alarm-paging systems.

In addition to their war use, many of these products are not without interest for their peacetime possibilities. Strips of cloth that glow in the dark, for instance, can do more than direct traffic on stairs in a blackout (see cut below); they conjure up all sorts of applications that have wide significance for the decorative lighting of buildings, inside and out, when peace again returns.

However, it is for their immediate application that THE FORUM this month parades the newest and most interesting of these products. To evaluate their relative merits, reference should be made to the January FORUM (Civilian Defense Reference Number). If further information on any item is desired, write direct to the manufacturer.

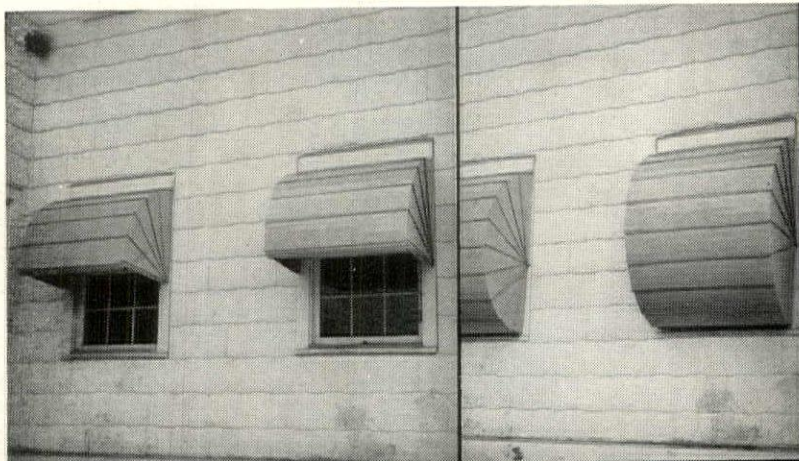
CAMOUFLAGE PAINTS

Primary purpose of the following products is to tone down bright colors and sharp contrasts on roof and wall surfaces, thus enabling the buildings to blend inconspicuously into surrounding terrain. Dark in color, they produce a lusterless finish, can be used also to daub in deceptive form patterns.

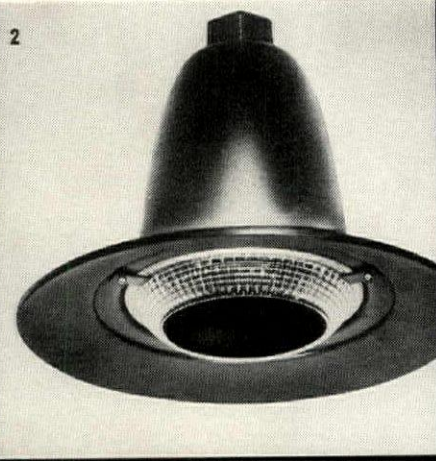
COATING dulls walls and roofs, also windows, into invisibility. Flintkote Co., 30 Rockefeller Plaza, New York, N. Y.

Name: Flintkote Blackout Static Coating.
Features: Besides reducing reflective glare from walls and roofs, this product can be used to blot out illumination from building interiors. An asphalt emulsion, it contains no volatile, inflammable ingredients, requires only clean cold water for thinning. Applied by brush or spray (1 gal. per 100 sq. ft.), it adheres equally well to glass, masonry, brick, metal, wood or roofing surfaces — even vertical planes.

1. Half lowered, an awning to keep the sun out; fully lowered, a device to keep telltale room light in, if hostile planes should come. (See p. 54)



2. A luminaire for safe outdoor lighting during blackouts. Based on British ARP specifications, it is invisible to enemy bombers at night. (p. 60)



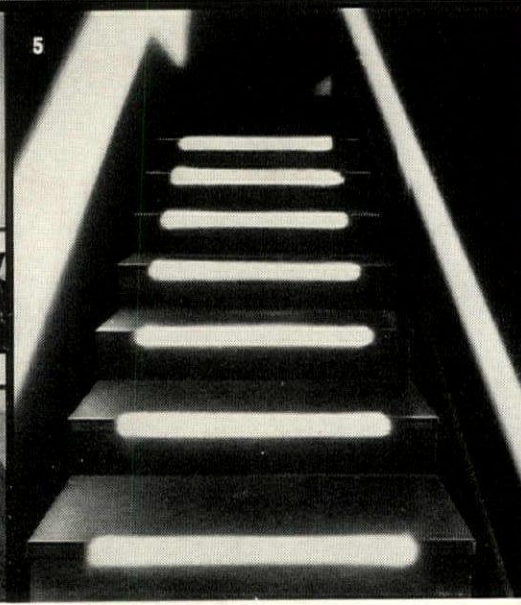
3. Another blackout lamp. Glare-proof, it casts a downbeam of soft blue light. (p. 60)



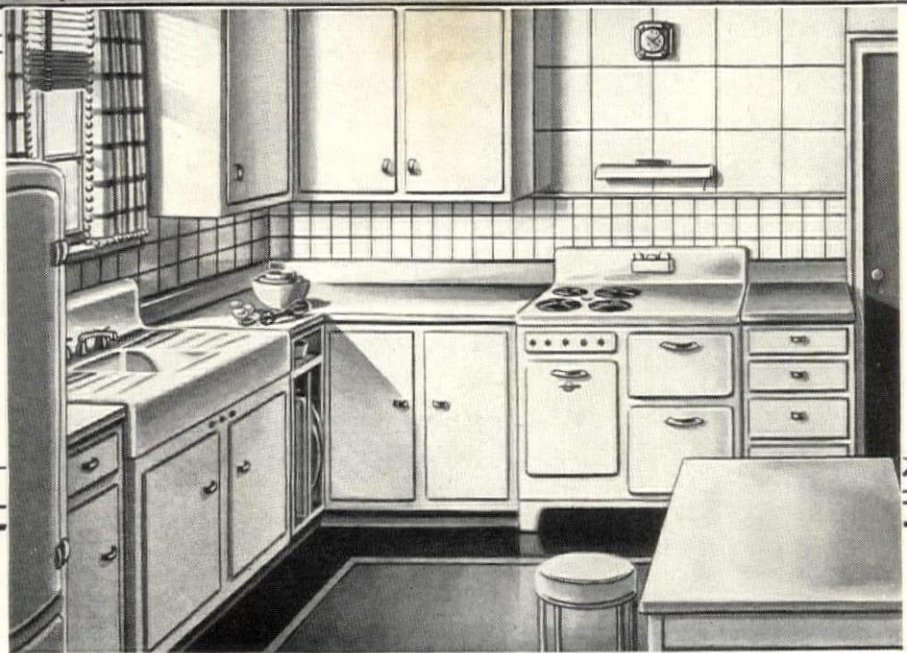
4. An alarm-paging system for industrial plants. Signal stations also permit private two-way conversations. (p. 60)



5. An automatic means of safely guiding foot traffic in the dark. Strips of cloth cover stair nosings and handrails, phosphoresce softly when other lights go out. (p. 58)



How to secure tile effects in ONE PANEL WALL-TO-WALL



IN NEW construction and remodeling for the Victory program, where speed and economy are especially important, Presdwood Temprtile*—a Masonite* wood-fibre hardboard — is doing an outstanding job for architects and builders.

A single 4 x 12-foot panel of this grainless hardboard is sufficient to provide a durable tile-like wainscot the entire length of the average kitchen, bathroom or washroom wall.

Presdwood Temprtile may be either glued or nailed directly over old plaster

walls. It can be cut to size with ordinary wood-working tools. Its marble-smooth surface can be painted or enameled. Masonite mouldings can be used for trim.

Grainless, moisture-resisting, Presdwood Temprtile will last as long as the building in which it is installed. Properly applied, it will not warp, chip or crack.

If you are engaged in designing new or remodeling old buildings for the nation's Victory program, mail the coupon below for **FREE** sample and more information about Masonite Presdwood Temprtile.

MASONITE

PRESWOOD TEMPRTILE

THE WONDER WOOD OF A THOUSAND USES
SOLD BY LUMBER DEALERS EVERYWHERE



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MASONITE CORPORATION, Dept. AF-3, 111 W. Washington St., Chicago, Ill.
Please send a **FREE** sample and details about Masonite Presdwood Temprtile.

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Address _____
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THE ARCHITECTURAL
FORUM

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VOLUME 76
Number 3

Building Reporter

without sagging or flowing. It dries to a dull black, non-reflecting surface within a few hours. The soft, non-toxic, odorless film shatterproofs glass, is easily removed with a razor blade and solvent. (Also developed for air raid protection by the company's British subsidiary: a blackout membrane treatment, blackout panels, blackout paper, a fire-retardent mastic, other camouflage paints.)

CAMOUFLAGE LINE permits real objects to be painted out, fake objects in. Sherwin-Williams Co., 101 Prospect Ave., N.W., Cleveland, O.

Name: S-W Camouflage Paints.

Features: Available in such colors as field drab, earth brown, dark green (based on Army and OCD standards), these paints can be spread over roofs, buildings, streets and other structures which might otherwise serve as landmarks from the air. They adhere to practically any type of surface (from glass to asphalt roofing), dry without gloss or reflections, make conspicuous objects merge into the natural background. By clever painting industrial building groups can be made to look like rows of cottages to confuse enemy bombers.

BLACKOUT LINE'S color range permits partial daytime camouflage. Pittsburgh Plate Glass Co., Grant Bldg., Pittsburgh, Pa.

Name: Blackout-Camouflage Paints.
Features: By selecting the color—black, smoke gray, earth drab, neutral brick—which most nearly blends with the surroundings, a partial camouflage can be obtained for glazed openings by day, complete blackout by night.

BLACKOUT PAINTS & COVERINGS

Most numerous of Building's new arrivals, these are intended to darken windows and skylights in buildings where dousing of all lights every time an air raid alarm sounds would be impractical.

WINDOW PAINT dries quickly into a glareless surface. American-Marietta Co., 43 E. Ohio St., Chicago, Ill.

Name: Valdura Blackout.

Features: This paint is marketed in paste form in 1- and 5-gal. containers. Cut 50 per cent with water, it can be sprayed or brushed on windows to prevent all passage of light. Coverage: 800 sq. ft. to the gallon. It dries within 40 minutes, providing a flat surface that will not flash back or glare when hit by artificial light used within the room. In interior applications, a single coat may be covered with a white paint where large glass surfaces make the higher reflection properties of a

white surface necessary. Removal is made without damage to the glass.

ADHESIVE COMPOUND blackens, reinforces glazed areas. J. W. Mortell Co., 565 E. Milwaukee Ave., Detroit, Mich.

Name: No. 565 Blackout Compound.

Features: A heavy-bodied non-toxic adhesive, this material can be readily sprayed or brushed on glass areas. Combined with fabrics, cheesecloth, burlap or wire screen, it eliminates any possibility of flying glass particles even though the window or skylight may be completely shattered.

COATING is easily applied, easily removed when no longer needed. Carbozite Corp., First National Bank Bldg., Pittsburgh, Pa.

Name: Carbozite Standard Blackout Black.
Features: Made from a pyrobitumen ore, especially refined and mixed with quick-drying, volatile solvents, this material can be sprayed or brushed on quickly. Only one coat is required. Drying within 8 hours, it yields a dead black, gloss-free durable surface. Being readily soluble in gasoline, kerosene or any light petroleum solvent, it can be dissolved and wiped off the glass when so desired.

COLD WATER PAIR blot window light both inside and out. Tamms Silica Co., 228 N. La Salle St., Chicago, Ill.

Name: Blackout Twins.

Features: A pair of cold water paints—one for coating windows and skylights inside, the other outside. Furnished in powder form, they require only water to be readied for application with brush or spray. Coverage: 350 sq. ft. with 5 lbs. of powder. Finish is an intense black, void



BROKEN GLASS, biggest civilian hazard in wartime, is held safely intact by a transparent film applied to inside window surfaces in the form of a quick-drying liquid (p. 58)

of gloss or glare. When no longer needed, it can be removed by washing.

COMPLETE LINE developed for complete blackout protection. The Philip Carey Mfg. Co., Lockland, Cincinnati, O.

Name: Carey Blackout Line.

Included: 1) A blackout coating for indoor or outdoor application on windows; 2) laminated asphaltic boards for removable panel installations; 3) a laminated coating system for shatterproof protection; 4) a blackout paper for quick temporary repairs; 5) a system of camouflage coatings.

BLACKOUT CLOTH screens light, protects against weather if window breaks. Columbus Coated Fabrics Corp., Columbus, O.

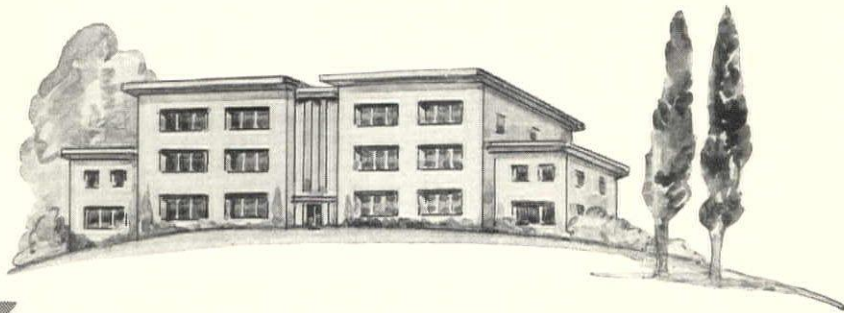
Name: Midnight-Black Oil Cloth.

Features: Used as a window shade or screen, this material's non-porous black surface eliminates all possibility of light filtering through. At the same time its
(Continued on page 54)



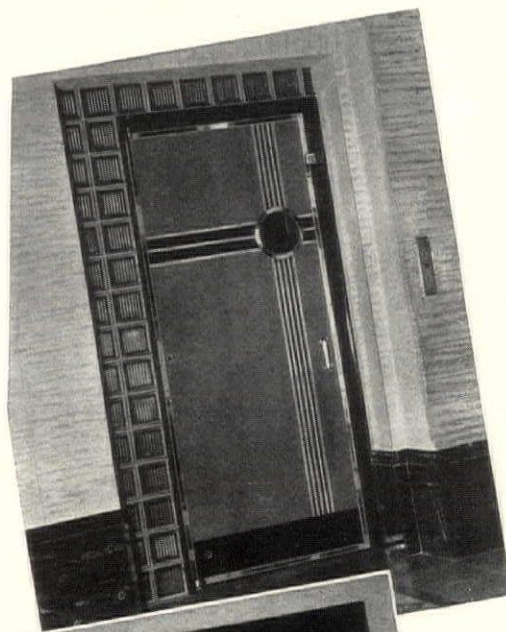
A WATERFOG rather than a water stream comes at high speed from this specially designed hose nozzle, thus permitting fires

to be fought at a safe distance. The tiny particles of moisture extinguish flames by cooling and smothering. (p. 62)



Step up...

THE RENTAL APPEAL OF YOUR PROPERTY WITH THESE HANDSOME DOORS!



FIREPROOF door cores surfaced with Formica sheets in color with inlays or with Formica "Realwood" are the handsomest doors that it is possible to specify. They are hard and stand wear; they are non-porous and chemically inert and very hard to stain. They are very simply and easily kept clean with a minimum of labor and polishing.

The cores are shipped by the door manufacturer to the Formica factory where the Formica surfaces are attached.

They add an appeal and attractiveness to lobbies that is a distinct help to the rental agent. Let us send color charts and complete details.

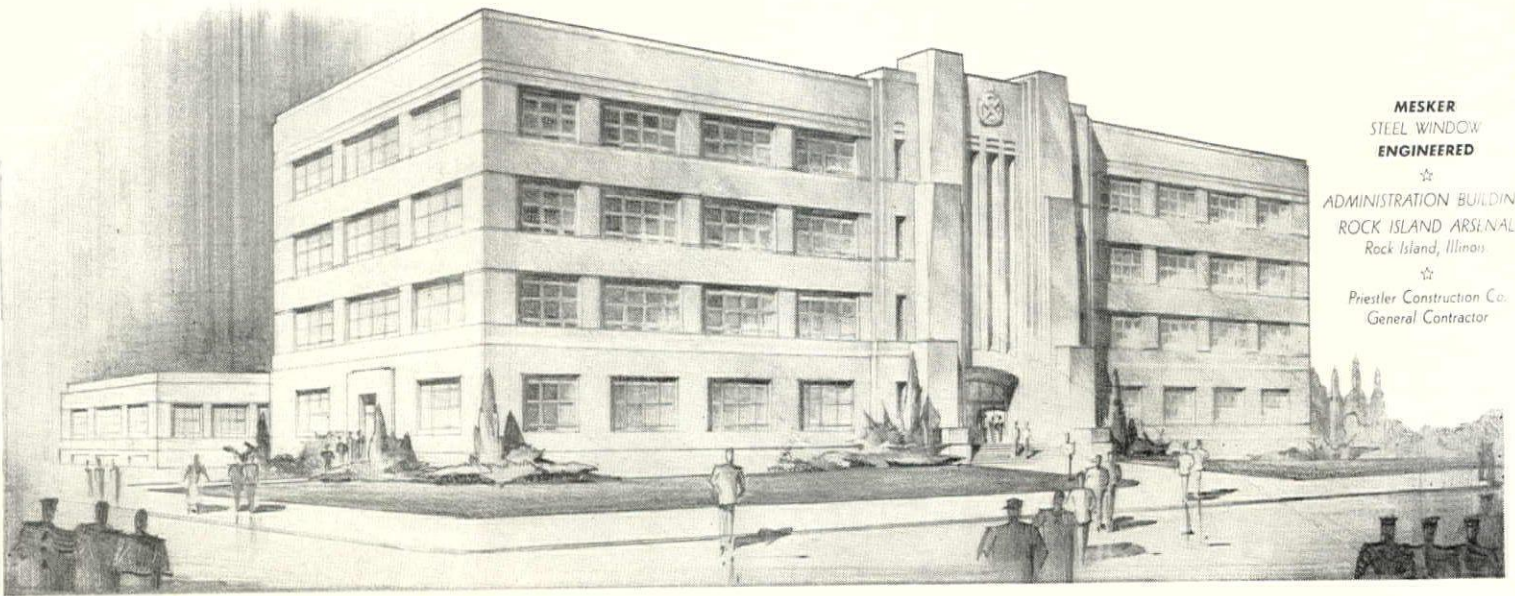
TOP: Formica inlaid door in color installed for the Watson Realty Co., 721 Walton Ave., New York.
MIDDLE: Formica Realwood inlaid door installed at 2550 Clifton Ave for the Bestor Realty Co.
BOTTOM: Formica inlaid door installed at 1244 Grant Ave., New York, for the Furnas Realty Co.

Installations made by the Maintenance Company; door cores by Superior Fireproof Door Company.

THE FORMICA INSULATION CO.
4620 Spring Grove Ave., Cincinnati, O.

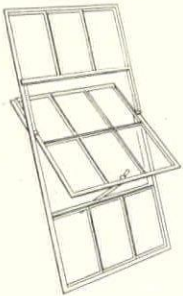
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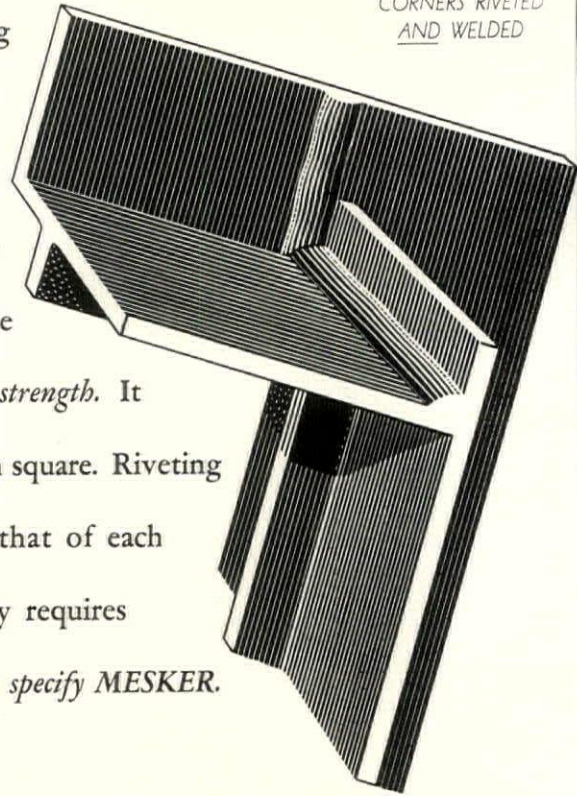
MESKER
STEEL WINDOW
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ADMINISTRATION BUILDING
ROCK ISLAND ARSENAL
Rock Island, Illinois
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Priestler Construction Co.
General Contractor

DURABILITY... that defies time



Time itself is engineering's greatest challenge. No engineer can derive greater satisfaction than that springing from a discovery that prolongs the LIFE of his product. Mesker engineers spent years perfecting an economical method of riveting AND welding all Frame and Ventilator Corners on Mesker Pivoted Sash. Riveting AND welding, a double operation...means DOUBLE the *rigidity*...DOUBLE the *strength*. It means that Sash Vents *stay* in square and plumb. Frames *stay* in square. Riveting AND welding provides a joint with greater strength than that of each individual rolled steel section. NOW, when urgency requires durability en route, on the job and in service, *is the time to specify MESKER.*

FRAME AND VENTILATOR
CORNERS RIVETED
AND WELDED



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

"TO PROVIDE FOR THE COMMON DEFENSE, TO PROMOTE THE GENERAL WELFARE"



Reykjavik off the port bow!

TONIGHT, somewhere at sea, a man stands on the bridge of a freighter with the life line of a nation in his hands.

He is straining his eyes for sight of one of those islands which are our country's first line of defense. To these islands must be transported huge quantities of munitions and food. And the only answer is ships, ships, and more ships.

How is America meeting this tremendous responsibility? You'll get a fair idea at such great factories as the Westinghouse plant where the machinery to drive many of those supply ships is being built, or at the huge Westinghouse-operated Maritime Commission plant which is now being erected alongside it.

The "know how" that works 24 hours a day

There, in these factories is a dramatic example of how Westinghouse "know how" is doing a job for National Defense.

What is this "know how"? It is the ability to get things done in the best possible way—learned in building products for the general welfare and now used in building materials for the common defense.

The same skill and ingenuity that are building those turbines for the merchant fleet, not long ago built more efficient electric refrigerators and washing machines. Again, the same plant that provided water coolers and air-condi-

tioning equipment is now turning out fuses for aerial bombs.

At 17 Westinghouse Divisions, and in the plants of more than 300 sub-contractors, our energies today are almost exclusively concentrated on the creation of \$400,000,000 worth of defense materials. It's our way of speeding the day when our "know how" will be serving you again—supplying your electrical equipment for homes, apartment houses, and office buildings.

Westinghouse

For the Common Defense

Armor-piercing shot
Tank equipment
Torpedo tubes

Naval ordnance
Portable X-ray equipment
Military radio equipment

Airplane generators
Binoculars
Gasoline tanks

For the General Welfare

Electric ranges
Wiring devices

Meters
Elevators

Load centers
Precipitrons

These lists mention only some of the many thousands of Westinghouse products.

WESTINGHOUSE ELECTRIC & MANUFACTURING CO., PITTSBURGH, PENNSYLVANIA

Copr. 1942, Westinghouse Electric & Manufacturing Co.

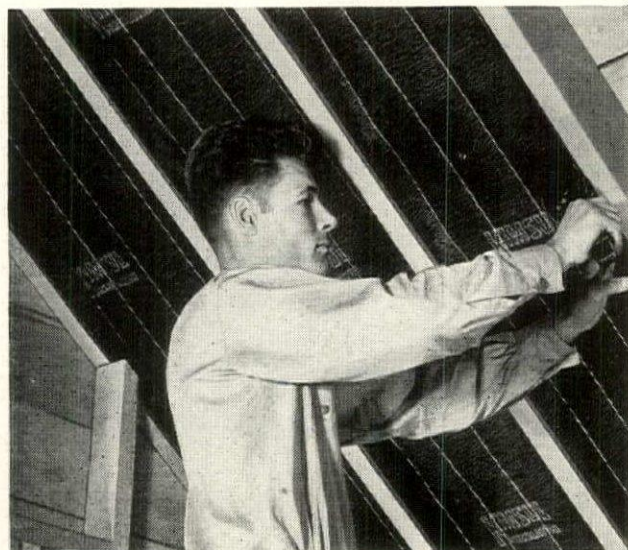
A Carload of **KIMSUL*** means

OVER FOUR EXTRA CARS FOR
THE SERVICE OF AMERICA!



SAVES TRUCKING COSTS

Atop this full load of lumber are easily carried ten compact packages of compressed Standard Thick KIMSUL—an amount sufficient to provide approximately 1,000 square feet of installed insulation. Here's proof that KIMSUL saves on delivery charges!



AND SAVES MAN-HOURS ON INSTALLATION

Sloping roofs are ordinarily considered difficult to insulate—but not when KIMSUL blanket insulation is used. Even in spots like this, one man can usually install KIMSUL quickly and easily. Labor saved is money saved!

... another good reason why
KIMSUL "Comfort-Conditioned" homes
are gaining in popularity!

■ Freight cars carrying essential materials are helping to win the war. And KIMSUL, the insulation that comes compressed, helps conserve freight cars! Fact is, one carload of KIMSUL equals five and one-half carloads of non-compressed insulation in installed square footage. Here's a feature that makes available extra freight cars for the nation's war effort, and at the same time cuts storage and handling charges.

KIMSUL has long been known as one of the most efficient insulations, having a conductivity of only .27 Btu/hr./sq.ft./in./deg. F. (Peebles). Today, KIMSUL comes in improved form—with an asphalt-impregnated facing that protects against tearing, scuffing and other surface damage rough handling might cause. Flexible yet firm, this new covering adds strength to KIMSUL blanket and assures an installation of remarkable neatness.

Every feature of KIMSUL is designed to save time and labor on the job. Usually, one man can install it. Because KIMSUL is as flexible as a woolen blanket, it works easily into "tight spots". Sharp corners, pipes and electrical outlets don't complicate the installation of KIMSUL.

An instructive bulletin, "A NEW IMPROVED KIMSUL INSULATION" gives facts you need. Send for your FREE copy now!

*KIMSUL (trade-mark) means Kimberly-Clark Insulation

KIMBERLY-CLARK CORPORATION AF-342
(Established 1872) Building Insulation Division
NEENAH, WISCONSIN

Check here Send a representative
 Send copy of FREE booklet—
"A NEW, IMPROVED KIMSUL INSULATION" to:



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

MOLINE HOUSING AUTHORITY
SPRING BROOK COURTS
PROJECT NUMBER ILL-20-1
41ST STREET AND 12TH AVENUE
MOLINE, ILLINOIS

SUBJECT:
WE REFER TO FILE NUMBER

January 8, 1942

Square D Company,
808 Fifth Avenue Building,
Moline, Illinois

Gentlemen:
Just a line to tell you of the experience that we have had with Square D Multi-breakers, which were used in lieu of fuses in our U.S.H.A. aided, 184 dwelling unit project known as Spring Brook Courts.

At the time that this system was installed we were, of course, somewhat dubious due to the fact that we had never had any experience with this type of system, but at this point, after several months of operation we are very willing to tell you that we are extremely well pleased with its operation.

One of the main advantages that we find is the simplicity with which our maintenance crew is able to correct current failures. The time consumed in this operation is considerably less than would be the case with the old-fashioned fuses, and the compactness of the entire panel set-up is a very distinct advantage.

We are sure that anyone having a purpose comparable to ours will find the Square D Multi-breaker a distinct improvement over the old system.

Very truly yours,

Warren C. Skinner
Executive Director,
MOLINE HOUSING AUTHORITY.

WCS:lw



SQUARE D MULTI-BREAKERS ARE A "NATURAL" FOR HOUSING PROJECTS

The same advantages which have prompted scores of architects to include Multi-breakers in their plans for individual homes, are just as much in evidence in multiple house planning.

Whether it's a small, individual unit for a cottage or a panelboard grouping of many units, the Multi-breaker's function is the same. It eliminates fuses completely. It affords truly modern convenience and protection. Its cost is about the same as for the switch and fuse equipment it replaces—often actually less.

Ask your electrical contractor for the complete story. Or write for Bulletin CA-4000.

MULTI-BREAKERS ARE NON-TAMPERABLE

SQUARE D COMPANY

DETROIT - MILWAUKEE - LOS ANGELES
KOLLSMAN INSTRUMENT DIVISION, ELMHURST, NEW YORK
IN CANADA: SQUARE D COMPANY CANADA LIMITED, TORONTO, ONTARIO



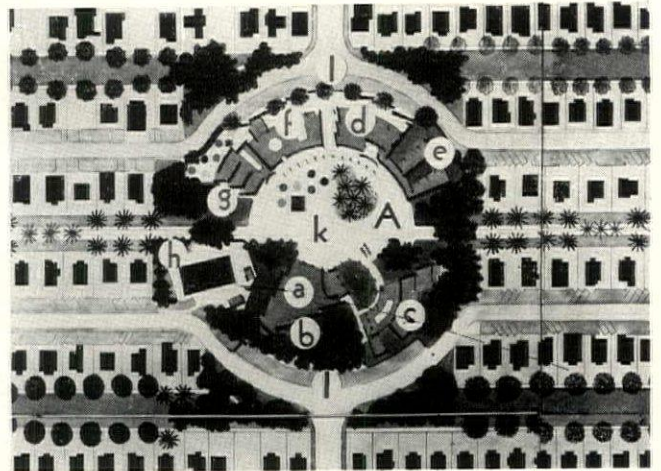
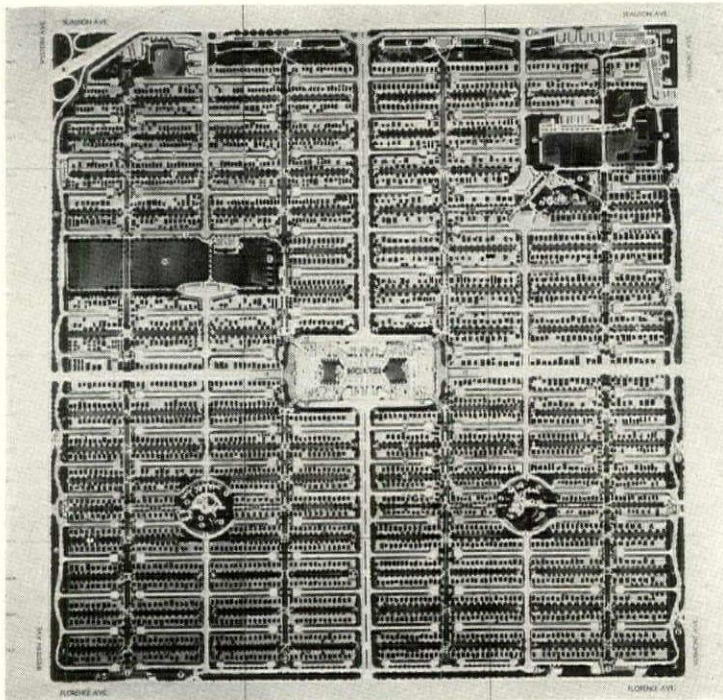
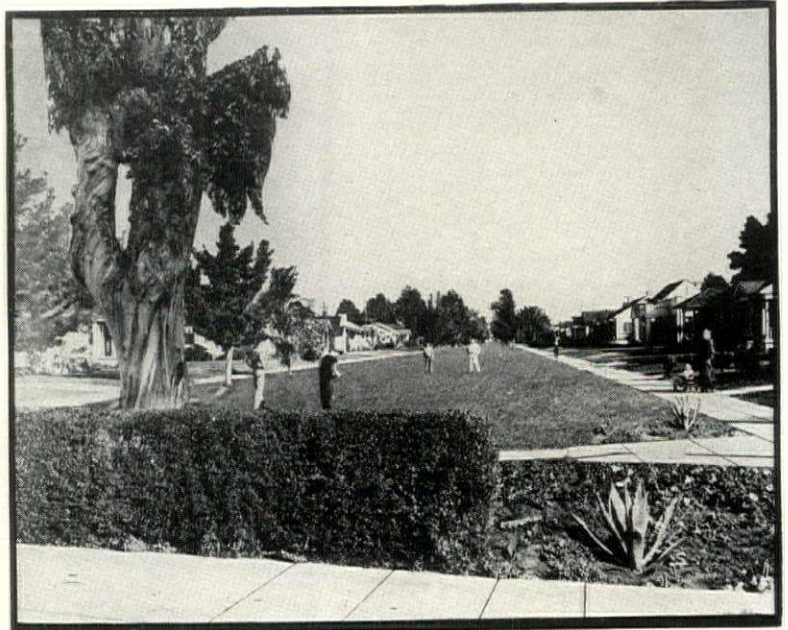
Illustration shows typical distribution panel, with Multi-breaker circuit protection, mounted adjacent to meter socket troughs having circuit closing devices for check metering. Similar installations call for individual Multi-breaker load centers used with meter trough.

See our Catalog in SWEET'S 23/12

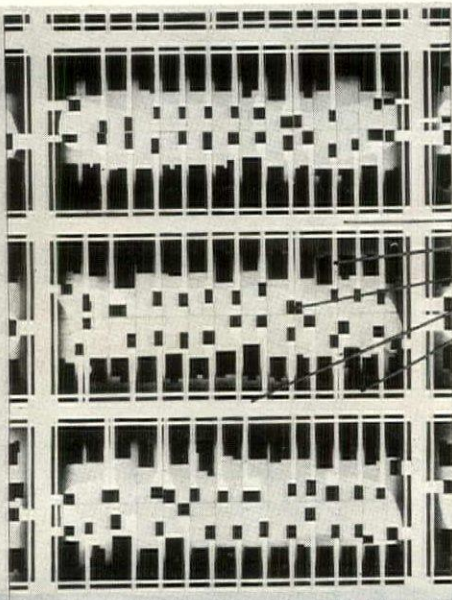
FORUM OF EVENTS

PLAN FOR PEDESTRIANS

Ever since cars and pedestrians began to compete seriously for the right of way, there have been plans to give each group its unhampered sphere of activity. Shown here is another, C. B. Troedsson's "Safety Town," recently shown at the Los Angeles County Museum. More realistic than many of his predecessors, Mr. Troedsson has taken an existing section of Los Angeles, and has replanned it with one main center and four community centers. Basic feature of the scheme is the creation of cul-de-sac alleys serving the back-yard garages. Most streets would be planted to grass, as shown in the composite photograph at the right, and pedestrian bridges would be used in the few places where they are necessary.



The illustration at the bottom presents a contrast between the Troedsson plan and the present street arrangement. The drawing at the left shows the entire area, with the existing 3,000 houses left as they are. Above, a community center, with a church (a), school (c), restaurant (f), parking (l), etc.



This drawing shows three typical blocks with the existing houses. These blocks are surrounded by streets with garages located in the center of the blocks, and driveways to reach them cut into each lot.

STREET
DRIVEWAY
GARAGE
PARKING
PEDESTRIAN

30.4 percent of total area is devoted to the automobile: streets, driveways, garages, parking

WHILE ONLY

3.6 percent of total area is devoted to the pedestrian who has to be on the watch for autos everywhere.

Here is the same area with the same houses, but with the street opened up in the center of the block where all the garages are located. The existing driveways are planted.

The old streets are now filled in and planted. This park area becomes devoted to the pedestrian only, who now has his activities grouped together, entirely separated from the automobile.

All automobile activities are now grouped together:

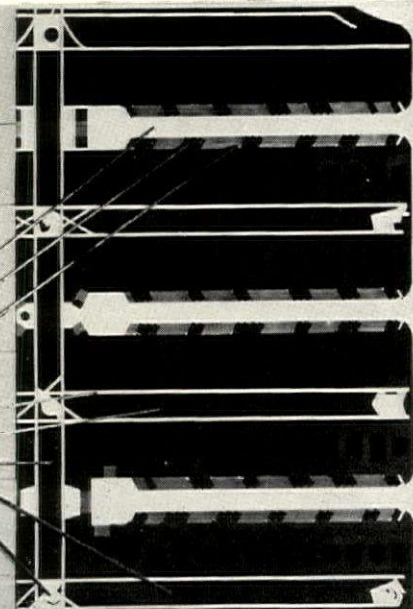
26.4 percent of total area

STREET
GARAGE
PARKING

PEDESTRIAN:

SAFE WALKS
SAFE PLAY AREAS
SAFE GAME AREAS
SAFE RELAXATION
NEIGHBORHOOD PLAZAS

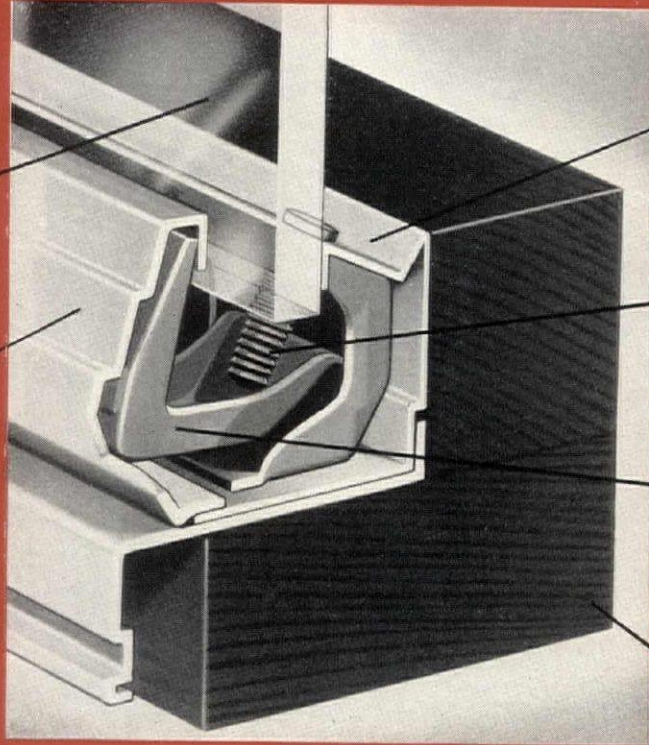
38.0 percent of total area



ZOURI SASH
ACCOMMODATE GLASS
VARYING
FROM 3/16" to 5/16".

FULLY RESILIENT
COLD-ROLLED FACE PIECE.
CLEAN, SHARP
CONTOURS.

ZOURI ROLLED SASH
NO. 910.



WIDE TROUGH TO DRAIN
MOISTURE FROM GLASS.
CUSHION GRIP.

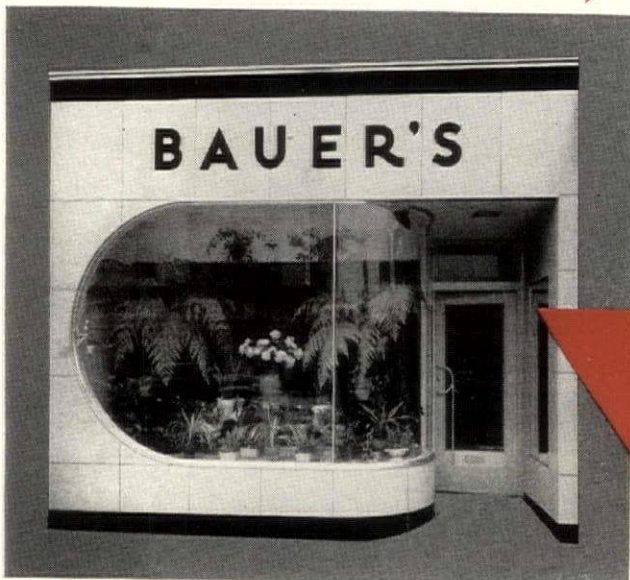
SAFETY KEY-SET SCREW
— CANNOT BE
TAMPERED WITH
— INDIRECT PRESSURE.

FULLY RESILIENT
MECHANISM WHICH
DRAWS FACE PIECE
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Cushion-Grip ON SHOW WINDOW GLASS!

— MAKES THE BIG DIFFERENCE IN GLASS PROTECTION! —



FOR OVER 30 YEARS Zouri sash have proved safe and dependable in fulfilling the primary function of store front construction—that of holding plate glass in show windows in a firm, secure, CUSHION grip. That's why glass breakage is so rare in ZOURI Store Fronts. And that's why so many architects and builders use Zouri Construction on every job.

The local Zouri distributor will gladly help you on any problems that may arise in the design and installation of your next store front. Check now and find out what stocks and metals are available in your territory. Or write ZOURI STORE FRONTS, NILES, MICHIGAN.

ZOURI *Store Fronts*

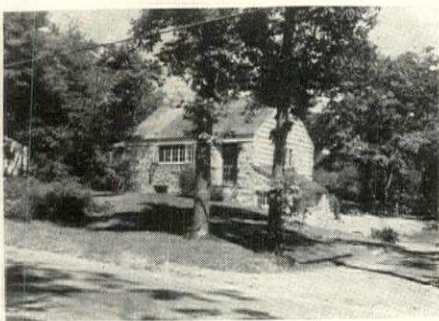
FORUM OF EVENTS

Three Certificates of Merit went to the architects of the three houses shown here. The awards were made by the Small House Committee of the New York Chapter of the American Institute of Architects, in cooperation with ten other architectural societies in the Metropolitan area. These citations, made annually to "encourage good design and sound planning in the small house field," are given to the designers of new or remodeled residences in the New York area, are limited to one story houses under 1,200 square feet in ground area and 1,000 square feet for two story houses. Competitors can submit jobs not more than two years old, must present photographs and blueprints of the working drawings.

W. W. Thomas



S. H. Gottscho

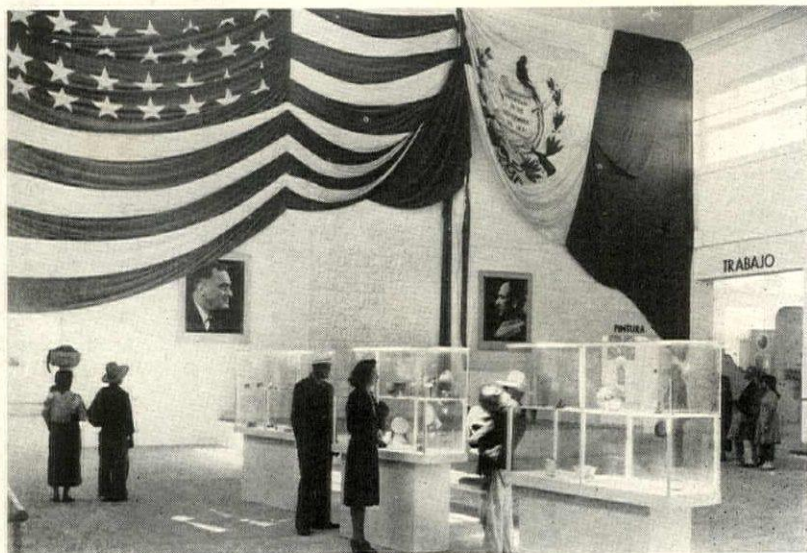


Above, residence in Greenwich, Conn.; William F. Dominick, architect. Left, residence in Bayside, L. I.; Arthur H. Goddard, architect, and residence in New Canaan, Conn., Harry C. Starr, architect.

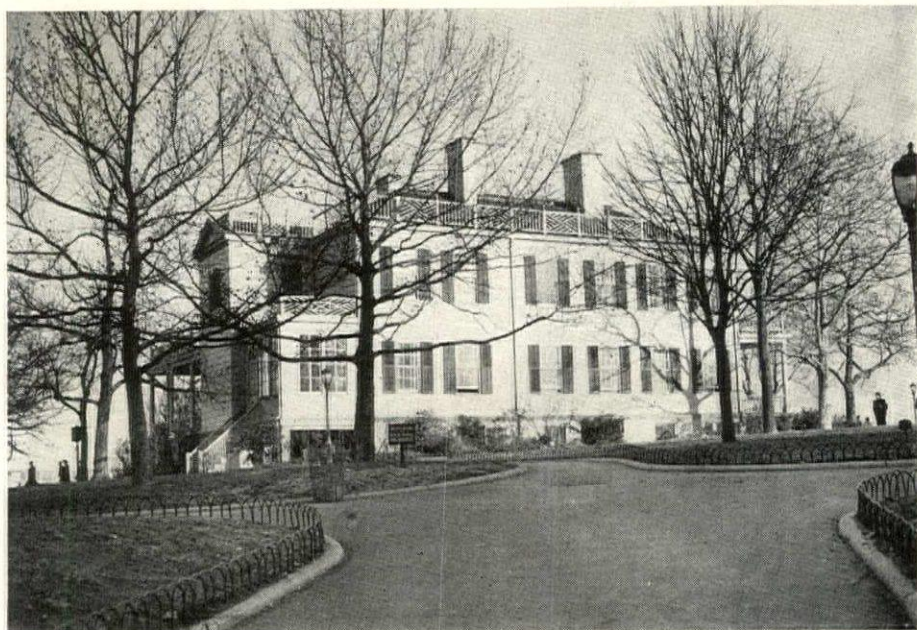


"La Marquesa"

Some 600,000 Guatemalans saw the U. S. exhibit (above and right) at the Guatemalan National Fair. Prepared by the office of the Coordinator of Inter-American Affairs, the show included photography, architecture, painting, books, handicrafts and dress designs.



W. Jacobsthal

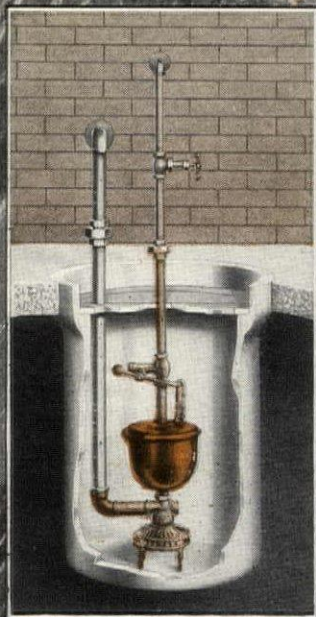


Wide World

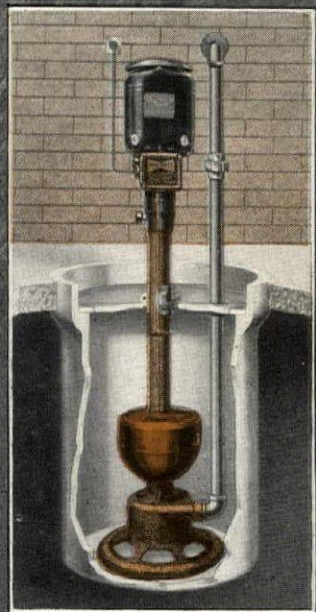
New York City's "White House," the Gracie Mansion, is to receive its first official occupants on April 1. Located in Carl Schurz Park, with a fine view up the East River, the house is now being refurbished with the aid of three museums and the WPA. Built in 1799 by Archibald Gracie, owner of a fleet of clipper ships, the house is a splendid example of late 18th century domestic architecture, is thoroughly worthy of its new function. To date the usually voluble Mayor Fiorello La Guardia, who is to move in with Mrs. La Guardia and their two children, has offered no comments to the press on the forthcoming change in residence.

(Continued on page 70)

Eliminate the Danger of Basement Seepage



**Install a
Penberthy
Automatic
Cellar Drainer
or Electric
Sump Pump**



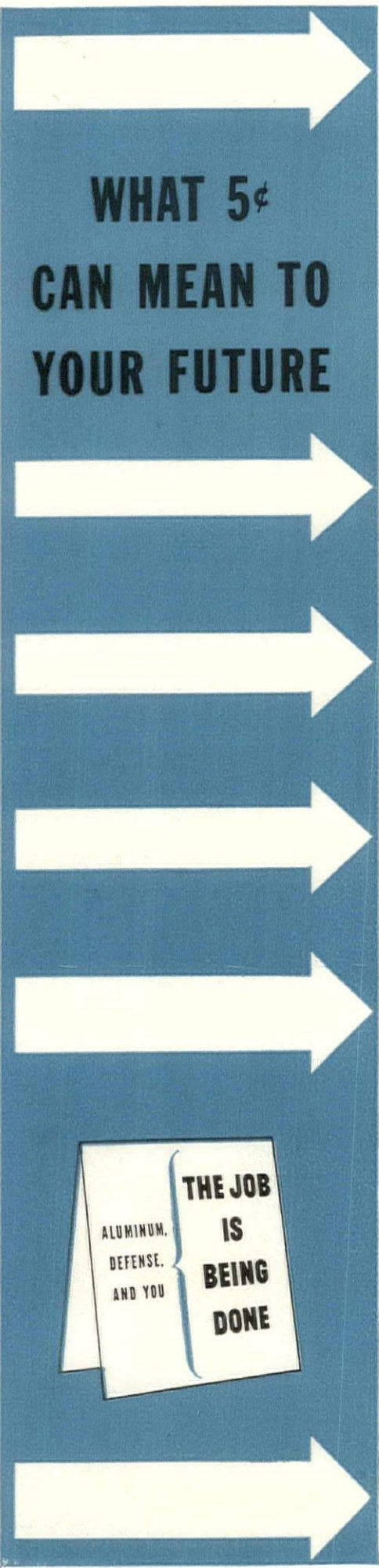
COPPER AND BRONZE THROUGHOUT

PENBERTHY INJECTOR COMPANY

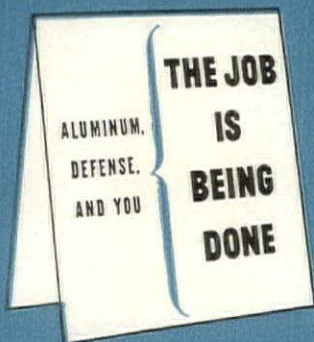
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DETROIT

CANADIAN PLANT
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CAN MEAN TO
YOUR FUTURE**



HOW MUCH ALUMINUM we are making now is a censored secret. We are determined it shall be sufficient to the need.

HOW MUCH WILL BE AVAILABLE, after the war, is idle talk now.

THE PRICE OF ALUMINUM is the thing that's important. It is important to the war, because our reduction of the price of ingot from 20c to 15c is saving the Government many millions of dollars a year.

THAT FIVE CENTS doesn't make aluminum one whit more useful for war purposes—only more patriotic.

BUT IT DOES MAKE aluminum terribly important to the peace. Real peace means jobs for all. Jobs-for-all come into being only when people *want to buy* and *can buy*: Which means new things, better things, at a price.

IMAGINEERING is the word we have coined to describe the thinking which is used to get those new things ready. Imagineering is letting your imagination soar and then engineering it down to earth. Imagineering needs tools as well as brains.

THAT FIVE CENTS we've lopped off the price of aluminum, so far, has more potentialities of creating new things and better things, at a price, than any single thing we know of.

THAT'S WHERE YOU COME IN. You are the man *who*. You are the man America is counting on to make the jobs Americans are going to need. You are the man who is going to do the *Imagineering*, in your specialty, that is going to win the place for yourself, your employees, your associates.

YOU ARE GOING TO DO IT, and we hope you are going to let Alcoa help. We can, and we want to.

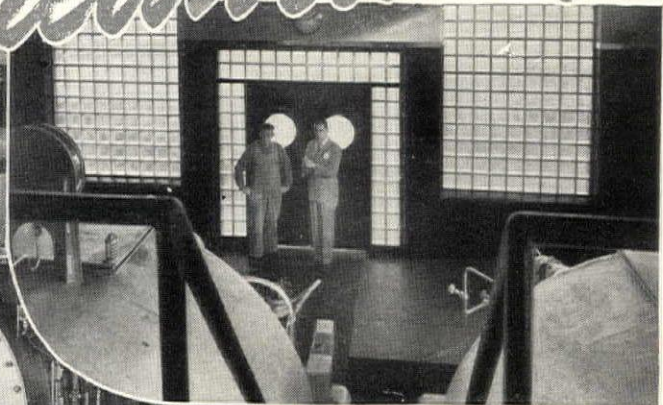
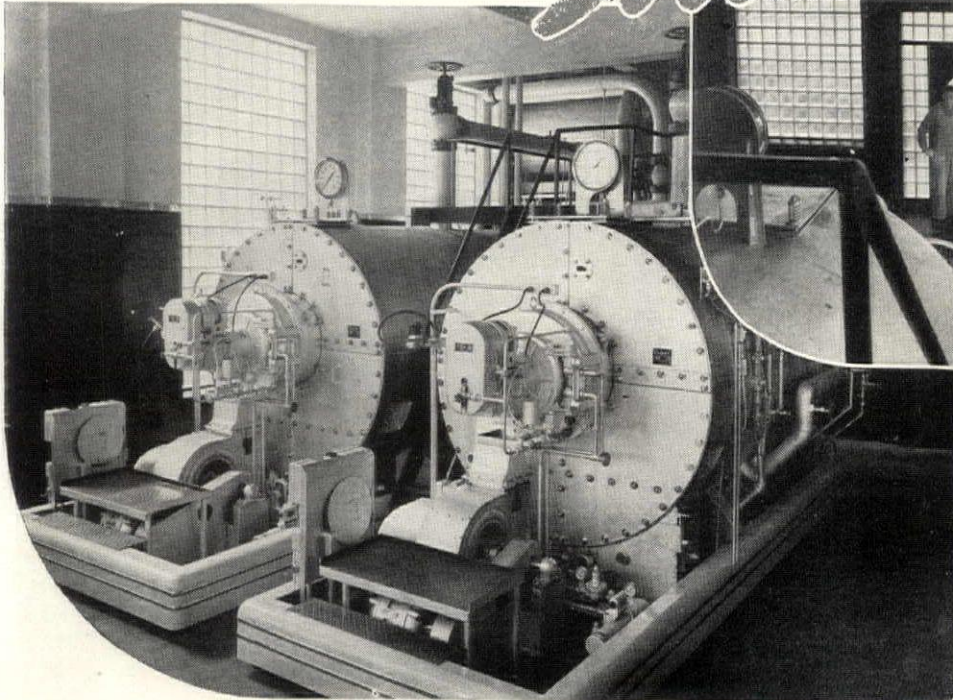
Aluminum Company of America, 2166 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA ALUMINUM



BOILER ROOM GOES

Streamline!



Looking into boiler room from catwalk above boilers. All steam control valves are accessible from catwalk.

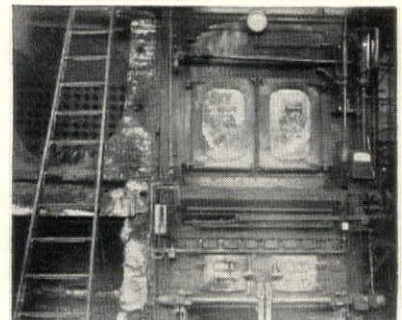
Kitchen-clean boiler room of Downing Box Co., Milwaukee, showing two 300 HP. Oilbilt plants. Note compactness and entire absence of breeching or feed-water piping — all piping concealed in pits below false floor level.

COMPARE THESE VIEWS!

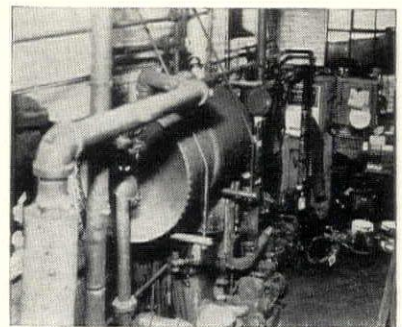
... OILBILT INSTALLATION MODERNIZES STEAM PLANT

Here is a remarkable example of boiler room "face lifting." Two badly deteriorated, "coal eater" HRT boilers cramped into a 22 x 38 ft. space and congested with pumps, piping, stokers and coal piles — top output only 450 HP. at a limit of 125 lbs. pressure—replaced by two modern, clean, compact, efficient, oil-fired, 300 HP. OILBILTS with completely concealed piping and breeching connection, with room to spare in the same space.

OILBILT'S low head room requirement made possible the elevation of the operating floor level by a sub-structure meeting the factory floor level thus concealing blow-down and feed-water piping. Downing Box Company, Milwaukee, well-known paper board and box manufacturers, now have a steam generating plant in keeping with their modern manufacturing plant.



Dismantling of old boilers revealed previously undetected deterioration.



Showing old boiler feed-water pumping and supply system, manually controlled. Compare this congestion with clean, compact Oilbilt installation.

The Trend is to OILBILTS—The Modern Boiler Units

Specifically designed for efficient oil firing with a four-pass, down-draft construction with integral burner, OILBILTS are increasingly being installed for their many exclusive advantages:

- high thermal efficiency — 80% guaranteed from 30% of rating to full rated capacity.
- compact "packaged" construction saves space.
- clean — no smoke, no ashes, no clinkers.
- four-pass, down-draft construction gets all possible heat from fuel.
- positive blower air supply eliminates high, costly stack.
- performance tested, fully assembled, by manufacturer.
- built by one company — one responsibility.
- certified steam costs — complete performance tests may be obtained before shipment.

Built in sizes 20 to 500 HP., pressures 15 to 200 lbs.

Write for bulletin and complete information.

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Our "Victory" effort comes first. Greatly enlarged Cleaver-Brooks manufacturing facilities are going "around the clock" for military production.
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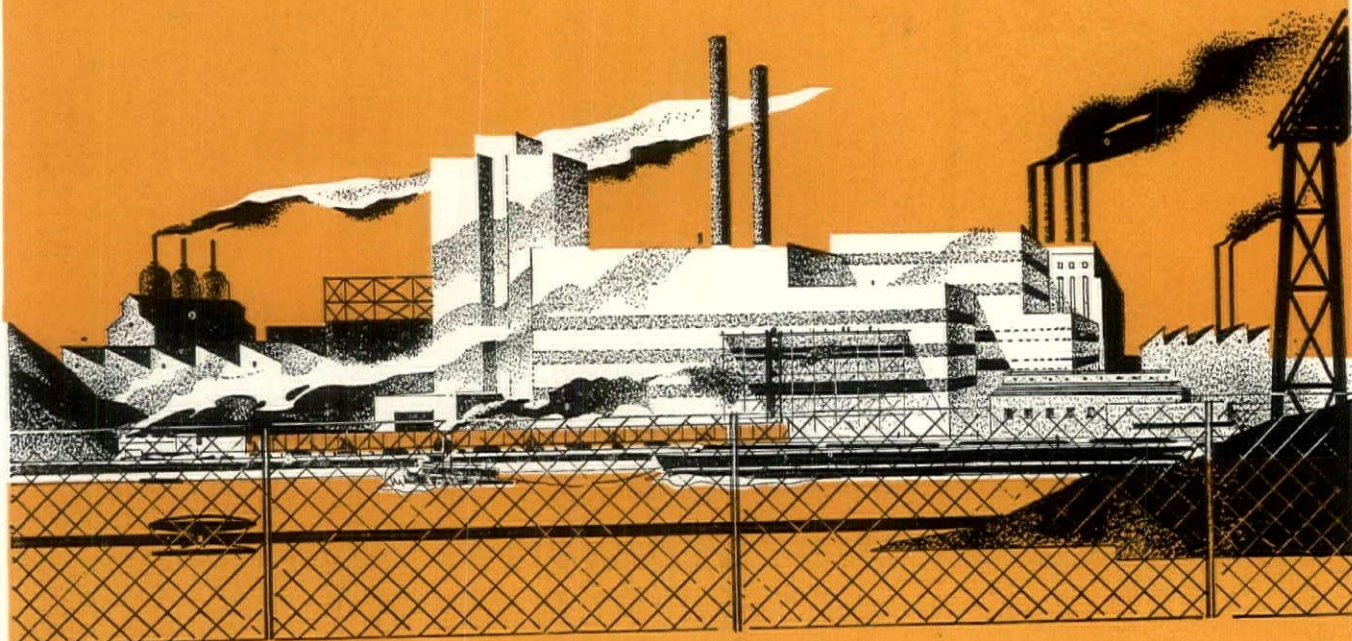
CLEAVER-BROOKS COMPANY, 5100 N. 33rd St., Milwaukee, Wisconsin

Oilbilt

STEAM PLANTS

Electrical failures barred...

FROM WAR-VITAL PLANTS



Faithful, research-built Anaconda wires and cables keep uninterrupted pace with 3-shift operation.

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

Anaconda research has developed scores of product improvements and many completely new products that are today meeting these critical demands. They are fitted for the job... their improved constructions deliver greater capacities with less power loss, their insulations can with-

stand 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.

42221



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

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SUNSHINE AND FRESH AIR for Young Americans

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**GET THIS
"BEAUTIFUL WINDOWS"
BOOKLET NOW!**

Show Mr. and Mrs. America how Ceco Casements will beautify and improve their new home. This booklet is filled with interesting pictures . . . actual photographs of Ceco Window installations. Get your copy . . . it's free!



Healthful living costs no more! You can include Ceco Casements at a cost no greater than that of ordinary windows. Mr. and Mrs. America want fresh air and sunshine for their youngsters. Ceco Casements, with their greater light areas and better ventilation principle, provide these needs. It is features like this which help sell homes . . . and keep them sold for years!

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"LET'S GO!
we've got a job to do and a reputation to uphold!"



**Let's give
Defense Homes real
Defense against the Years! . . .**

America needs defense homes . . . needs them *fast*. Architects face new, *tough* requirements. Ceiling prices have been set . . . yet quality and liveableness must not be sacrificed.

What an opportunity for architectural ingenuity and skill—not only in planning but in the choice of materials.

For while these homes will be planned for the emergency, most of them must be built to *sell*—and to *last*. And as you know from your own personal experience,

the way to make a home stand up is to protect it with good paint.

No need to tell you that white lead hugs tight and long . . . never cracks and scales. But don't let its well-known quality blind you to its genuine low cost.

Remember, paint made from Dutch Boy Paste Lead is definitely in the low price bracket. And it's not only low priced to begin with but its extra durability means rock-bottom cost per year of protection. Also, keep in mind that Dutch Boy is a real all-purpose paint. It can be used for either two or three-coat painting and it gives top performance on any surface—wood, brick, stucco, concrete, or plaster.

So, *let's go!* Any way you look at it, Dutch Boy is the paint for this Defense Housing job!

**New Dutch Boy Paint Unexcelled for Sealing
and Hiding by any Two-Coat Combination**

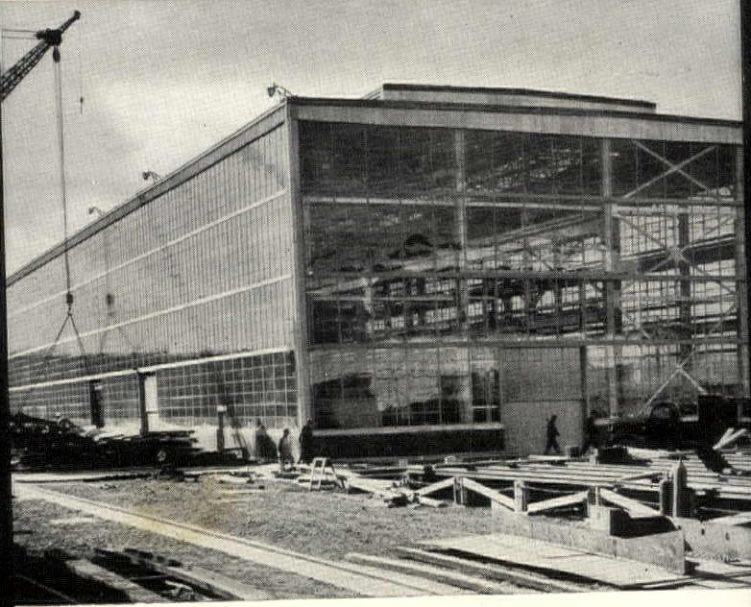
Where ready-to-use paint is desired, remember the new Dutch Boy Pure White Lead Paint provides the proven protection of white lead and, at the same time, offers sealing, hiding and whiteness unsurpassed by any two-coat combination on the market. Its two special forms—Exterior Primer and Outside White—are both pure white lead, all ready to spread. Used together they give a real Dutch Boy job—sparkling and durable—on new or old wood.

SPECIFY DUTCH BOY PURE WHITE LEAD



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Need War Production WITH DAYLIGHT-SAVING WINDOWS



Exterior and interior views of Machine Shop Building of Todd-Bath Iron Shipbuilding Corporation, South Portland, Maine. Charles T. Main, Inc., Engineers; Sanders Engineering Company, Contractors.



In February 9th, the Nation recognized the vital importance of daylight in war production. Thousands of plants from Coast to Coast, equipped with acres of Fenestra Windowwalls, began to take full advantage of production-boosting LONGER DAYLIGHT DAYS!

For almost 40 years, Detroit Steel Products Company has been helping industry increase production by the development of new and better steel window systems which provide better daylighting and fresh air ventilation . . . *at minimum cost.*

In collaboration with the Department of Engineering Research of the University of Michigan, Fenestra Engineers have over a period of years, conducted many scientific studies of Industrial Daylighting and Airation. Research booklets are now available. Use the coupon.

SAVE *Building Time* AND *Building Dollars* TOO

With every passing day the need for speed in plant construction becomes more urgent . . . as does the saving of building time by Fenestra Windowwalls. Fenestra's remarkable erection records are possible because Prefabricated Fenestra Steel Windows are delivered to the job, already fitted, assembled, prime-painted, COMPLETE, and because Fenestra crews apply years of experience to the job. Call your local Fenestra Office for helpful suggestions and cost estimates.

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STEEL WINDOW SYSTEMS FOR INDUSTRY

PREFABRICATED WINDOWS • DOORS • ROOF DECK

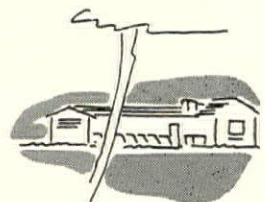
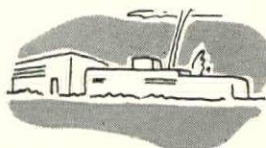
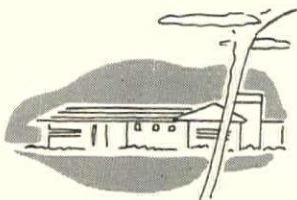
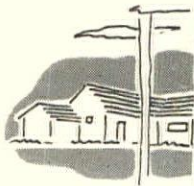
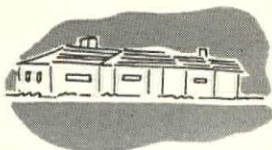
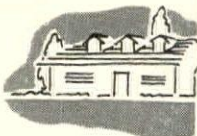
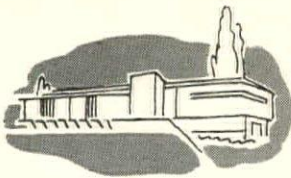
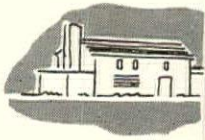
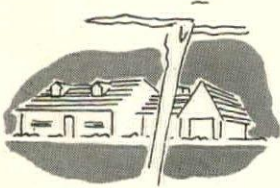
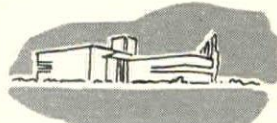
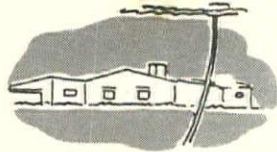
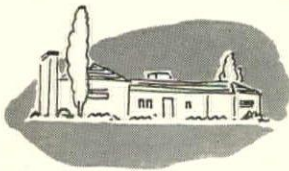
Detroit Steel Products Company, Dept. AF-3,
2252 East Grand Blvd., Detroit, Mich.

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In presenting various concepts of tomorrow's homes by leading architects and designers, Revere Copper and Brass Incorporated seeks only to stimulate public interest in better housing, confident in the knowledge that the greater use of copper and brass makes any house better to live in, better to own, better to rent or sell. The Revere Technical Advisors are always ready to help with your problems.

**"With these I'd build the home
you always dreamed of"**

CASS GILBERT, Jr.



A home where you could really relax and live, where you would have room enough to stretch out, but not too much to take care of. A place where you could find quietness . . . or where you could entertain with no worry about noise. Bright and airy in the daytime, cheerfully warm at night. Decorated with the colors that please you. Easy to heat and keep clean. With a modern bathroom and kitchen, and complete with each new improvement as development makes it available.



"Simply by a change in the method of construction, such homes as this can be built at a cost within reach of millions. Using only the usual lumber mill equipment, and without standardized designs, it can be done by means of local labor and materials. By replacing complicated hand-built walls with a system of plank panels assembled with metal tie-rods, I have been able to cut building time down from weeks to days, with a corresponding saving in cost.

"This method produces a house so strong that it will stand for generations with little upkeep. It lends itself to any architectural style, so you can have as many rooms as you wish, or as few. You can add more rooms as your pocketbook permits and your family increases. In later years, if children marry and move away, they can take their rooms with them to start new homes of their own.

"If business or inclination takes you to a

new locality, your house could be taken down as quickly as it was erected, and moved economically by truck, like your furniture. In time to come, it may be that you need only rent your building site . . . but own the house and take it with you if your business location changes.

"Because of the low structural cost of such a home, it could bring many new conveniences within your reach. The heating and lighting, the kitchen and bathroom equipment, could be the kind you see in high-priced homes. You could have copper piping, a copper water tank, copper flashing and gutters on your roof, to protect you against leaks and repairs. Your airtight, weather tight walls would furnish exceptional insulation, bringing greater comfort with lower fuel bills.

"Through this one basic change in construction can come the home you have dreamed of. When seasoned planks and common metals once more become available for general use, you can have such a home within weeks."

CASS GILBERT, JR.

Architects and designers are planning better homes for tomorrow that can bring, not housing, but *living* within reach of the great majority. In all these brilliant conceptions, copper plays an essential part. For the more copper there is in a house, the better it is to own, or rent or sell.

A century of partnership in building America's homes has given Revere a deep faith in the future. Copper has brought us crystal-clear running water, instant light and automatic heat, lifelong protection against rain

and storm, and countless other things for better living.

Today the copper industry is devoting its entire resources to the war needs of Uncle Sam, and copper is not available for general use. But in Revere's laboratories, research continues to go forward in preparation for the better standard of living which tomorrow can bring us all.

Naturally, in this limited space, Mr. Gilbert could describe only a few of the details of these homes. Revere has no plans or blueprints, so has prepared instead an illustrated booklet which we will gladly send to you, free. Write us.



REVERE

COPPER AND BRASS INCORPORATED

Executive Offices: 230 Park Ave., N. Y.

BOOKS



VIEW FROM ST. PAUL'S, LONDON

AERIAL BOMBARDMENT PROTECTION, by Harold Everett Wessman and William Allen Rose. John Wiley & Sons, Inc. 372 pp., illustrated. 6¼ x 9¼. \$4.00.

The trickle of books on the various aspects of ARP seems to have expanded to the proportions of a flood, and the problem of the reader is no longer how to find material, but what to select. One of the factors making selection difficult is that so many of the books are very well done, by men thoroughly competent in their own fields and well informed on the experience of others. This new book is of value because it is written by engineers who have approached the problem mainly from an engineering viewpoint. The authors, professors of civil and structural engineering at New York University, began their studies in the fall of 1940, after the first severe bombings of England, and they organized a course for architects and engineers in key positions in various New York City departments. So numerous were the applications that the course was repeated three times, and requests for the lecture notes were received from other parts of the country. This book is the answer to such requests.

As stated above, emphasis is laid on the engineering approach. There is discussion of the characteristics of explosions, the structural design problems posed by high explosive bombs, and a review of such phenomena as scabbing and perforation. In its tabulation of types of missiles used in air raids, the book merely reproduces the same information available from many other sources. There is a very brief chapter on bombardment damage in foreign countries, which is interesting but rather limited in the amount of information given. Most valuable to the average reader will be the detailed consideration of materials and types of construction; this includes the building of shelters and protection of existing structures, the selection of shelter zones in buildings, damage control and the protection of services. Supplementary information includes a very short chapter on camouflage, so brief that it is not possible for the authors to deal with the subject in other than the most general terms. Equally brief is the section on engineering measures to be taken for the protection and repair of transportation and sanitation facilities.

A HANDBOOK ON URBAN REDEVELOPMENT FOR CITIES IN THE UNITED STATES, Federal Housing Administration, Washington, D. C. 105 pp., 6 x 9¼. For sale by the Superintendent of Documents, Washington, D. C. 15 cents.

In any current discussion of the economic problems that will arise after the war, the role of Building as a constructive social force bulks larger than any other. This viewpoint, which is rapidly gaining wide acceptance, is as frequently expressed by conservative business men as by government officials. It is being created not only by a realization of the coming necessity of finding a huge peacetime market for labor, but also by a growing understanding of the dangerous dilapidated state of our cities, financially as well as physically. Evidence of the current preoccupation with problems of urban redevelopment is indicated by the appearance of two comprehensive studies within a month of each other, the FHA handbook and the plan by Guy Greer and Alvin Hansen reviewed below.

The FHA book, prepared under the direction of Assistant Administrator E. S. Draper, is less a blueprint for post-war building than an exceedingly thoughtful and objective examination of the complex problems to be met before planning is a fact, and a suggestion of some methods which might be used to solve them. No more valuable approach could have been developed at the present time, for there are few men in the country today who are equipped by training or experience to grasp the problem as a whole.

The book opens with a summary of the most familiar aspect of the situation: present conditions in cities and the reasons for them. It points out that the whole history of U. S. land practice has developed along the lines of breaking up parcels, and that nothing has been done to facilitate their regrouping. Here, obviously, is a major obstacle. Every planner knows that all his work goes for nothing unless there is some method of getting control over large sections of land, and the book returns to this fundamental problem over and over again. Also noted with emphasis is the enormous scope of any really constructive, long-term program, "large enough to . . . represent operations of very substantial proportions in the total nation-wide volume of building."

Basic in the FHA's approach to urban rehabilitation is the concept that the community has a right—and a duty—to plan itself. It must function as an active partner in a going concern, not as a disinterested bystander. Its planning activities must be accepted as important by the whole citizenry, the program must be on a large and long-term scale, and the buildings involved must include housing for a wider income range than has been provided to date. This does not imply an extension of government subsidy, but merely an application of the principles of large-scale planning to dwellings for the middle income groups.

By far the larger part of the book is devoted to methods of implementing a redevelopment program: legislative powers needed, problems of financing, scope of planning agency activities, cooperation with private building groups, territorial limits of municipal planning, coordination with public housing programs, etc. All of these items are important, but it is notable that legislative steps are considered first. These include laws to create planning agencies and "City Realty Corporations," to organize private urban redevelopment corporations, and to

(Continued on page 84)

Power generating plant of Philadelphia Electric Company, Chester, Pa. where Lupton Metal Windows are installed. Consulting Architect—Paul Cret; Engineers—United Engineers & Constructors, Inc.



In defense plants all over the country, Lupton Metal Windows and Doors provide the abundant daylighting and controlled ventilation so important in all-out production. Flexible in design, they meet every requirement of defense construction. Strong, trouble-free, weather-tight. And back of the Lupton line is an experience of more than thirty years in modern metal window design.

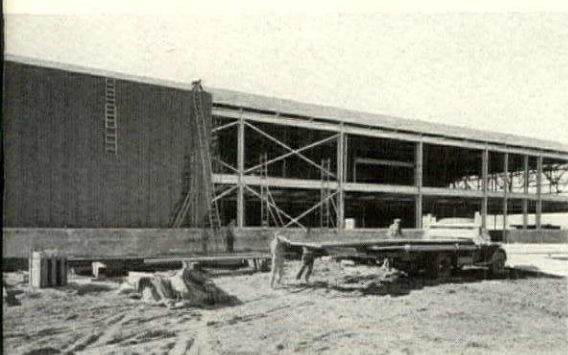
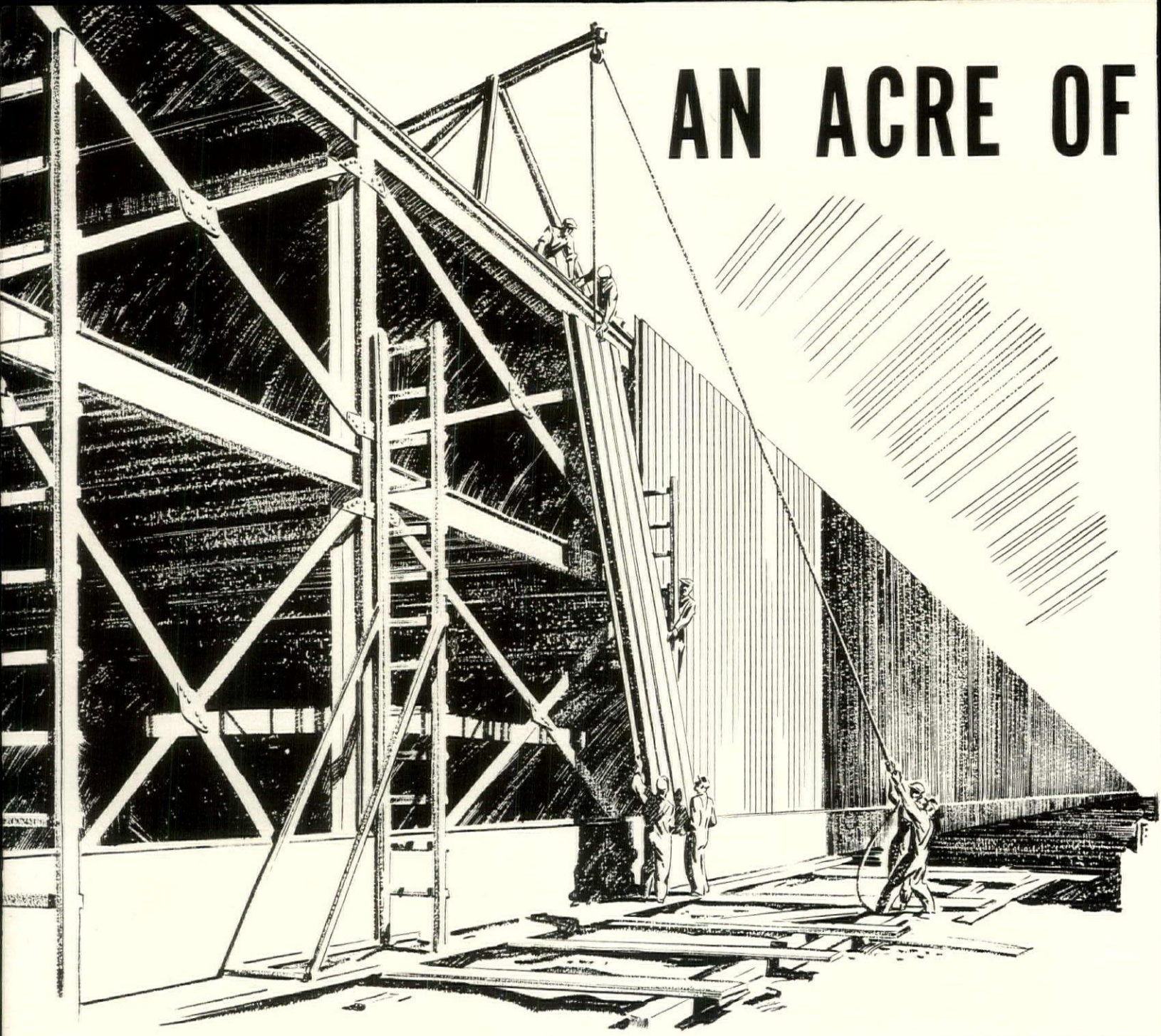
See our Catalog in Sweet's

MICHAEL FLYNN MANUFACTURING CO.
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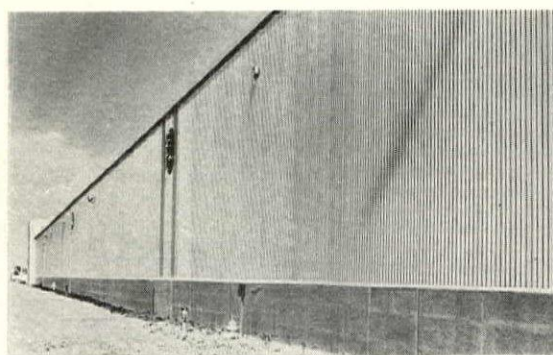


LUPTON METAL WINDOWS

AN ACRE OF



Speed With Prefabricated Units — Units (up to 50 square feet of wall area) arrive at the job site in a truck . . . ready to be erected at the rate of one every nine minutes. No delays because of weather; no waiting for wet materials to set.



Fine Architectural Appearance — Q-Panels offer a wide variety of designs. They consist of flat and fluted steel plates (either surface may be used outside) with insulating board sandwiched between. With $1\frac{1}{2}$ -inch of insulation, these panels have an insulating value of .14 Btu's per square foot, per degree temperature difference, per hour.



Good-looking, Easily Cleaned Interior Walls — are provided by the flat plate of the Q-Panel. Nothing needs to be added except paint. Architectural relief may be had where desirable, by turning the fluted side of the unit to the interior.

ROBERTSON Q

FACTORY WALL IN 3 DAYS

That's Quick

YES, but none too quick to meet the "All-Out" production demands of American Industry today. Because Q-Panels can be quickly delivered and quickly erected, they are being specified and used in one urgent plant project after another. Although they are ideal for "Blackout" plants and additions, they also meet the design and engineering needs of Daylighted Structures.

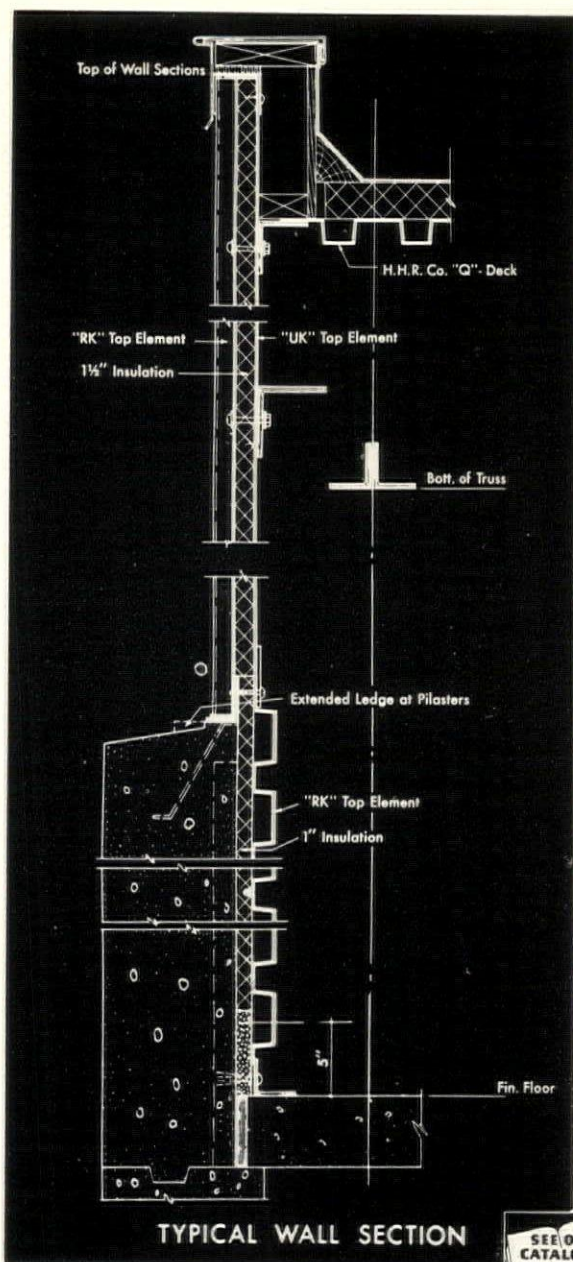
Every Q-Panel section is a complete insulated structural unit for wall or partition. It is provided in standard two-foot widths and in any length up to 25 feet. Thus, one section (which can be placed in 9 minutes) is equal to 50 square feet of wall. Interlocking joints at the edges of the units are caulked to make airtight, weathertight walls.

SPEED characterizes Q-Panel construction from the very beginning. The units arrive at the job site, prefabricated, ready to take off the truck and erect. Only six bolts are necessary to fasten a unit to the structural frame. Q-Panels constitute "dry" construction . . . which facilitates winter building. There is no waiting for wet materials to set, no hazards from combustible forms. It is a permanent form of construction; yet, Q-Panels may be salvaged and used again, an important factor for peacetime adaptations of war production plants.

The cross section at the right indicates the salient features of Q-Panel wall construction. Further details, estimates, etc., will be gladly furnished. Usually, plants incorporating Q-Panels for walls and partitions also use Q-Floors and Q-Roof Decks.

Versatility of Use—Q-Panel construction is well suited to use in a wide variety of structures . . . aircraft buildings, munitions plants, warehouses, powerhouses and other types of manufacturing buildings.

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 Have a Robertson Field Engineer give me Engineering Data.

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LETTERS

CIVILIAN DEFENSE

Forum:

Do you think that this Civil Defense number is of interest to 1 per cent of the architects of the U. S.? I do not. . . .

W. K. DAVIS, JR.

Sunbury, Pa.

Non-civilian defender Davis is probably incorrect by about 99 per cent. Quite apart from every citizen's concern as a possible personal casualty, architects are as essential in the Civilian Defense program as doctors. Blackout and camouflage are problems best solved by architects. Reinforcement of critical buildings and provision of shelters, likewise, are the architects' province. Architects who are not discussing these matters with at least former clients should do so at once.—Ed.

Forum:

A very swell number is your Civilian Defense Reference number. . . .

H. LEDYARD TOWLE

Pittsburgh, Pa.

Forum:

I wish to congratulate you on your January issue in which you give special attention to blackouts and bomb protecting facilities. In my estimation it is one of the best treatises I have seen so far. . . .

N. W. OVERSTREET

Jackson, Miss.

Forum:

From the looks of your January edition it should be in the hands of every key civilian defense organization member. As a starter for our State Defense Council staff, send twelve copies. . . .

RICHARD L. WILLIAMS, Director
*Washington State Defense Council
Seattle, Wash.*

Forum:

. . . I have just seen the Defense FORUM. Wonderful job. The best thing in the U. S. on the subject, expensive textbooks notwithstanding. . . .

SERGE CHERMAYEFF

Brooklyn, N. Y.

Forum:

The Civilian Defense number of your magazine is splendid . . . It answered the many questions confronting all of us; questions we have been asked about many times and for which we have failed to have the correct reply in readiness. . . .

PAUL T. FRANKL

Beverly Hills, Calif.

Forum:

I am in charge of an air wardens' sector and want my captains to read your splendid issue. . . .

PHILIP DAVIDSON

*Agnes Scott College
Decatur, Ga.*

Forum:

I have read your January issue very carefully. I think it an outstanding job and worth about ten and a half of the Government publications designed to cover the same story. . . .

J. M. COWAN

Cleveland, Ohio

CAMOUFLEURS, WORLD WAR I

Forum:

. . . Whoever wrote your caption (ARCH. FORUM, Jan. '42, p. 14) apparently had no knowledge of the work during the last war, but frankly I don't think it very important. I did think your Defense Number was very swell. . . .

AYMAR EMBURY II

New York, N. Y.

Forum:

In your excellent number on Civilian Defense (Jan. '42) is a reference to camouflage activities in the last war, which would appear to be erroneous. The article said, in effect, that the camouflage of that period was primarily preoccupied with the concealment of small targets against direct and balloon observations. This is not in accord with the facts.

The American Camouflage Section, at least, was interested in the broadest aspects of concealment. Due to the limited personnel and the vast scope of the work, their immediate activities were confined to the concealment of numerous artillery positions and large targets. The section recognized that the identification of a target generally came from aerial observation and aerial photographs. Colonel Bennion, commanding the Camouflage Section, was so aware of this that he felt the training of any camoufleur should involve the study of aerial photography and the analysis of these photographs.

It is fair to say that the officers and men initiated in 1918 much of the thinking on camouflage. . . .

Towards the end of the war the possibilities of camouflage seemed so unlimited that many in their section became convinced that its activities should not be confined to material and its installation. Obviously, a great proportion of protective concealment can be accomplished without artificial material and, often, only by disposition. As an example, a photographic reader would identify four objects in a line, equally spaced, as a Field Artillery Battery. If they were not equally spaced and not in a line, he would not be able to tell what they were. Converging telephone wires determined a Post of Command, but

running these lines along natural ground formations destroyed their value to the photographic reader. We were not sure but that the Camouflage Section should be, more properly, a counter-intelligence section, with one of its major duties the gathering of information on the functioning of the enemy intelligence and the dissemination of information on methods of confusing its activities.

There has been some talk that color filter and modern photography have destroyed the value of camouflage. I do not believe this to be a fact. It may have eliminated some methods but new ones can be developed. . . .

The excellent work that is being done under Colonel St. Gaudens and his staff at Fort Belvoir, extends, modernizes and adds new ideas to the start made in the last war. This enthusiastic group is going to accomplish much more than we could, but I may be pardoned if I take issue with the statement that belittles the pioneering energies devoted to this work in the last war.

JOHN W. ROOT

Chicago, Ill.

Forum:

. . . what makes it seem worth mentioning is the repetition of an error I have now seen in four publications during the past year. In each of these articles the author has written off camouflage during World War I as having been of little or no consequence, and in so doing has created a picture as false as it is unfair. In this case I believe the error to have been unintentional. . . The line I refer to appears on page fourteen: "During World War I, camouflage's primary function was to conceal small front-line targets from observers on the ground or in low-altitude captive balloons."

About 90 per cent of Army camouflage during the last war was designed to combat overhead aerial photography, often referred to as perpendicular. In our own Army 95 per cent of the work was done to combat these conditions. There are plenty of men who could verify this statement: Aymar Embury, John Root, Ralph Walker, Harold Sleeper, and other architects who were then in the Army's Camouflage Section. Without minimizing the importance of lateral observation, only a fragment of activity was devoted to that phase.

In all the work on camouflage done during the last war, there was real accomplishment and a colossal effort. The foundation of principles was established upon which camouflage today has been

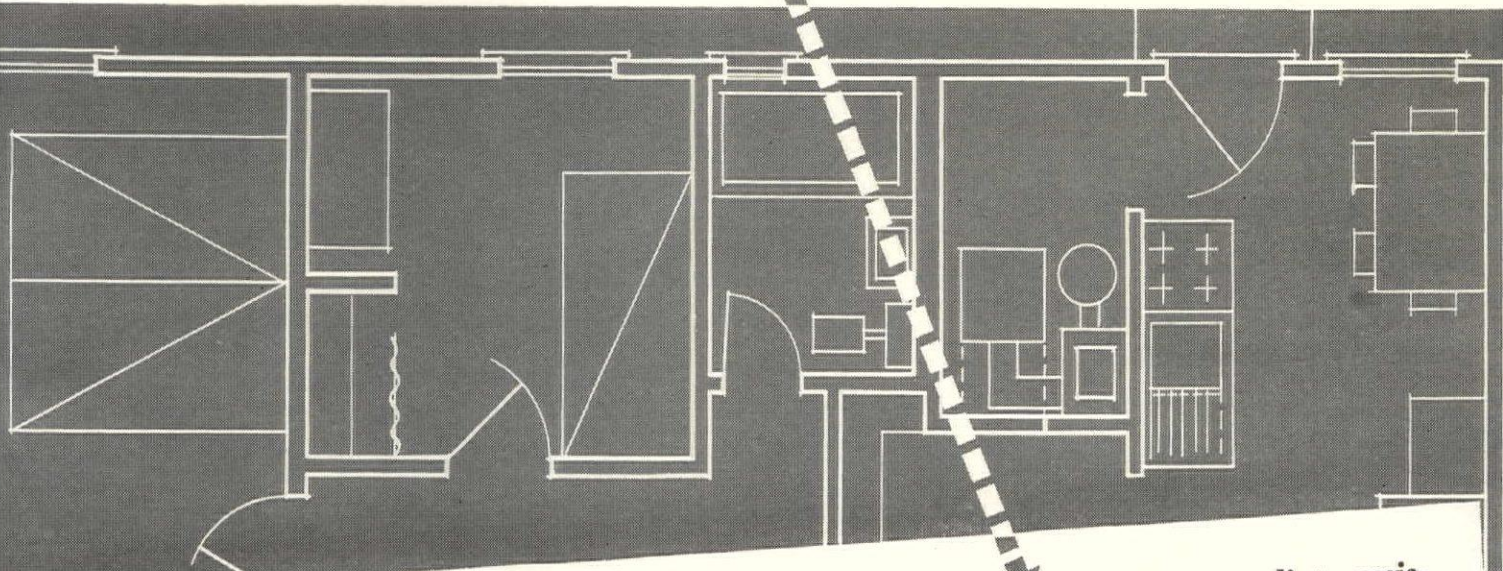
(Continued on page 64)

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VALUABLE TECHNICAL ASSISTANCE FOR YOU—From actual installation experience and close contact with the construction of more than 10,000 defense homes in the past 14 months, Upson architect-engineers have worked out new ingenious systems for handling and erection of interior walls.

SAVES TIME — CUTS COST—In lots of 100 units or more, our new Upson Strong-Bilt Panels are delivered *pre-cut* to usual wall height and room length—all ready to lift into place. No joints except corners. Pre-cutting can be provided to fit *your* demountable joint method. Delivered pre-sized—one coat

of paint has met all requirements. Can be papered. Applied according to simple specifications, new Upson Strong-Bilt Panels *will not warp or buckle*. High structural strength and insulating value.

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For immediate assistance from men who are doing it . . .

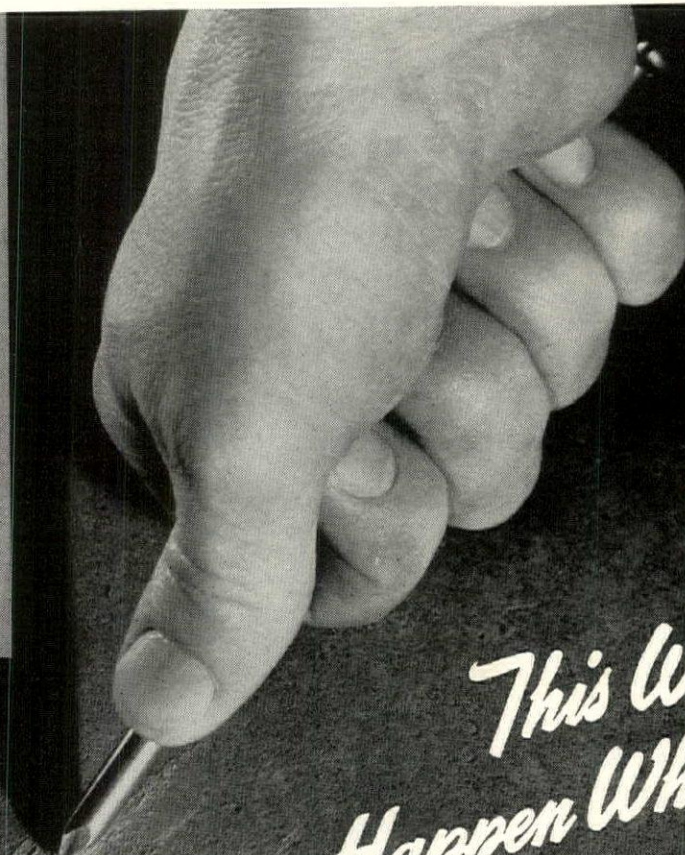
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Once production begins, hours lost, whether due to the necessity of repairs or to the labor expended in keeping concrete floors dust-free—means money lost.

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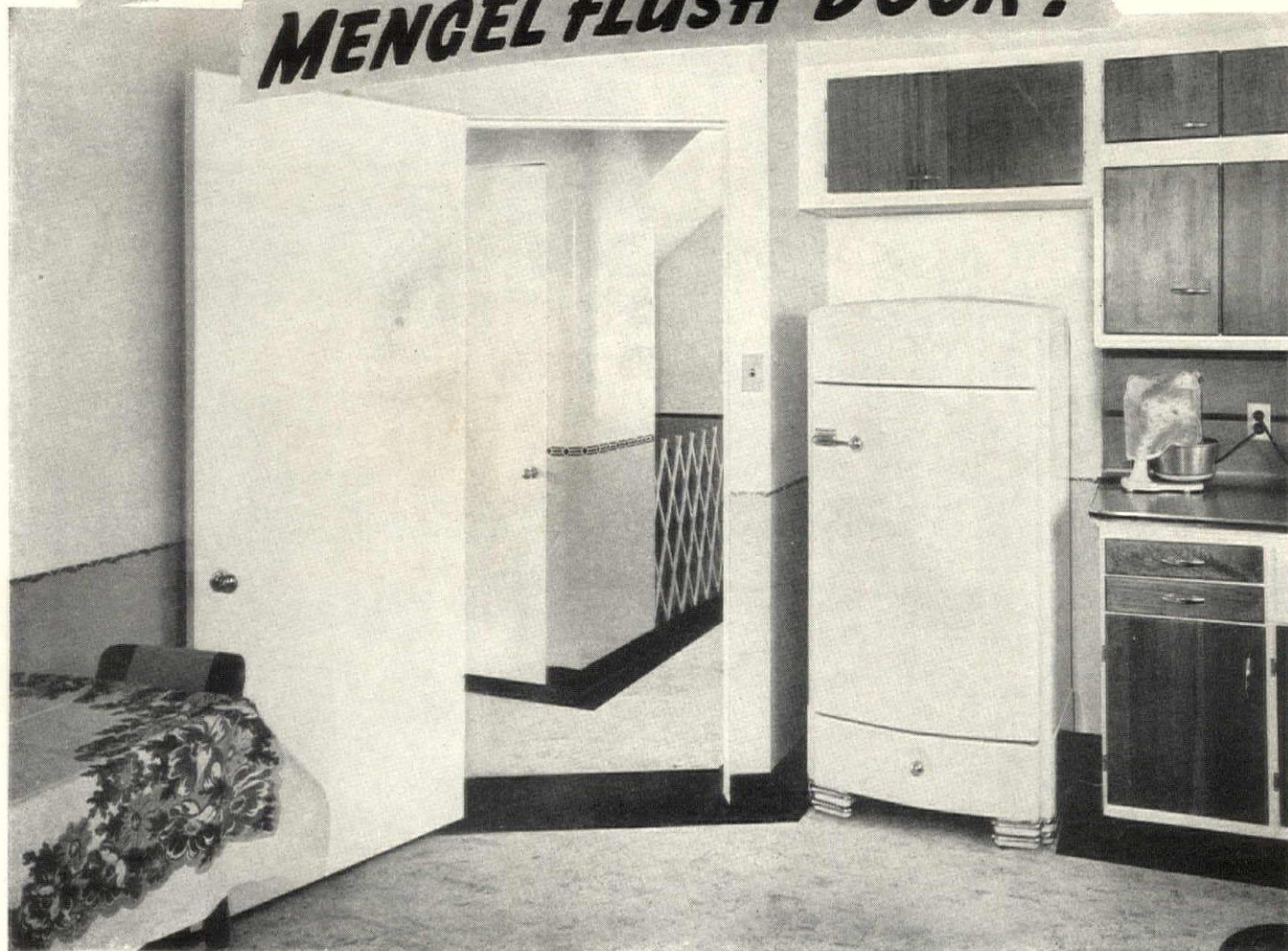
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—never before such a fine door at such a low price!

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backed by an old, dependable company whose sales last year exceeded \$20,000,000. If your regular door source can't quote you on Mengel Doors, use the coupon below!

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

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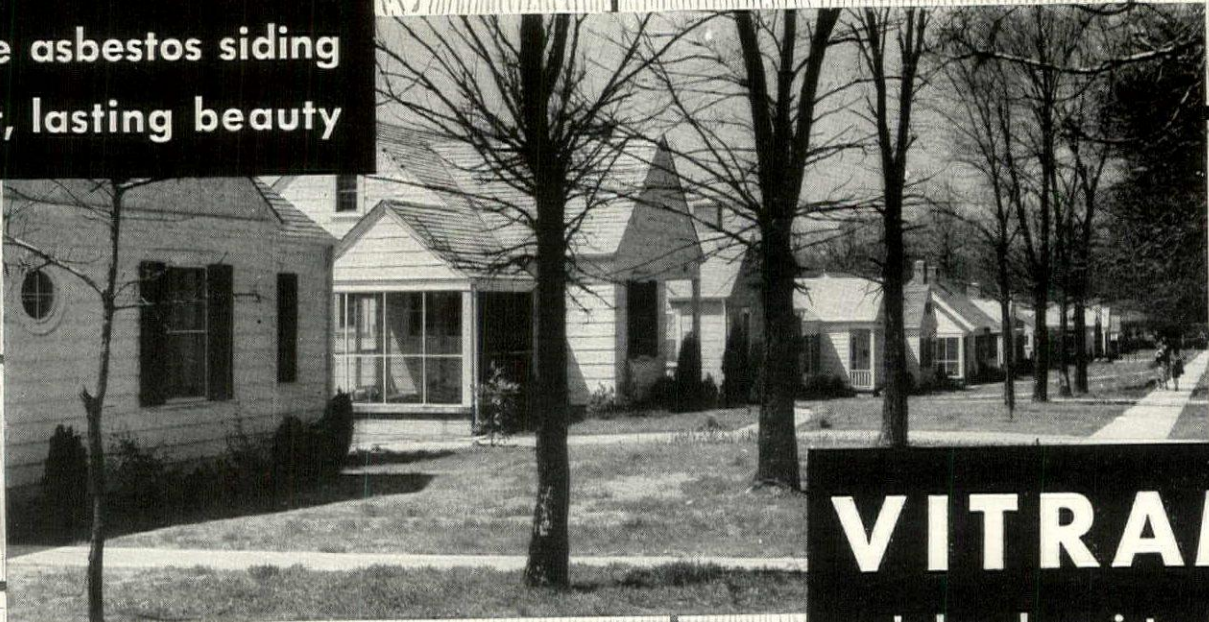
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VITRAMIC

ceramic-like asbestos siding of brilliant, lasting beauty



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Since it was first introduced this remarkable Ruberoid-Eternit Siding has won universal favor with the Building Profession—both for its beauty and its utility!

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Vitramic's resistance to weather is outstanding. Rock-hard, tough, strong, resilient, Vitramic repels rain. Neither water nor dampness darkens it. All pores are closed.

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A "Sturdibilt" Letter
from ELKAY
to YOU

The time has come when I must tell you about the Stainless Steel situation as it affects the manufacture of ELKAY "Sturdibilt" cabinet sinks and tops and other equipment for hospitals, institutions, industrial plants and homes.

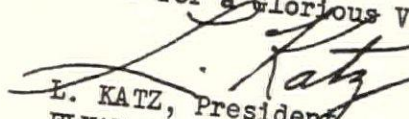
As you perhaps know, chromium and nickel play an important part in the manufacture of stainless steel. But our Government now needs ALL of these two essential metals in the production of armament and other necessary war equipment.

We, here at ELKAY, are justifiably proud of the fact that we were selected as one of the firms to supply our Government with some of the essential stainless steel equipment which, because of its stain, acid and rust resisting qualities, assures the utmost in sanitary protection to our men in the service. And we are happy too, that we had the facilities, the equipment, the man power and the experience which enable us to contribute our share to our Government's successful prosecution of the war.

This means that for the duration, we will be unable to supply you and our many other customers with ELKAY "Sturdibilt" stainless steel equipment, without priority.

May I express the hope that it will be our pleasure and privilege to serve you again when our men have finished their job - over there - and that this day may not be far off.

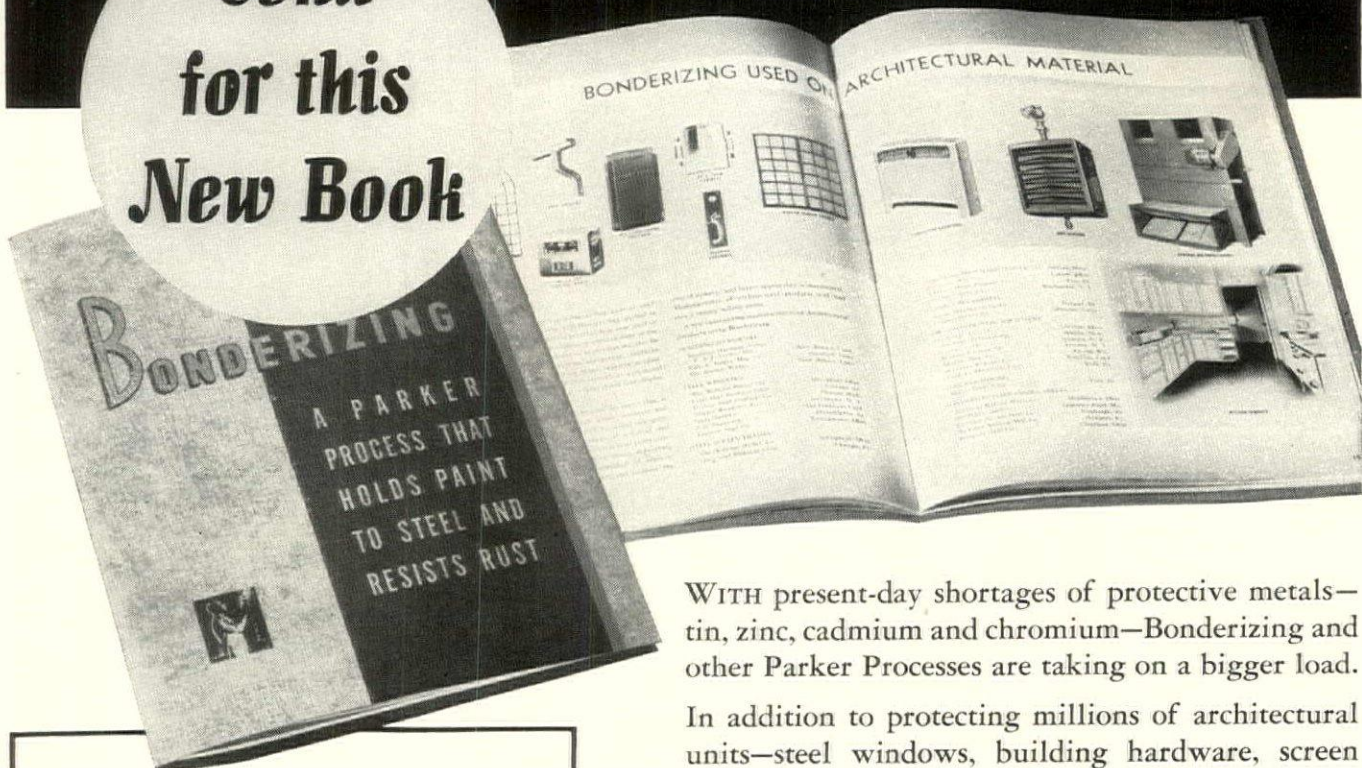
Yours for a Glorious Victory


E. KATZ, President
ELKAY MANUFACTURING CO.

CO-OPERATION WILL WIN THIS WAR

Today Bonderizing is Doing a More Important Job Than Ever Before

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PARKER PROCESSES Release Vital Defense Materials

From the Parker Laboratories has come the solution to some perplexing finishing problems, caused by the shortage of strategic metals. They are showing the way to effective product protection and appearance maintenance with phosphate coatings.

PARKERIZING provides protection from rust on hundreds of mechanical parts of all types of equipment—replacing zinc and cadmium.

BONDERIZING provides a rust-inhibiting base for all types of organic finishes on sheet metal, with absorbent qualities to assure maximum adhesion. It provides possibilities for decorative effects with enamel or lacquer—replacing chromium.

PARCO LUBRITE provides an oil-retaining coating on friction surfaces that resists wear, working into an excellent bearing surface—releasing aluminum and tin used on engine parts.

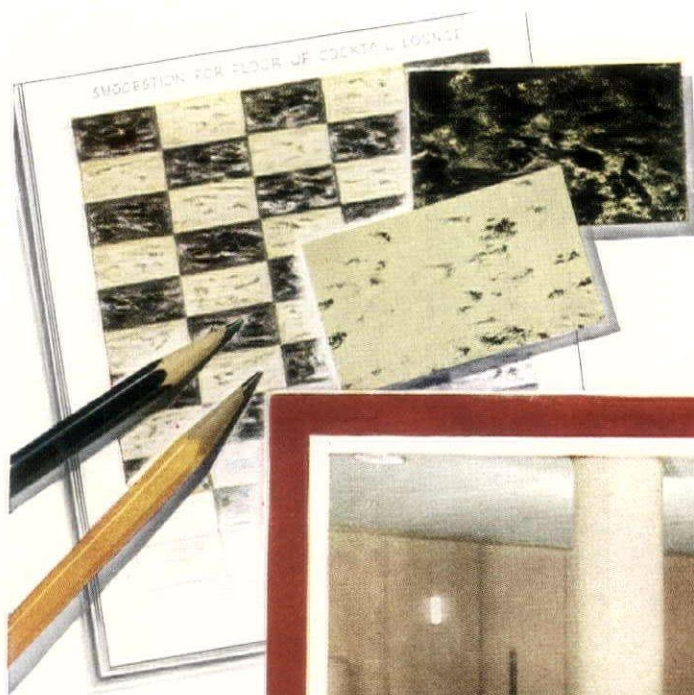
WITH present-day shortages of protective metals—tin, zinc, cadmium and chromium—Bonderizing and other Parker Processes are taking on a bigger load.

In addition to protecting millions of architectural units—steel windows, building hardware, screen frames, air conditioning equipment and scores of other iron and steel products—Bonderizing is protecting fighting equipment in the air, on land and on the sea.

When the question of protective finishes arises, Parker may be able to solve your problems. The Parker Laboratories have been working for years on the best methods of metal protection. They have found ways to provide adequate protection to iron and steel and release critical metals to our war-time needs. Send for the new Bonderizing book. It tells you how the process is applied and includes proof of the results to be expected. Get your copy today.

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Beauty under
heavy traffic...*

The lovely floor in this cocktail lounge was designed with two J-M Marbleized colors. The darker color is No. 112; the lighter is No. 127.



This colorful, distinctive floor combines the lasting qualities of Asbestos and Asphalt

With the floor such an important part of any interior, it's not difficult to understand why so many architects specify J-M Asphalt Tile. For this versatile flooring comes in a wide range of colors and sizes that provide almost unlimited, attractive decorative effects.

And beneath the beauty of J-M Asphalt Tile are the lasting qualities of two of the

most durable materials known —asbestos and asphalt. J-M Asphalt Tile stands up under the heaviest foot traffic... is quickly and easily cleaned to a lustrous surface. Yet it is so low in cost that it fits any flooring budget.

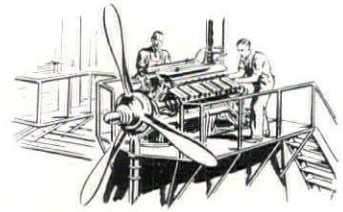


If you're looking for decorative floors for stores, restaurants, offices, home recreation rooms, etc., you'll find plenty of stimulating suggestions in our new full-color brochure, "Ideas for Decorative Floors." For free copy, write Johns-Manville, 22 East 40th Street, New York, N. Y.

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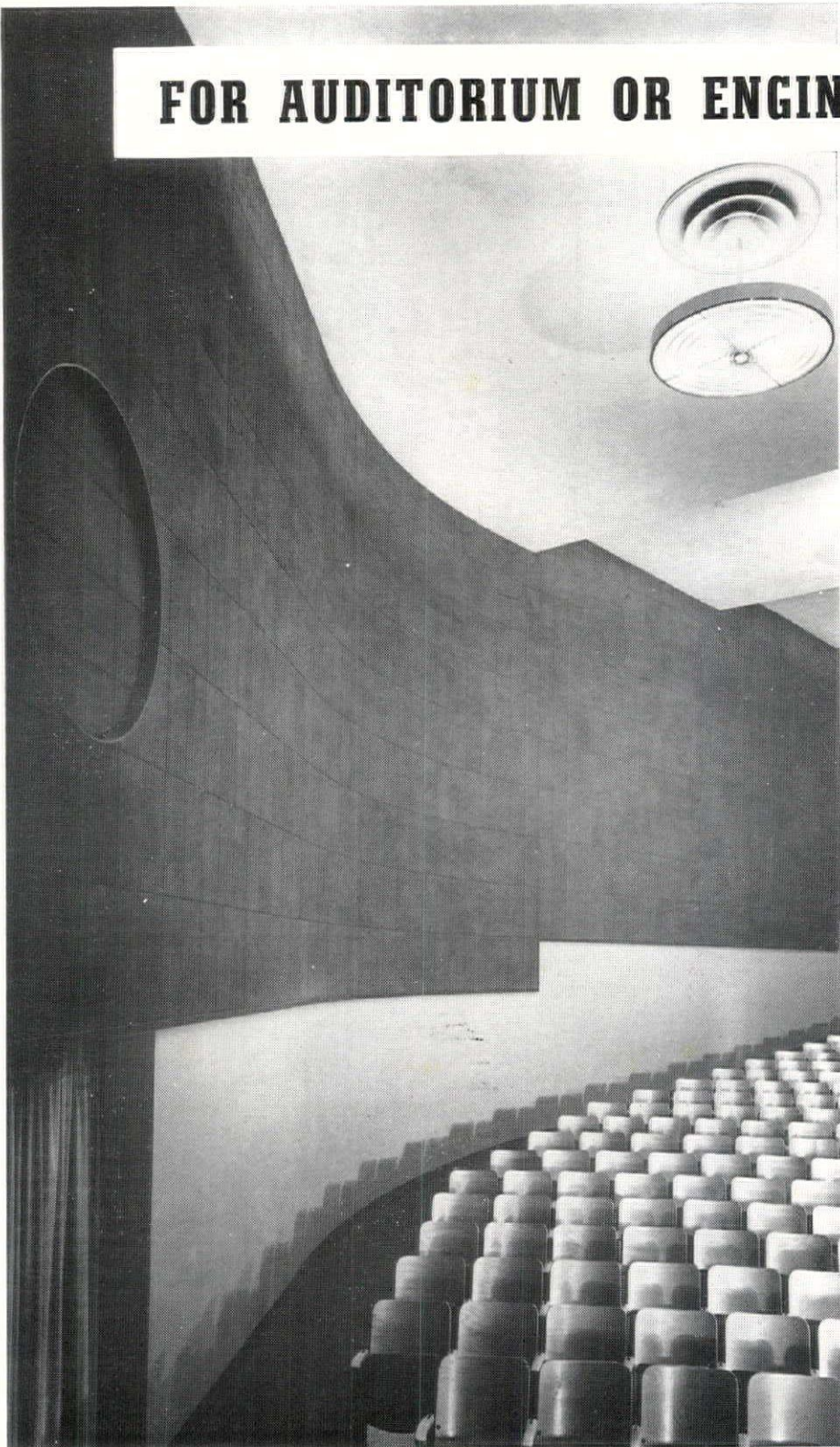
THERE'S a big difference in acoustical problems. Your next job may be more like an airplane engine test cell than Emerson Junior High. But regardless of its nature, you'll find Gold Bond has the right material for your exact requirements in sound absorption, decoration and cost.

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Efficient sound control service is just one example of how Gold Bond research has set the industry. They have developed more than 150 better products—including lath, plaster, wall paint, insulation, wall-board, lime and sheathing. 21 modern plants and 300 trained representatives are at your service. And when you write specifications, remember that the responsibility for *all* products lies with a *one* reliable organization when you specify Gold Bond exclusively. That means no buck-passing.

Refer to Sweet's, or write for standard specifications on all Gold Bond sound control products. National Gypsum Company, Buffalo, New York.



Architect, Richard J. Neutra—Acoustical Distributor, Sound Control Company

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BUILD BETTER WITH

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Everything—for walls & ceilings

Far and away the biggest news to hit Building is the President's unification of sixteen housing agencies. John B. Blandford, Jr., comes in as the new NHA Administrator (see report below, editorial on p. 141), while former Coordinator Palmer packs his bags to study English housing and post-war planning. . . . Shortest of months, February produces the largest volume of news in many a moon—a complete stop-order brewing in priorities, great advances on all construction fronts, a new wartime building code for Chicago, rent controls for defense centers, plans galore emerging throughout the U. S. for post-war urban rehabilitation (this page and following). . . . Significant too for its timeliness and completeness is the Building Management case-study in ARP (p. 147). . . . Bomber plants move inland with Kahn's latest (p. 150).

REORGANIZATION

Months of bickering and snarling between rival Federal housing agencies came to a welcome end when President Roosevelt finally reached for the Judge Rosenman report long perched on his White House desk, exercised his war powers, decreed (February 24) a wholesale consolidation into a single National Housing Agency. Out of the Budget Bureau and in as NHA's \$12,000-a-year boss goes 45-year-old, former TVA general manager John B. Blandford, Jr., press-agented by the President himself as possessing "amazing executive ability." (See editorial, p. 141.) Washington dopesters earlier had picked Blandford along with Virginia's former Governor Price as the two most likely bets.

Thus, what everyone knew should be done has been done. No less than sixteen different Government agencies—charged by the President with "duplication, conflict, disputes and overlapping," not only among themselves but also with private agencies—have been merged into a highly promising kind of unity (see before-and-after charts, p. 142). It took a war, however, to produce the housing crisis which in turn produced this new plan.

Set-up. Within NHA will be three main constituent units, each with its own clearly defined range of responsibilities:

► To supervise all housing constructed with public money—a *Public Housing Authority*. USHA and other agencies so engaged now move into this unit, losing their separate identities in the process. Leon Keyserling, USHA's acting administrator, becomes PHA's acting commissioner.

► To continue unchanged its function of promoting private building by insuring bank loans and mortgages on homes—the *Federal Housing Administration*. Abner Ferguson remains head of FHA, only his title changing from administrator to commissioner.

► To absorb the functions of HOLC and other agencies that make loans on homes—a *Federal Home Loan Bank Administration*. John Fahey, chairman of the Federal Home Loan Bank Board, becomes the new unit's commissioner. But four other members of the board, who have been pulling down \$10,000 a year, are left unemployed. Stripped of its housing branches, the Federal Loan Agency gets the heave-ho into the trash bin, since its non-housing functions can be picked up and continued easily enough by the Commerce Dept. No change in Federal loaning policies is indicated—ubiquitous Commerce Secretary Jesse Jones also has been FLA Administrator.

All three NHA constituent units will be under the control of Administrator Blandford, whose primary task is to direct their activities into a unified U. S. housing program. With a carry-over of experienced staffs, already organized, he expects not a day's delay to result from the shake-up and integration of existing agencies. On the contrary, an immediate speed-up in the production of war housing is anticipated.

Significant for NHA's future is an authorization to research on housing construction materials and methods. Also opened up by the Chief Executive's order is general urban development planning insofar as housing and related facilities are concerned. (For reports on current U. S. urban planning activities, see p. 38-48).

Casualties. No longer needed since NHA itself will perform the basic task of coordination, the office of Defense Housing Coordinator has been abolished. Thus departs the last of the big names in Housing's preunification era—Charles F. Palmer, whose feuding and mutual recriminations with ex-USHA Administrator Straus and ex-FWA Administrator Carmody before Congressional Committee made spicy reading last fall. The squirrel guns are silent as a new day dawns in Housing.

To Palmer the President has sent a letter praising his organization for doing "a

splendid job with limited powers" and asking him to undertake a study of British housing, including post-war planning, as soon as possible. This study the ex-Coordinator is expected to make as a representative of NHA.

Personnel of the defunct Division of Defense Housing Coordination is not transferred to the new agency, but Blandford is given 60 days to take over anyone he wants. Also liquidated by command, in addition to the Home Loan Bank Board jobs, is the Central Housing Committee.

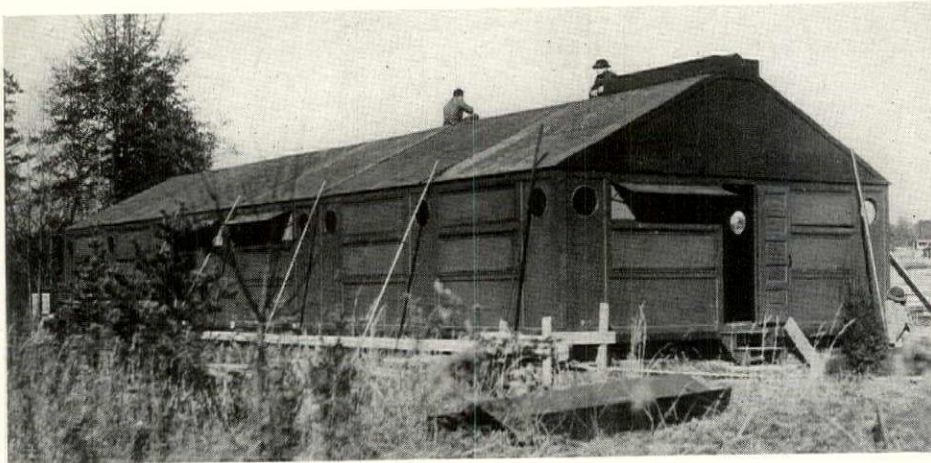
What will happen to ranking assistants in the consolidated agencies—men like Baird Snyder, Rufe Newman, Melick and Shire—is still a wide question mark. Obviously, one major result of revamping the Government's housing hodge-podge will be more people than jobs. Some will doubtless switch to the expanding war agencies, while others elect to remain where they are in case the gutted agencies can still stand on their own legs.

TARGET

Panting heavily from last year's defense exertions (output: \$10½ billions), Building has become recently and acutely aware that all-out war means an even more severe test. In January, while Building was catching its second wind, official predictions began pushing the 1942 goal higher. Last month conservative U. S. Labor Dept. statisticians pegged it at \$10¾ billions, which would constitute the largest dollar volume of construction in any year since 1928. Unofficially, other professional prognosticators shoved the figure up to \$14 billions, thereby promising that Building would triumphantly smash all existing records.

PRIORITIES

With war construction quotas steadily mounting, worried Government officials are stepping lively to prevent any interference from the increasing tightness in skilled labor and materials. Meanwhile, manufacturers are going wacky with con-



ARMY HOUSING tries its hand at prefabrication and creative design: (above) A test structure at Fort Belvoir, highly favored by military authorities since its knocked-down compactly shipped plywood panels simplify work in the field. Developed by National Housing Co.'s John Allen Boyle. (below) An improved type of troop shelter, the "hutment." Chief advantage over tents: earth can be banked along sides as protection against shrapnel. To convert tents into hutments in the Army's 24 tent camps will cost an estimated \$25 millions.

flicting orders, changing standards, continued uncertainties. The situation calls for a firm hand, fewer fluttery minds.

New set-up, intended to break the jam, fortunately has already been doped out by War Production Board strategists. It now awaits formal approval for installation.

Under the present haphazard division of responsibilities different sections and departments tend to stumble over each other. Housing priorities are pretty well consolidated under Sullivan Jones, but even this section overlaps the commodity sections in doling out allotment slips for materials. Under the new approach all responsibility for all construction priorities—covering defense housing (both private and public), defense plants, defense public works—would be centralized in one man. Thus, administrative squabbles could be eliminated, red tape sliced, troubleshooters sent pronto wherever needed to unplug supply bottlenecks and enforce priority orders. A tested way of expediting work, this solution has the parental blessings of Head Boss Donald Nelson.

Who will get the new job is still a question mark, but Washington gossips look on Housing Priorities Boss Jones as the most likely bet. A few other matters must be settled, however, before the new set-up goes into effect. Still up in the air, for

instance, is the problem of priorities for military construction. Such projects at present automatically get a high preference rating. But informed opinion holds that it would be easier for the Army and Navy, as well as Building, to get things moving at top speed if all priorities are cleared through one agency—with one key man at the controls.

Complete stop-order on all building operations is imminent to thwart hoarders of strategic materials and to channel available supplies and labor in the direction of war work. When this goes into effect, simultaneous go-ahead signals will be flashed on projects holding preference ratings so that no delay will occur.

Following this, a series of general rating orders are expected to roll out. In the offing: a plan to implement remodeling operations in defense areas, another to take care of needed maintenance and repair work elsewhere, a third to green-light construction of stores, movies, other essential commercial and recreational buildings in isolated defense communities.

The critical list admittedly has grown more critical. Further restrictions on the use of certain building products are coming, await only the Priorities Section's reorganization. No necessary construction job will suffer, but skimping is the order

of the day. Obviously, to make scarce materials spread farther, thus produce more factories and war housing, amounts used in each building must be tightly controlled.

Refrigerator freezing order indicates pattern to be followed where supplies are supercritical. Issued fortnight ago, this ukase is not as sinister as appeared at first hearing. Quick action was needed to stop speculative buying. Temporary, it will be followed by a rationing plan intended to assure equitable distribution. Stepped-up production between now and April 30 (when shut-down becomes complete), plus frozen stocks, will form a pool of 750,000 refrigerators—sufficient to meet a subdued war market demand for two years.

Expectation is that future production will be concentrated in a few plants turning out a special Victory model (probably boasting a plywood cabinet). All other refrigerator factories would then be converted to war production, following the British system of industry consolidation.

Plumbing, heating industries have been handed WPB orders to simplify the manufacture of iron, brass and bronze valves. Purpose: to relieve production lines from burden of items not widely used. Long recommended by the Bureau of Standards, the elimination of a fancy array of non-essential sizes, types, forms and specifications now becomes mandatory.

Radiators probably will be ruled out in all future one-family houses. Although a tough edict for builders, WPB believes there are enough alternatives to keep new construction going without interruption.

Oil burners, contrary to current rumors, are in no immediate danger of being curbed. Assurance for this comes from no less an authority than Petroleum Poobah Ickes himself. Nevertheless, plans for the rationing of fuel oil along the Atlantic seaboard are being readied. Restrictions, it is expected, will soon be put on industries and families using oil furnaces.

Gas heating, on the other hand, has already been curtailed in seventeen states, including New York and the District of Columbia. Reason: butadiene, used in making synthetic rubber, comes from natural gas. Consumers now using natural gas or mixed natural and manufactured gas are not restricted, but no new gas-burning equipment may be installed.

Steel, already restricted, is to be cut to an absolute minimum in all defense public works projects. Schools, hospitals, firehouses, other types, will be limited to masonry structures (one, two stories) and wood structures (one story), under a basic construction policy proclaimed by Acting FW Administrator Baird Snyder III. An "ugly duckling" type of masonry unit, fireproof and bomb-resistant, already has been designed as a substitute model. Specifications: concrete foundations and floor, set over a gravel fill; 16 in. concrete columns supporting a concrete roof; walls of con-

crete, cinder block or brick; windows of wood, set flush with outside wall; concrete stairs or ramps to connect floors as required. Standard widths up to 58 ft. and variable lengths permit units to be dominated into various arrangements providing any needed amount of building space.

Air raid shelters will get no welcoming nod from priority officials. This decision follows a careful analysis of required materials. Taking an OCD-approved concrete shelter designed to hold 24 persons and intended to use a minimum of steel, it is calculated that even this would require 4,750 pounds of the strategic material for its reinforcing and door. To build enough such shelters to protect U. S. coastal populations would involve fabulous quantities.

SCOREBOARD

Accomplished since June 1940 under FWA's defense housing program:

Completed and already occupied—44,093 dwelling units.

Ready for occupancy—another 12,734.

Under construction—another 31,853.

Allocated and soon to be under contract—another 57,997.

Estimated cost of work finished or under way—\$573 millions.

Above this, new over-all quotas cleared by the Priorities Section for publicly financed war housing total still another 150,000 units. For privately financed housing: 200,000 units.

PREFAB-DEMOUNTABLES

In Washington's once lush DuPont Circle apartment building now used for Government offices, squat, round Rufe Newman and his staff are driving hard against a tough July 1 deadline of 42,000 demountable houses up and ready for occupancy. Fortnight ago they paused long enough to total the score: 22,058 units already contracted for, involving nineteen prefabricators and the shelling out of \$65.4 million. Average cost per "prefab," excluding land and utilities, thus figures into a trim \$2,963.

Holding the honor of first prefabricator to go into action is Plywood Structures of Los Angeles, under contract to deliver 2,000 units in 120 days f.o.b. the plant for use in six California areas (Paso Robles, Vallejo, Campo, Sacramento, Victorville, San Diego). Biggest order—5,000 units for Virginia's Norfolk-Portsmouth area—has gone to Barrett & Hilp of San Francisco, using Homasote Co. plans.

Other contract-holding representatives of the booming infant industry in the Government's latest listing:

GREEN LUMBER CO., Laurel, Miss.—1,500 units for Jackson-Flora, Miss., Charleston, S. C., Tuskegee, Ala.

NATIONAL HOMES CORP., Lafayette, Ind.—1,200 units for Kingsbury-LaPorte area.

SOUTHERN MILL & MFG. CO., Tulsa, Okla.—2,940 units for Wichita, Kans., Choteau, Okla., Little Rock, Ark.

GUNNISON HOUSING CORP., New Albany, Ind.—750 units for Charlestown, Ind., Louisville, Ky.

E. L. BRUCE CO., Memphis—1,000 units for Shreveport-Minden, La., Texarkana, Texas, Hope, Ark. (This company is the well-known manufacturer of wood flooring.)

ROBERT MCCARTHY, San Francisco—1,000 units for Vallejo.

HOUSTON READY-CUT HOUSE CO., Houston, Texas—900 units for four Texas areas.

LIBBY-OWENS-FORD GLASS CO., Toledo—1,000 units for Kingsbury-LaPorte, Ind. (Being handled, say L-O-F officials, in collaboration with National Homes and to utilize excess productive capacity in the company's safety glass plant at Ottawa, Ill.)

HENRY C. BECK CO., Dallas—1,000 units for Radford, Va., Charleston, S. C.

KROENING ENGINEERING CO., Milwaukee—500 units for Wilmington, Ill.

BATES PREFABRICATED STRUCTURES, Oakland, Calif.—1,000 units for Vallejo, Calif.

ALLIED HOUSING ASSOCIATES, Inc., Langhorne, Pa.—500 units for Norfolk-Portsmouth, Va.

HARDIN AND RAMSEY, Inc., Atlanta—225 units for two Georgia areas.

ARLINGTON FABRICATING CO., Arlington, Va.—250 units for Quantico, Va.

HOME BUILDING CORPORATION, Kansas City, Mo.—800 units for Granite City, Ill., Weldon Springs, Mo., Alton-E. Alton, Ill.

MCCOWAN-ALDRED CO., Macon, Ga.—193 units for Sebring, Fla.

FIELD LUMBER & IMPROVEMENT CO., Detroit—200 units for Sandusky, Ohio.

(For listing of existing prefab companies and detailed report of FWA's \$153 million demountable house program, see February issue, pp. 81-88.)

TEMPORARIES

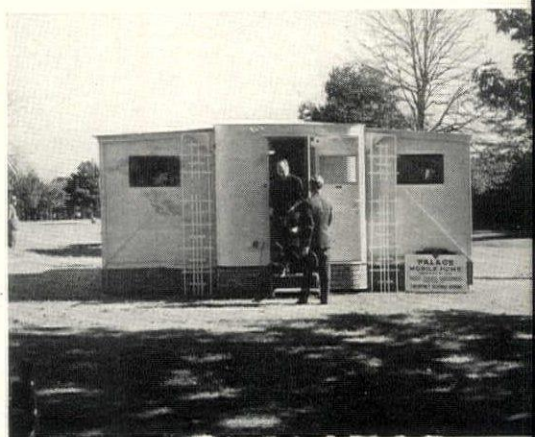
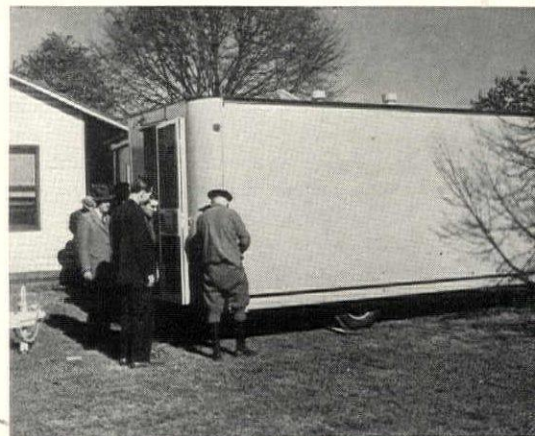
Paralleling the speedy mobilization of prefab-demountables, advances elsewhere on the temporary-housing front are reported. To Farm Security Administration the Defense Housing Coordinator has given an okay to buy \$13 millions worth of trailers and dormitories. Another allotment of \$10 millions is expected in the near future.

Trailers to be ordered by FSA are destined for some 24 communities. Names of the localities are not announced, but all are in the 111 defense areas now stymied by severe housing shortages.

Construction of the temporary dormitories is being turned over to FSA's twelve regional offices, whose staffs will select sites, consult with headquarters (now being moved to Cincinnati) only if they run into snags.

PERMANENTS

Lanham dollars are also starting to roll. Dipping into the recently enacted \$300 million appropriation for permanent housing, Acting FWA Administrator Snyder has entrusted Neil A. Melick, PBA's Supervising Engineer, and William Seaver, USHA's Deputy Administrator, with enough of the realm's coin to turn out initial batches of 2,025 and 1,840 dwellings respectively. These men will use the full facilities of their agencies, but are



Photos, Martan P. Wolcott—FSA

EXPANDABLE TRAILERS instead of demountable buildings are FSA's solution to the utilities problem in defense trailer camps. Containing complete community shower, toilet and laundry facilities, 350 units have been purchased for projects in Kansas, Illinois and Maryland. Arriving on site, trailer sides swing out, hinged roof and floor unfold to provide 2,569 cu. ft. of space.

directly accountable for getting the work done in record time. (Just how far the President's consolidation of housing agencies into the new NHA will change Melick's and Seaver's assignments is still problematical, but impressively significant is fact that men, not agencies, are currently doing the work.)

All U. S. defense areas have been grouped into six regions, with a director in charge of each to expedite the new projects. Local architects to hold the design reins are currently being selected from names submitted by the AIA. Lists include both Institute and non-members, chosen on merit. Projects will probably represent a fifth to a quarter of all housing built this year.

Only discernible flaw in the rosier outlook on this sector of the housing front is a conflict between officials who wish to sacrifice everything to speed, and those who believe high standards can be achieved without loss of time.

To make sure local work is handled properly and expeditiously, FWA last month began issuing a new series of technical bulletins, applicable to all Government-financed housing except demountables. Salability of dwellings is heavily underscored. Standards cover site selection, site engineering, site plan, survey requirements, structural design, heating, plumbing, electrical work, lawns and planting, community facilities (for which the Lanham Act provides an additional \$150 millions).

INSUREDS

Something like a record for itself is being hung up by FHA. For several weeks on end private builders have filed applications for mortgage insurance at a rate roughly 75 per cent above last year's. Practically all these houses are to be built in war industry areas.

Increase, says FHAdministrator Abner H. Ferguson, is due to recent changes in the agency's regulations and procedures, designed to encourage expansion of private rental housing for war workers. But also contributing to upswing is fact that builders and lenders are more anxious to have mortgage protection. Hence FHA inevitably gets a larger slice of the housing market, regardless of ups or downs in the total output.

WARTIME CODE

Nothing less titanic than World War II could have jugged Chicago loose from the tentacles of its notoriously restrictive, unreasonable building code. For 40 years the city's growth has been throttled by legal requirements forcing builders to use more building materials and labor per cubic foot of space than in any other city in the country, to pay through their noses accordingly. Finally, when the Government began limiting new housing to units costing \$6000 or less, Chicago builders ran smack into dead end—at this price they could not turn out dwellings

anyone would want to live in, much less buy. Confronted with the unequivocal choice of 1) a total blackout on residential construction for the duration or 2) sweeping revisions of the building code, city fathers got busy. Result: last month Chicago adopted FHA's minimum construction requirements in whole as a wartime amendment, proudly became the first U. S. city to alter its building code to meet the needs of war housing.

Credit for this tradition-shattering, example-setting advance goes to FHA's Illinois Director Gael Sullivan. Smooth-talking, smooth-looking (a blend of Gene Tunney and Victor Mature), he began three months ago to preach the virtues of such a code amendment. Long-suffering Chicago Metropolitan Builders quickly fell in line, followed by the Chamber of Commerce. Warm support for the proposal came also from the newspapers and Mayor Kelly. Before reactionary code riggers could rally their forces into any effective last ditch opposition, it had popped up before the City Council for formal approval.

As passed, the ordinance applies only to defense areas designated by the Council. It automatically ends six months after the war ends. Nevertheless, a long step has been made in the right direction. The old combine which annually extorted millions from Chicago builders has been forced to relinquish its tightly held racket, faces an even greater future retreat. Sullivan and his code-reforming allies are jubilant. Direct savings of 10 per cent or more, they point out, are immediately attainable.

Less stringent than before, the new Chicago code does not mean quality bars are down—any house meeting FHA standards is soundly constructed. Local building requirements have merely been geared into a well-tested set of national standards. Big virtue—a point for other U. S. cities to consider—is the revision's simplicity. The confusion usually attending wholesale building code changes is eliminated entirely. Being already familiar with FHA procedures, local architects, builders and inspectors do not have to go through an extensive boning-up.



FHA Illinois Director Gael Sullivan
Code reforming allies are jubilant

Equally important is the potential saving in critical materials. Single-family frame houses, not permitted under the old code, can now go up in certain areas. Other possibilities: gutters and downspouts of wood instead of metal (eliminated entirely where lot sizes are ample for natural drainage); wood lintels to replace steel angles; elimination of steel joist anchors; no mandatory electric outlet in each clothes closet; ceilings 7½ instead of 8 ft. high.

Thus, by some inspired and timely housecleaning, Chicago rates top billing in Building's honor roll this month. It is to be hoped that other communities will soon do likewise. If enough do, the long-sought national building code may yet soon become an actuality—thanks to the imperatives of a world at war.

D. C.

In Washington's vernacular—"Damn Crowded." And steadily growing worse as a result of the increased tempo in war production.

New surveys show that most of the 60,000 new Government workers previously expected by July 1 have already arrived in the capitol. Close on their heels are coming another 45,000—to find alarming shortages in both office space and housing.

Space vacated by agencies moving out under the decentralization program is not nearly enough to accommodate the influx. Temporary office buildings are consequently popping up all over the landscape. Even the Ellipse in back of the White House is no longer sacrosanct. There, under PBA supervision, a dozen temporaries are sprouting (average germination: 38 days). Ten more are planned.

On the housing side Washington was left in the lurch when the Lanham Act extension passed minus a qualifying amendment authorizing benefits to Government workers as well as to those employed in defense plants or by the Army and Navy. A new bill correcting this situation has already passed the House, however. It will authorize the use of \$50 millions out of the Lanham strongbox for housing and defense public works in Washington—with FWA handling construction and also determining needs.

Meanwhile, Coordinator Palmer, impatient over legislative delays, has handed the Alley Dwelling Authority \$18.9 millions from the President's highly convenient emergency fund to be presto-changed into 4500 removable type dwellings. The RFC Mortgage Co. has also stepped into the breach with a large housing project to go up on the McLean estate in the city's outskirts.

RENT CONTROL

The President's grudging acceptance of the not wholly satisfactory price control act brings into existence one plan that promises to be reasonably workable. This

(Continued on page 38)

HOUSING GETS A ONE-MAN TOP

as sixteen agencies shrink to three
and a harassed Building Industry
hopes for the best

While Judge Samuel Rosenman watched from the wings, and before his familiar audience of White House correspondents, Franklin Roosevelt reached deep into his best Presidential silk hat and pulled out the name of John Bennett Blandford, Jr. Probably before these words are read the Senate will have confirmed Mr. Blandford's appointment to the new and long-awaited job of National Housing Administrator. His task will be to see that public housing agencies quit intramural bickering, that both private and public housing get on with their war job and, finally, that the housing done during the war bears sensible relation to its post-war use. To give Blandford a free hand, the President had previously disposed of some Washington personality conflicts and had reduced the former sixteen housing agencies to three major ones. All these are now under direct control of the new Administrator. Now that he has a free hand, it remains to be seen what Blandford does with it. Coming from the Bureau of the Budget, where he was Assistant Director, and before that having General Managed TVA (after an earlier active and successful career in municipal administration), Blandford has a stout record to support his choice. His strongest advocates are those who have worked with him. All he now needs is a glint in one eye and bankers' glass in the other.

Blandford steps into a tough assignment softened only by the reorganization plan Judge Rosenman skillfully contrived. However, neither the President nor the Judge can do much more than streamline the administrative pattern, and this they have



René — photographers

John Bennett Blandford, Jr. becomes one of the most sought after men in Washington as he takes on one of the least sought after jobs in the U.S. war effort. Photographed for ARCHITECTURAL FORUM on the day of his appointment, February 24, 1942.

done. What may not be generally recognized is the vast policy-making authority which the appointment gives to Blandford.

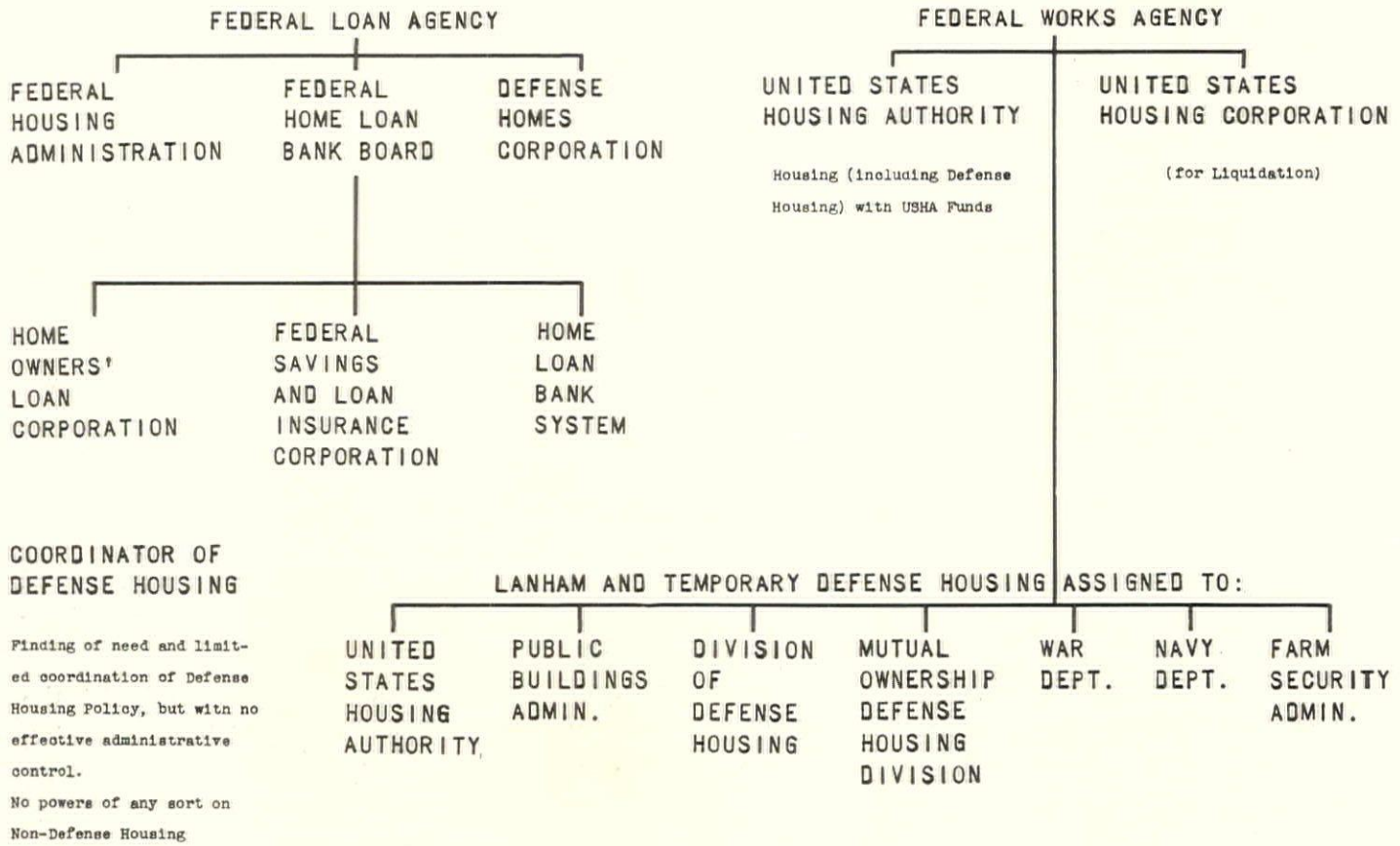
Despite politics and pressures which are unlikely to absent themselves from the housing scene, the Administrator can set the general level of the program. His will be the decision whether local authorities or Washington authorities will dominate. His will be the decision whether private enterprise is really given a chance to function. His will be the decision whether "local customs" according to congressional dictum mean no improvement in housing standards. His will be the decision whether decent site planning is worth trying for. His will be the decision whether red tape (still not under priority) or common sense will prevail. His will be the decision whether research and experiment get lip service or action. His will be the decision whether political appointees or competent technicians staff the agencies, and no less important, the projects. His will be the decision whether the war housing program should be expanded, as obviously it should, or contracted. And greatest of all, his will be the decision whether speed comes in only when quality goes out.

The emergency is a tempting excuse for making easy decisions. Mr. Blandford's record suggests that will not be his approach. If it is not, there may be great reasons why Mr. Blandford's agency should be converted from a demountable to a permanent organization when its "six months after the war" are up.

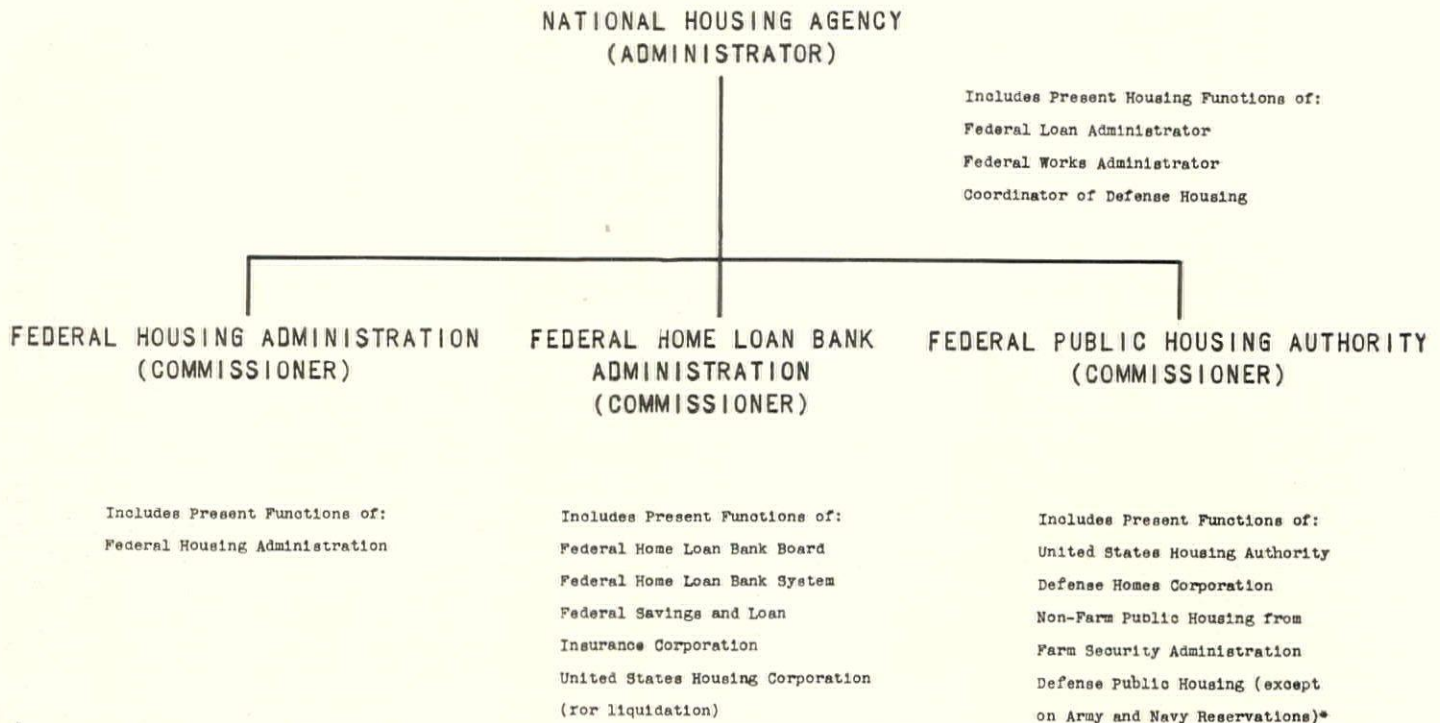
—The Editors

See next page for organization charts. See page 137 for story on National Housing Administration.

THIS WAS THE OLD HOUSING SET-UP



THIS IS THE NEW HOUSING SET-UP



*Such Defense Public Housing (except on Army and Navy Reservations) has heretofore been divided among the Federal Works Agency, United States Housing Authority, Public Buildings Administration, Division of Defense Housing, Mutual Ownership Defense Housing Division, War Department, Navy Department and Farm Security Administration.

CATHEDRAL
OF
SAINT JOHN *THE* DIVINE
MORNINGSIDE HEIGHTS, NEW YORK CITY

Photos, Robert M. Damora



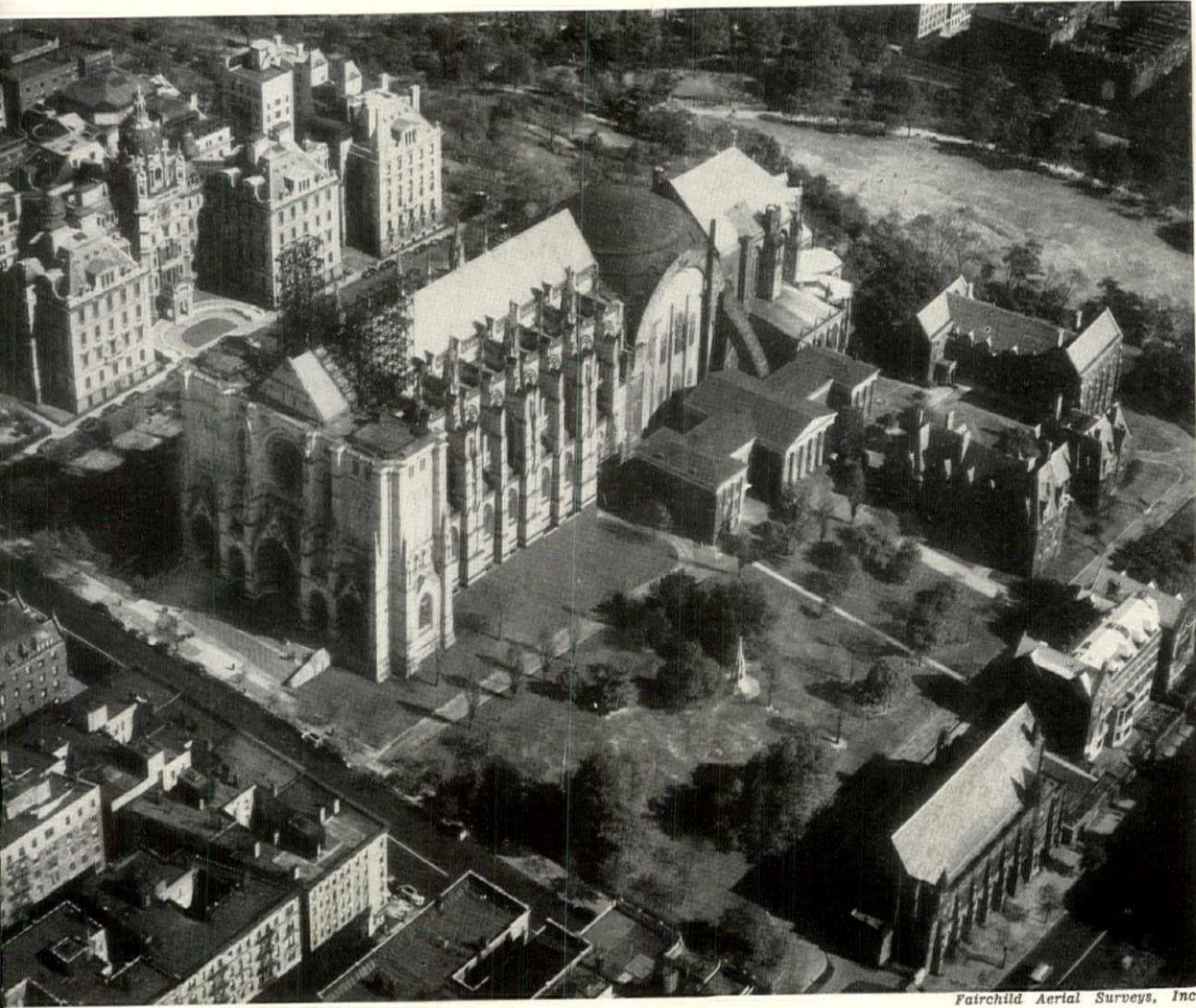




ALTAR DETAIL

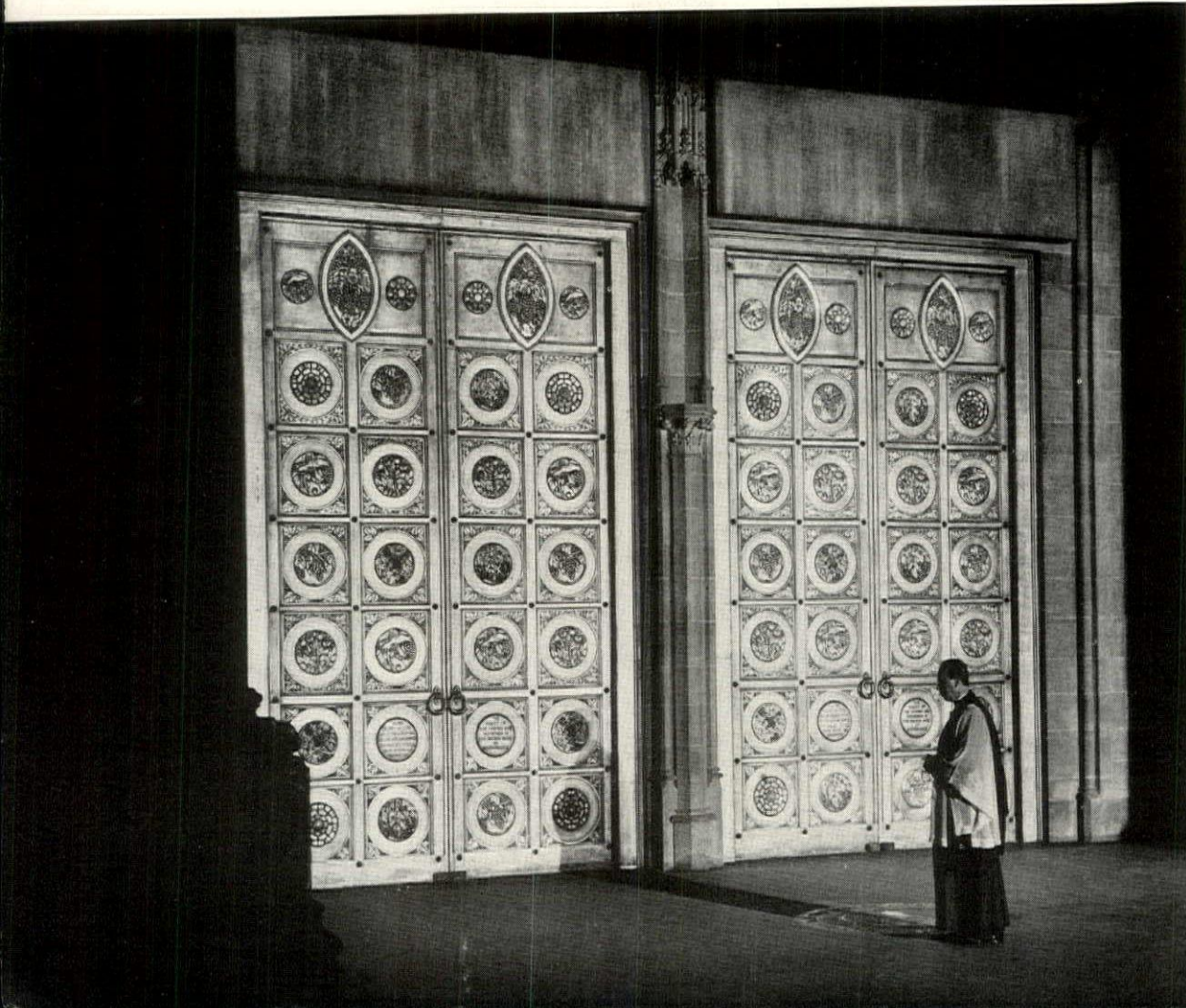
On Sunday morning, November 30, 1941, the doors of the Cathedral of St. John the Divine opened on the completed nave of the largest Gothic cathedral in the world. Since the laying of its cornerstone in 1892, this great church has been slowly taking shape, with stone laid on stone in the manner of the old cathedrals. As further contributions are received the work will go on until the towers and transepts have been finished. The illustrations shown here are from the magnificent set of pictures made by Robert Damora for the Cathedral authorities, one of the finest collections of architectural photographs ever taken.





Fairchild Aerial Surveys, Inc.

NARTHEX DOORS

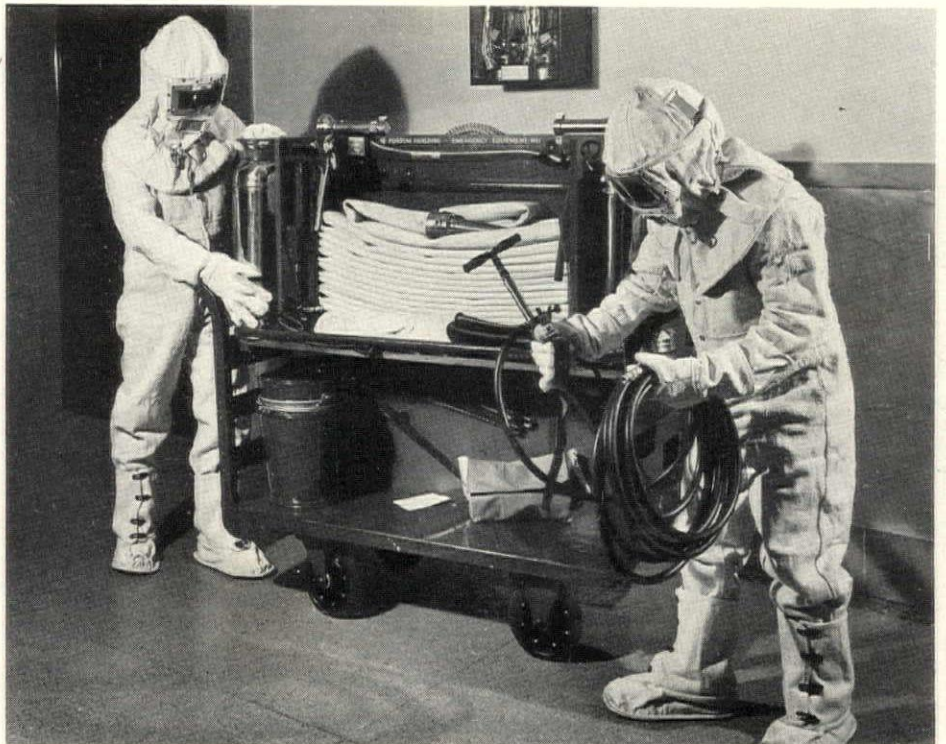


PRACTICAL AIR RAID PRECAUTIONS make a New York office building as safe as most shelters and much more convenient. A tested formula for exploiting the inherent bomb resistance of the multi-story frame building.

This article and the accompanying pictures tell what one New York City office building has done to prepare for air raids. The procedure is inexpensive and relatively simple, but highly essential. What the management of this building has done, others can—and should—do immediately. Now, rather than after, bombs begin to drop is the time to plan for ARP.

If New York City were bombed tomorrow, tenants of the Postum Building, Park Ave. and 46th St., would be better prepared for such an emergency within five minutes than many a Londoner after 2 years. Within that time the entire population of the 20 floor, 17-year-old building would have been evacuated to safe central corridors, elevator service would be stopped and power, light and gas mains shut off, trained emergency crews would be in position with full equipment at 2 strategic points, and emergency lighting would be in operation. And, if the attack proved to be an incendiary rather than demolition bombardment, watchers would be at their posts on all roofs, equipped with asbestos suits or shields, stirrup pumps, sand buckets and shovels.

All of this is no mere plan, although careful planning was needed to bring it into being. The Postum Building's air raid precautions have been actually tested in full dress-rehearsal. At 3:30 PM., Janu-



PHOTOS, Andreas Feininger

Emergency equipment is kept on 2 portable trucks, may be rolled or carried (up and down fire stairs) to all parts of the building. Trucks contain 100 ft. of fire hose, acid and foamite extinguishers, stirrup pump, gas masks, helmet, asbestos suit, rope, miscellaneous tools, and lanterns.

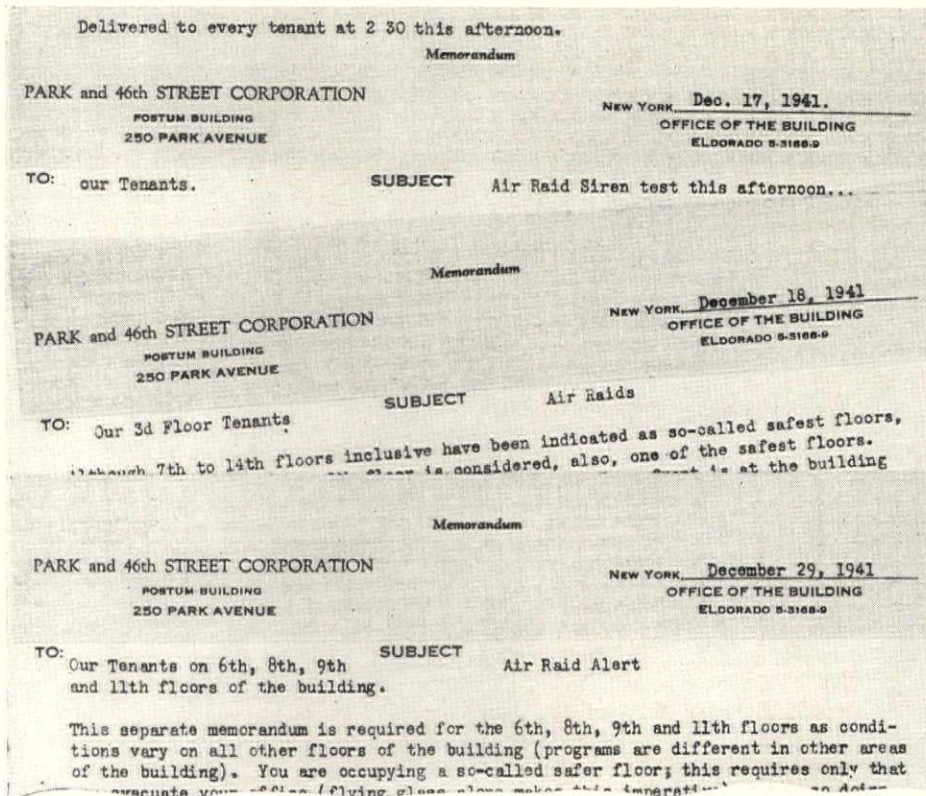
ary 8, an all-out test of the entire system was carried out without a hitch. Tenants* on all floors of the building, including ground-floor stores cooperated, and the entire population was evacuated to safe areas according to plan. Tenants were warned that the alarm would be sounded between 3 and 4 PM., but did not know at what moment. Their active cooperation was achieved by a long-time program of personalized memoranda. The entire drill was completed, with everyone back at his post, in 15 minutes.

Success of the system is largely due to careful planning by Edgar McNeil, the Postum Building's Manager-Superintendent, and a carefully worked-out schedule whereby every building employee and every tenant knows exactly what his responsibilities are and where he should be at every moment. A certain amount of equipment has been purchased and some minor alterations made to the building, but the main reason that Postum tenants will be safe should air raids come is that they know where to go and what to do—and this, in turn, is only possible because the building management has taken the trouble to work out in detail an air raid precautions plan.

ZONING

First step in the creation of this plan was to zone the building into safe and unsafe (or less-safe) areas. After a survey it was

*Occupants of the building include Crowell-
Collier Pub. Co., Chase Nat'l Bank, General
Foods, St. Joseph Lead Co., New York Life
Insurance Co.



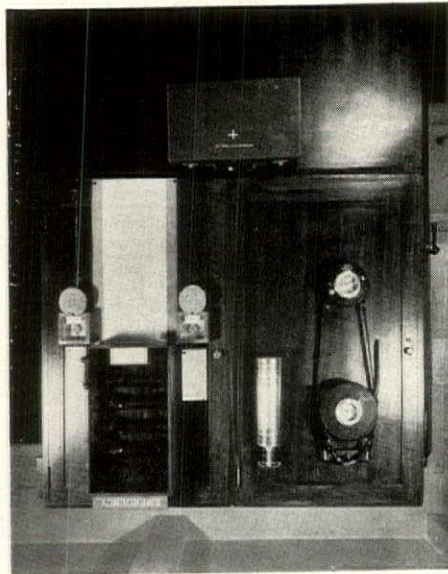
Personalized memoranda, sent to all tenants over a period of several weeks, kept them posted on the development of the air raid precautions system, informed as to where to

go and what to do in the event of an air raid warning. Close cooperation between tenants and building staff, essential to any ARP set-up, was facilitated by this approach.

PRACTICAL AIR RAID PRECAUTIONS



Office radio, tuned and warmed up but not playing, may be switched on at any time to discover whether broadcasting has stopped—sure sign of an air raid warning.



ARP supplies, including duplicate keys for all important control points (behind glass), are stored near building office within easy access from main lobby.



Glass was removed from corridor doors within safe areas, replaced with non-shattering fibre board panels with duplicate of tenant's sign in gold leaf.

decided that the central corridor space, flanked on both sides by elevator shafts, toilet rooms, etc., was safe from the 6th to 14th floors (five floors above the street and five floors below the roof) and that, in addition, the central portion of the 3rd floor corridor was also safe, due to the fact that it was surrounded by the building's storage rooms. Plans were prepared showing the safe areas on these floors and posted in the corridors near the elevators. Fire stair doors were unlocked and tenants on the 15th to 19th floors assigned to particular floors between the 10th and 14th, while 1st and 2nd floor tenants were told to go to the 3rd floor corridor, 4th and 5th floor tenants to the 6th floor. Emergency traffic on the fire stairs was thus down from the 19th to 10th floors and up from the 1st to 8th floors. Since each of these corridor spaces connect directly with the

fire stairs and with interior toilet rooms, all were first-rate, ready-made air raid shelters providing a high degree of protection against demolition and fire bombs and even—due to their height above the street—gas.

EQUIPMENT, MINOR ALTERATIONS, Etc.

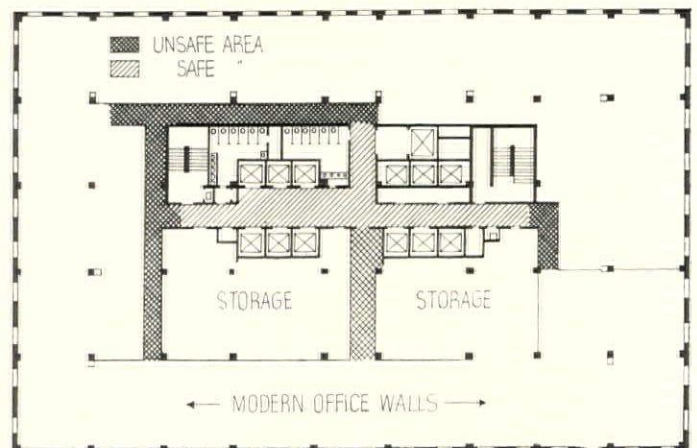
The building management did not stop, however, with simply designating these safe areas, it went on to make sure that they were properly equipped. To avoid injury from glass splinters, all glass was removed from corridor doors within the refuge area and replaced with pressed fibre-board panels with a duplicate of the tenant's sign in gold leaf. Emergency lights operating on the circuit supplying current to the fire stair indicator lights (which was separate from the balance of the building wiring) were installed in the

Section through building from front to back (left) shows location of safe areas in central corridors on 3rd, 7th and 8th to 14th floors, also air raid alarm gongs and public address system for special instructions to building staff during alerts.

Plan (below) shows safe area on 3rd floor, protected by building's storage rooms. Similar plans were posted in all corridors to show limit of area considered safe from bombs. Note convenient location of inside toilets and fire stairs.

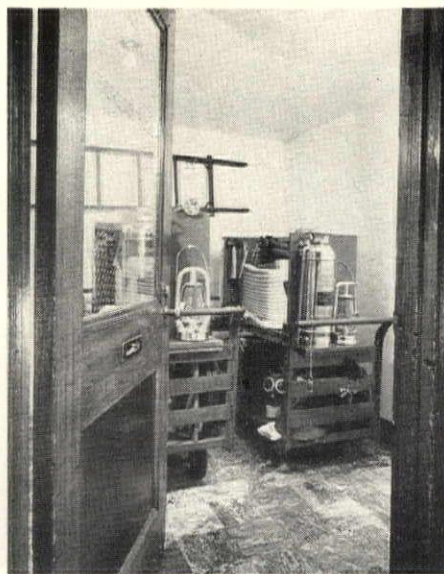
PENT.	☉	⚙	⏪	⚙
20			☉	
19				
18			☉	
17				
16	SAFE CORRIDORS		☉	
15				
14	☉		☉	⊕
13				
12	↑	↑	☉	↑
11		↑	☉	↑
10	T	S		
9	E	T		
8	L	O		
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6	T	O		
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4	E			
3	☉		☉	⊕
2			☉	
MEZ.			☉	☉
1	☉			

- ⏪ BUILDING PHONE
- ☉ ALARM
- ⊕ FIRST AID
- ☉ FIRE CREW
- ⚙ MOTOR ROOM
- ☉ POWER CONTROL
- ☉ STEAM CONTROL
- ☉ SPECIAL STARTER
- ☉ MASTER CONTROL

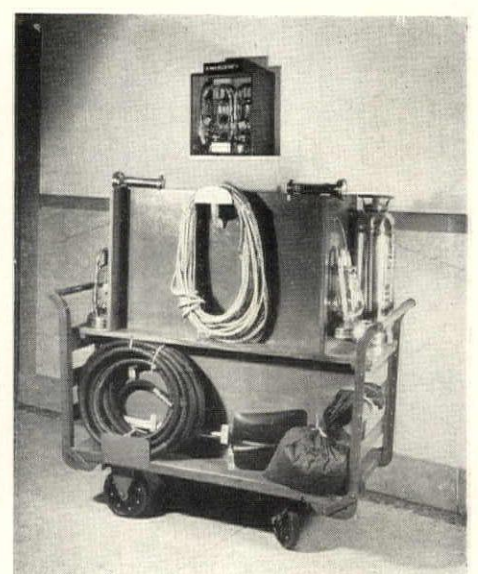




Lanterns in glass front cabinets supplement emergency lighting in event of power failure, are placed in all refuge areas. Below is plan of area considered safe.



"Fire House" on 3rd floor houses emergency trucks and other equipment such as ladders. When alarm sounds, truck No. 1 is taken to the 17th floor by elevator.



Emergency truck (reverse side from that shown on page 147). Each truck is manned by crew of five building mechanics, headed by a volunteer fireman.

safe corridors. Glass-front cabinets containing lanterns and matches were also placed in the corridors, and lanterns installed in the toilet rooms, where no current would be available during emergency periods. Alarm gongs were installed at 10 points and connected with a central alarm station in the building office, where a radio was set up to supplement the regular telephone warning, sirens, etc. Other air raid equipment includes 2 emergency trucks equipped with fire-fighting and repair equipment. Sand buckets, asbestos shields, etc. have been provided for each of the building's roofs for use in combatting incendiaries. Emergency trucks are kept in a specially-built "fire house" (Continued opposite page 71)

Notice of dress rehearsal held Jan. 8, when entire system was tested. A similar test was also held for the night staff. Picture below shows method to be used by roof squad in combatting incendiaries. Sand buckets are stored on roof under removable cover which sheds water, asbestos shield kept just inside roof doorways. Stirrup pump and asbestos suits are kept on emergency trucks.

PARK AND 46TH STREET CORPORATION
POSTUM BUILDING
250 PARK AVENUE - NEW YORK

TO ALL OUR TENANTS. AIR RAID REHEARSAL.

AIR RAID REHEARSAL: BY POPULAR REQUEST.....THIS AFTERNOON BETWEEN 3 PM and 4 PM. (exact minute not given, also by request, but we think it advisable to inform all our Tenants that the alarm will sound some time between 3 and 4 this afternoon.... IF REAL AIR RAID OCCURS BETWEEN 3 and 4, the alarm would be a continuous long ring of at least one minute's duration...

The Air Raid gong alarm today will be regulation ONE LONG, ONE SHORT....

LOCK YOUR VALUABLES IN SAFE, TURN OUT YOUR LIGHTS - PLEASE - to save mechanics from possible serious electrical burns when they pull feeder switches, which are the 400 to 600 ampere fuse switches supplying entire floors....

BLACKOUT mechanics will turn off all power, all light current from main, switchboard panel room: THIS ACTION, IN AIR RAID ALERT, IS A FIRE PRECAUTION IN DAY LIGHT HOURS..... Lights will also go out in all corridors - excepting emergency corridor lights and stairway lights.....

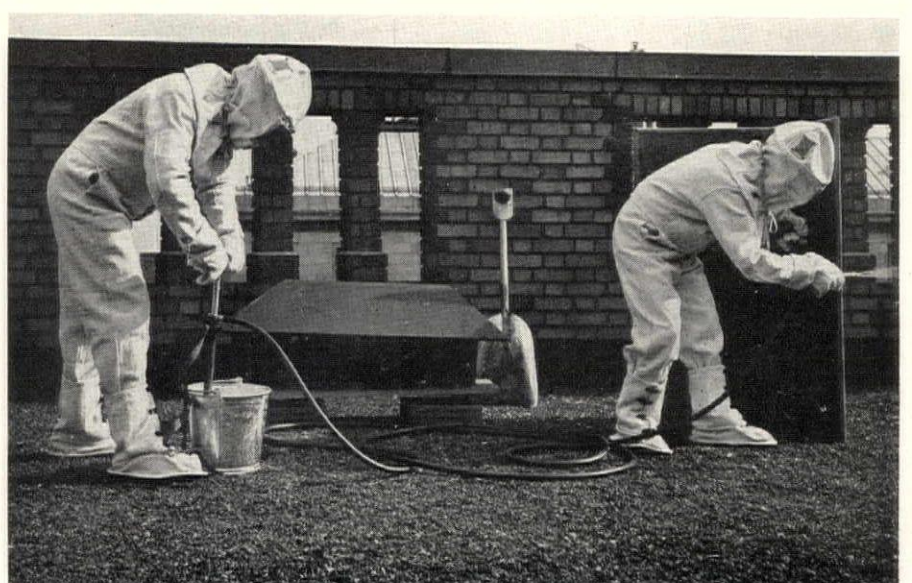
Lanterns would be used only in case of total failure of lighting - stairways and corridors in total darkness.

BUILDING'S FIRE TRUCKS, with fire crews, will go to 6th and 14th floors. Floor porters, with posts assigned, will be runners....

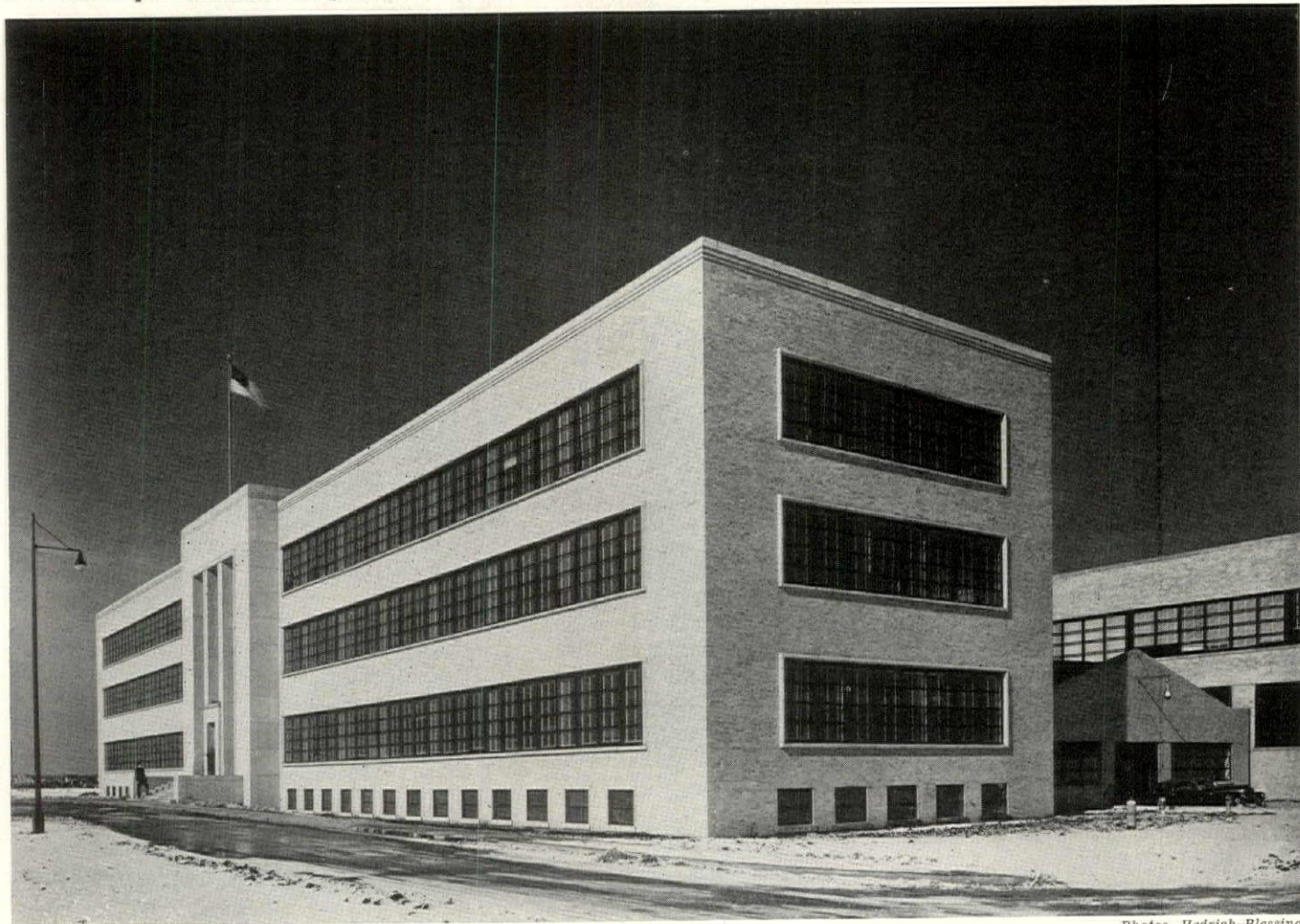
Rehearsal may consume more than 15 minutes; GF must evacuate all personnel on 19th, 18th, 17th, 16th, part of 15th - down stairways to assigned floors below 15th floor..... some companies or divisions on lower floors will climb stairways to some upper floor designation....

FIRST AID on 6th, 7th, 12th, 13th, 14th (and possibly some additional floors)

PLEASE COOPERATE THIS AFTERNOON BETWEEN 3 and 4 THANK YOU.



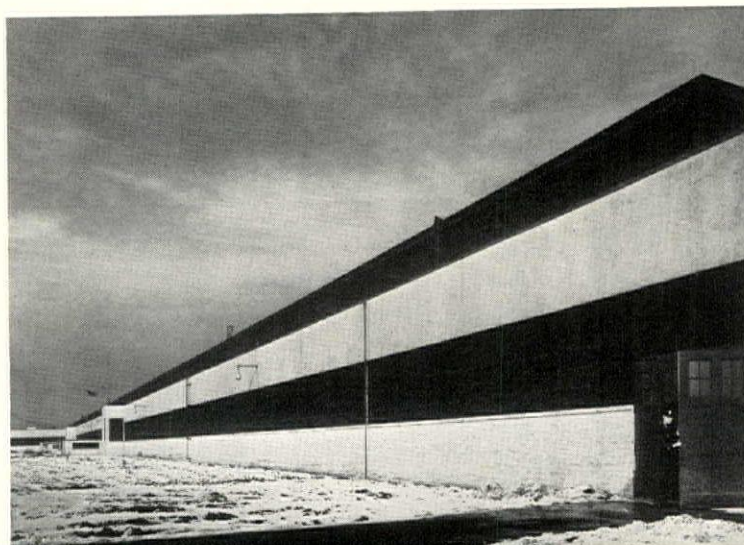
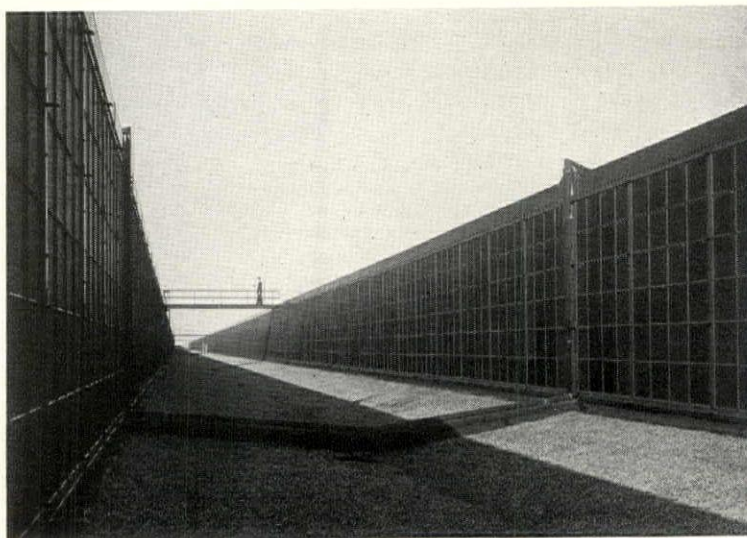
AIRPLANE ENGINE PLANT . . . new engine plant in the middle west for mass production of plane engines beats its building schedule



Photos, Hedrich-Blessing

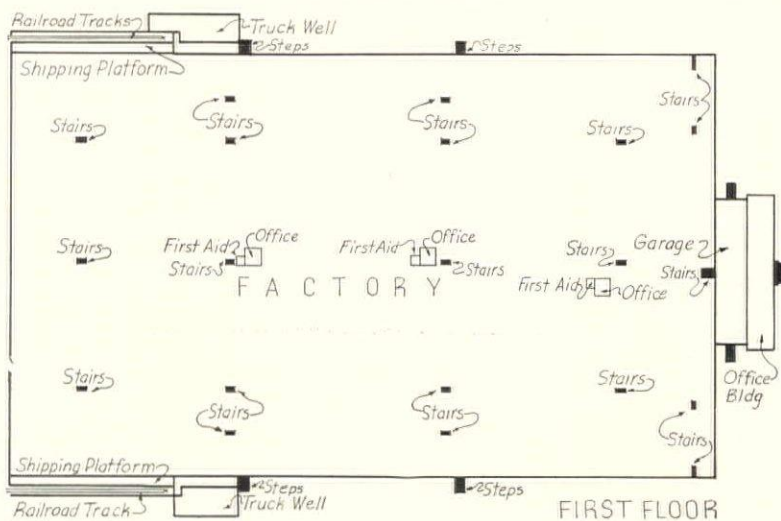
ALBERT KAHN, INC. ARCHITECTS

This new engine plant in the middle West is one of the many important units now producing plane engines on a mass-production basis; with thousands of employes under its enormous roof, and an output of thousands of high-powered motors, its completion has given a great impetus to the war program. One of the most remarkable features of the plant is the speed with which buildings and tools were assembled. Orders to start construction were given last March; by mid-June the work was 25 days ahead of schedule; a month later the workmen were 30 days ahead; and by September, only six months after ground had been broken, the keys of the plant were turned over to the management. Structurally, and in point of layout and equipment, the factory is one of the most up-to-date yet constructed, and the automotive production techniques employed have vastly speeded up the former rates of output. The plant includes a variety of structures: administration building, personnel building, a garage, power house, test blocks and minor buildings.





MACHINE SHOP



FIRST FLOOR

The main manufacturing unit is constructed of steel, brick and granite, and has continuous steel sash. Glass used in the side wall windows and monitors is of a special type of heat-resisting wire glass that affords an even distribution of daylight without glare. A large ventilating system will maintain good working conditions even during blackouts. Heating is provided by overhead unit heaters of the projection type, and the manufacturing area is divided into four zones so that artificial heat may be balanced with solar heat received through the large glass sections. Both these heaters and the closely spaced fluorescent lighting fixtures are shown in the photograph above. The light intensity at normal working height is between 40 and 45 foot candles, and shadows are virtually eliminated. The plant is covered with a tar and gravel roof, laid over precast cement tile in some places and steel roof deck in others.



CHAIN HOIST

AIRPLANE ENGINE PLANT

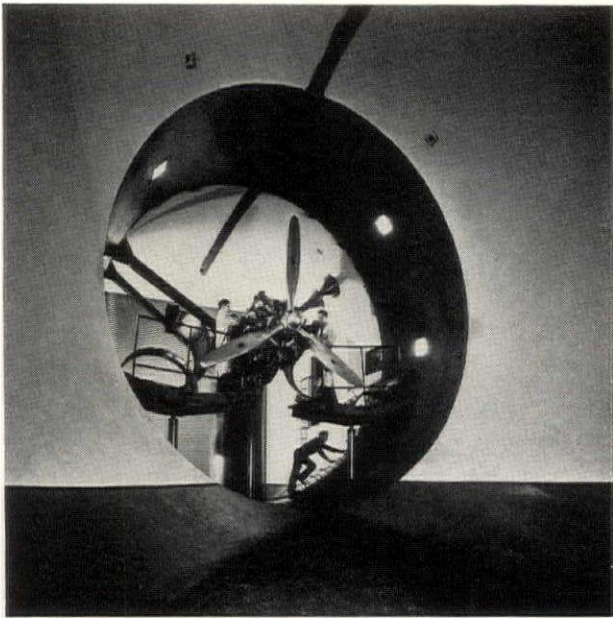


INSPECTION BENCH

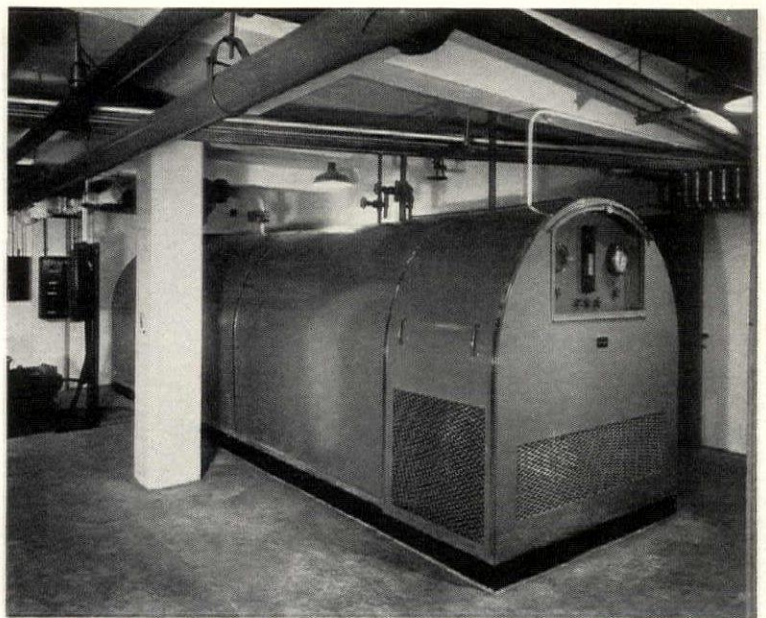
STORAGE CABINETS



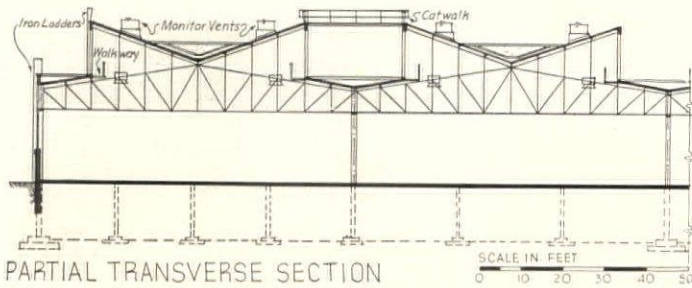
The illustration above gives something of an indication of the tremendous production area covered by one roof. It also shows more clearly than the preceding photographs the manner in which both monitor windows and fluorescent fixtures are arranged for optimum working illumination. The very wide bay spacings are characteristic of a trend in all types of factory construction, towards the largest spacings consistent with reasonable economy. The great advantages of flexibility provided in this manner are obvious. Equally important for flexibility is the use of the overhead trusses as supports for power lines, compressed air pipes and other services. With this arrangement the machines and processes can be laid out in any desired manner, or changed whenever necessary, with a minimum of disturbance and lost time.



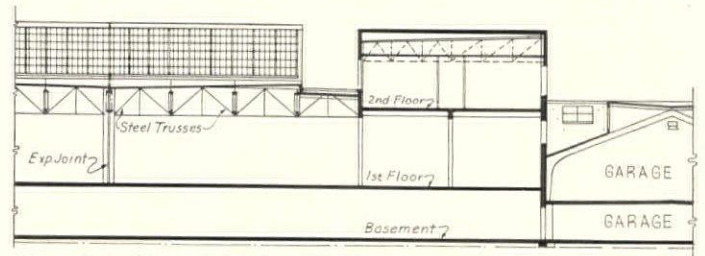
WIND TUNNEL



CARBON DIOXIDE UNIT



PARTIAL TRANSVERSE SECTION



PARTIAL LONGITUDINAL SECTION

Most dramatic of any part of a modern plane engine factory is the section devoted to testing, a process through which each motor must pass before it is finally released. The great size of the tunnel would indicate that engineers are by no means convinced that

propellers have reached their maximum size. An engine under test will produce 135 decibels of noise, a volume beyond the capacity of human endurance; by means of elaborate soundproofing the test, men are permitted to work under more bearable conditions.

MOTOR TESTING

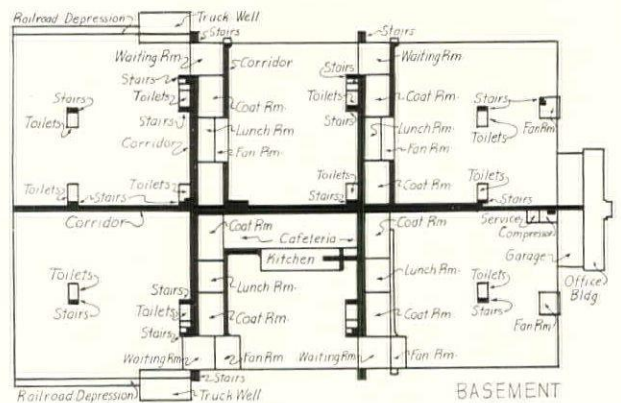


AIRPLANE ENGINE PLANT

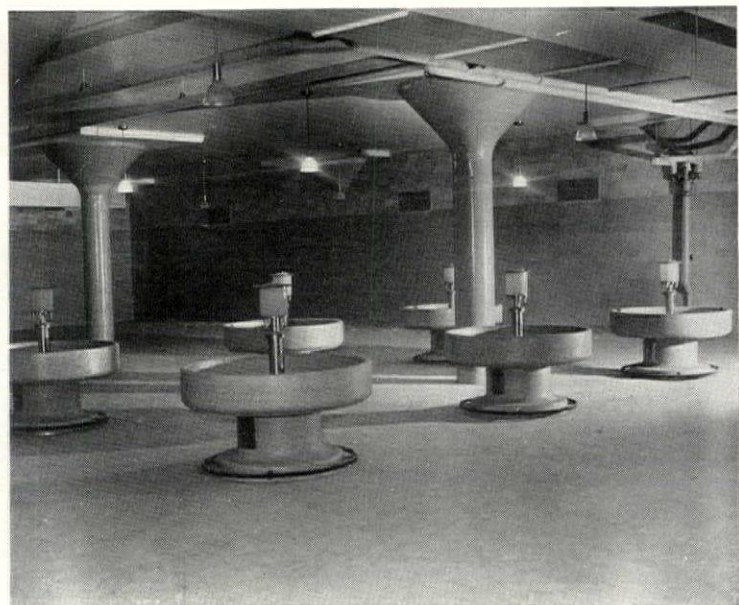


FIRST-AID ROOM

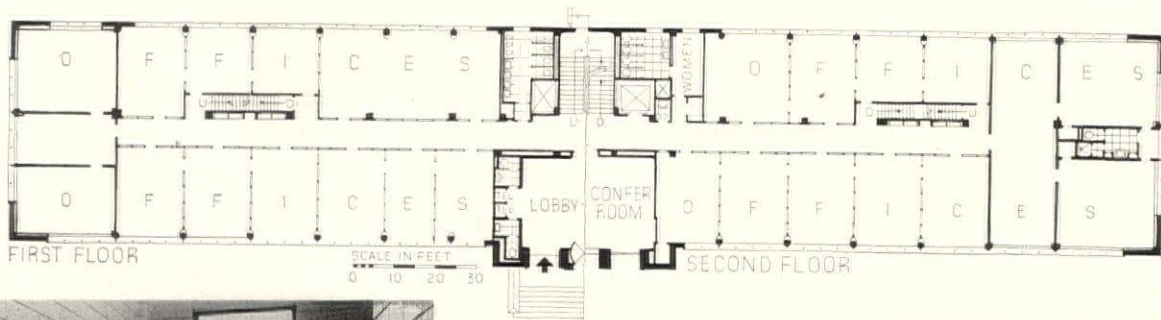
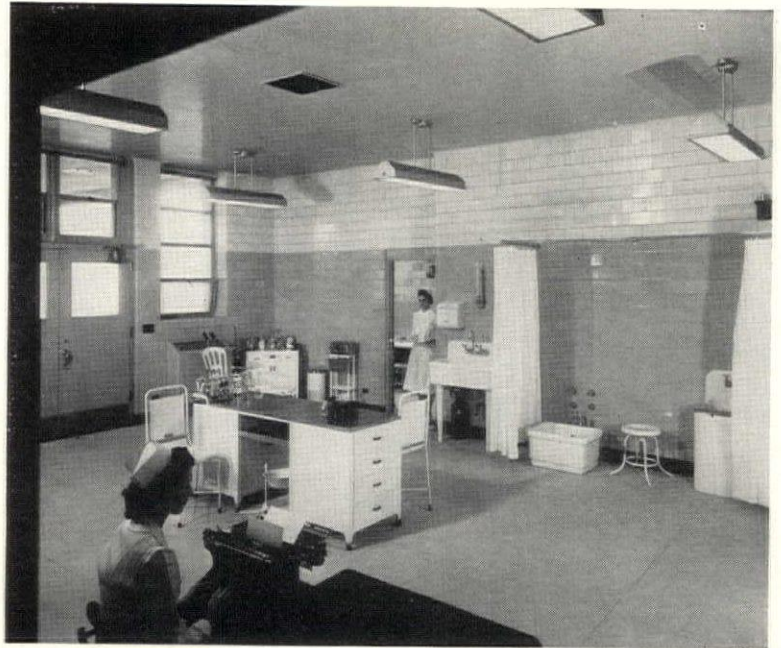
The picture above shows one of the first-aid stations located on the plant floor. Treatment after first-aid is carried on at the larger medical center shown on the opposite page. The toilets, below, are reached by stairs scattered throughout the plant. The wash-rooms will be provided with lockers for the employees. A large cafeteria and four lunchrooms, located in the basement, would provide excellent shelter in case of air raids.



BASEMENT

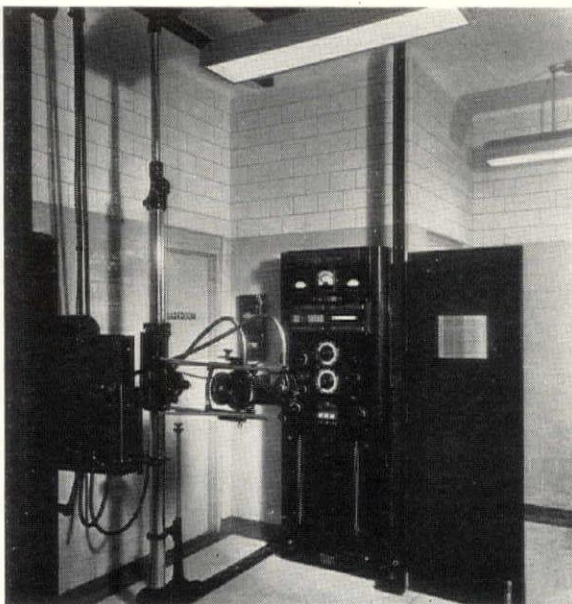


In addition to first-aid stations scattered throughout the plant, a larger, central medical unit is provided in the administration building. Facilities include almost everything a small hospital would provide, including machinery for X-ray and fluoroscopy.



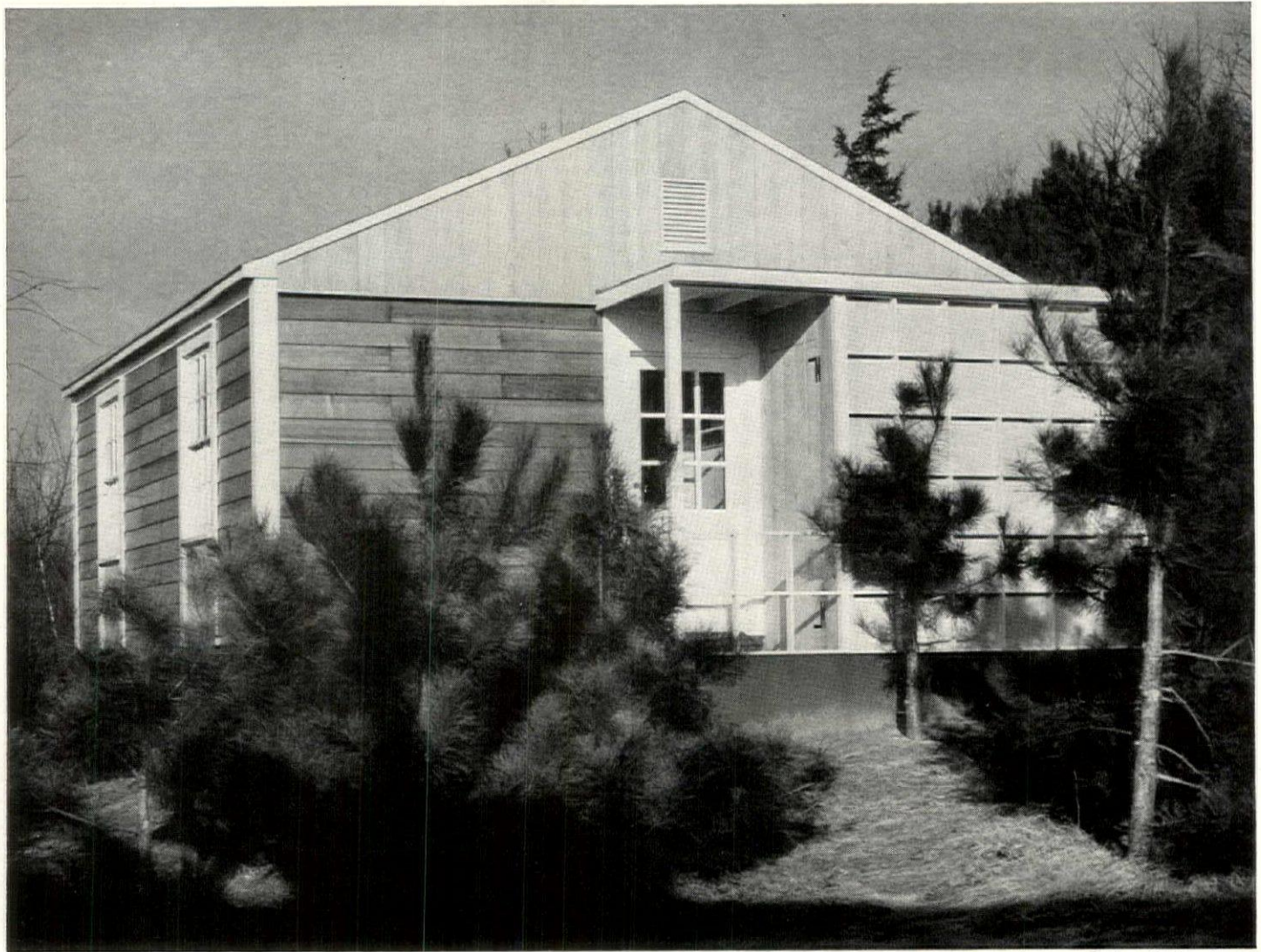
ADMINISTRATION BUILDING

Offices in the administration building are lighted with large windows and fluorescent fixtures, have floors of asphalt tile and acoustical ceilings. To facilitate changes in office layout, they are divided by metal and glass partitions which can be moved with much less trouble and expense than the more permanent types. An underfloor duct system provides electrical outlets every 12 inches. The administration building, like the mezzanine offices in the manufacturing building, is completely air conditioned.



DEMOUNTABLE DEFENSE HOUSE AMERICAN HOUSES, INC.

HOLDEN, MC LAUGHLIN AND ASSOCIATES, ARCHITECTS

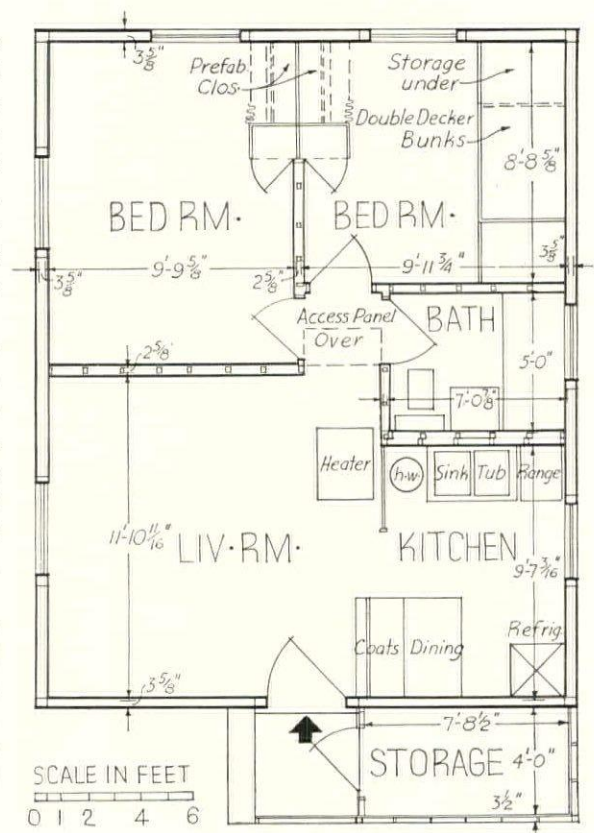


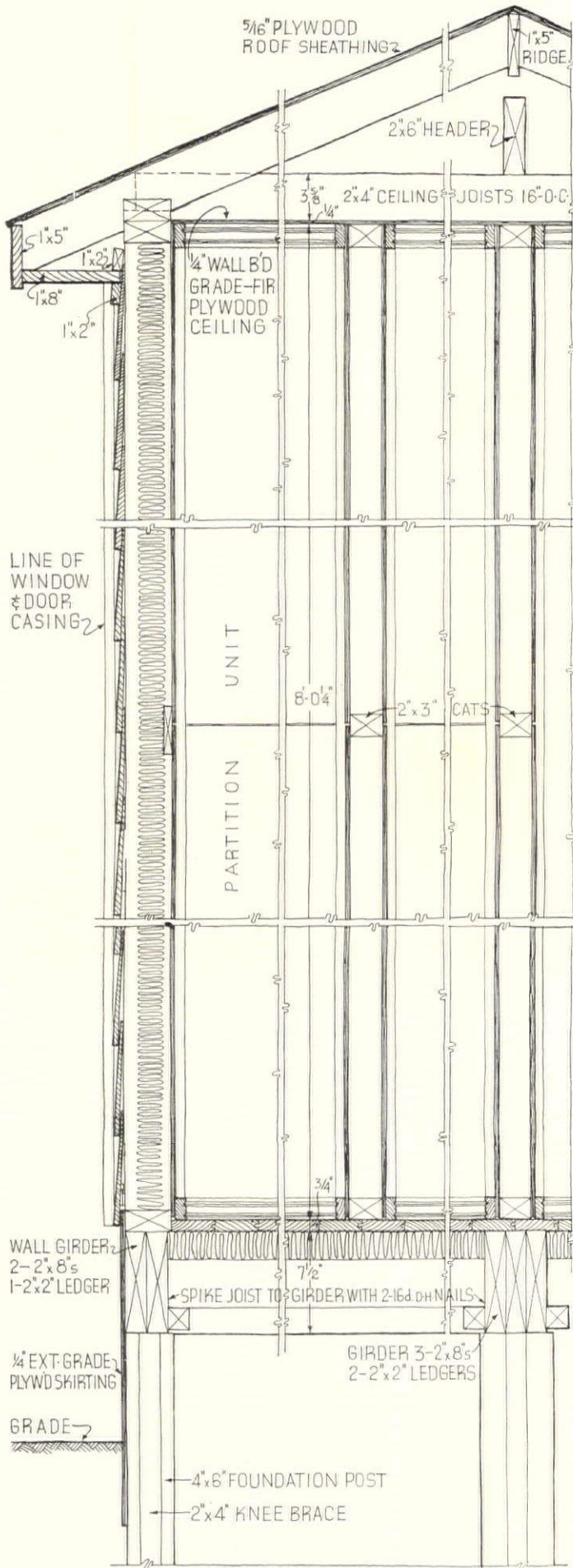
Rodney McCay Morgan

American Houses, pioneer prefabricator who last year supplied 1,537 defense houses to various Government agencies, built the house shown on this and the succeeding pages to demonstrate their idea of what a demountable house for war workers should be like. According to official standards, it is unacceptable for public defense projects. Room areas are 10 to 20 per cent below the required minima, finishes and hardware do not meet specifications, the plan fails to provide the required amount of inside storage space, foundations are wood posts rather than masonry piers. The outside dimensions of the house, 20 by 24 ft., are a good 4 ft. under the prevailing defense-house size in both directions.

Not a matter of accident, these discrepancies were deliberately planned by American's architect and founder, Robert W. McLaughlin, to prove defense housing standards wastefully high, and as a constructive suggestion for their improvement. The regulations governing demountable houses, in McLaughlin's opinion, are the result of a peacetime rather than wartime approach to the Victory program—a sort of "business as usual" policy on the part of Washington housing experts who have carried over bodily the yardsticks of permanent construction and a long-term program to temporary housing designed for emergency needs.

The McLaughlin house, which has 28 per cent less area, three less windows and one less exterior door than most defense houses, shows the economy and livability a real wartime approach might produce. Together with economies in site development it is designed to save up to \$1000 a unit on present costs. And, while some aspects of the scheme are open to question (particularly the size of the living room), it is far and away the best argument for reduced wartime housing standards so far advanced.

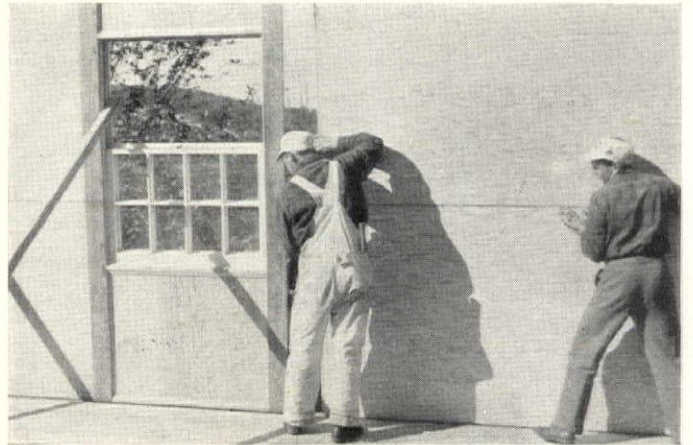




TRANSVERSE SECTION



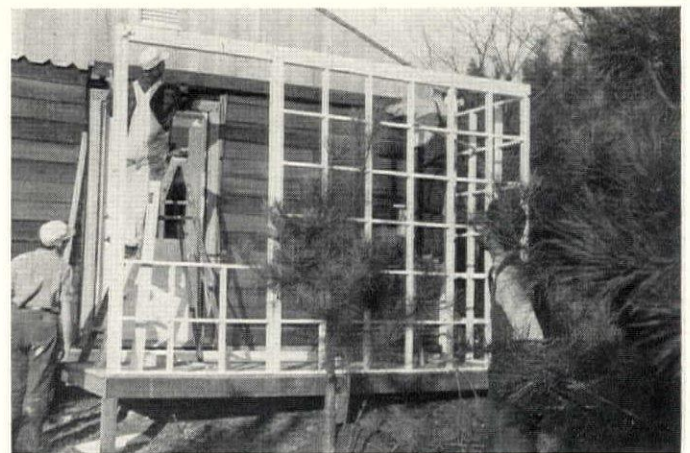
Foundation posts for the minimum defense house are wood posts, designed to last 8 or 10 years in most soils.



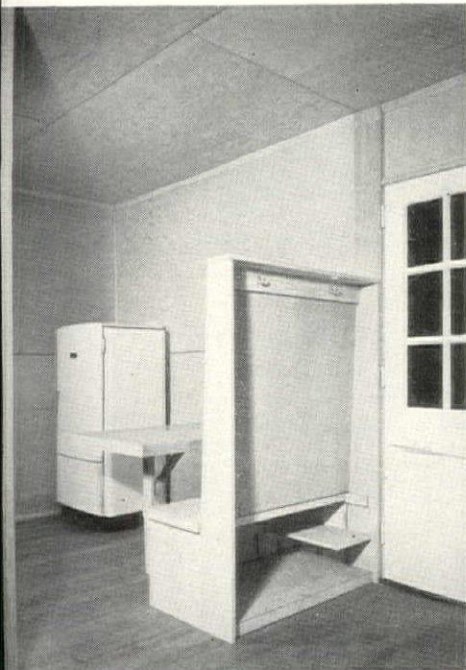
Wall panels, as in all American houses, join at windows and doors, so that trim covers joint.



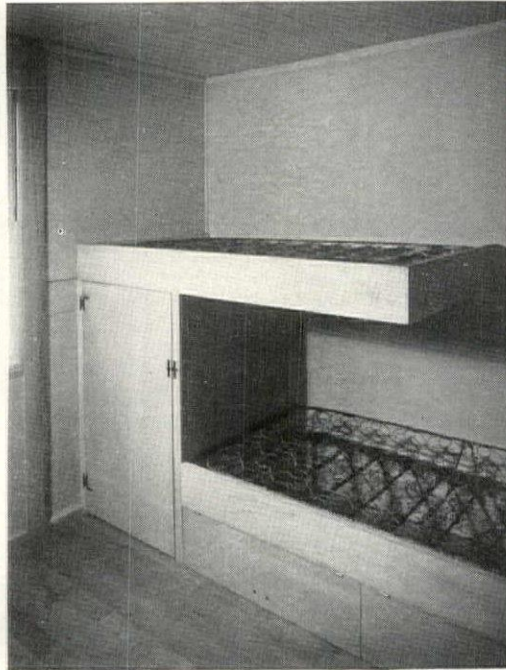
Ridge ventilator consists of louvre slats rabbeted into studs at sides, requires no frame and but little trim.



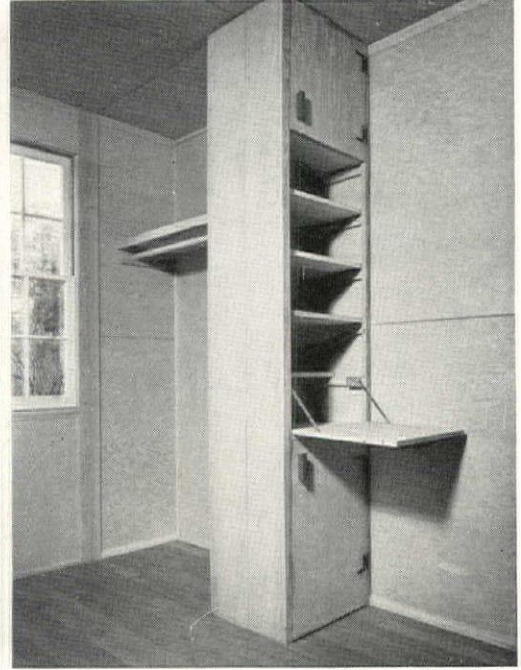
Storage unit, built outside the house and walled with a light "egg crate" frame and a single thickness of 1/4 in. exterior plywood, is an excellent new idea. Plywood panels are painted various colors before installation, contrast with natural wood frame for decorative effect.



Dining seat-coat closet unit saves space and screens dining space from the entrance door.

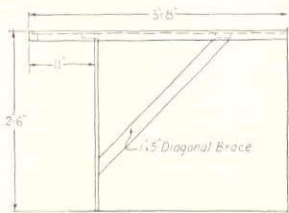


Double bunks make smaller bedroom adequate for 2 children, provide additional storage space for toys, etc.



Built-in cabinets, next to closets, serve as combined chest and writing or dressing table in both bedrooms.

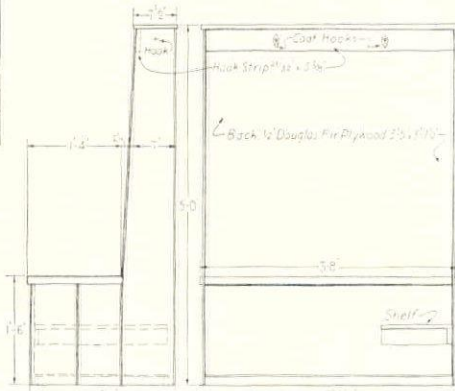
Rodney McCay Morgan



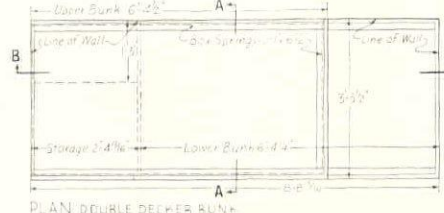
SIDE ELEVATION



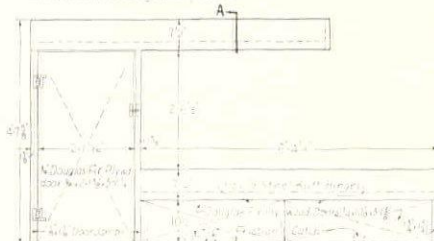
END ELEVATION DINING TABLE



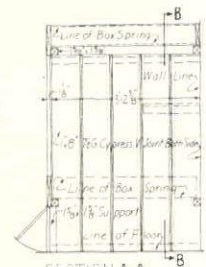
BACK ELEVATION DINING BENCH



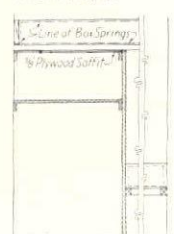
PLAN DOUBLE DECKER BUNK



ELEVATION



SECTION A-A



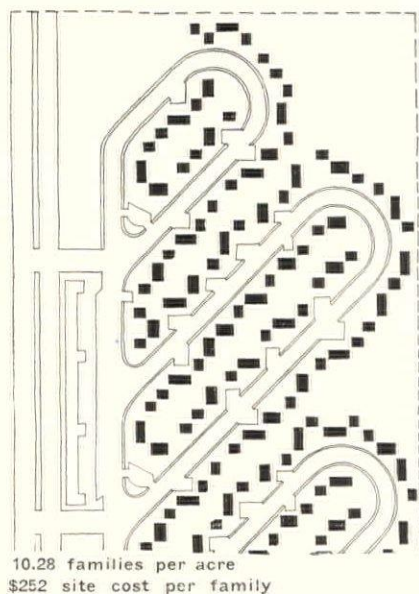
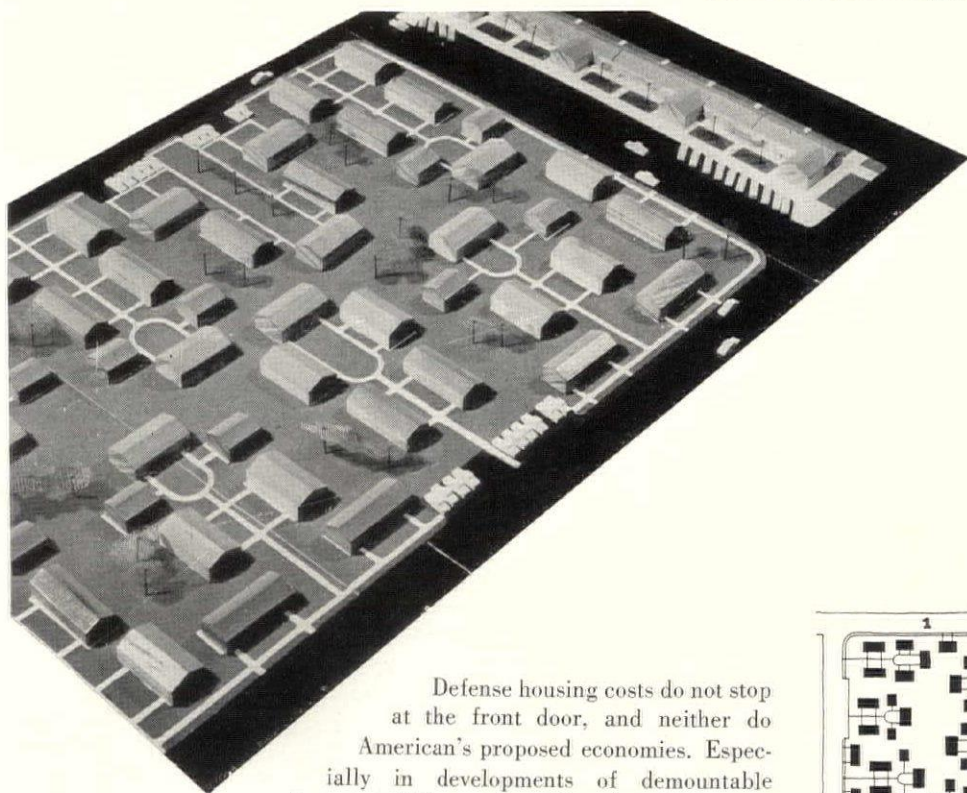
SECTION B-B

COST SAVERS

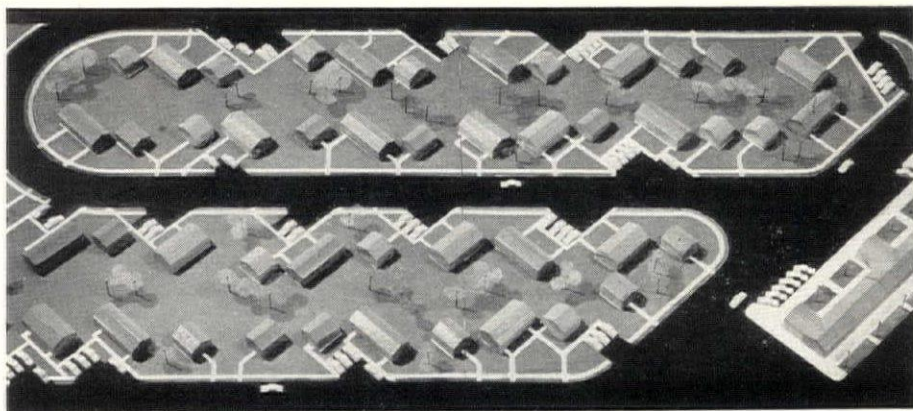
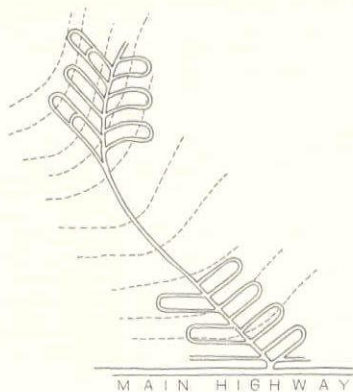
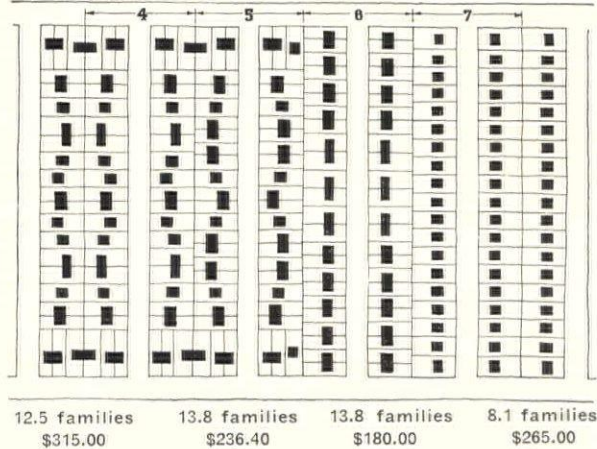
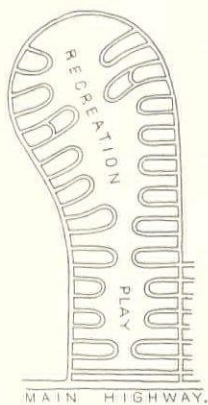
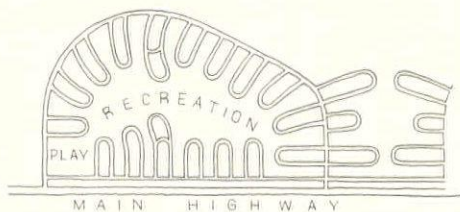
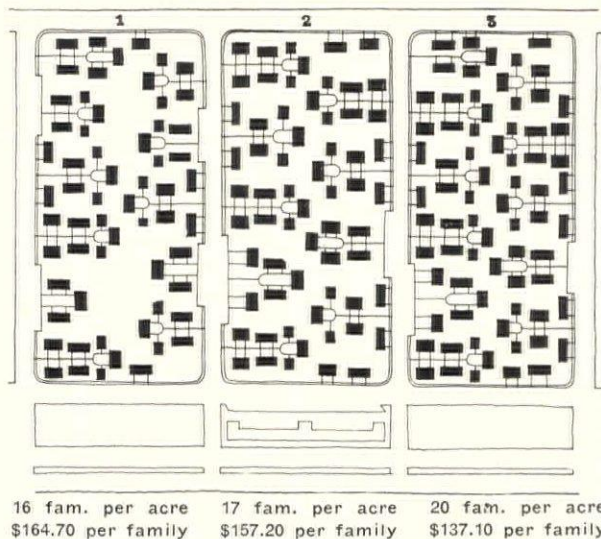
Like all cost savings in minimum housing, those in the American house are the sum of a host of seemingly insignificant items rather than traceable to any single, spectacular economy. They are not due solely to the plan's reduction in size, but they have an important beginning in this factor. Thus the 20 ft. width—in place of the usual 24 ft.—makes possible two 10 ft. spans with 2 x 6 floor joists in place of 2 x 8's, 2 x 4 ceiling joists in place of 2 x 6's. Longitudinally, size reduction is made possible by the utmost efficiency of plan (the bedroom "hall" is a 3 ft. square open to the living room) and by placing the general storage space outside of the house proper. Since this space must be used for fuel and garden tools as well as overflow baggage, etc., it is at least as satisfactory in the outside position. Besides lowering the cost of the most important eliminating members, these reductions in size eliminate more than 1/4 of the floor and ceiling normally needed, and more than 1/6 of the length of walls and partitions—a total reduction of more than

1/5 in the all-important surface areas on which any bill of materials is based. Most defense houses already have a minimum of interior millwork (closet and kitchen doors eliminated), but the American plan carries this further by cutting down on exterior items. The usual windows have been left off in the entrance end and the second window in the smaller bedroom—usually included for reasons of symmetry and from sheer habit, but more of an obstacle to furniture arrangement than a real need for ventilation—has been eliminated. Most important of all the entrance door to the kitchen, which costs about \$75 to the protecting hood, screen door, stoop and approaching walk are counted, has been rendered unnecessary by placing the main entrance in the end of the house between the kitchen and the living room. While increasingly common in other defense work, this cost saver is by no means universal. It works particularly well with the American plan's outside storage space. The balance of the savings are mostly accounted for by finishes and hardware.

Finishes, except for exterior trim, are factory-applied synthetic sealers instead of the three coat paint job ordinarily specified. The theory behind this is that such a finish will last several years, while the houses will need refinishing anyway after their war usefulness is ended; moreover, factory application of easily wiped-on sealers will be better than the botched paint jobs that frequently result from the haste with which defense houses must be built. Floors are single thickness fir (mineral wool insulated) and are prefinished with sealer only and unsanded. The housewife, however, can "build" a finish over this base with wax. Fir plywood floors have a semi-transparent resin finish wiped on, containing a titanium pigment to "tone down" the grain; horizontal joints, at chair rail height, are left open, nails are not set or puttied. Exterior walls are cedar siding factory dipped in a waterproof sealer. All hardware is surface-type, japanned finish, requires no morticing and permits easy-fitting of doors. Trim details are worked out to eliminate coped joints.



Defense housing costs do not stop at the front door, and neither do American's proposed economies. Especially in developments of demountable houses, which can be "thinned out" if necessary after the war, McLaughlin believes that higher densities are justified and will produce real savings. Thus while free-standing houses on 40 ft. lots (block 7, right) produce a density of 8.1 families per acre at a site cost of \$265 per family, semi-detached houses on 35 ft. lots increase the density to 13.8 (block 6) and reduce site cost to \$180. Court schemes, in which street frontage per house is low (block 3, model above) bring the density up to 20 families per acre and cut cost to \$137, a reduction of almost one-half in the site cost for the conventional 40 ft. lot. Plans below show suggested high density arrangements for the typical defense-project site adjoining a main highway, with one-way "loop" circulation for even greater economy.



AMERICAN HOUSES, INC.



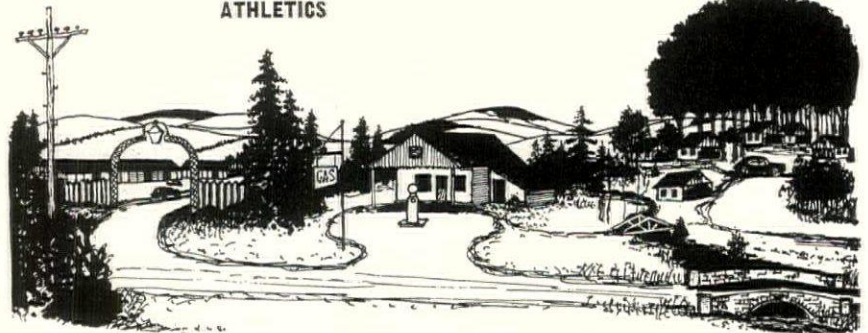
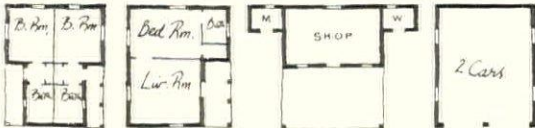
LIBRARY

SCHOOL

ATHLETICS



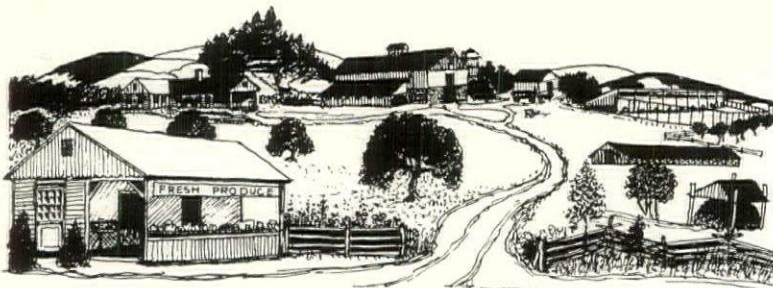
Units from 1/2 Houses



GARAGES

GAS STATION

CABINS

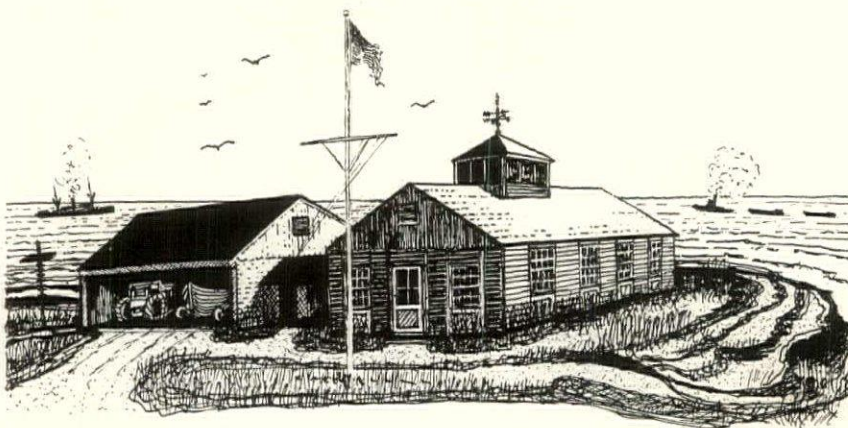


FARM BUILDINGS

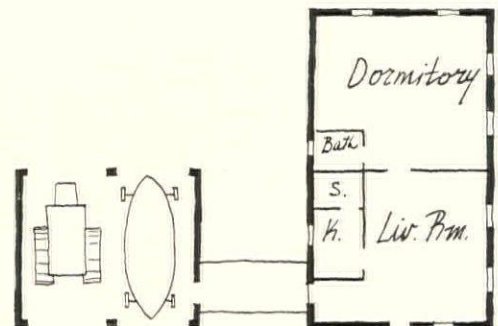
Rendering, Franklin C. Wells



SUMMER CAMPS



COAST GUARD STATION



One of the main reasons that standards for demountable defense houses have remained at their present level is a desire to obtain FHA approval to facilitate the financing of post-war purchasers of the houses. McLaughlin believes that such re-sale of demountable houses on a house-by-house basis is unlikely, and in any event should

not be permitted to determine standards now, when speed and economical use of material are of paramount importance. Much more likely, he feels, is the re-use of house parts in the construction of entirely different structures, some of which are shown above. This approach would also permit the assembly of larger houses

meeting FHA requirements on a 3-house-for-2 or 2-for-1 basis, while permitting present construction of the quickest and most economical type. Since it is very unlikely that the Government will ever go into the retail house business, such reconstruction of defense houses in the post-war period might be entirely practicable.

TWO STUDIOS IN NEW YORK CITY FOR **N. B. C.**

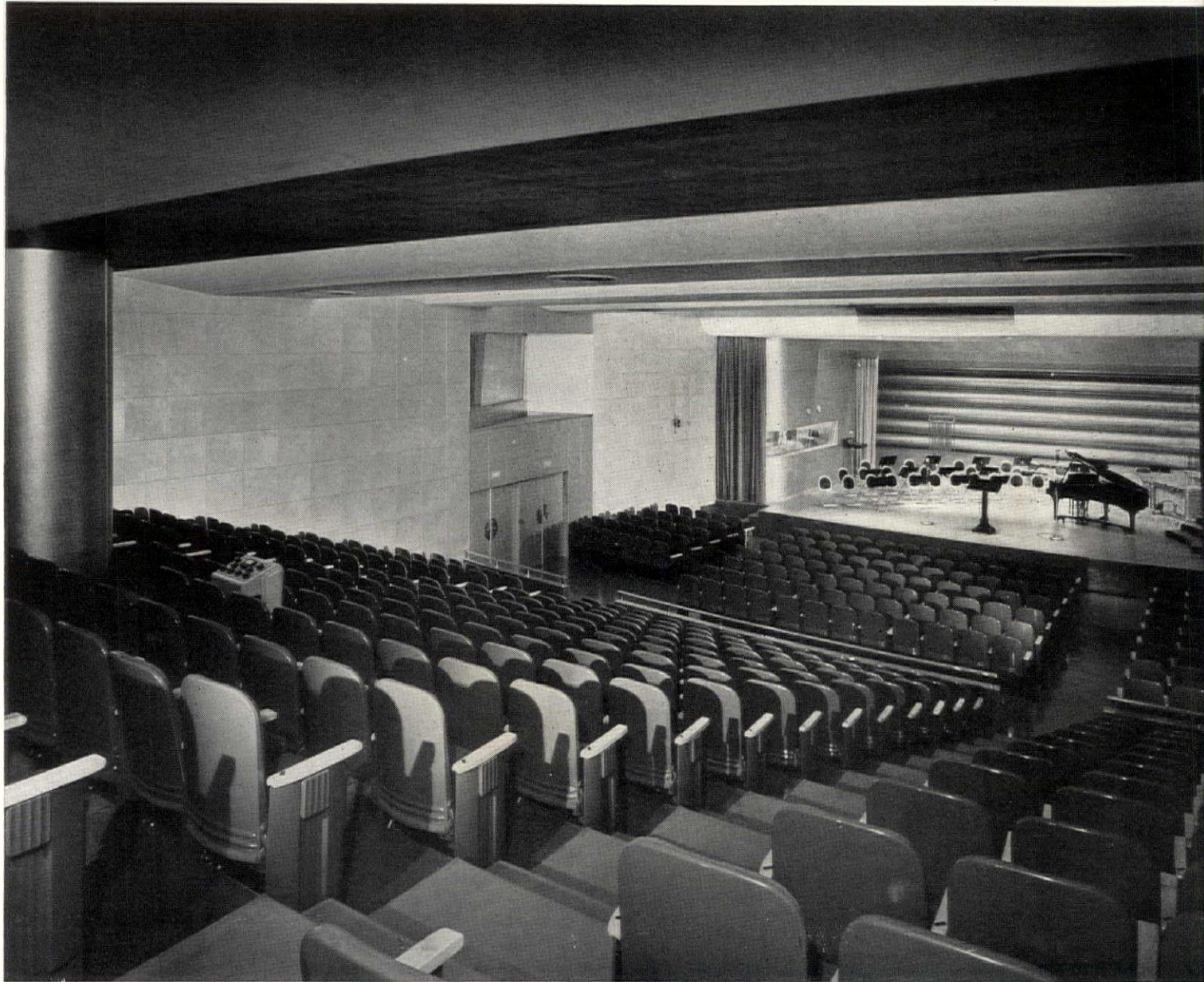
EARL H. LUNDIN & ROBERT CARSON
ARCHITECTS

O. B. HANSON, WM. CLARKE, GEO. NIXON
ACOUSTICAL ENGINEERS

The technical and commercial requirements for broadcasting studios have changed so drastically in the past seven or eight years that an entirely new set of design standards has been developed. These two new studios for the National Broadcasting Company, located in the 65-story RCA building in Rockefeller Center, offer an interesting case in point.

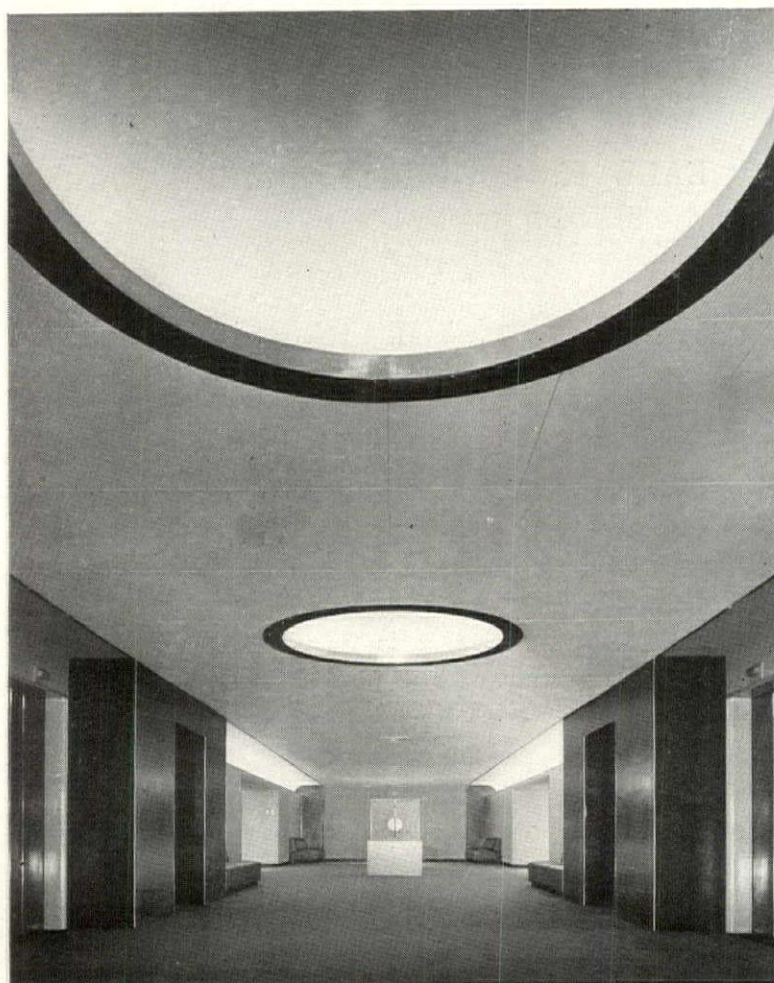
STUDIO B

Photos, Robert M. Damora



N.B.C. STUDIOS

RCA BUILDING



FOYER

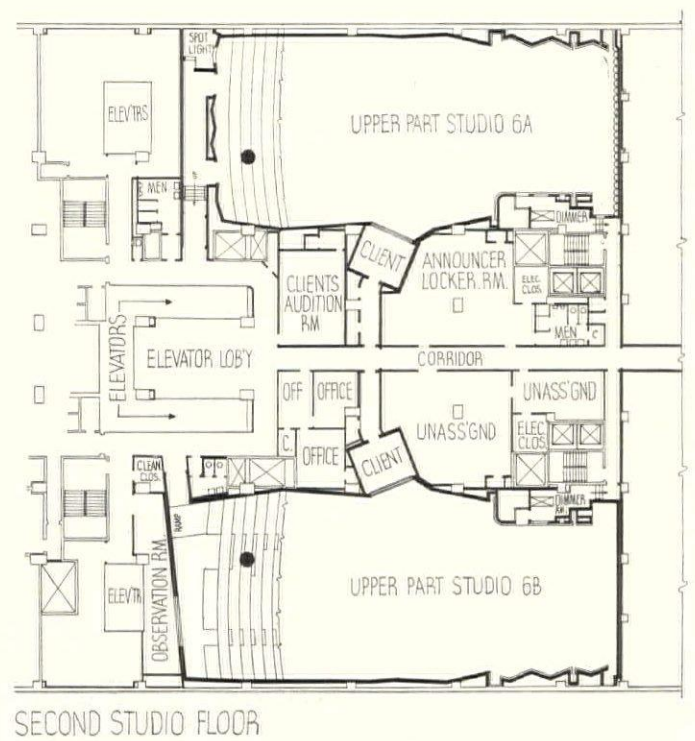
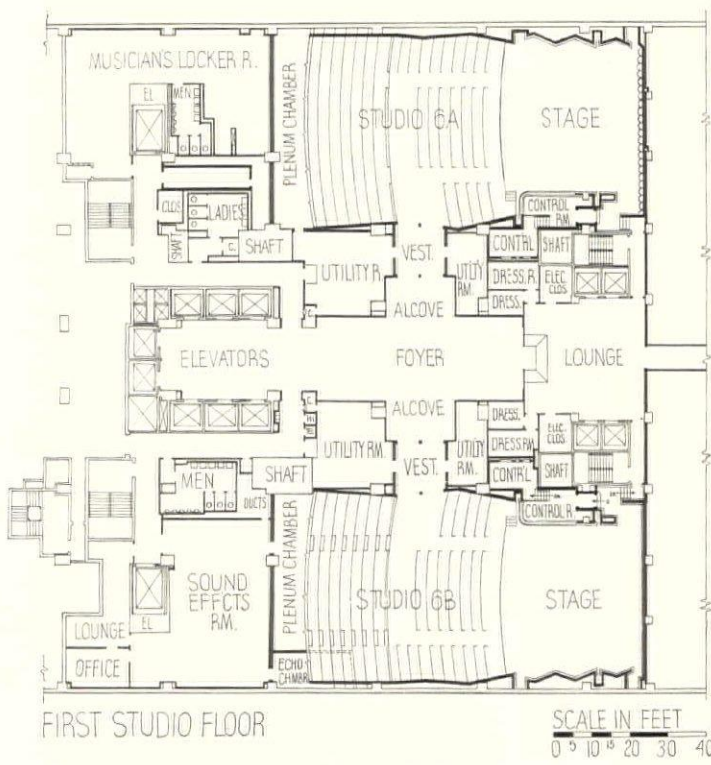
Space for these studios was provided when the building was constructed in 1933, and care was taken by the technical staff to make space for every requirement that could be foreseen. Yet when the time came to put in the studios it was necessary to remove columns, install new plate girders and to make other important structural changes. Most significant of the developments that have so radically altered the broadcasting studios are acoustical. Reflecting and absorbing surfaces must be placed in the proper areas, regardless of other requirements; opposite walls may not be parallel. For the growing radio audiences full-scale theaters are now demanded, and these in turn give rise to a need for lobbies, dressing rooms, stage lighting equipment, etc. The NBC studios brilliantly reflect these changes. Both are well-lighted, comfortably furnished theaters in which the acoustical problems have been met unobtrusively. Strong colors, boldly massed, are a further departure from the old-time studio character. In one of the large interiors, walls covered in copper paint are contrasted with upholstery and flooring in green; the other has aluminum-colored walls, red flooring and blue upholstery. The use of bright color is continued in the elevator lobby and foyer, where walls are covered with beige fabricona and green linoleum and red elevator doors are emphasized by the taupe carpeting. The carpet and an acoustically treated ceiling are used to reduce the noise level.

STUDIO B STAGE THROUGH CLIENTS' ROOM



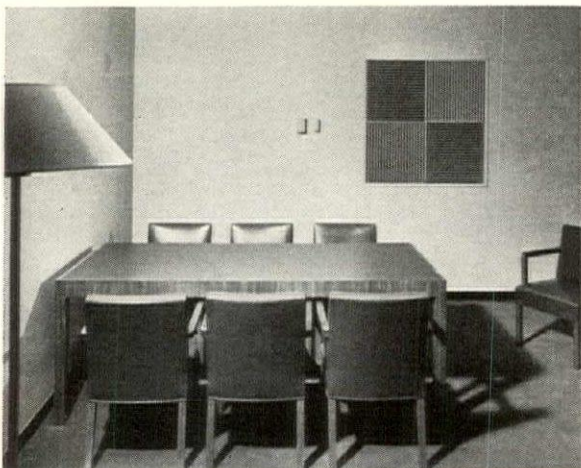


STUDIO B

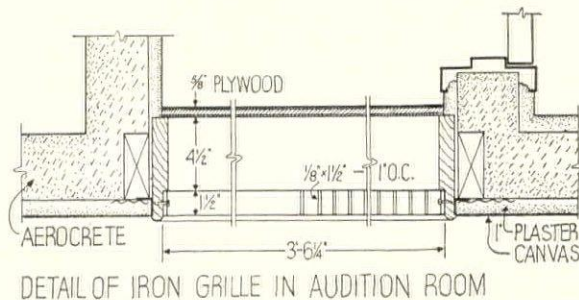




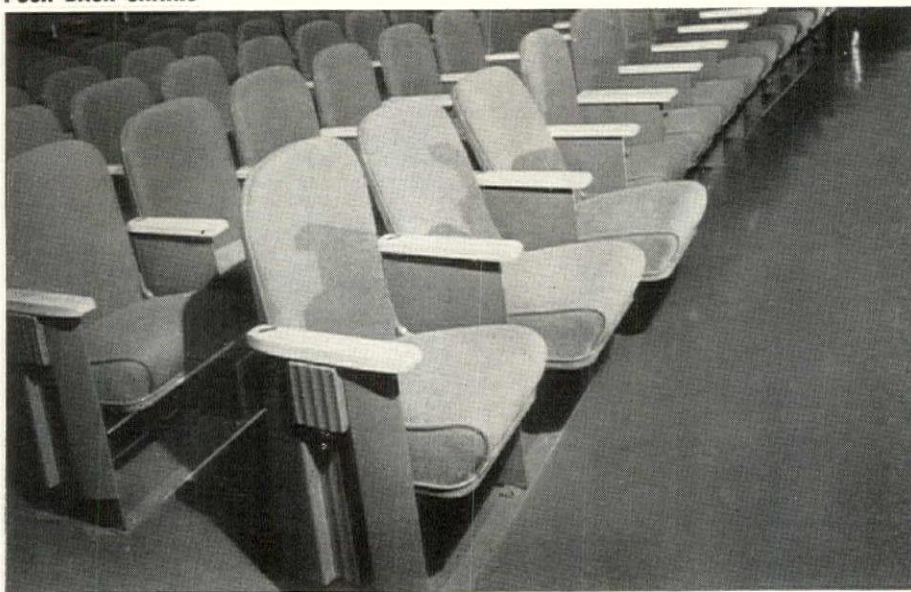
CLIENT'S AUDITION ROOM



PUSH BACK CHAIRS



DETAIL OF IRON GRILLE IN AUDITION ROOM



FINISHES AND EQUIPMENT

STRUCTURE: Floors, walls and ceilings of the stages are of "floating" construction and are isolated from the building structure. Parts of walls and ceilings treated with Transite, Johns-Manville, and hard sound reflecting material.

SOUND INSULATION: U. S. Gypsum Co.
WINDOWS: Sash—fireproofed wood, Henry Baumgard, Inc. Glass—double glazed plate, Pittsburgh Plate Glass Co.

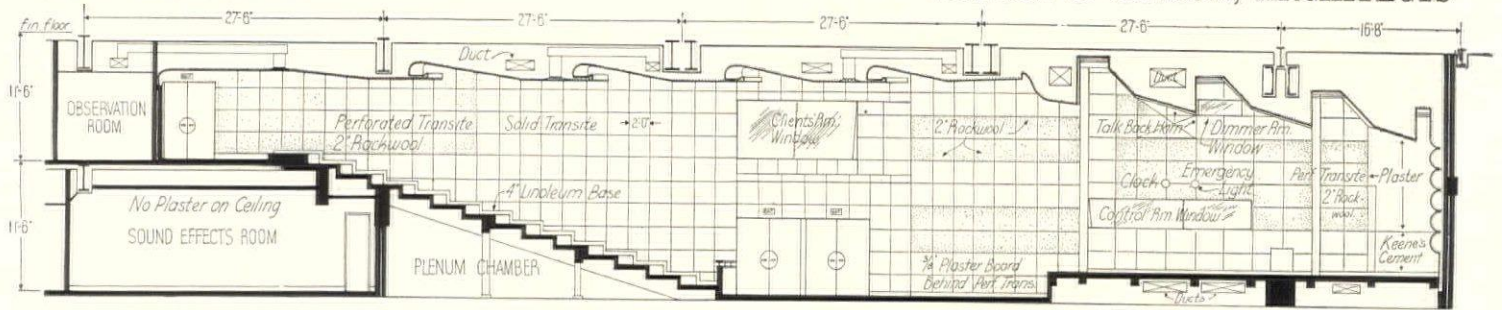
FLOOR COVERINGS: Lobby and foyer—Fabrikona, H. B. Wiggins Sons Co. Auditorium—linoleum, rubber and carpet.

FURNISHINGS: Theater chairs—Kroehler Mfg. Co. Remainder—Alfred Rummler.

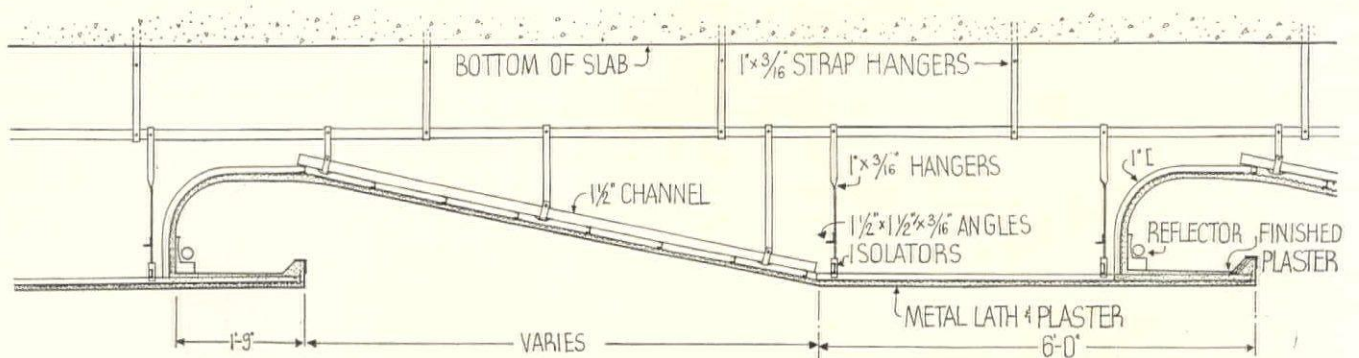
DOORS: Soundproof and fireproof wood; some hollow metal, Dahlstrom Metallic Door Co.

PAINTS: National Lead Co.

ELECTRICAL FIXTURES: Century Lighting Co.

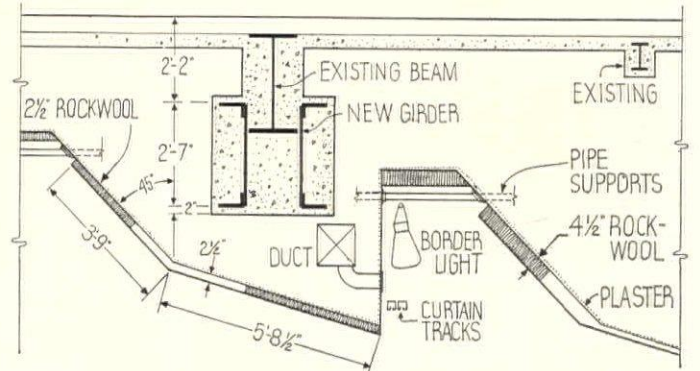
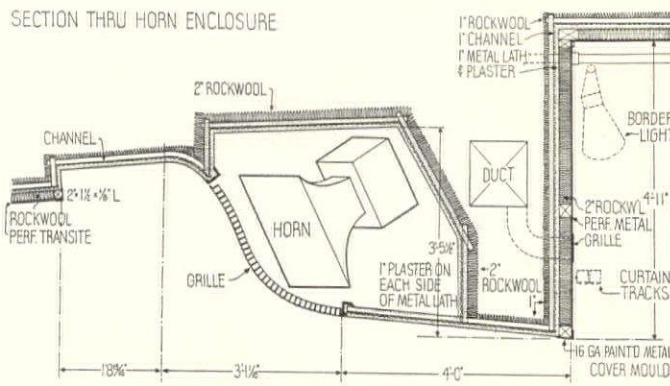


SECTION OF STUDIO 6B



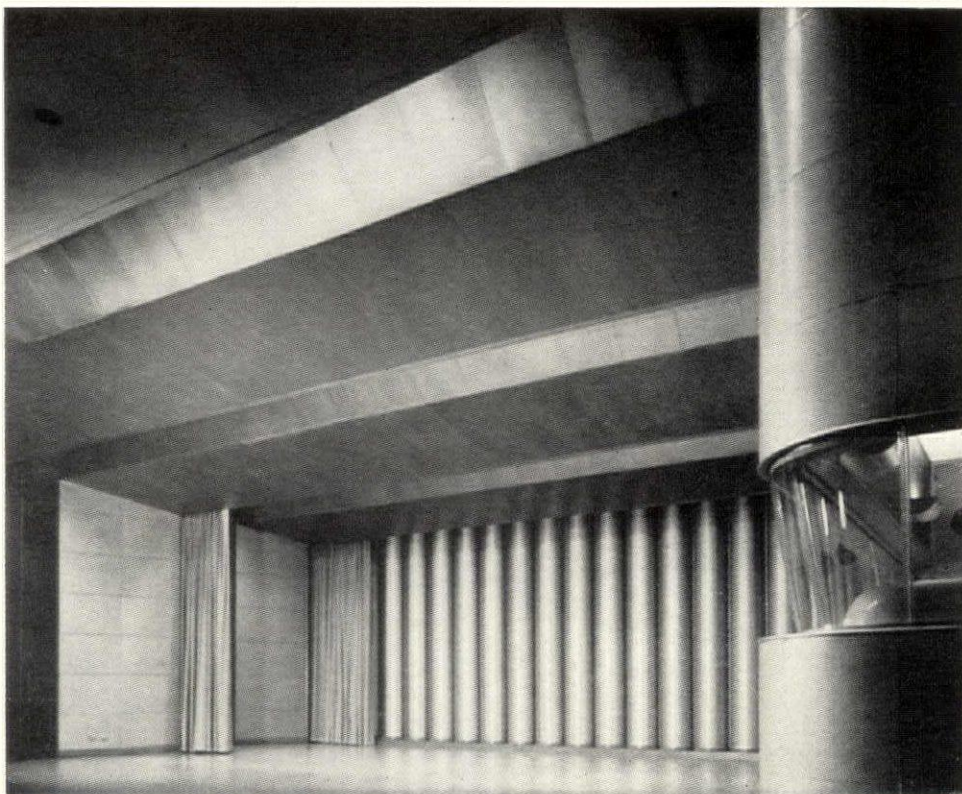
SECTION THROUGH STUDIO CEILING LIGHT COVES

SECTION THRU HORN ENCLOSURE



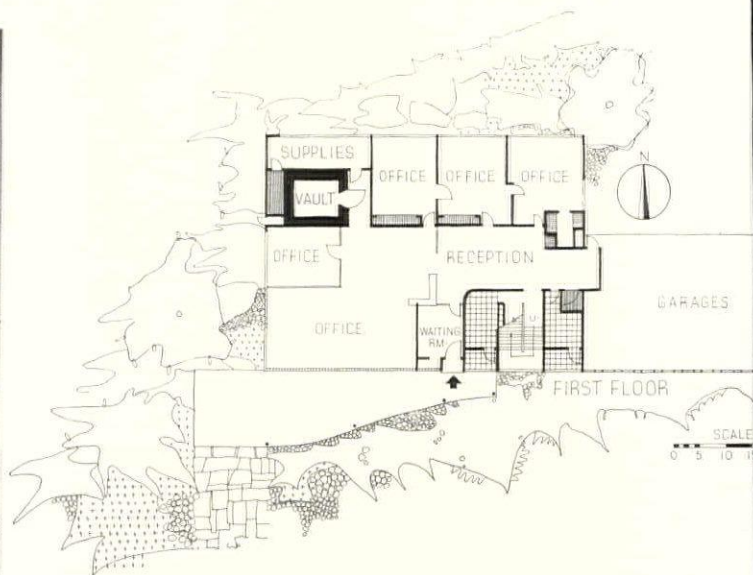
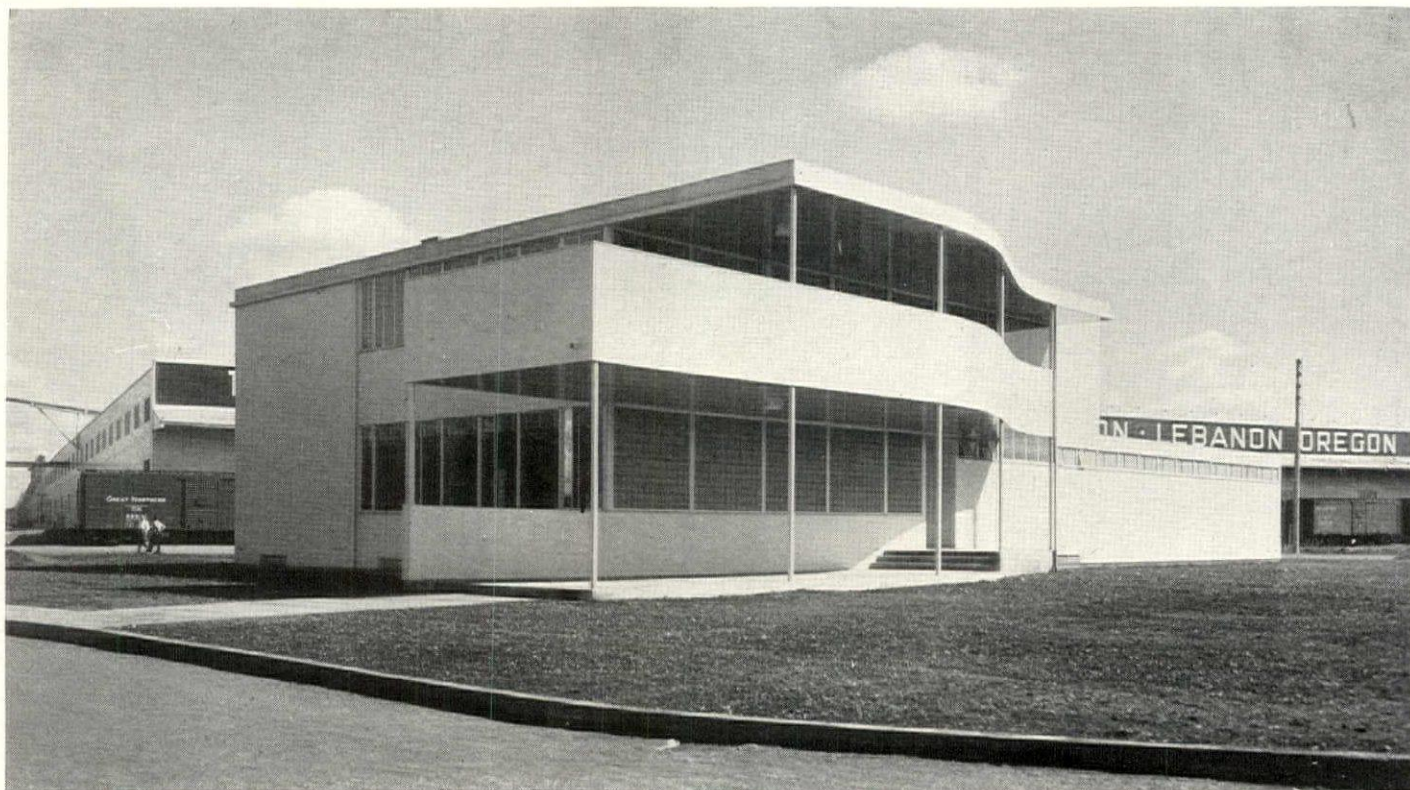
SECTION THRU STAGE CEILING

STUDIO A

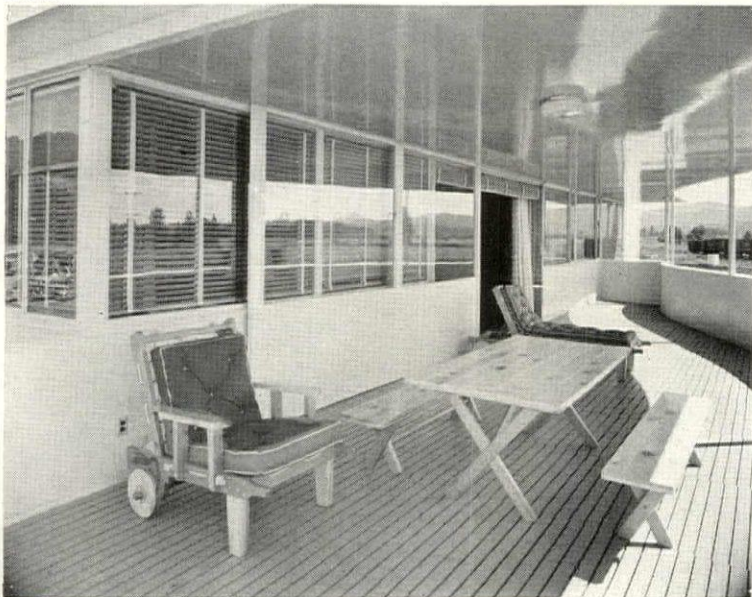


The vertical convex-curved shapes at the rear of the stage are made of hard plaster and were installed as a device for reflecting sound while breaking it up to prevent echoes. The same treatment is used horizontally in the other studio so that the effects of the two methods of installation might be compared by the acoustical engineers.

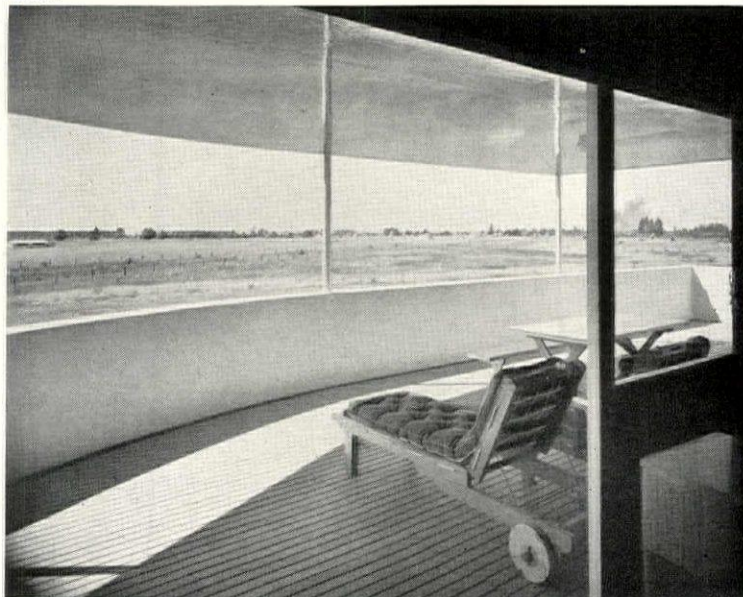
OFFICE BUILDING

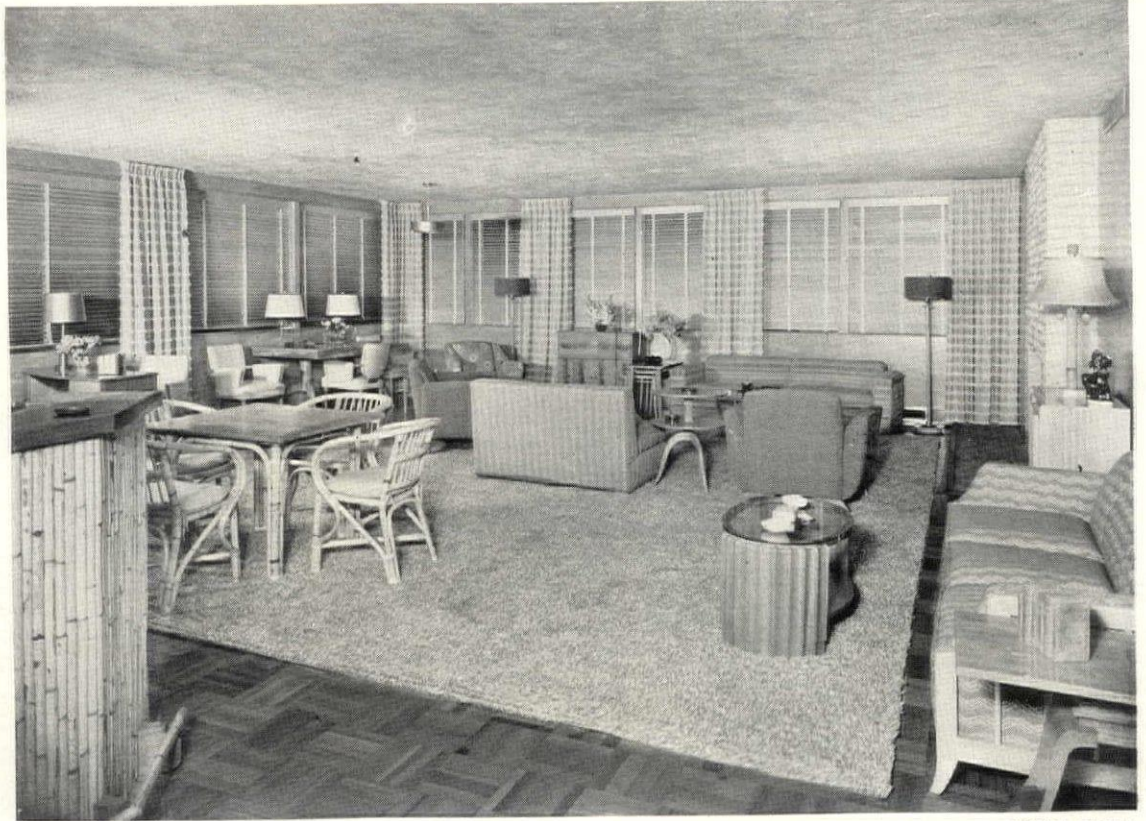


DECK



DECK





LIVING ROOM

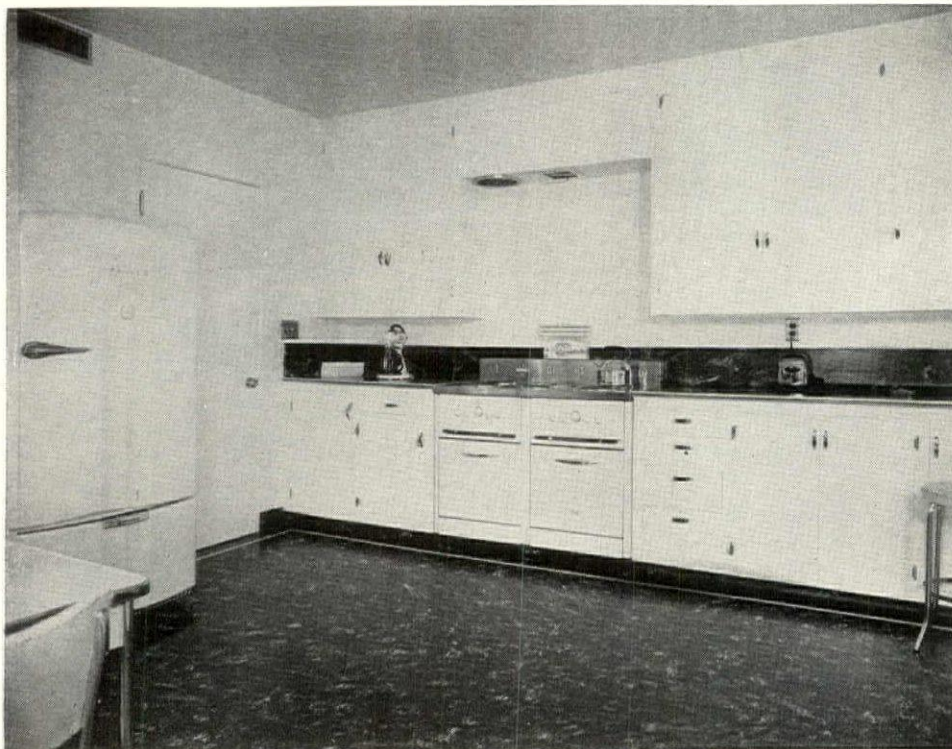


This administration building for a new plywood plant in the Northwest houses the plant executives and office staff on the first floor, and on the second floor provides an apartment for overnight visitors to compensate for a lack of hotel accommodations in the vicinity. Constructed and finished almost entirely in plywood, the building illustrates the versatility of the material as an inside finish, exterior surfacing and even as flooring. The curved rail of the second-floor balcony, for example, is a stress-covered plywood beam, as is the lower part of the huge sliding door to the living room. The exterior of the building is painted white, with the balcony ceiling a golden yellow. Inside, a variety of special finishes are employed to subdue the grain of the rotary-cut fir plywood panels without concealing it completely; ceilings are plastic paint over plywood.

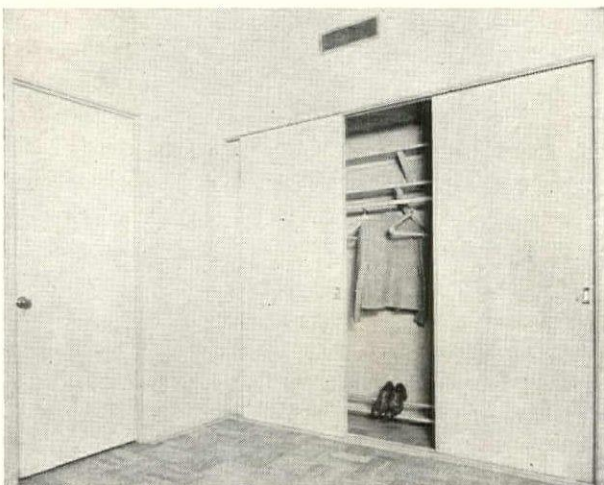
OFFICE

GENERAL OFFICE

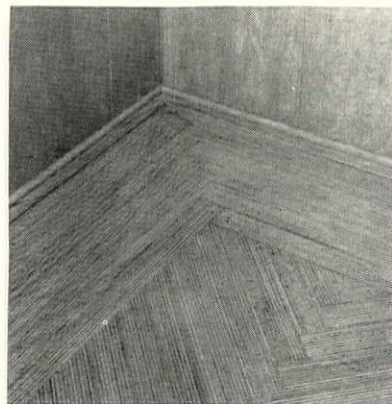




The generous kitchen (left) is adequate for large luncheons and provides other meals for overnight guests, has plywood cabinets and linoleum work surfaces and floors. Bedroom closets are fitted with large sliding doors. The unique herringbone floor (below) which is used in the general office, consists of "edge-grain" plywood — thick, multi-ply sheets ripped into boards in which the veneers are at right angles to the face, producing a long-wearing surface. Bedroom walls are V-jointed plywood panels placed horizontally and surfaced with a semi-transparent finish.



CLOSET



GUEST ROOM



CONSTRUCTION OUTLINE

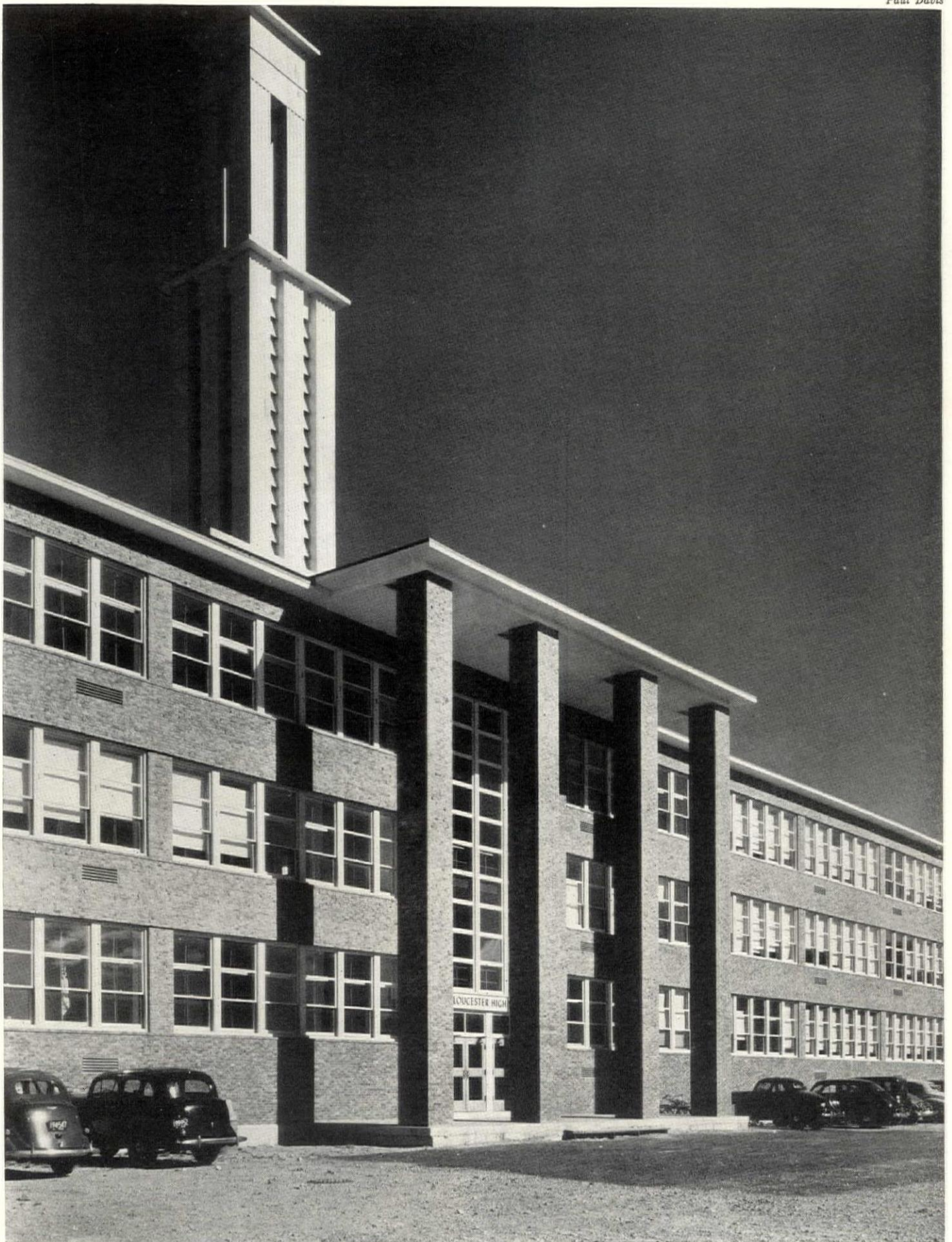
STRUCTURE: Exterior and interior walls—plywood, double wall construction. All material including cedar framework and structural members by Evans Products Co.
ROOF: Composition, built-up, Johns-Manville, over plywood roof decking.
SHEET METAL WORK: Galvanized iron, Columbia Steel Co.
WINDOWS: Sash—Fenestra steel, Detroit Steel Products Co. Glass—Pittsburgh Plate Glass Co., Pittsburgh-Corning Corp. and Mississippi Glass Co.
FLOOR COVERINGS: Offices — Everlevel plywood, Evans Products Co. Guest suites—oak. Kitchen—linoleum, Armstrong Cork Co.
HARDWARE: Schlage Lock Co.
PAINTS: By I. F. Laucks Co. and Sherwin-Williams Co.
PLUMBING: Fixtures—American Radiator-Standard Sanitary Corp. Vent, hot and cold water pipes—galvanized iron.
HEATING AND AIR CONDITIONING: Combination air conditioning-heating units for each floor. Grilles—Tuttle & Bailey.

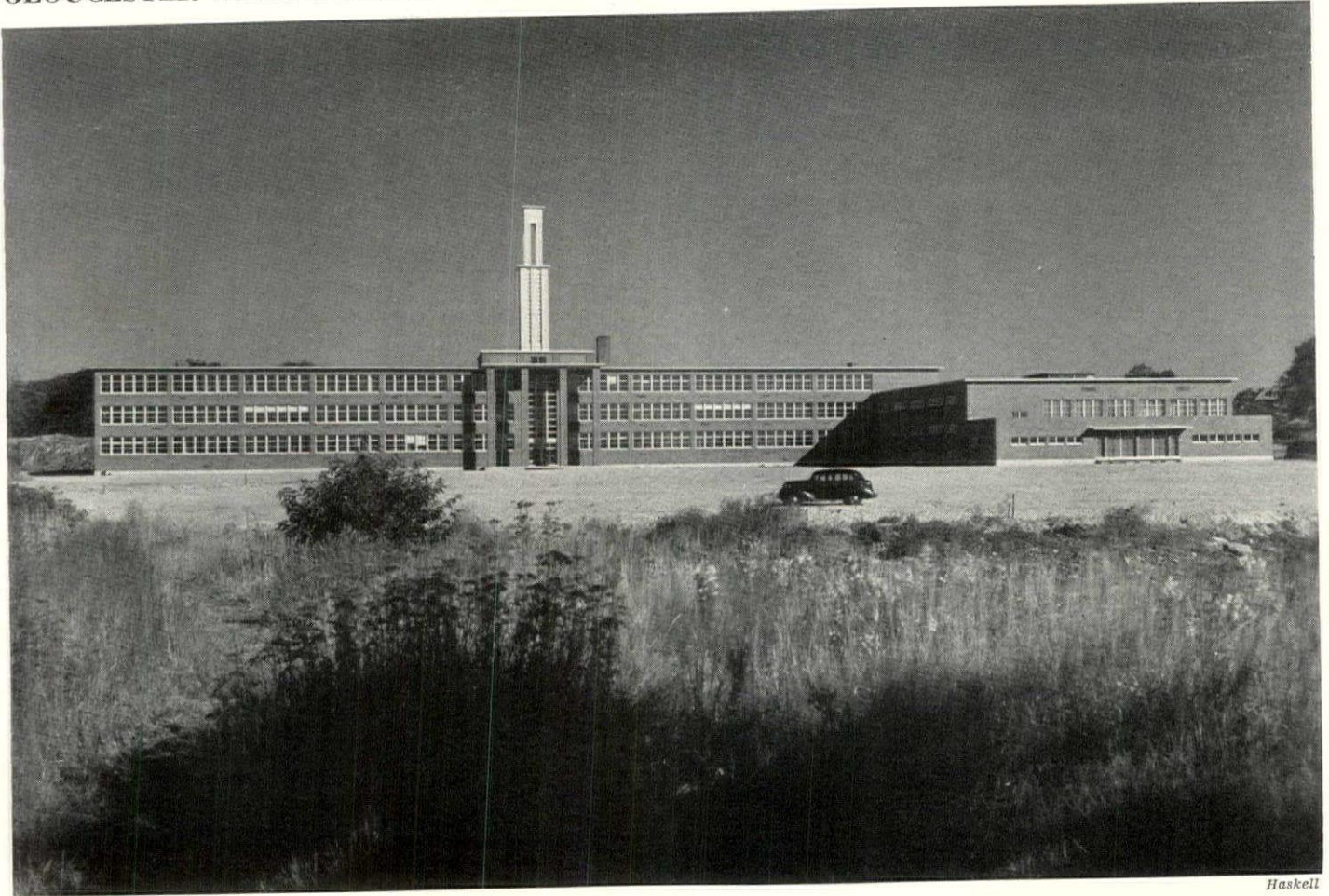
GLOUCESTER HIGH SCHOOL

GLOUCESTER, MASSACHUSETTS

COOLIDGE, SHEPLEY, BULFINCH & ABBOTT, ARCHITECTS

Paul Davis





Haskell

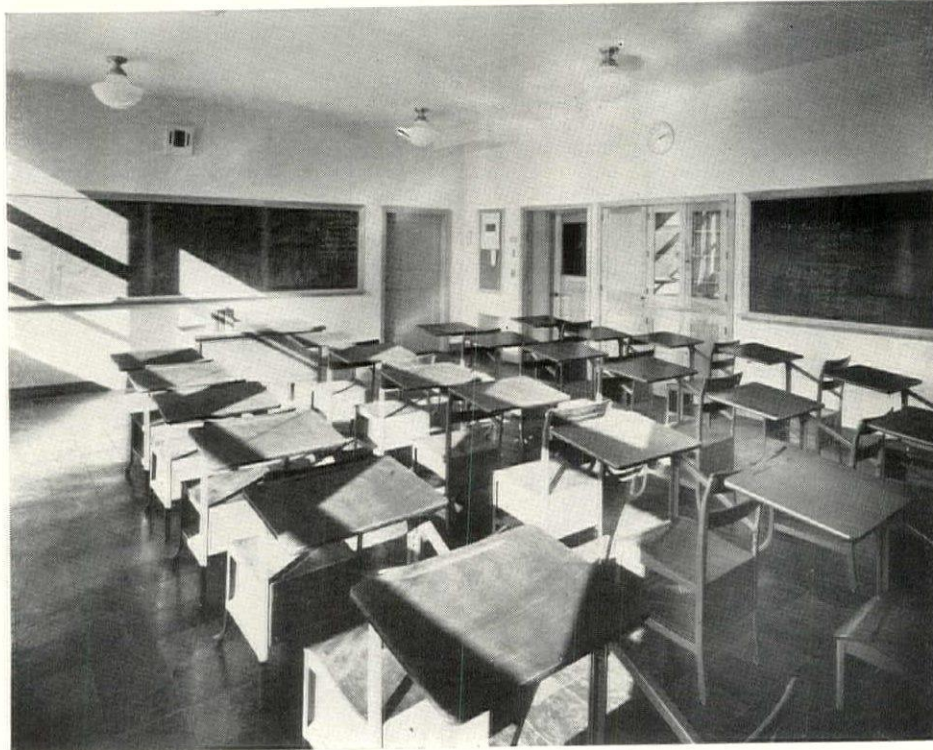
When the Gloucester School Board commissioned its architects to design a new high school it expected, and demanded, an authentic Colonial design. Such an attitude could hardly be considered surprising in a section of the country which has traditionally prided itself on its splendid architectural heritage. If the building finally accepted

and erected seems to have departed somewhat from the original intention, the result is to be attributed to a contradiction between wishes largely sentimental in nature and the impact of a number of hard facts. The facts, as is clear enough in the illustrations, won out. Chief among the obstacles to the realization of local hopes for a Colonial

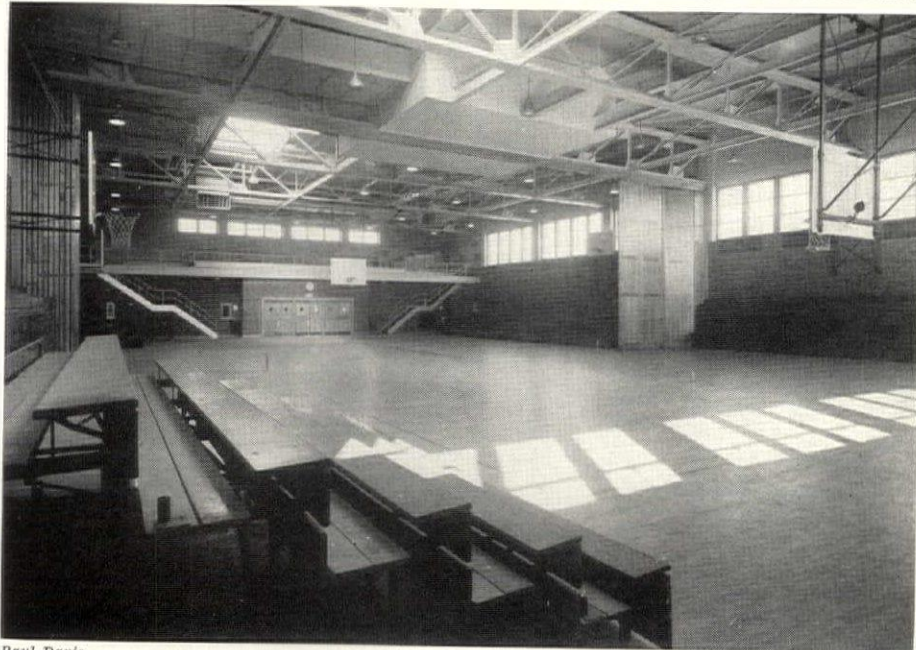
Paul Davis

school was the budget, which was barely adequate to meet the minimum requirements for about 1,400 students. A cornice with the requisite number of mouldings would have cost around \$25,000. It was eliminated. There were to have been white limestone columns; the presentation of two models enabled the Board to decide that the less expensive brick pillars were preferable. Not related to the budget, but of equal importance, was the general understanding of the desirability of maximum window areas.

The school, which is prominently located on a main highway leading in to Gloucester, has been criticized by a few disgruntled residents as a "factory." Since the appearance of the building was determined largely by the fenestration, which, in turn was determined by the very reasonable requirement of optimum daylighting, there seems to be little real basis for the criticism. Having been put up on what used to be the town dump, the building undoubtedly suffers from the total absence of planting, but the lack is one that can be easily remedied within a comparatively short period.



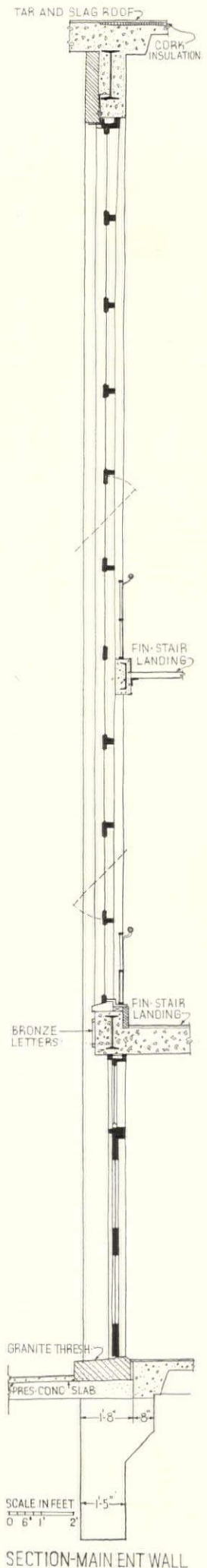
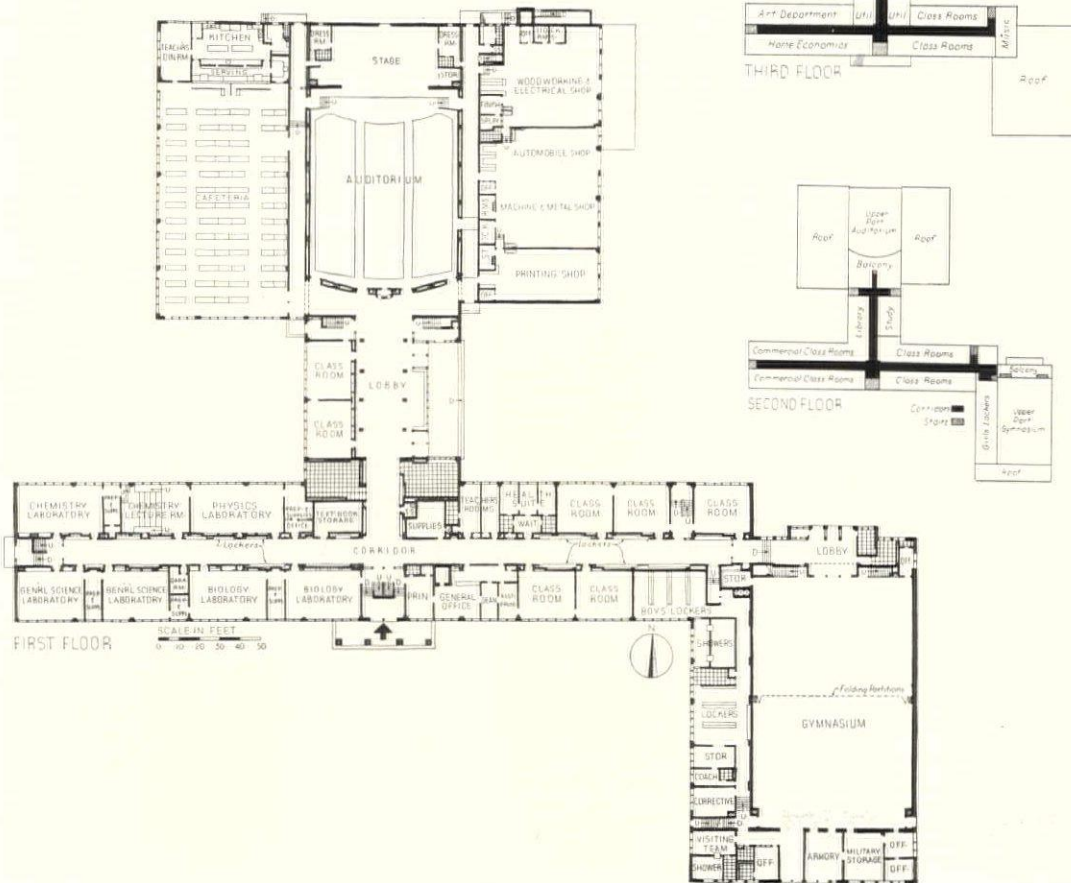
CLASS ROOM



Paul Davis

GYMNASIUM

The plan shows emphasis on certain activities which are not standard in the typical high school program. Military training is actively carried on, and provision has been made for equipment storage and for drilling in the gymnasium wing. Considerable emphasis is laid on vocational training, as shown by the large industrial workshops adjoining the auditorium. The auditorium is also the community's gathering place for meetings and entertainments of all sorts, and the cafeteria has been placed so that it may be used by the public with a minimum of interference with the rest of the building. The gymnasium is used continually for a variety of athletic events open to the public, and has consequently been provided with ticket booths and other facilities for non-student audiences.



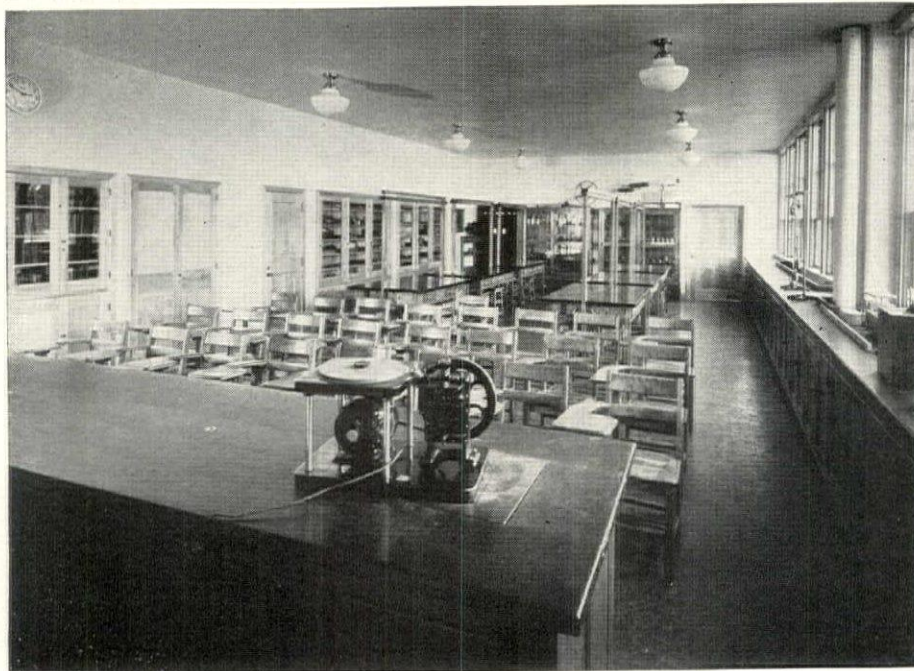


LIBRARY

CAFETERIA



LABORATORY



Photos, Paul Davis

Interiors are uniformly well provided with natural illumination, and are very simple in treatment and economical in design. Three of the larger rooms are shown on this page. Note the provision for games in the photograph of the cafeteria.

THOMAS O'CONNOR CO.
GENERAL CONTRACTOR

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—12 in. brick, 3 in. cinder concrete block furring, gypsum plaster. Interior—cinder concrete block or plaster. Floors—reinforced and slab concrete.

ROOF: Tar and gravel, 4-ply.

WINDOWS: Sash—double hung, wood. Glass—double strength, quality A, sheet.

STAIRS: Steel, asphalt ramps.

FLOOR COVERINGS: Home Economics suite—linoleum. Shops and gymnasium—wood. Toilets, shower and locker rooms—granolithic. Remainder—asphalt tile.

WOODWORK: Trim and interior doors—birch. Exterior doors—pine.

ELECTRICAL INSTALLATION: Switches—Trumbull Electric Mfg. Co. Fixtures—Westinghouse Electric & Mfg. Co. Emergency generator—Kohler Co. Stage lighting equipment—Century Lighting Co. Sound system—RCA Mfg. Co., Inc. Clock and program system—Warren-Telechron Co. Fire alarm system—Holtzer-Cabot Electric Co.

PLUMBING: Fixtures—Crane Co. Hot and cold water pipes—copper.

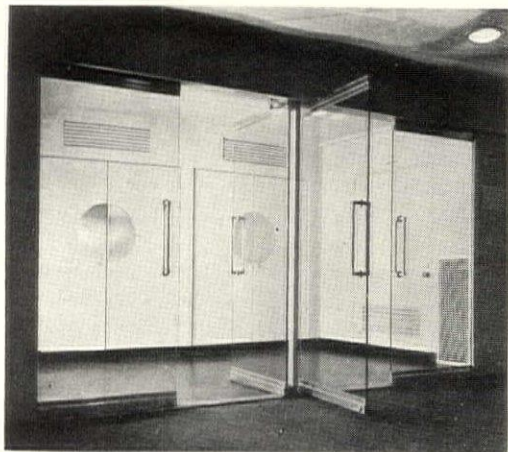
HEATING: Two pipe vacuum steam system, filtering. Unit ventilators in all classrooms. Fans—B. F. Sturtevant Co. Boilers—International Engineering Works. Stokers—Detroit Stoker Co. Radiators—American Radiator Co. Grilles—Tuttle & Bailey Co. Valves—Jenkins Bros. and Hoffman Specialty Co. Thermostats—Minneapolis-Honeywell Regulator Co. Water heater—S. D. Hicks Co. Mechanical oil filter—Staynew Filter Corp. Vacuum pumps—Nash Engineering Co.

CHICAGO, ILL.

RESTAURANT BUILDING

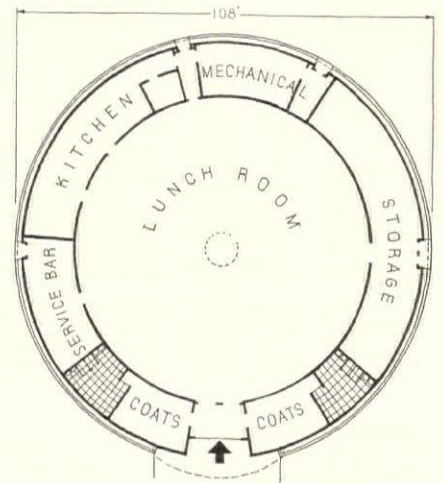


Photos, Hedrich-Blessing



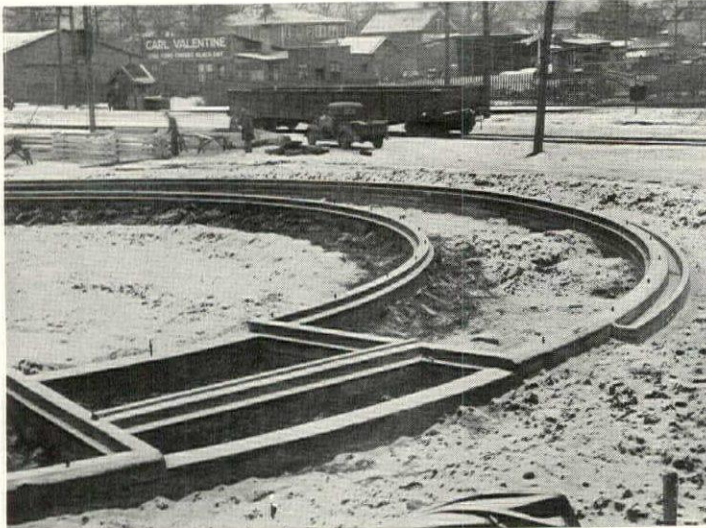
WINSTON ELTING,
ARCHITECT

CHICAGO BRIDGE
AND IRON CO.,
STRUCTURAL
DESIGNERS.



Engineering principles developed for steel storage tanks account for the unique form of this windowless, air-conditioned restaurant and recreation building, virtually eliminating the usual framework and permitting use of steel bearing walls only 3/16 in. thick. Its owners, who erected the building for their employees, are originators of the Horton Spheroid tank which is shaped like a huge, liquid-filled bag, thus distributing the load of its contents uniformly over the entire surface. In the restaurant the same principles of curvilinear form and the company's experience in shaping and welding together "dished" steel plates have been applied to the external loads encountered in ordinary shelter, eliminating the need for interior columns and permitting the use of unusually light materials.

RESTAURANT BUILDING



1 Ring-shaped, concrete foundation ready for steel angle to which exterior wall plates and interior partitions were fastened. Note integral concrete gutter surrounding building.



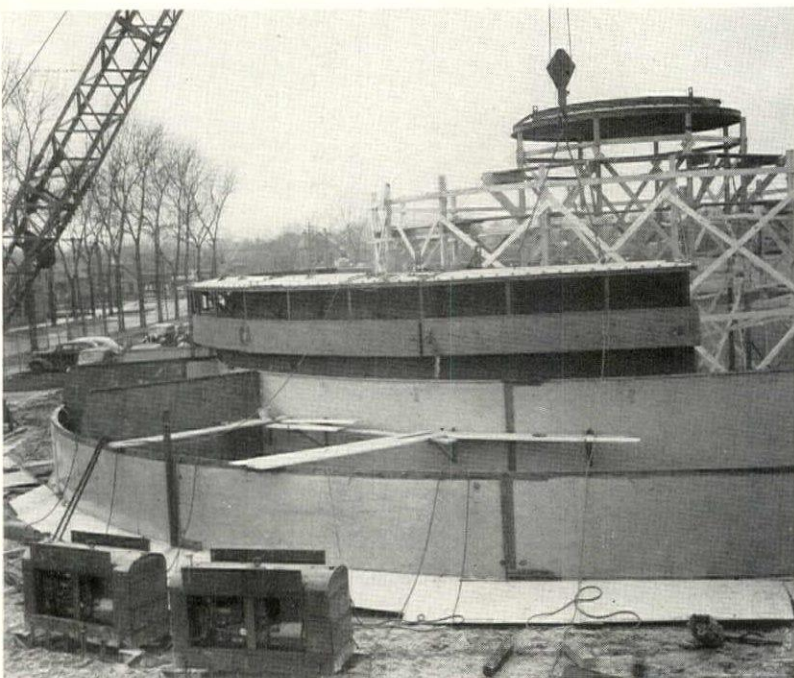
4 General view at same stage as 3, shows portion of outer "lean-to" roof in place, radial steel partitions, and (left) sectional view of first unit of inner dome and duct.



2 First stage in erection shows vertical wall plates in place and scaffolding supporting middle section of central dome; crane used to position sections.



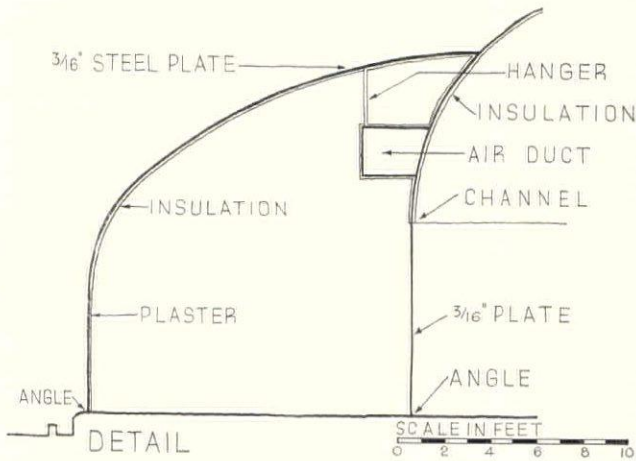
5 Lean-to roof almost complete. In left foreground, note curved roof section which derrick is about to lift into place.



3 Close-up of partially-completed building shows inner and outer ring-walls and first section of central dome together with welded steel duct which acts as a stiffener for the upper part of the structure (see section, op.).



6 Main dome was completed last, by joining two rings of curved plates above the juncture of the lean-to roof with central section on scaffolding.



Air conditioning is distributed through a single, ring-shaped duct of welded steel, which acts as a retainer for the main dome and stiffens the entire structure. Duct is of welded steel, hung from steel angles.



Hedrich-Blessing

The building consists of a circular, central dining room 80 ft. in diameter, roofed with a dome which rises to a maximum height of 25½ ft., and surrounded by a lean-to section about 14 ft. wide containing the kitchen, bar, mechanical and storage rooms. Ring walls and roof are 3/16 in.

Hedrich-Blessing

steel plate, with all exterior surfaces lined with a mixture of asphalt and paper, sprayed on, and a spray coat of mineral wool for thermal insulation and sound absorption. Exterior walls were also given a coating of plaster over the insulation to a height of 5 ft. 4 in., elsewhere the mineral wool was finished with a spray coat of aluminum paint, or left exposed.

The design of the final building was the joint product of the owners, engineers and the architect, who made considerable alterations in the dimensions originally proposed to improve the proportions of the building. Thus, while original plans called for a central room 70 ft. in diameter, surrounded by a lean-to 15 ft. wide, studies of a wood model indicated that the size of the central room should be increased to 80 ft. and the width of the lean-to reduced to

improve the appearance of the exterior. Fabrication of the steel plates, which required special presses to produce the needed two-way curvature, or "dishing," was handled in the owner's shops, and erection by crews experienced in the erection of steel tanks.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—steel plate; inside—Sprayo-Flake, Sprayo-Flake Co. and sprayed wool, Insulation Engineering Co. Floors—reinforced concrete slabs, Hubbelite, H. H. Robertson Co. or asphalt tile, Armstrong Cork Co.

INSULATION: Sprayo-Flake, Sprayo-Flake Co. and sprayed wool, Insulation Engineering Co.

HARDWARE: Chrome, Midwest Hardware Co.

PAINTS: By E. I. du Pont de Nemours & Co. Inc. and Pratt & Lambert.

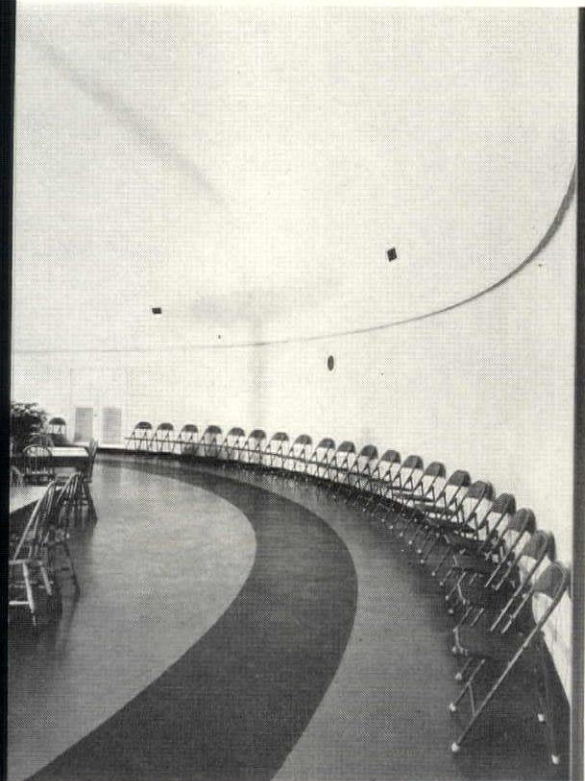
ELECTRICAL INSTALLATION: Switches—General Electric Co. Fixtures—Hub Electric Co.; special equipment by Chicago Bridge & Iron Co.

PLUMBING: Fixtures—Crane Co. Hot and cold water pipes—galvanized copper bearing steel. Kitchen equipment—Albert Pick Co.

HEATING AND AIR CONDITIONING: Forced warm air system, filtering, humidifying and cooling. Refrigeration—Freon, Kinetic Chemicals, Inc. and Carrier Corp. Boiler—Kewanee Boiler Corp. Motors—Westinghouse Electric & Mfg. Co. Radiators—American Radiator—Standard Sanitary Corp. Thermostats—Johnson Service Co. Valves—Marsh Valve Co. Water heaters—Kewanee Boiler Corp., Ruud Mfg. Co. Exhaust fans—American Boiler Co.



Lighting for the main dining room is provided by a single, centrally-located fixture 8 ft. in diameter and 12 in. deep.

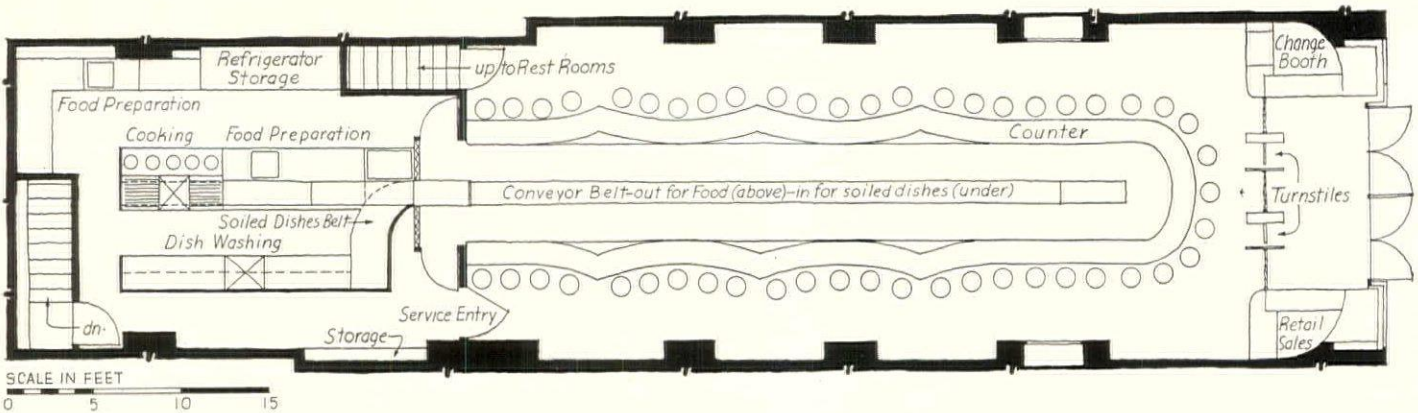


SPAGHETTI BAR

NEW YORK CITY



EUGENE SCHOEN & SONS, ARCHITECTS

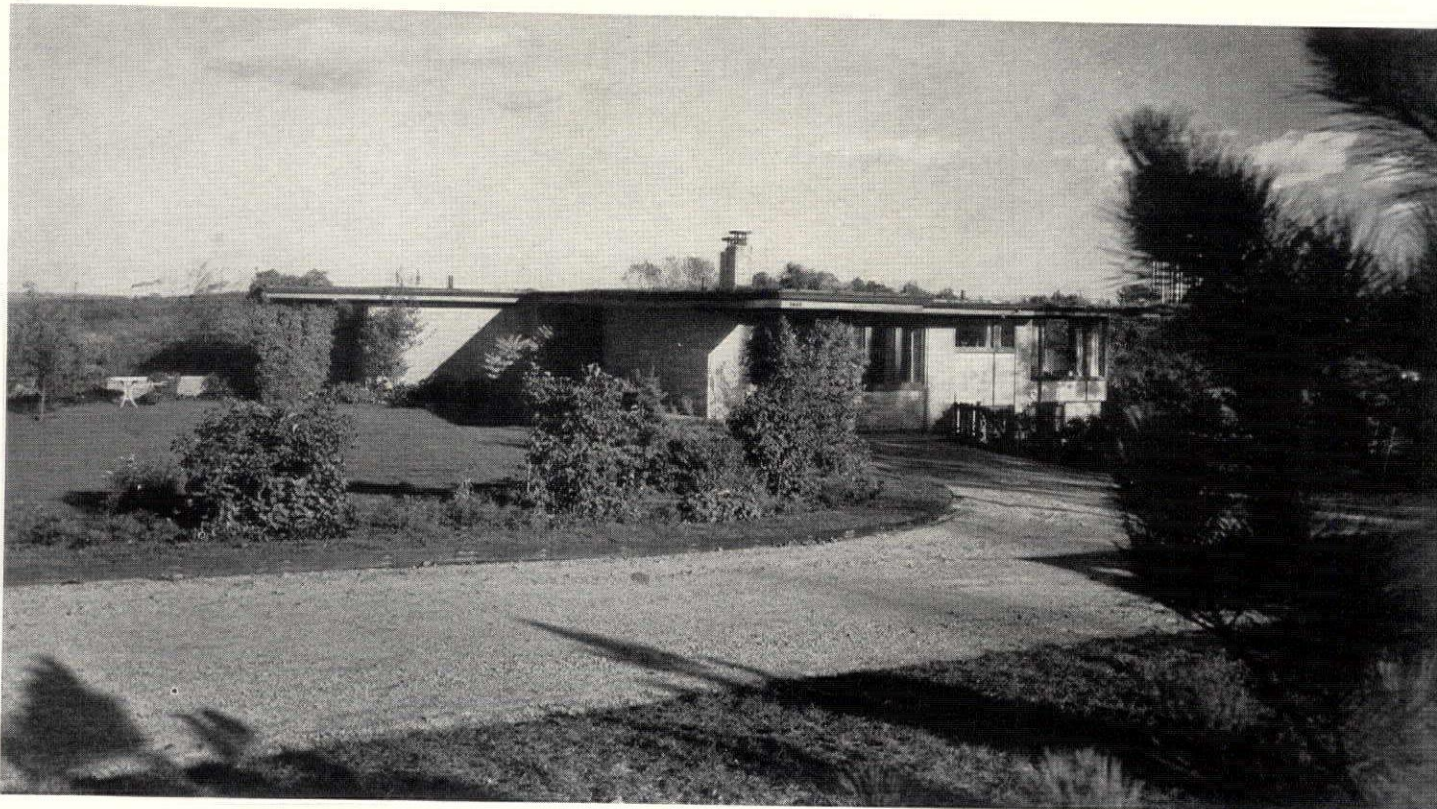


There are several departures from conventional merchandising practice in this highly successful little restaurant. Chief of these is the use of turnstiles; the patron drops a quarter into the slot, enters and places his order. Another mechanized feature is the central conveyor, which brings the food direct to the waitresses. A mirror on the ceiling is used to call this element to the attention of passers-by.

FINISHES & EQUIPMENT

Stainless steel conveyor, C. H. Berill. Turnstiles, The Perey Mfg. Co. Linoleum around counter, Congoleum-Nairn Co. Counter top, Formica Company. Stools, Chicago Hardware Co. Lighting, fluorescent tubing and recessed ceiling floodlights by General Electric Co. Dark blue and white tile floor, Tile Tex Co. Mirrors, Pittsburgh Plate Glass Co. Wallpaper by Herter Dalton. Glass partition separating kitchen from serving area, serrated Mississippi Wire Glass. Kitchen equipment, Federal Kitchen Equipment Co. Bronze doors, Modern Brass & Bronze Co.

HOUSES

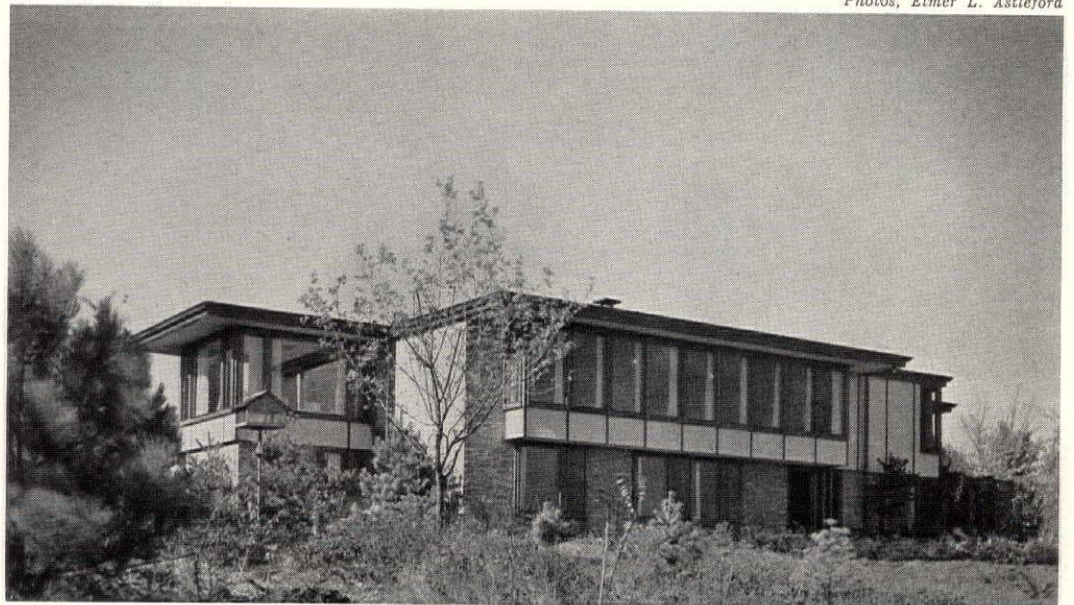


HOUSE IN KALAMAZOO, MICH.

2 HOUSES IN MICHIGAN

ALDEN B. DOW, ARCHITECT

Photos, Elmer L. Astleford



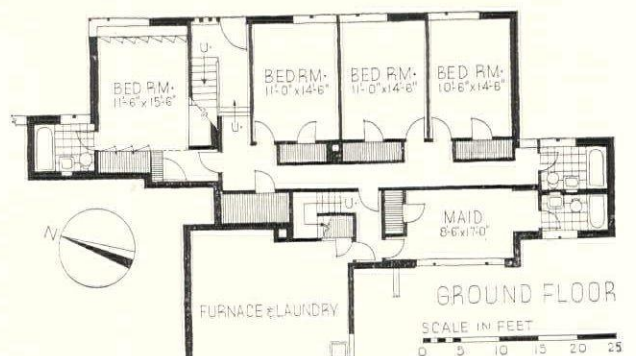
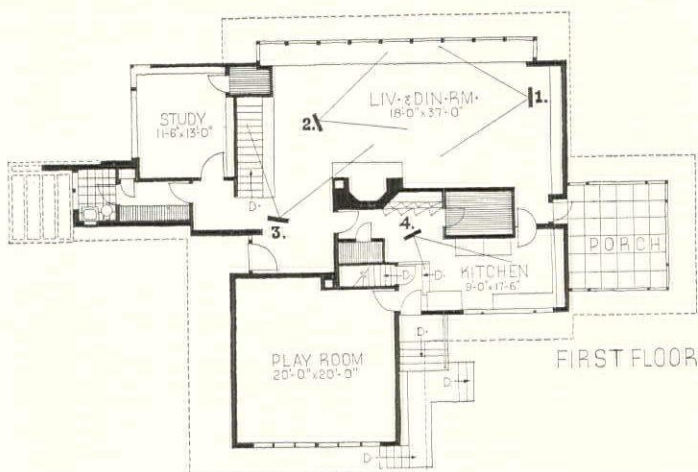
FOUR BEDROOMS, MAID'S ROOM, PLAYROOM AND STUDY



VIEW 1.

Taking advantage of a gentle slope away from the entrance side, this large house has its bedrooms on the ground floor, with living rooms, kitchen, etc. above at the level of the street. The large playroom, originally planned as a garage, projects from the body of the building towards the street; with the exception of this room and the kitchen the balance of the first-floor rooms and all of the master bedrooms face the view at the back of the site. The simple wood casements, exposed rafters and interior masonry walls are typical of Mr. Dow's work at its best, and the generous, sweeping plan indicative of the acknowledged influence of Frank Lloyd Wright—whose teachings this architect has probably interpreted more faithfully than any other.

VIEW 2.





VIEW 3.

VIEW 4.

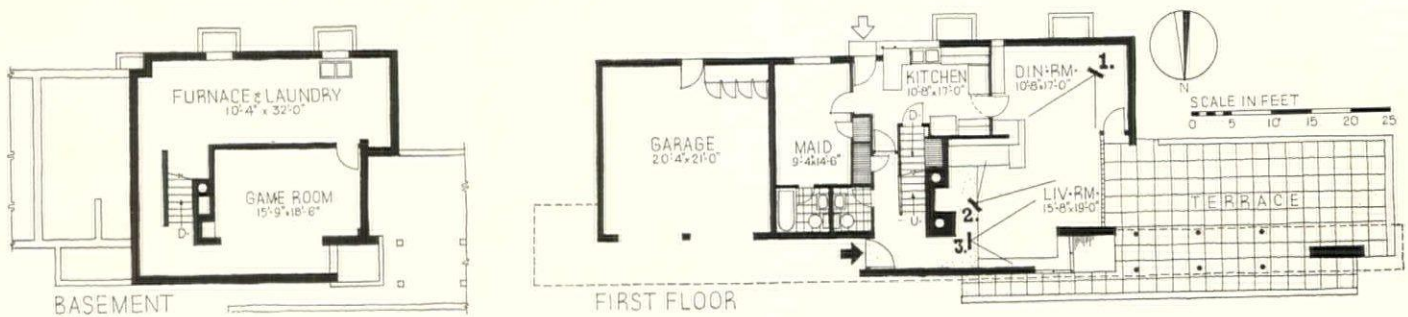


The second-floor living room (above) occupies almost the entire back side of the house, with windows across its full width. Built-in shelves at the end take the place of a balustrade for the stairway to the first floor bedrooms. The kitchen (left) is at the front near the entrance, has its own service stair to the ground floor.

CONSTRUCTION OUTLINE

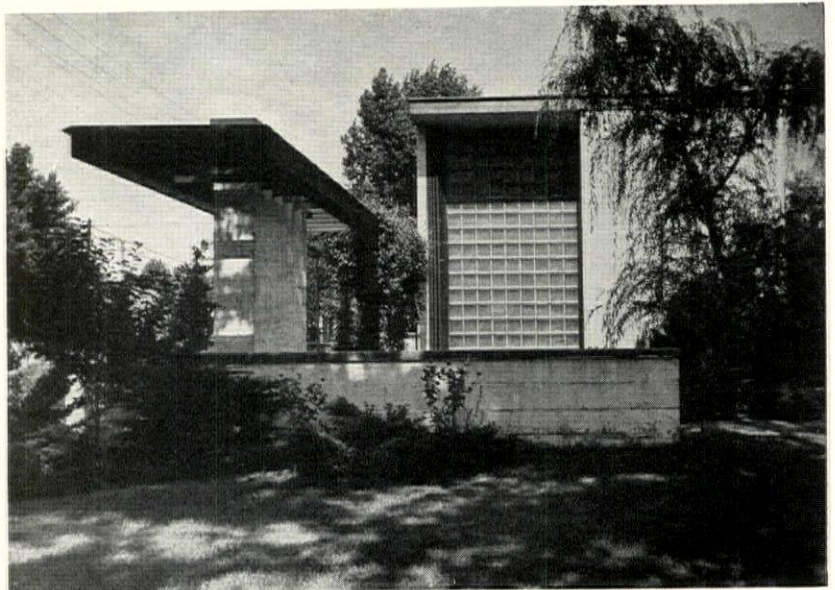
STRUCTURE: Exterior walls—brick, insulation; inside—plaster.
ROOF: 4-ply asphalt.
INSULATION: Outside walls and roof — Johns-Manville insulation.
FIREPLACE: Damper—Colonial Damper Co.
SHEET METAL WORK: Flashing—16 oz. copper.
WINDOWS: Glass blocks — Owens-Illinois Glass Co. Weatherstripping — Chamberlin Metal Weather Strip Co.
FLOOR COVERINGS: Main rooms—carpet. Kitchen and bathrooms—linoleum.
WALL COVERINGS: Bathrooms—Marstile, Marsh Wall Tile Co.
WOODWORK: Garage doors — Overhead Door Co.
HARDWARE: Schlage Lock Co. and Stanley Works.
ELECTRICAL INSTALLATION: Switches—Pass & Seymour.
BATHROOM EQUIPMENT: Toilet—Kohler Co.; remainder of fixtures—American Radiator-Standard Sanitary Corp.
PLUMBING: Soil pipes—vitrified tile and cast iron. Vent and water pipes—copper.
HEATING: Forced air system, oil burner.

THREE BEDROOMS, MAID'S ROOM, STUDY AND TWO CAR GARAGE



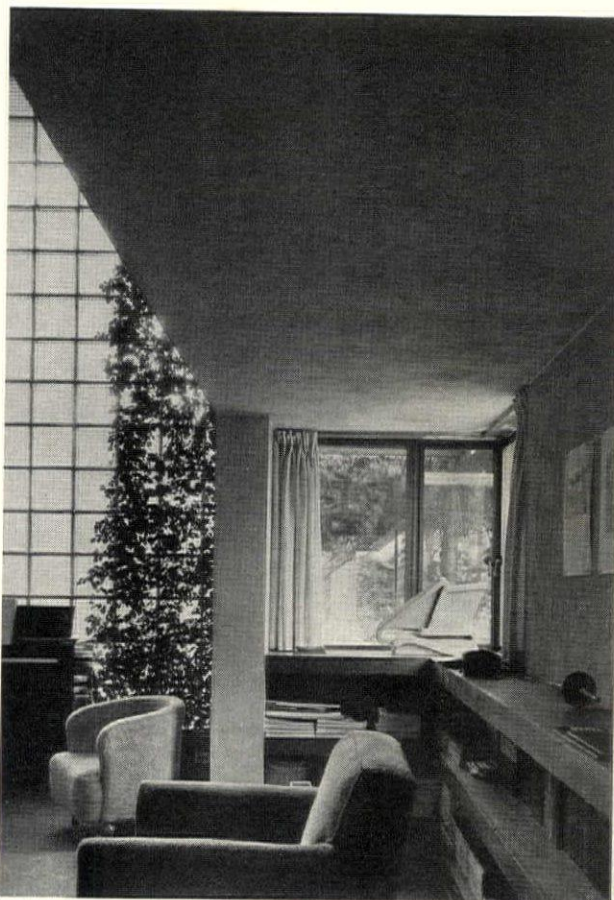
Photos, Elmer L. Astleford

This second large house by Mr. Dow seems to the Editors one of the most striking he has done to date, and in many ways the most successful. Core of the attenuated plan—and of the charm of the design—is a two-story living room, a feature frequently found in this architect's houses but here employed with unusual skill. Flanked on one side by an extension of the entrance corridor and on the other by the dining space, the main part of the living room is horizontally a continuation of these two spaces, but is sharply outlined above the level of the normal ceiling by its greater height. The enormous, uninterrupted panel of glass block which forms one entire end of this part of the room provides both dramatic accent and an abundance of light, while the balance of the room achieves openness through the related spaces.

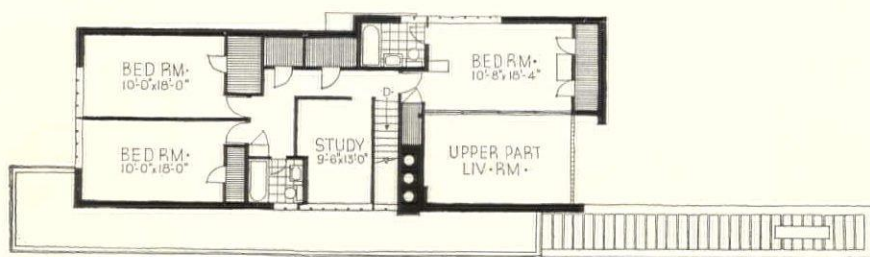




VIEW 2



VIEW 3



SECOND FLOOR

Glazed panels at the living-room ceiling (left, above) connect this space with one of the second-floor bedrooms. View at right is from the entrance approach to the room, the one below from the dining room. The second-floor plan, shown at the left, is a model of orderly efficiency.

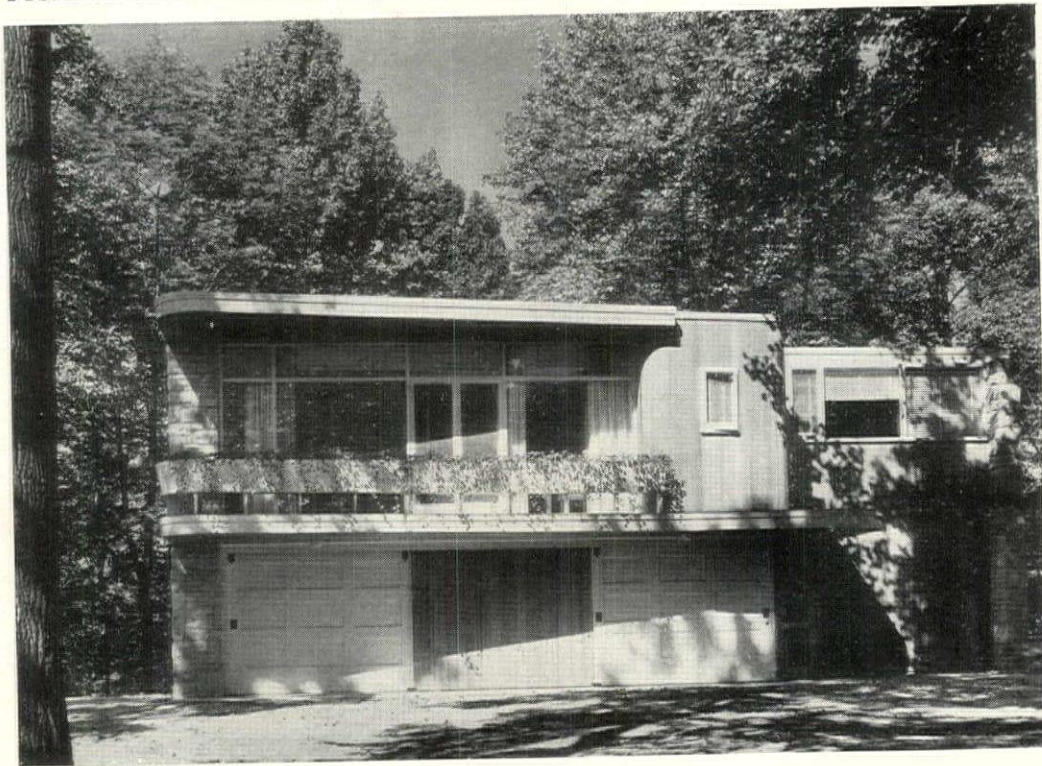


VIEW 1

CONSTRUCTION OUTLINE

- STRUCTURE: Exterior walls—cinder blocks; inside—plaster.
- ROOF: Built-up composition and 4-ply asphalt.
- INSULATION: Roof—4 in. Zonolite, Universal Zonolite Insulation Co.
- FIREPLACE: Damper—Colonial Damper Co.
- SHEET METAL WORK: Flashing and leaders—copper.
- WINDOWS: Sash and screens—Hope's Windows, Inc. Weatherstripping—Chamberlin Metal Weather Strip Co. Glass blocks—Owens-Illinois Glass Co.
- FLOOR COVERINGS: Main rooms—carpet. Kitchen—linoleum. Bathrooms—tile.
- WALL COVERINGS: Plaster throughout. Bathrooms—tile.
- HARDWARE: Schlage Lock Co. and Stanley Works.
- ELECTRICAL INSTALLATION: Wiring system—Romex conduit. Switches—Pass & Seymour.
- BATHROOM EQUIPMENT: American Radiator-Standard Sanitary Corp.
- PLUMBING: Water pipes—copper.
- HEATING: Forced warm air system, oil burner.

THREE-CAR GARAGE, LIVING, DINING ROOM, TWO BEDROOMS

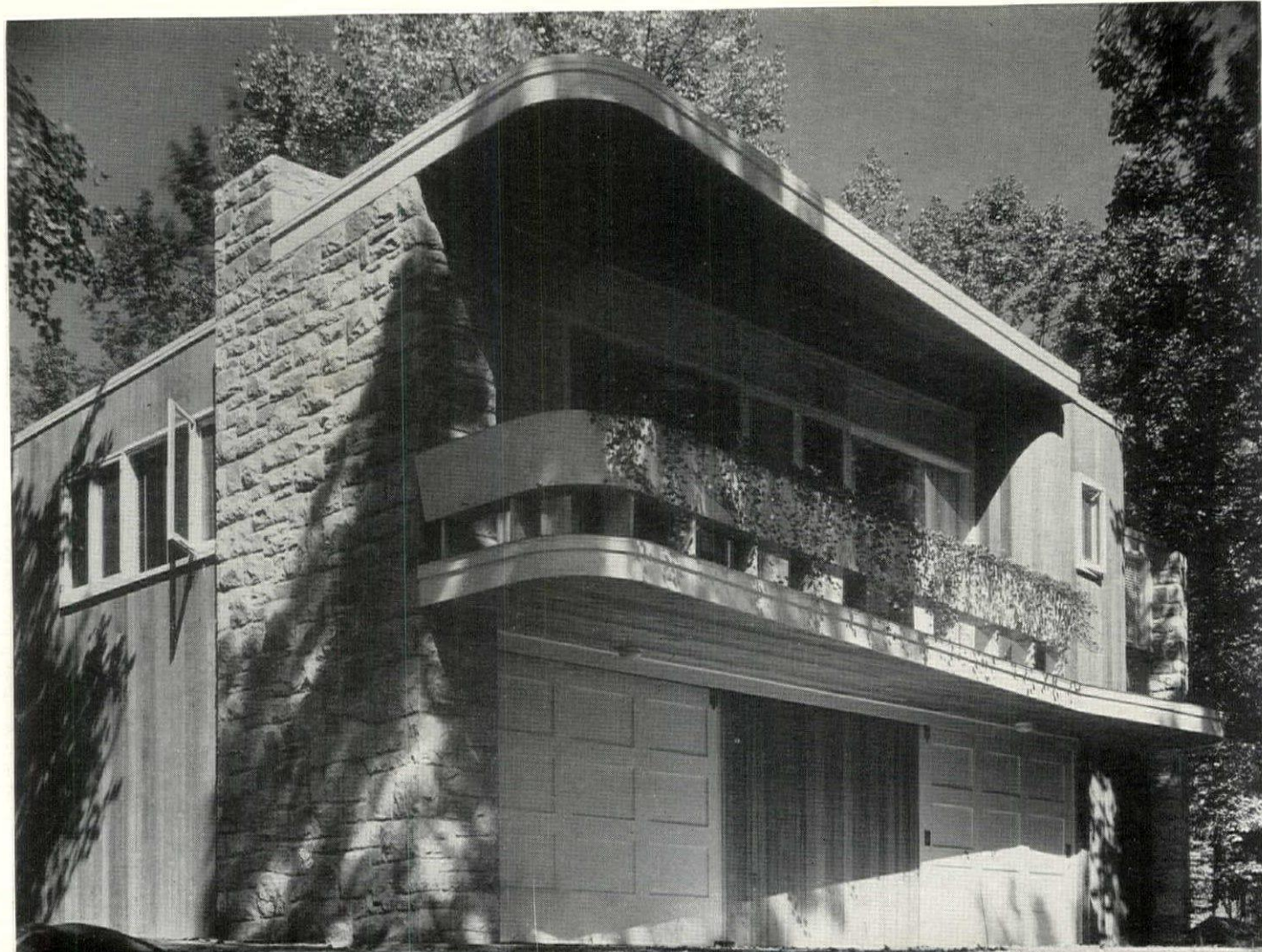


HOUSE IN DEMAREST, NEW JERSEY

Designed for ultimate use as a garage and caretaker's cottage, this house was also intended for occupancy by the owner until the time when a larger one can be constructed—a fact which explains the rather elaborate accommodations. The balcony at the front of the building, which faces southeast, is carried on pipe columns placed just inside the sliding garage doors

and divides the garage front into three sections (detail, facing page). These columns extend up behind the glass wall of the living room to support the overhanging, slightly-sloping roof. Built "dry" (except for stonework and cement plaster in the garage) in order to speed construction, the house was completed ready for occupancy in 100 days. Cost, \$13,000.

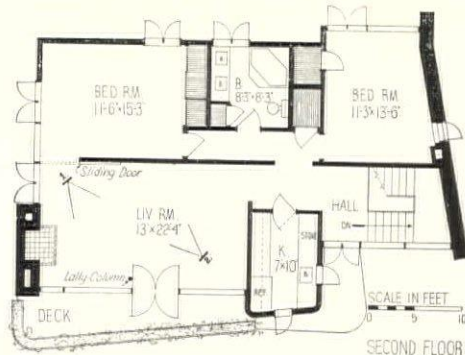
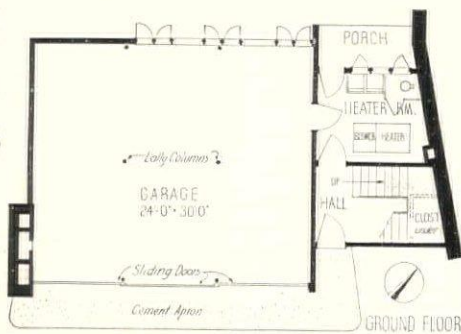
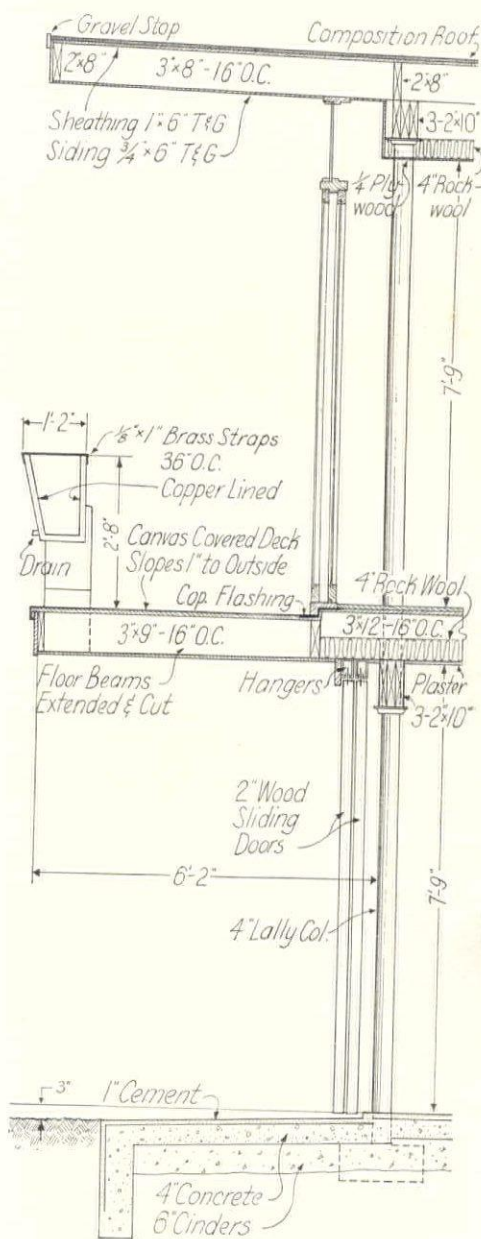
Photos, James Ogle





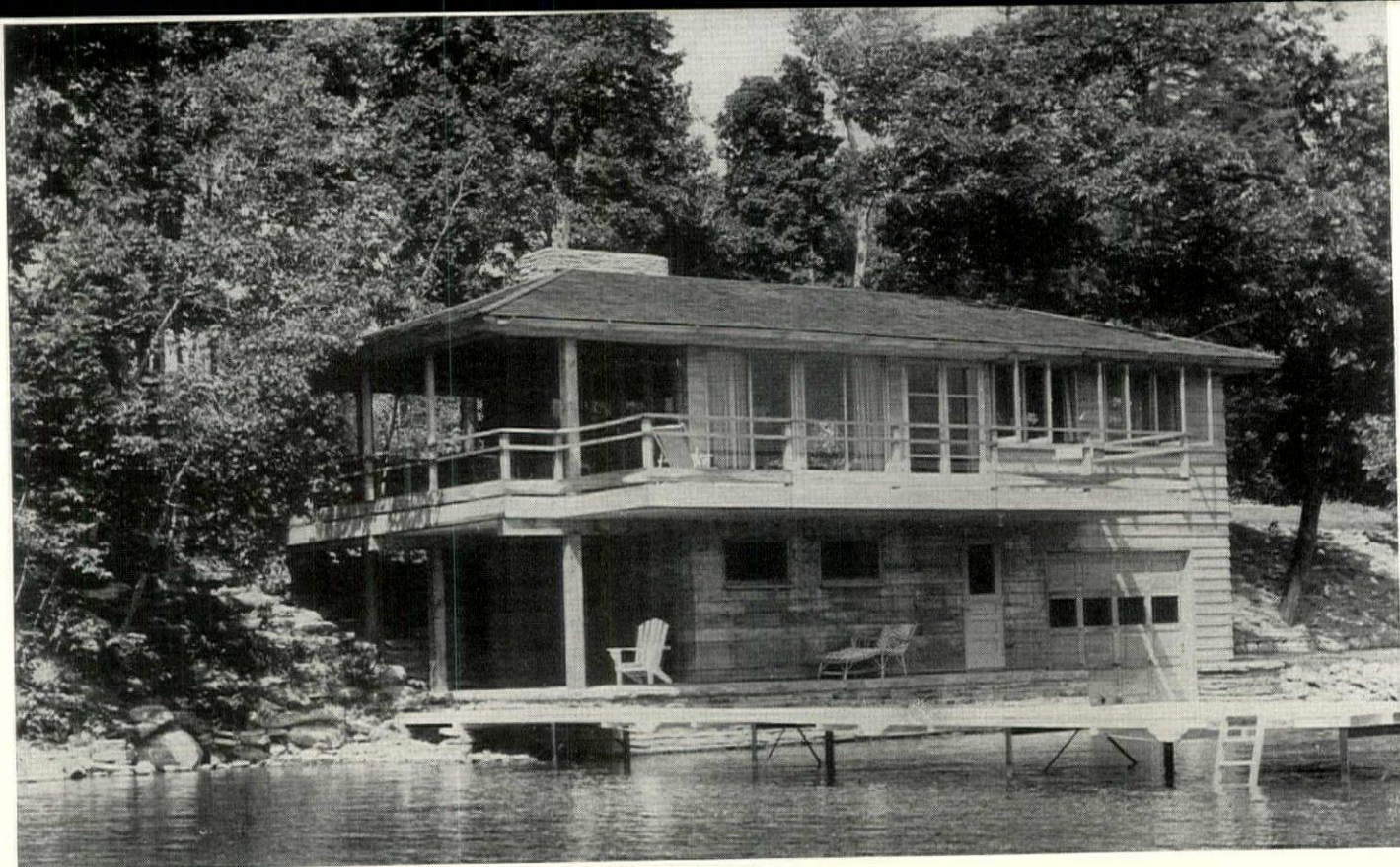
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—rubble masonry and red cedar over asphalt felt and sheathing; inside—Rockwool, U. S. Gypsum Co. and Weldboard, U. S. Plywood Co.
ROOF: Barrett Co. 5-ply. Decks—Con-Ser-Tex, William L. Barrell Co., Inc.
FIREPLACE: Damper—H. W. Covert Co.
SHEET METAL WORK: Flashing and leaders—copper. Ducts—galvanized iron.
INSULATION: Rockwool, U. S. Gypsum Co.
WINDOWS: Sash — fixed and casement, wood.
FLOOR COVERINGS: Main rooms — oak. Kitchen—linoleum. Bathrooms—tile.
ELECTRICAL INSTALLATION: Wiring—BX. Switches—toggle. Fixtures—Kelly & Thompson.
KITCHEN EQUIPMENT: Range—Westinghouse Electric & Mfg. Co. Refrigerator—General Electric Co.
LAUNDRY EQUIPMENT: Bendix Home Appliances, Inc.
BATHROOM EQUIPMENT: By American Radiator-Standard Sanitary Corp.
PLUMBING: Hot and cold water pipes—copper.
HEATING: Split system, filtering and humidifying. Boiler—Quiet May Oil Burner Co. Thermostat—Minneapolis-Honeywell Regulator Co.

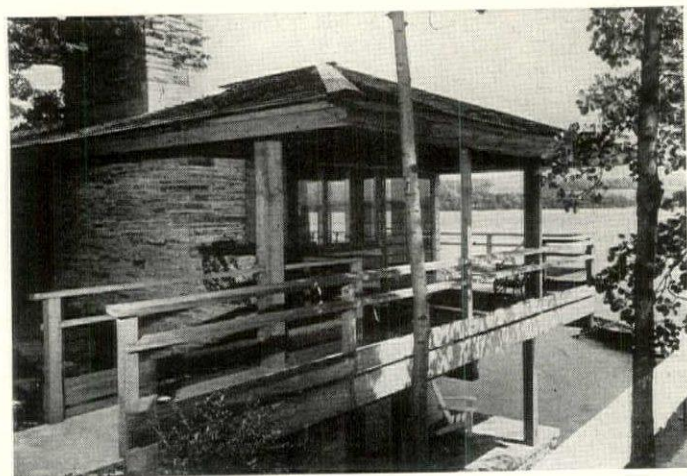


ANN HATFIELD — INTERIOR DESIGNS





BOAT GARAGE, LIVING-DINING-SLEEPING ROOM



WILLARD B. SMITH, DESIGNER

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—red cypress siding; inside—studs and cypress. Ceiling—Flintkote Co. insulation.

ROOF: Cedar shingles. Deck—fir flooring.

SHEET METAL WORK: Flashing—40 lb. tin. Gutters—cypress. Ducts—galvanized iron.

INSULATION: Roof—Flintkote Co.

WINDOWS: Sash—wood casements.

FLOOR COVERINGS: Living room—walnut. Kitchen and bathrooms—linoleum, Armstrong Cork Co.

WALL COVERINGS: Cypress throughout. Bathrooms—Preswood, Masonite Corp.

WOODWORK: Cypress. Kitchen cabinets—pine. Boat slip—Overhead Door Co.

HARDWARE: Schlage Lock Co.

ELECTRICAL INSTALLATION: Wiring system—Romex cable. Switches—Pass & Seymour.

KITCHEN EQUIPMENT: Range and refrigerator—Westinghouse Electric & Mfg. Co.

BATHROOM EQUIPMENT: Crane Co.

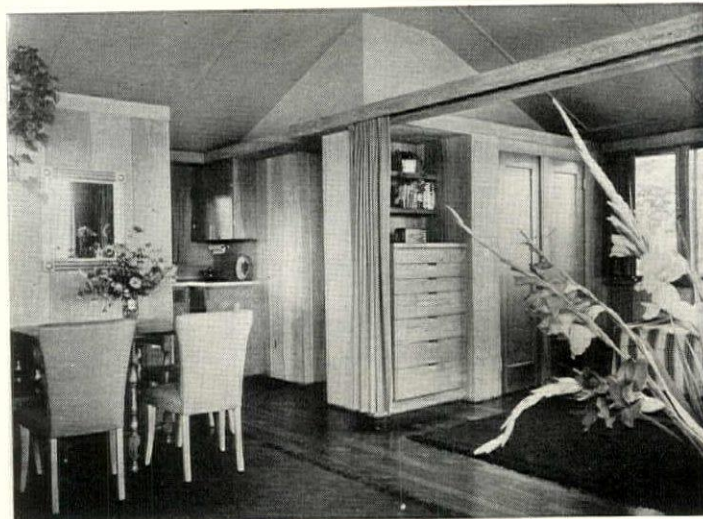
PLUMBING: Vent pipes, galvanized steel. Water pipes—copper.

HEATING: Sunbeam furnace, Fox Furnace Co., Div. American Radiator-Standard Sanitary Corp.

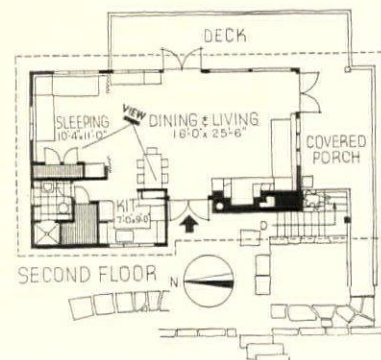
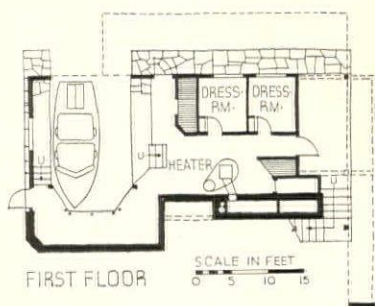
GUEST HOUSE IN CAZENOVIA, N. Y.

This combined boat-house, bath-house and guest cottage is located on the steeply sloping shore of a lake and faces east and south. Excellently planned, it is built from native materials in the deceptively simple, easy fashion that is the mark of top-quality design, warrants careful study of all its details. Cost, \$19,000.

Otto Gibian



VIEW

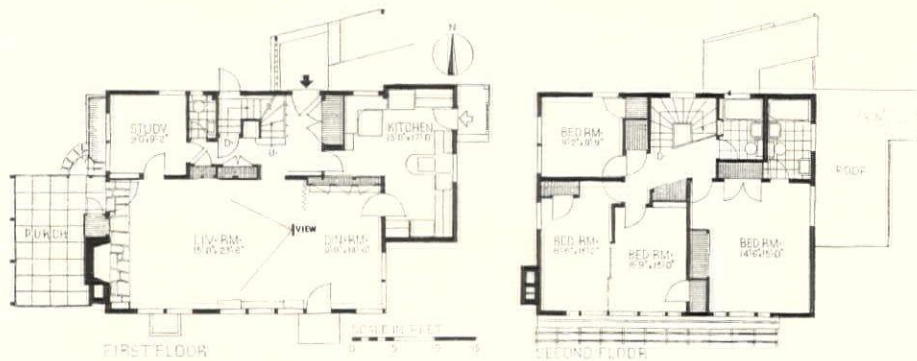




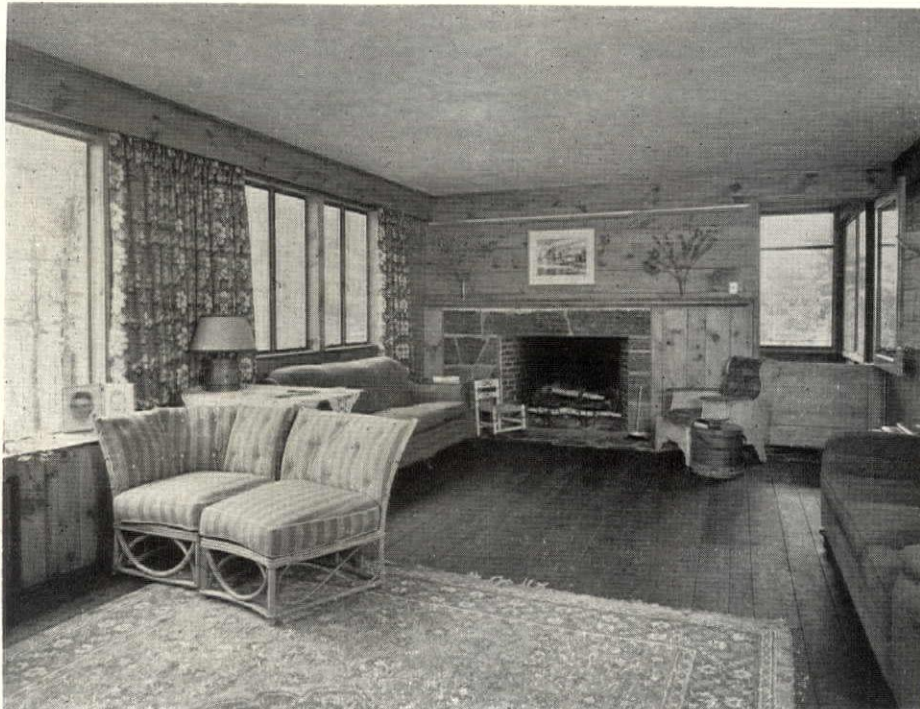
FOUR BEDROOMS, LIVING-DINING ROOM AND STUDY

HOUSE IN WAYLAND, MASS.

JOHN W. PEIRCE, ARCHITECT



VIEW



Facing south from the crest of a wooded hill, this house employs an excellent plan which has recently become almost standard for the medium-sized modern house: a rectangle divided into two parts, with important rooms on the south side making the most of every foot of this exposure, and the approach, service rooms, stair, corridor, baths, etc. on the north. Exterior is cedar clapboards, interior finish pine sheathing. Cost, \$28,000.

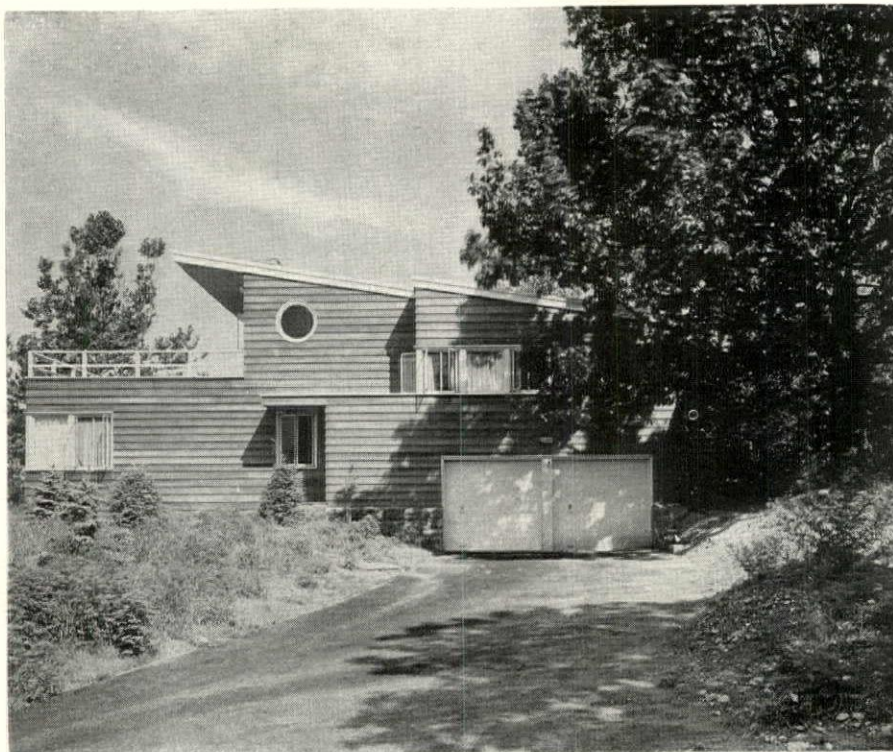
CONSTRUCTION OUTLINE

FOUNDATIONS: Waterproofing—R. I. W., Toch Bros.
STRUCTURE: Exterior walls—cedar clapboards, Sheetrock, U. S. Gypsum Co.; inside—horizontal pine sheathing and Celotex, Celotex Corp.
ROOF: Slate surfaced, Celotex Corp.
SHEET METAL WORK: Flashing and leaders—16 oz. copper.
INSULATION: Outside walls, attic floor and sound insulation—Kimsul, Kimberly-Clark Corp.
WINDOWS: Sash—Hope's Windows, Inc. Glass—double strength, quality A and sheet, Pittsburgh Plate Glass Co.
FLOOR COVERINGS: Nursery, kitchen and bathrooms—linoleum, Armstrong Cork Co.
HARDWARE: Sargent & Co.
PAINTS: Samuel Cabot, Inc.
ELECTRICAL INSTALLATION: Wiring system—BX. Switches—Bryant Electric Co.
KITCHEN EQUIPMENT: Range and disposal unit—General Electric Co. Sink—Elkay Mfg. Co. Dishwasher—Westinghouse Electric & Mfg. Co.
LAUNDRY EQUIPMENT: Washing machine—Bendix Home Appliances, Inc.
BATHROOM EQUIPMENT: By Kohler Co.; one tub—Briggs Beautyware, Briggs Mfg. Co.
PLUMBING: Hot and cold water pipes—copper.
HEATING: Forced hot water system. Boiler—A. B. Smith Mfg. Co. Radiators, grilles and valves—Arco, American Radiator-Standard Sanitary Corp. Thermostat—Minneapolis-Honeywell Regulator Corp.

THREE BEDROOMS, STUDIO, LAUNDRY AND LIVING-DINING ROOM



This attractive design incorporates a two-car garage as an integral part of a two-story house, and compensates for the comparative lack of outlook of the first-floor rooms by a studio and generous deck on the upper level. A centrally located stair divides the house into two parts with floors at staggered levels, thus permitting a garage directly on the ground and use of a shed roof running the longer way of the plan without waste attic space. An ingenious feature is the use of magnets in place of latches to hold interior doors, illustrated in the detail drawing at the bottom of the facing page. Cost, \$12,000.

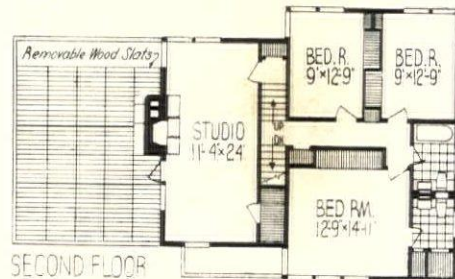
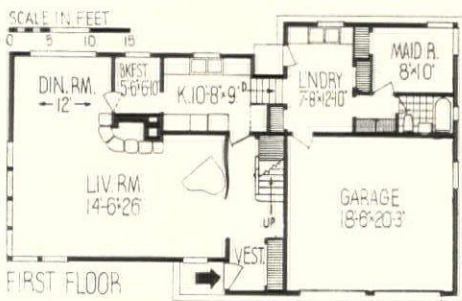


PORCH





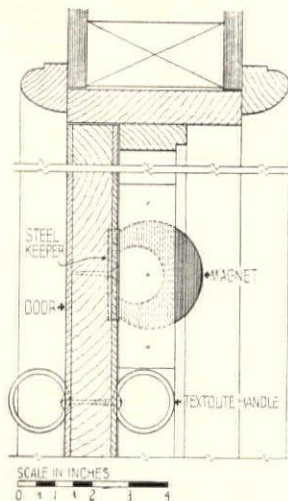
LIVING ROOM



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—Calif. red-wood on U. S. Gypsum Co. sheathing; inside—Sheetrock, U. S. Gypsum Co.
ROOF: 5-ply built-up roofing.
SHEET METAL WORK: Flashing—copper. Leaders and ducts—galvanized iron.
INSULATION: Outside walls and roof—Rockwool, U. S. Gypsum Co.
WINDOWS: Sash—Fenestra steel casements, Detroit Steel Products Co. Glass—double strength, quality A.
FLOOR COVERINGS: Main rooms—oak. Kitchen and bathrooms—linoleum.
WALL COVERINGS: Main rooms—Sheetrock, U. S. Gypsum Co. Kitchen and bathrooms—linoleum.
WOODWORK: Pine; interior doors—birch.
HARDWARE: Yale & Towne Mfg. Co.
PAINTS: U. S. Gypsum Co.
ELECTRICAL INSTALLATION: Complete system—General Electric Co.
KITCHEN EQUIPMENT: Range, refrigerator, dishwasher and washing machine—General Electric Co.
BATHROOM EQUIPMENT: Crane Co. Cabinets—Miami Cabinet Div., Philip Carey Co.
PLUMBING: Hot and cold water pipes—copper and brass.
HEATING: Split system, winter conditioning, General Electric Co. Boiler and thermostat—General Electric Co. Grilles—U. S. Register Co. Valves—Crane Co.

BEDROOM



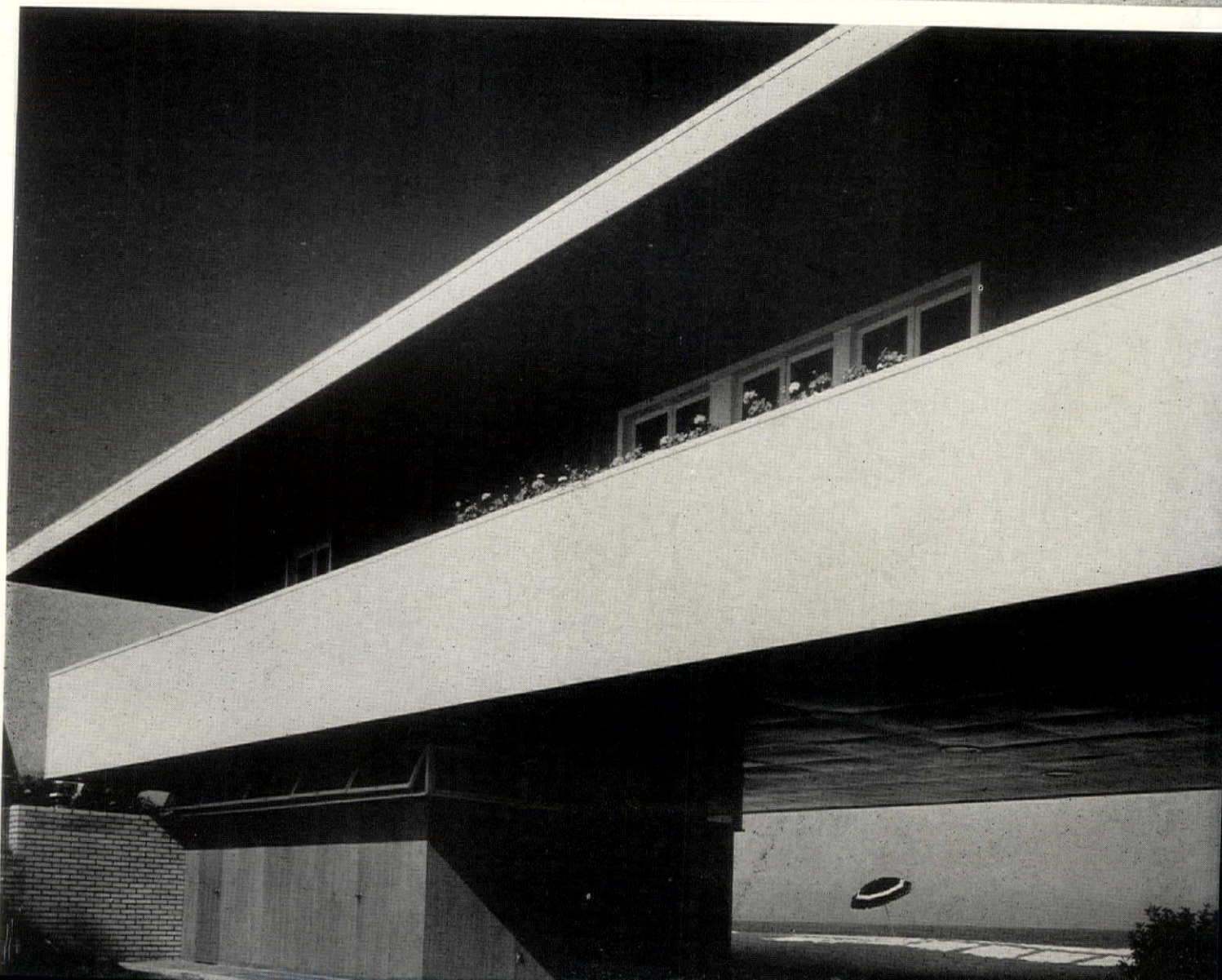
BEACH HOUSE IN MANTOLOKING, NEW JERSEY

Photos, Robert M. Damora



VINCENT KLING DESIGNER

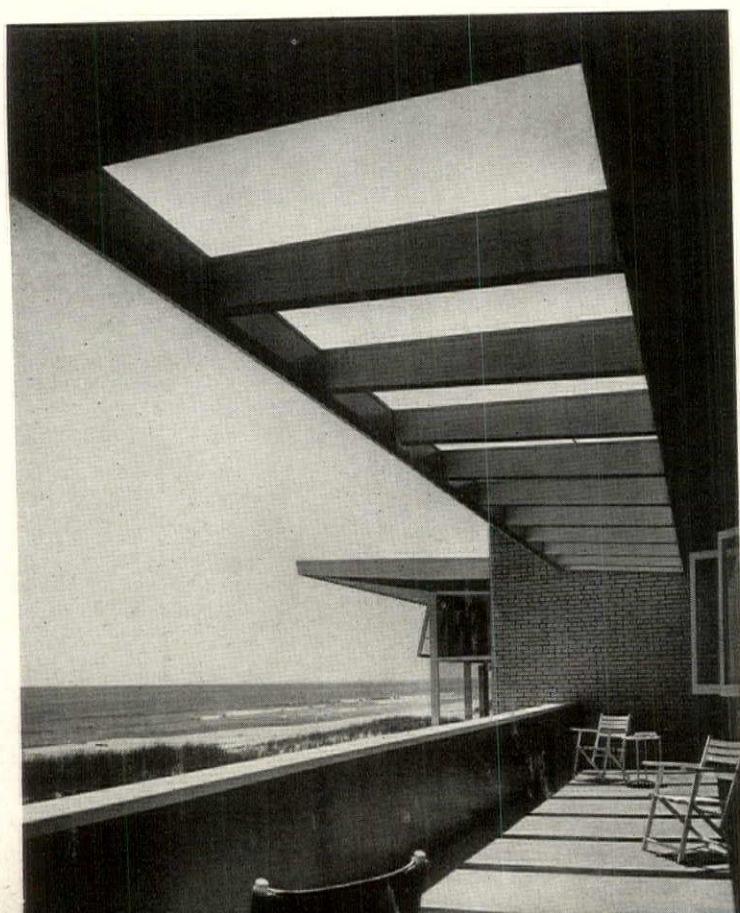
Set comfortably on a stretch of dunes between Barnegat Bay and the Atlantic Ocean, this beach house was designed by Mr. Kling while still a graduate student at M. I. T., in collaboration with a very sympathetic pair of clients. Study of the project began with the familiar Colonial seaside schemes, whose various features were discarded as they failed to meet the owners' requirements. The design finally adopted has a living room elevated for better view and for keeping sand and water out of the main part of the house; bathers have showers and lockers below. The open area at ground level provides a shady spot for resting and dining, with a kitchen adjacent. Bedrooms are placed a few steps above and are reached by the sheltered outside passage shown directly below. Because of the special and rigorous climatic conditions in such a location, materials were selected with particular care: slate, tile, brick, wood and plywood are used for the main structural and finishing materials.



BEACH HOUSE IN MANTOLOKING N. J.

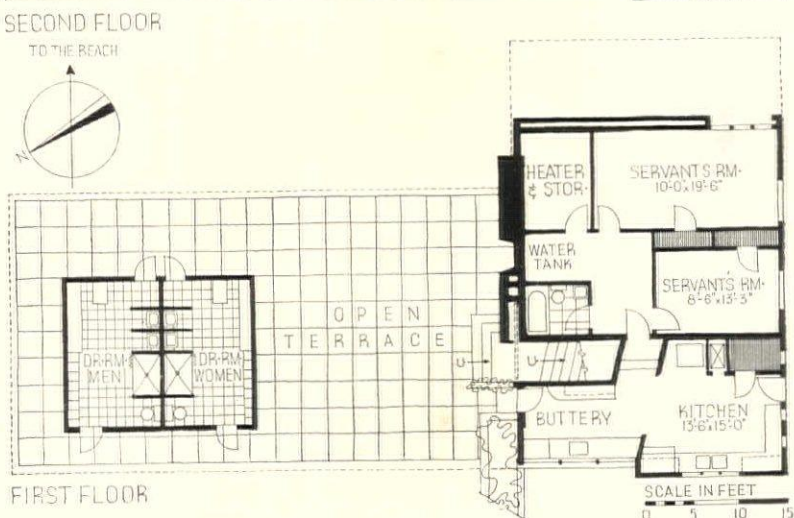
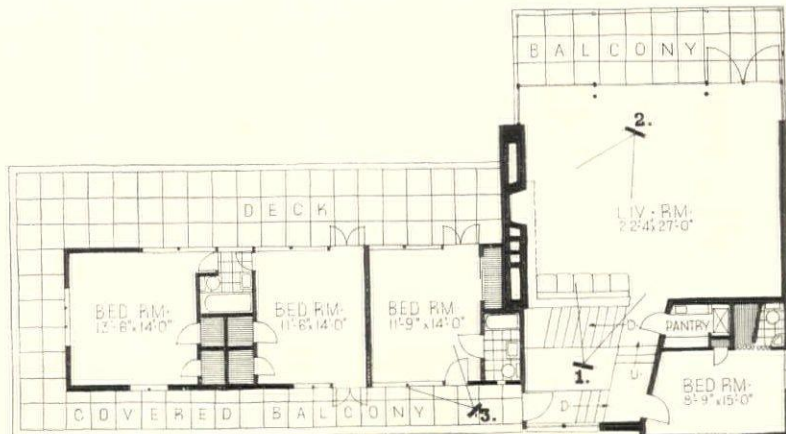
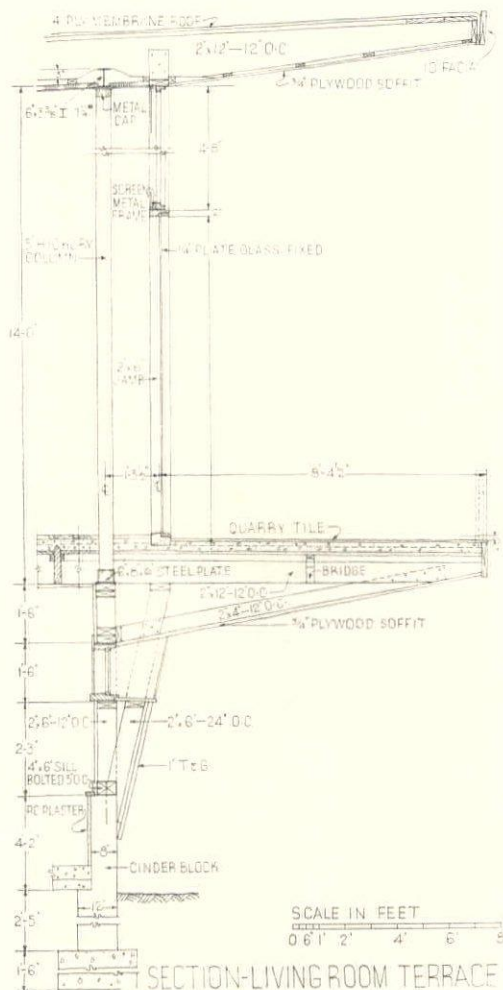


VIEW 1



Impressive as the exterior is in its freshness and vigor, the living room shows most clearly the directness with which the solution was achieved. There are excellent views of both ocean and bay, ventilators are set high so that the outlook is unobstructed, and the general character of the room is in perfect harmony with the location and the requirements of use. The large windows are shaded by the fixed overhang in summer, but fully exposed to the winter sun; as the house is used for winter week-ends, this provides a welcome supplement to the heating system. At the left is a view of the sun deck outside the bedrooms.

VINCENT KLING, DESIGNER

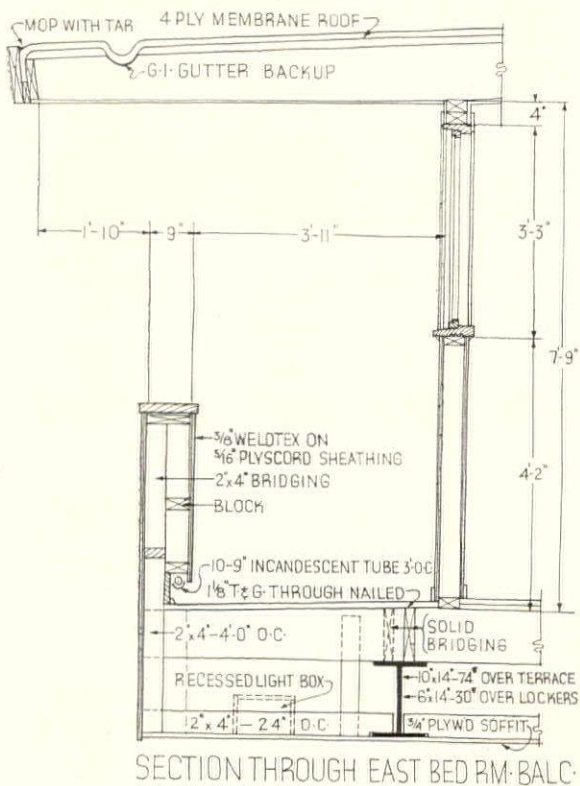


VIEW 2





VIEW 3



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls — Weldtex with Weldwood furring strips, U. S. Plywood Corp.; inside—glass insulation, Weldwood and grass cloth. Floor construction—(1st.) tile, Johns-Manville or slate over concrete slab; (2nd.)—maple, oak or tile. Ceilings—Weldwood, U. S. Plywood Corp.; living room—acoustical tile, Johns-Manville.

ROOF: Tile.

INSULATION: Outside walls, roof and sound—spun glass, U. S. Gypsum Co.

SHEET METAL WORK: Flashing—copper. Ducts—galvanized iron.

WINDOWS: Glass—Pittsburgh Plate Glass Co. Weather-stripping—Chamberlin Metal Weather Strip Co.

WALL COVERINGS: Main rooms—Weldtex and Weldwood, U. S. Plywood Corp. Halls—grass cloth. Bathrooms—plaster on Rocklath, U. S. Gypsum Co., and tile.

PAINTS: Breinig Bros., Inc. and Sherwin-Williams Paint Co.

HARDWARE: Skillman Bros. Mfg. Co.

ELECTRICAL INSTALLATION: Switches—Mercury, General Electric Co. Fixtures—Edwin F. Guth Co. and Kurt Versen.

KITCHEN EQUIPMENT: Dumbwaiter — Chelsea Elevator Co.

BATHROOM EQUIPMENT: American Radiator—Standard Sanitary Corp.

Just the Door

FOR YOUR DEFENSE
HOUSING JOBS!

RoWay MODEL "R"
OVERHEAD TYPE

—and wherever a Quality Door of the Overhead Type is needed at Low Cost!

The Ro-Way "R" Line of Overhead Type Doors is especially designed and especially fabricated for the small home garage. Manufactured in quantities of hundreds at a time and packaged in warehouse ready for shipment, they are priced to give most value per dollar. They are completely made in the Ro-Way Factory—even to Hardware, Hinges, Rollers, Tracking, Springs, Sheave Wheels, etc.

Six Extra Values, Too!

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 slot head bolts used.

Extra Bearing Support. The load sheave wheel of this Ro-Way Door is reinforced with an inner bearing support. No opportunity for side pull or twist. Insures long life of smooth, easy operation.

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

Streamlined Appearance. Stiles and rails are of the modern streamlined type. Hinges are streamlined and of rigid anchor type.

Time-Saving Installation. Complete pictorial instructions sent with each Door enable any capable carpenter-mechanic to install in 2 or 3 hours.

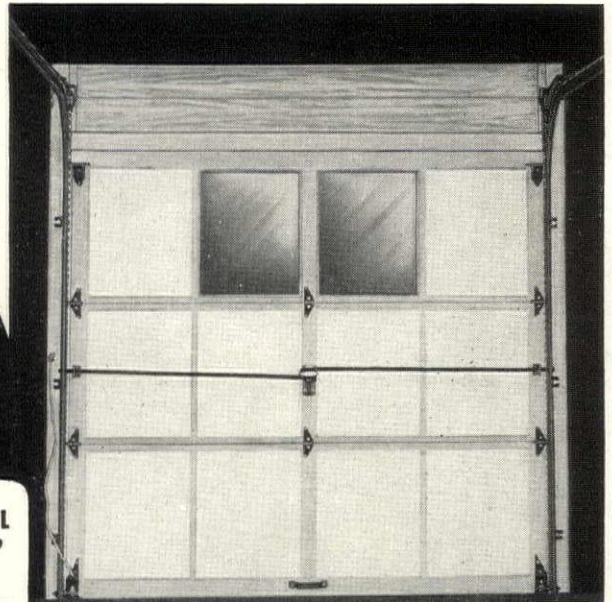
Model "R" requires 13½ in. headroom.

Model "RL" requires 9 in. headroom.

Each of these models is made in only two standard sizes—8 ft. x 6 ft. 6 in., and 8 ft. x 7 ft. They are regularly supplied with 3 sections, as illustrated, but are also available with 4 sections under the Model numbers "R-4" and "RL-4".

Glass Openings. Models "R" and "RL" (3-section styles) regularly are supplied with 2 center panels of the top section open for glass. Models "R-4" and "RL-4" (4-section styles) regularly are supplied with 2 center panels of next to top section open for glass. All models may be had with or without glass panels.

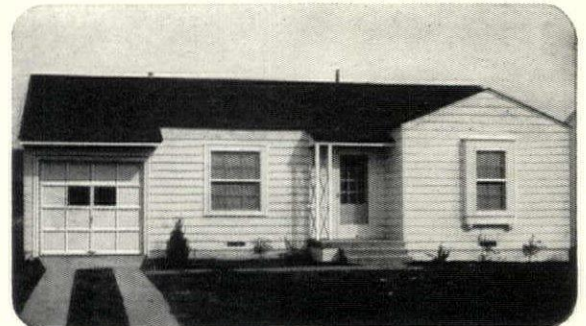
ROWE MANUFACTURING CO. 941 HOLTON STREET, GALESBURG, ILL., U.S.A.



Above is shown the Ro-Way Model "R" Overhead Type Door of 3-section type with 2 glass panels. This model is made in either 3 or 4 sections, and in only two sizes—8 ft. x 6 ft. 6 in. and 8 ft. x 7 ft.



Installation of Ro-Way Model "R" Overhead Type Doors in 2-family residence garage.



The Ro-Way Model "R-4" Overhead Type Door installed in a single family residence type garage.

FREE TO ARCHITECTS

72-page "Time-saving Specification Book". Shows detailed drawings of every Ro-Way Model. Please attach your Professional Card or Business Letterhead to your request.



This 3-car apartment garage is equipped with three Ro-Way Model "R" Overhead Type Doors.

ROWE MANUFACTURING CO.,
941 Holton St., Galesburg, Ill.

Gentlemen: Please send me Free copy of your 72-page "Time-saving Specification Book" for Architects, as advertised in Architectural Forum.

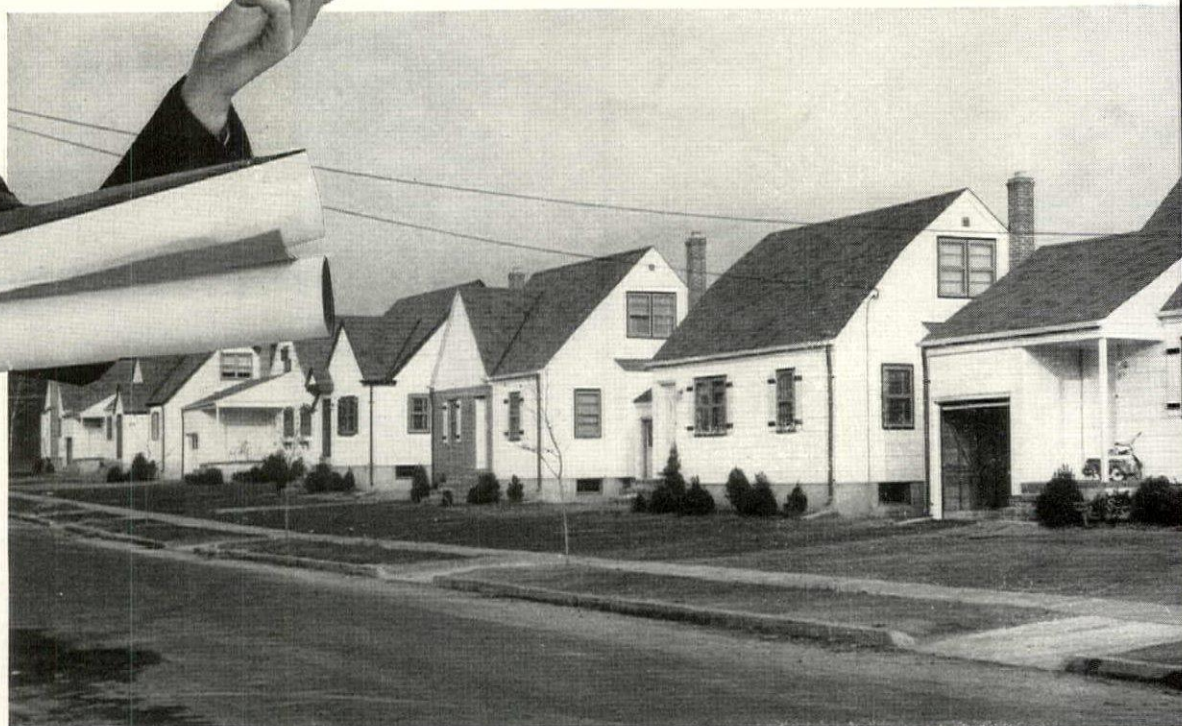
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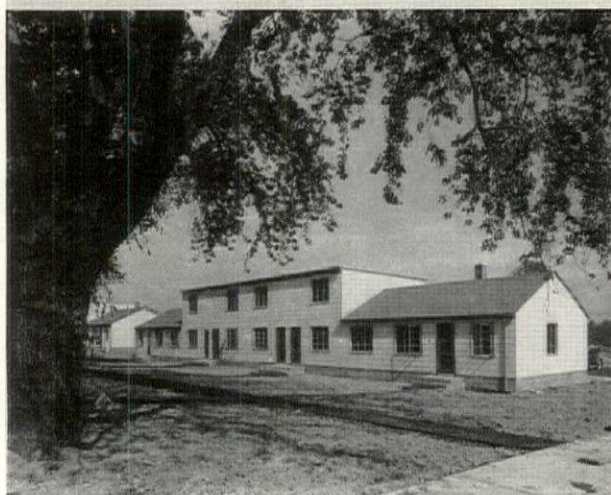
City..... State.....

There's a RoWay for every Door way!

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To provide defense workers and their families with the best in healthful, low cost heat, the Crescent Housing Corporation specified Norge OA-63 Oil Units in its 200 Defense Homes at Belmawr, N. J.



Norge OD-70 was selected for 300 Defense Homes in the Armstead Gardens Addition built by Woodcrest & Rosoff Brothers at Baltimore, Maryland.



Norge Model OB-60T was the standard heating plant in 196 row houses in the McClatchy Subdivision, Upper Darby, Pennsylvania.

SEE NORGE

★
and get the best

★ **in Defense** ★

★ **Home Heating!**

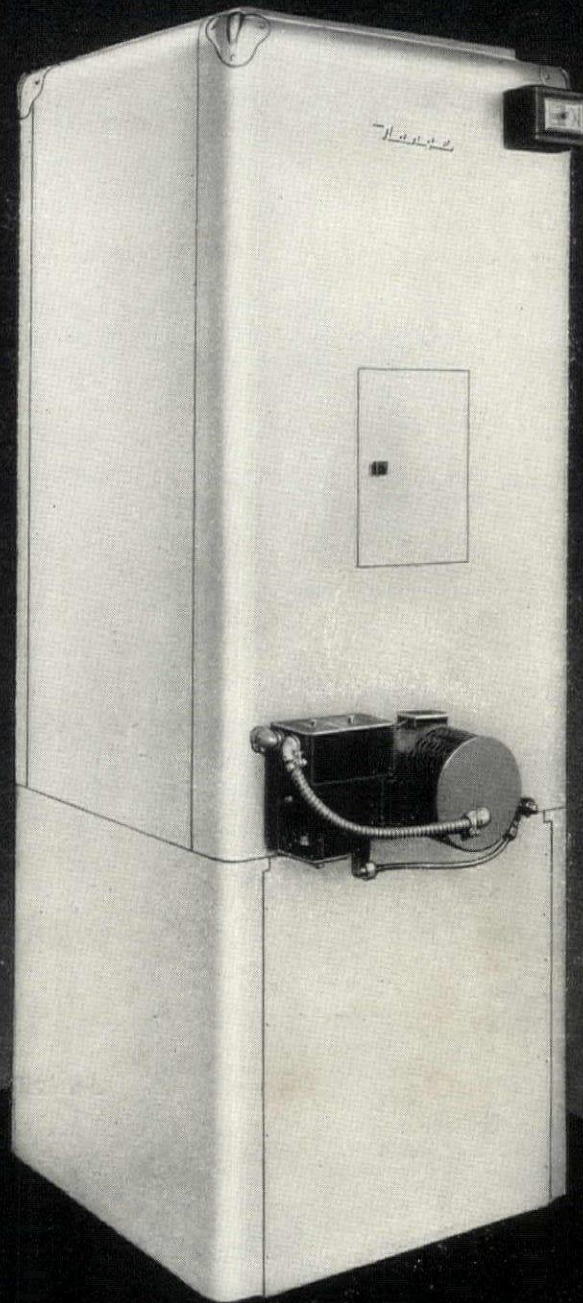
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With Norge, you have the widest line of automatic warm air oil furnaces made for every type of defense housing. You have the lowest prices . . . with each unit factory-wired, packaged for quick installation and designed for minimum duct work. You have the recognized quality and operating dependability assured by Norge's engineering leadership. And you have the convincing sales appeal and backing of two world-famous names . . . NORGE and BORG-WARNER!

Have your sheet metal or heating contractor give you the full facts on Norge today. Or wire us direct.

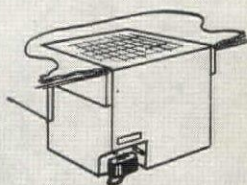
NORGE HEATING and CONDITIONING DIVISION
Borg-Warner Corporation

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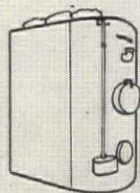


TAKES ONLY 26 IN. SQ. OF FLOOR SPACE!

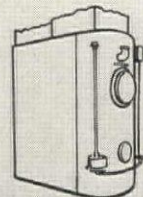
MODEL OD-70, blower and furnace, is encased in beautiful streamlined cabinet for utility room or closet! Pearl gray, baked enamel finish. Return air at base means lower installation cost. Fully approved for all government agency requirements.



MODEL OC-60
FLOOR FURNACE



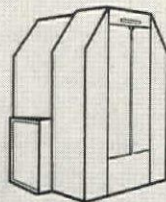
MODEL OB-60T
GRAVITY UNIT



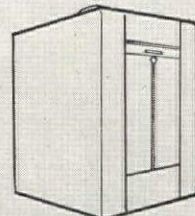
OA-63 OVERHEAD
DUCT TYPE



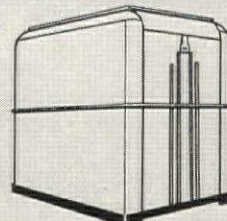
OE-80 WINTER
AIR CONDITIONER



O-90 WINTER
AIR CONDITIONER



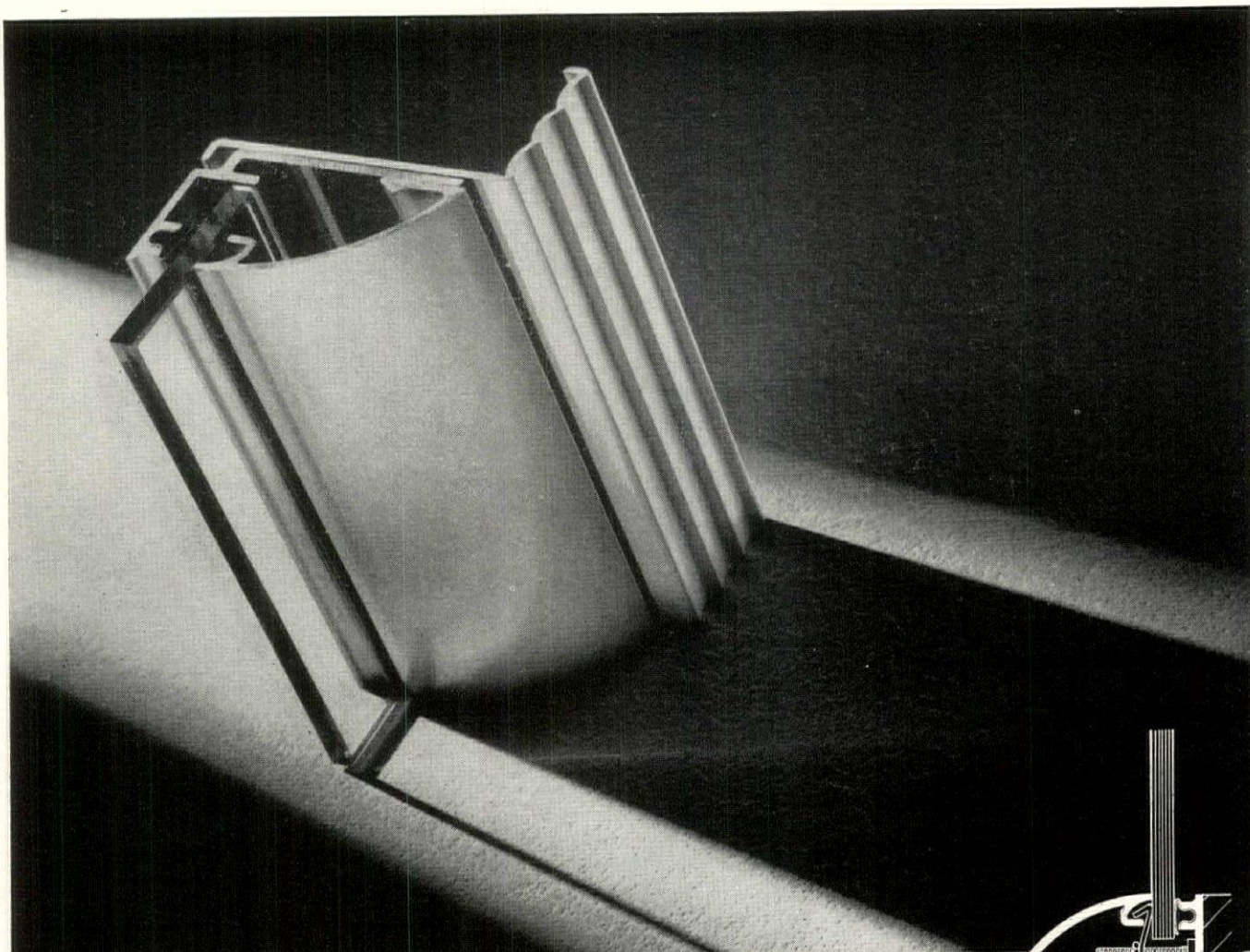
O-120 WINTER
AIR CONDITIONER



BO-9 DE LUXE UNIT
FOR LARGER HOMES

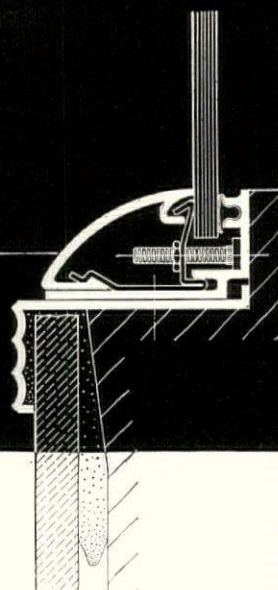
BEFORE YOU BUY!





COMPLEMENTARY CONTOURS

THE wide variety of units composing the Pittco Store Front Metal line affords the architect an opportunity to achieve unusually pleasing combinations of members. Each unit in the line bears a definite design relationship to all other units which may be combined with it in actual store front work. The effective contrast between smooth, sweeping surfaces and adjacent surfaces which are interrupted by beading or sharp contours, is a design element provided generously by Pittco Metal. This quality is exemplified in the sash shown above. Whatever problems of metal construction may confront you in designing quality store fronts, you will find a distinguished answer to them in the varied bars, mouldings and sash of the Pittco Metal line. Pittsburgh Plate Glass Company, Grant Building, Pittsburgh, Pennsylvania.

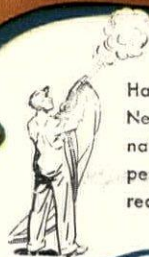


DETAIL:

In the above combination, the clean arc of the sash face plate enhances and intensifies the fluted jamb moulding. Sash: 12-A. Jamb: PX-195.

PITTCO STORE FRONT METAL
PITTSBURGH PLATE GLASS COMPANY

"PITTSBURGH" stands for Quality Glass



Having proved its worth in the Earle Restaurant's Neptune Room, K&M Sprayed "Limpet" was the natural choice for the Balkan Room (above). The perfect blending between walls and ceiling is readily apparent.

*Full artistic expression
plus acoustical efficiency*
with K&M Sprayed "Limpet"

ASTUTE restaurateurs know that tastefully prepared food can be enhanced by tastefully decorated surroundings. In carrying out any decorative color scheme, K&M Sprayed "Limpet" is the ideal acoustical material to use, for it may be given as many as ten coats of oil emulsion paint without impairing its sound-absorbing qualities. Witness the perfect blending of the walls and ceiling in the Earle Restaurant's beautiful Balkan Room, illustrated above.

Acoustically, "Limpet" performed a dual service in the Balkan Room. Since the room is located directly beneath the stage of the Earle Theatre, in Washington, D. C., the noise of dancing and shifting scenery overhead annoyed the patrons. "Limpet" almost entirely eliminated the unwanted sounds . . . and absorbed normal restaurant noises as well.

Sprayed "Limpet" does not confine the architect to any set pattern. It follows the contours of curved, recessed or irregular surfaces as faithfully as plaster, giving unlimited opportunity for architectural expression.

Applied by spraying from a "gun," it sticks tight to any clean surface, regardless of shape or composition, without the need of mechanical systems or gadgets. It may be built up to any practical thickness to provide the specified degree of sound absorption per square foot. An excellent heat insulator, with a thermal conductivity of only .31 at 75°F., "Limpet" is fire-resisting and extremely light in weight.

Write Dept. 23 for FREE A. I. A.
Catalog giving complete details
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Sprayed "Limpet" is still available. Since we are cooperating fully with the war program, we cannot foresee how long this favorable situation will continue.

KEASBEY & MATTISON
COMPANY, AMBLER, PENNSYLVANIA



**"HERE'S WHAT I WANT
FOR MY WALLS"**



• As a builder, you'll find that Linowall actually helps to sell your houses. In this smart bathroom, the wainscot of Sienna Red No. 710 and upper walls of Tan No. 706 brighten up the whole interior . . . at a cost that's remarkably moderate. Floor is Armstrong's Marbelle Linoleum No. 017 with a trim panel treatment composed of copper rust and white Linostrips plus bands of black and fawn.

This wall finish helps to sell your house

HOUSES that feature walls of Armstrong's Linowall get quick approval from prospects. There's a good reason why. With Linowall you can give your customer distinctive style and long service, the qualities she wants in walls—and do it with extra profit for yourself.

Linowall's colors retain their richness for years. It is tough and long wearing . . . resists dents and cracks . . . and soap and water clean it in a jiffy. What's more, this linoleum-like

wall covering is flexible . . . easy to work with . . . adaptable to almost any decorative treatment.

With all these advantages of style and durability, Linowall costs no more than other permanent wall coverings. You can get complete facts on this modern wall finish in Sweet's; in addition, write for your free, illustrated copy of "Decorative Walls of Enduring Beauty." Armstrong Cork Company, Floor Division, 1204 State St., Lancaster, Pa.



ARMSTRONG'S LINOWALL

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

MONTH IN BUILDING

(Continued from page 140)

is the section authorizing the Government to step in and crack the whip on rents.

Before Federal intervention locally is in order, however, there must be a formal finding that workers are being gouged and further rent boosts mean interference with war production. Even then State and municipal authorities are given an additional 60 days to achieve stabilization. Only after local efforts have fizzled does Federal control come into play.

When the Federal Price Administrator finally does step into a defense hot spot, he arrives with broad powers. The act directs him to fix rent ceilings consistent with increases in costs and taxes. In most cases he will not go back beyond April 1941 in determining a fair level, but in special instances he can go back a year more. Action will depend largely on just when local rents began to spiral unmistakably upwards. In some places the trend started sooner than in others; hence considerable latitude in adjusting controls to local conditions is provided by the act. New houses and houses not previously rented are also covered by some oblique provisions which permit the Administrator to be guided by the rent level of comparable facilities.

Karl Borders, a New Deal statistician recently of Harriet Elliott's Consumer Division, has been appointed to ride herd on defense rentals. His first task is to gather facts and figures on local fluctuations in operating costs—maintenance, repairs, taxes. Instead of freezing rents arbitrarily, his general policy will be to make adjustments. Legitimate applications may even be granted higher rents to meet increased costs. A premium on newness of construction will also be allowed in fixing rent ceilings, thus offsetting the objection so often voiced in the past that rent control means stifling of building work. In short, Border's aim will be to encourage, not scuttle, new housing.

URBAN PATTERN

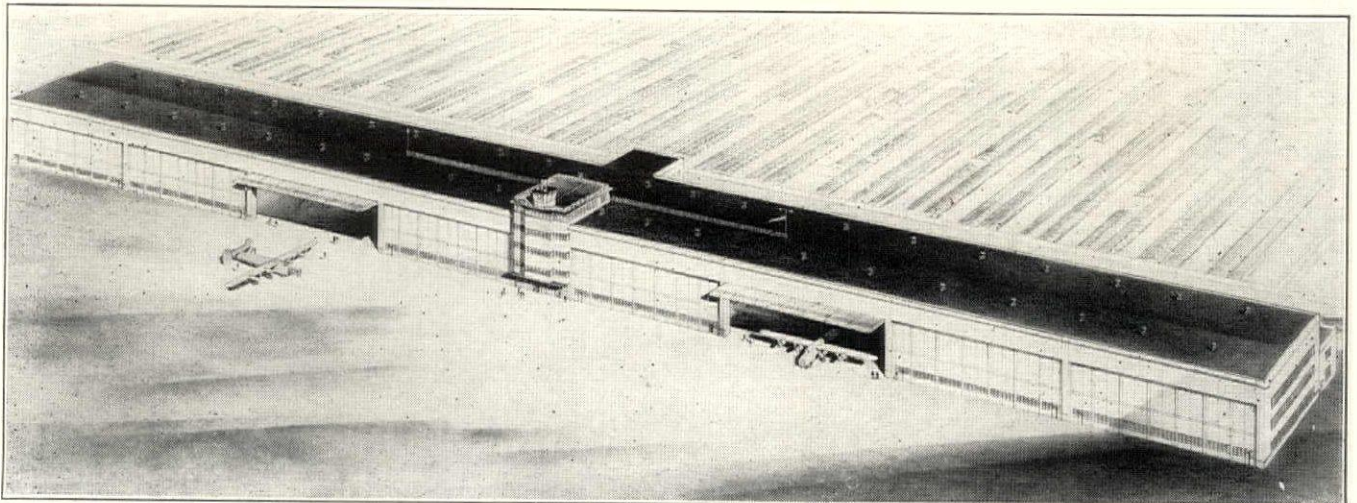
To find a cure for the blight which has overtaken one-fourth of urban America and threatens the physical disintegration of cities, along with property values, is the Urban Land Institute's avowed mission. Only two years old, this precocious protégé of the National Assn. of Real Estate Boards has lately been looking deep into the post-war future. There it has glimpsed a new urban problem—the looming slack in employment after the dictators have been slapped down. Result: a mammoth blueprint, adopted at its annual meeting in Chicago, calling for Government and private enterprise to work together as partners.

Bent on speedy accomplishment of its goal, ULI specifically recommends:

(Continued on page 40)



Huge Victory Project Takes 20 BYRNE doors



ALBERT KAHN Associated Architects & Engineers, Inc.

THIS ARCHITECT'S sketch shows an installation of eight Byrne Canopy doors in a hangar building . . . a part of the vast Ford Willow Run Bomber plant which is using a total of 12 Byrne Canopy doors and 8 Byrne Vertical Lift doors. Virtually the entire front of the hangar, 1240 ft. long, will be made instantly available by huge, quick-opening, upward-acting Byrne Canopy doors. Each of these is a single leaf, 144 ft. wide and 41 ft. high, counter-weighted for uniform balance throughout its movement, and sturdily built to resist damage.



All Byrne doors used in this great armament project are motor operated to save time and to release man-power for productive effort. A single control, illustrated above, opens or closes a door in a matter of seconds.

Co-operation in the design of hangar doors of any type will be gladly extended by Byrne engineers, qualified by more than 20 years' successful experience.

BYRNE doors incorporated

1150 Griswold Street, Detroit, Mich.

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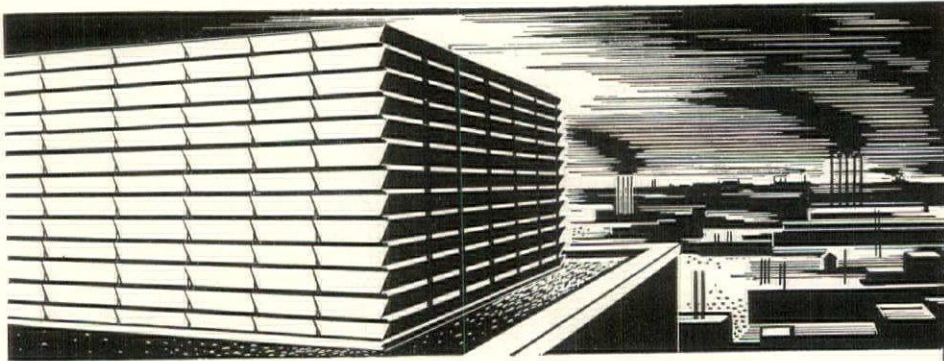
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BYRNE MOTORIZED HANGAR DOORS



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THIS COOLING TOWER, though exposed for eleven years to a constant rain of spray and the weather, is "as good as new" today. Credit Wolmanized Lumber* with another win over the elements; untreated wood often fails within 3 to 4 years on jobs like this.

CONVINCING EVIDENCE is thus again presented that Wolmanized Lumber adds long life to the other advantages of wood construction: lightness, strength, resilience, and low cost. Vacuum-pressure impregnation with Wolman Salts* preservative, under strict laboratory control, gives it the ability to withstand decay and termite attack.

MODERN ENGINEERING practices have developed the very desirable properties of wood construction to best advantage. Wood, given permanence by Wolmanizing, is now employed for a great many industrial structures.

WOLMANIZED LUMBER is handled just like ordinary lumber. It goes up quickly and easily. It is clean, odorless, and paintable. May we send you complete data? American Lumber & Treating Company, 1647 McCormick Building, Chicago, Illinois.

*Registered Trade Mark

WOLMANIZED LUMBER



MONTH IN BUILDING (Continued from page 38)

► Immediate establishment of a federal urban land commission, functioning either as part of an existing agency or independently. This commission would be empowered to extend grants to local planning agencies to be used 1) in preparing master plans for various metropolitan communities, 2) in making specific plans for rebuilding certain blighted areas into livable neighborhood units.

► Creation of local land commissions, via appropriate state legislation, to acquire blighted areas for redevelopment by private enterprise. Credits would be extended by the federal land commission for this purpose. As much blighted property as possible would be bought up by ordinary negotiation, the rest by exercising right of eminent domain. Out of its long-term Government loan, each local land commission would also defray the cost of constructing public facilities.

► Long-term leasing of building sites to private redevelopment companies or individual builders after the cities have taken title to reclaimed public areas. Eligible for FHA mortgage insurance, buildings erected by approved builders would be rented or sold to individuals. Thus, conceivably, all redeveloped properties might ultimately fall back into appropriate private ownerships. In any event, taxation of such reclaimed areas would be based on assessed values determined by their income-producing power and utility.

► Finally, to spur lower construction costs, a national laboratory for housing research. Functioning as a subsidiary of the proposed federal urban land commission and headquartered in Washington, this laboratory would have branch offices and facilities in other localities appropriate for local experiments in residential construction. Besides researching for more economical materials, standards, practices and marketing procedures, it would be authorized to license the results for use in redevelopment programs.

Appraisal. Big virtue of ULI's approach is that it attacks the problem of urban blight on no small scale. Whole metropolitan areas would be replanned en masse, not in tidbits. Government loans are relied on for priming, but thereafter large pools of private capital would be tapped. Equally realistic is the proposed use of land condemnation to assemble plots large enough to be worth rebuilding. But whether land should be acquired by local land commissions rather than local housing authorities or planning commissions will be questioned seriously by many planners.

With little else to shy at technically, the plan's economic merits hinge on the extent of its application. On this score perhaps

(Continued on page 42)



Windows

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

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

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

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

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

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

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



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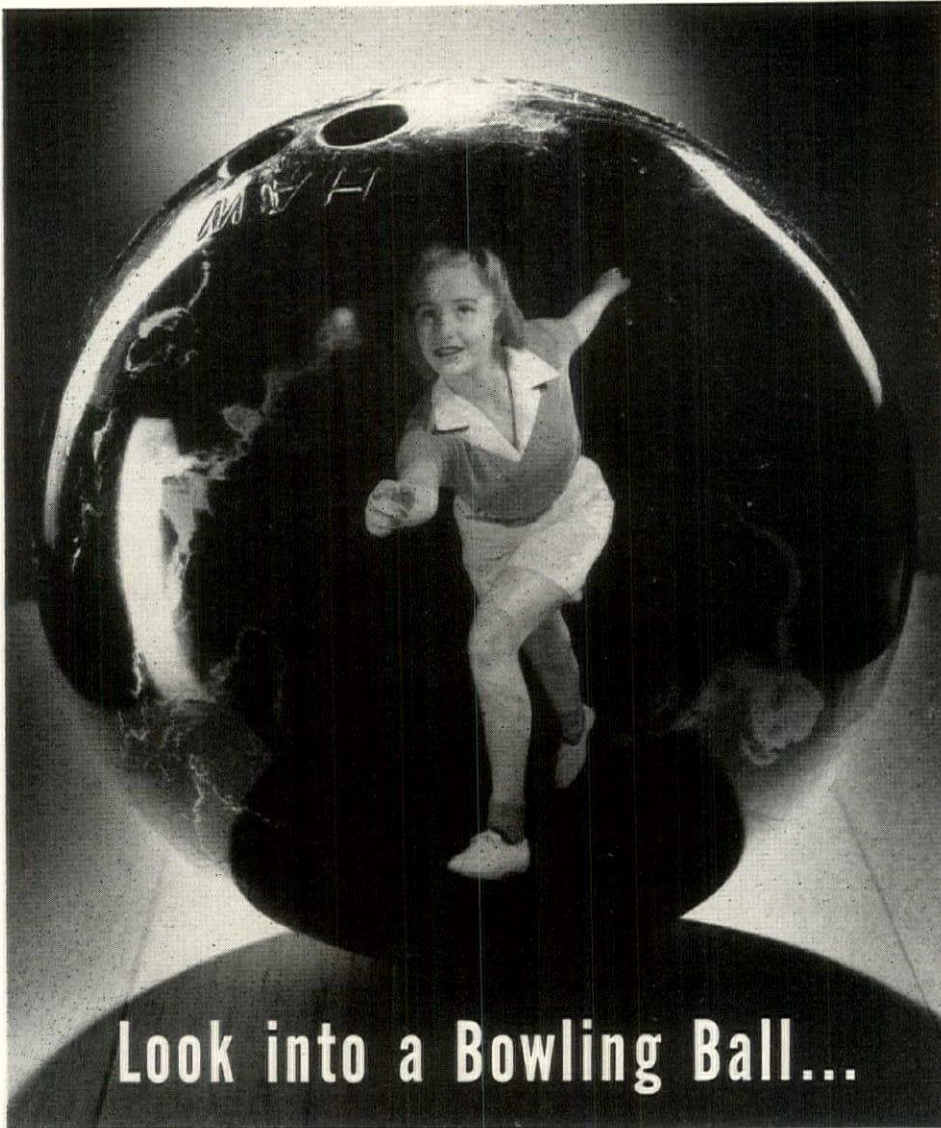
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Please send me a Curtis Silentite "Economy Calculator" and information on Silentite Windows.

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and learn about Beauty

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But shellac pays off in beauty as well as protection. Shellac's clear transparency brings out the subtle tones of the wood, gives it a rich glow or a dull smoothness that does justice to your design and choice of materials. When you say "Put On Shellac," you can be sure you're prescribing long life and beauty at low cost.

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MONTH IN BUILDING

(Continued from page 40)

the most promising measure is ULI's heady, aggressive leadership. Newly elected: as president, Paul E. Stark of Madison, Wis.; as vice president, Philadelphia's Arthur W. Binns; as secretary, Herbert U. Nelson, and as treasurer, Kenneth E. Rice, both of Chicago. Other ULI big-wigs: Cleveland's Ernest J. Bohn, Toronto's William Henry Bosley, Columbus' John W. Galbreath, Detroit's James Holden and Foster Winter, Houston's Hugh Potter, Rochester's Mrs. Alan Valentine, Wichita's Winston Wheeler, Kansas City's J. C. Nichols, Los Angeles' Col. William May Garland, Milwaukee's Mayor Carl F. Zeidler. Spearheads in ULI's rapid growth have been Binns and Nelson.

PATTERN CUTTERS

Many and potent, public and private, are the agencies and men now charting Building's post-war course. Like the Urban Land Institute's proposal, all current plans feature huge housing programs and urban rehabilitation.

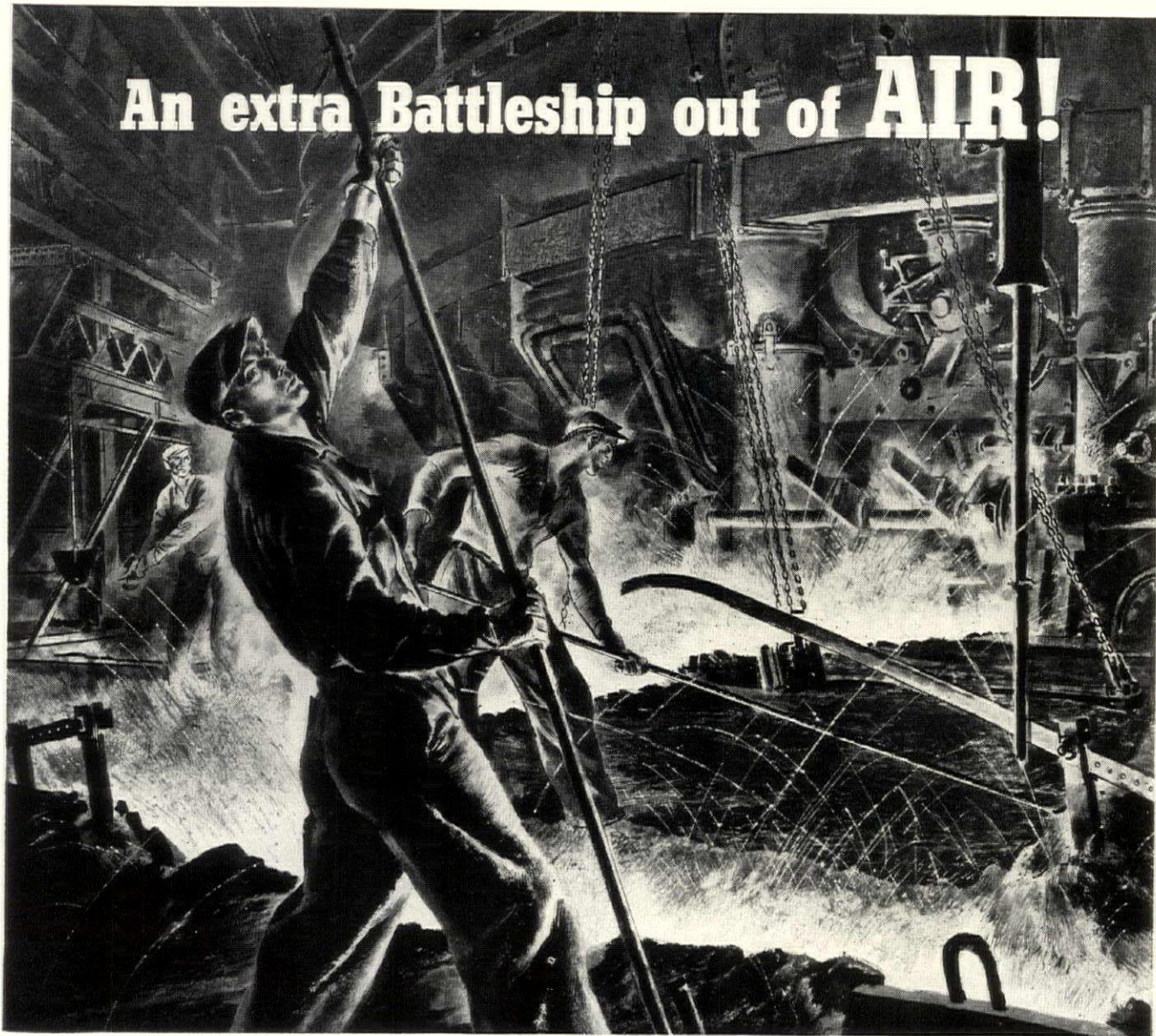
Shelf of Works. Top roost in the planning hierarchy is a division of FWA called Public Work Reserve, headed by Jacob Baker and working closely with National Resources Planning Board. Its function is to help States, cities and municipalities stock a pile of blueprints for local projects which can be pulled out of the cupboard when war ends and utilized immediately for full employment of the nation's increased productive capacity.

Limited by its \$2½ million appropriation, PWR has been able to do little more than set up district and state offices. However, hopes have been high that Congress would act favorably on a bill authorizing an extension of this activity implemented by a large appropriation from the President's emergency funds. Under this scheme, local agencies would be able to obtain subsidies permitting them to hire architects, site planners, town planners and engineers for detailed advance planning of projects covering the full range of public works—from highways to housing, hospitals, other public buildings.

Last month came disheartening news—the planning fund bill has been defeated by short-sighted Congressmen. But efforts to raise Federal money for local planning continue. As House Labor Committee Chairman Mary T. Norton comments, "The end of the war is no time for beginning planning." Meanwhile, State and municipal governments are being encouraged to authorize appropriations, thus contribute their proper share to Charley Eliot's 5-foot shelf of post-war projects.

State Approach. In New York Governor Lehman has already appointed a State
(Continued on page 44)

An extra Battleship out of AIR!



Blast furnace + air conditioning = more iron

At the Woodward Iron Co., Alabama, in the first blast furnace where modern air conditioning was applied, as much as 27% more iron has been produced. Its quality is more uniform. And thousands of tons of coke are being saved. Result—every four months the air conditioned blast furnace produces enough extra iron for another first-line battleship.

Here is a typical new industrial application of Carrier Air Conditioning, illustrating the remarkable progress now being achieved through control of the temperature, humidity, and cleanliness of air.

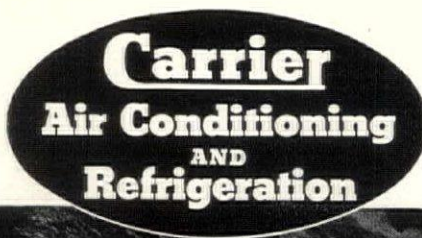
520-TON CARRIER CENTRIFUGAL REFRIGERATION MACHINE is the heart of this new "dry blast" method of iron production. Coupled with a spray-type dehumidifier, it "conditions" 2700 tons of

air fed to the blast furnace each day—extracting up to 30 tons of moisture—eliminating unpredictable temperature variations in the reduction zone.

Over 1000 Carrier Centrifugal Refrigeration Machines are now at work . . . many in key defense plants making aircraft engines, explosives and munitions, food processing and storage, laboratory research and testing, parachute and flying equipment. They also make possible complete, low-cost air conditioning for "black-

out" plants, hospital operating rooms, and bomb protection shelters.

Carrier engineers in principal manufacturing centers work hand in hand with architects, engineers, and executives in helping select equipment, perfect new methods of installation—apply time and money-saving, tested "short-cuts", thus insuring the success of the finished job. For refrigeration or air conditioning data, call your Carrier representative.



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WEATHERMAKERS TO THE WORLD



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Fortunately, however, the house paint that has distinguished itself for long-lasting *protection* also has a reputation for long-lasting *beauty*.

Such a paint is the paint made with Eagle White Lead and linseed oil. Architects, builders and maintenance men know they can expect great things of it. This paint wears stubbornly and slowly. Its tough, elastic film doesn't crack or scale... 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.

Guarantee of purity appears on every keg

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Member of the Lead Industries Association

MONTH IN BUILDING

(Continued from page 42)

committee on post-war employment. Commenting on this development, New York City's energetic Park Commissioner Robert Moses estimates that the State should plan useful employment for 300,000 persons for two years following war's end. Figuring \$100 per man per month for wages, equipment, materials and overhead, \$360 millions per annum would be needed to foot the bills. Allowing 4 per cent for advance preparation of detailed plans and specifications, this boils down to a significant conclusion—\$14,400,000 a year to be spent immediately for advance planning in New York State alone.

Both Lehman and Moses emphasize that post-war employment is as much a problem for industry and business as for Government, the latter's role being simply to absorb those freed from war effort during the period in which industry reconverts to peacetime production. Cautions Moses: "So far, big business has, in my opinion, done little to anticipate the post-war problem. A little statesmanship in this quarter will do more to persuade the average citizen that private enterprise is worth continuing than all the paper arguments and slogans put together."

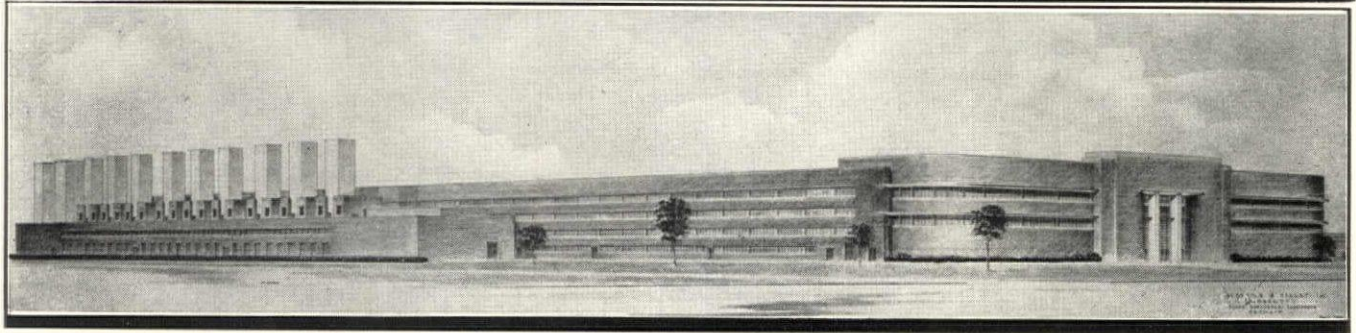
Industry Approach. Exhortation for private enterprise to hop aboard the planning bandwagon comes also from General Electric's Vice President and American Institute of Electrical Engineers' President David C. Prince. Foreseeing a post-war demand totaling \$23 billions a year for new construction, including plant equipment, he urges planning of a private building reserve similar to PWR's contemplated shelf of public works. Argues Prince: "If private industry falls down on its end of the job, if it fails to develop its reserve and to bring out that reserve to employ people, then by that same amount the share that the Government will have to take in will become larger. . . . The amount we will have to pay in taxes will be inversely proportional to our success."

Equally powerful economic reasoning in favor of planning can be found in a newly issued NRPB pamphlet authored by Harvard's Prof. Alvin H. Hansen. Labeled *After the War—Full Employment*, it scouts the commonly held fear that a sky-rocketing public debt will touch off the greatest depression of all history when war ends, argues instead that it's precisely that which will allow the U. S. to emerge into post-war prosperity.

Pamphlet's theme: "We shall have, when the war is over, the technical equipment, the trained and efficient labor, and the natural resources required to produce a substantially higher real income for civilian needs than any ever achieved be-

(Continued on page 46)

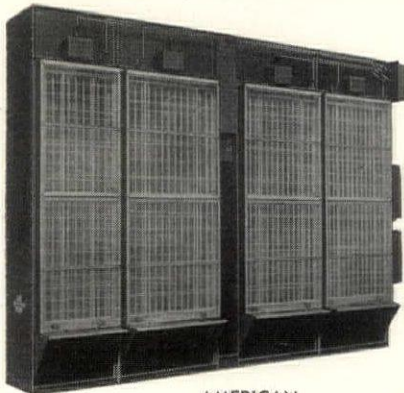
American Air Filters protect men, materials and machines in National Defense Plants



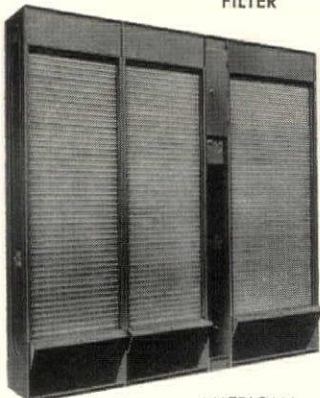
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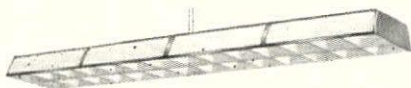
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MONTH IN BUILDING

(Continued from page 44)

fore in our history. Whether or not we shall, in fact, achieve that level of income will depend upon our intelligence and capacity for cooperative action. . . . We need to rebuild America—urban redevelopment projects, rural rehabilitation, low cost housing, express highways, terminal facilities, electrification, flood control, reforestation. . . . The notion that we cannot finance our own production is quite without foundation. Every cent expended, private and public, becomes income for members of our own society. Costs and income are just opposite sides of the same shield. We can afford as high a standard of living as we are able to produce."

Prof. Hansen's brave words carry authoritative weight. No crackpot, he is one of the most far-seeing men in Washington. Along with his colleague, Guy Greer, he advises the Federal Reserve System's Board of Governors.

The Twentieth Century Fund also has in preparation an ambitious series of books by Economist Stuart Chase analyzing various post-war problems—employment, investment, excess capacity, finance, money, foreign trade, agriculture, politics. The first, a prologue entitled *The Road We Are Traveling*, now in page proofs, reviews trends, outlines post-war objectives (housing included), raises an all-important question, offers an answer that should click sweetly with Prof. Hansen and like-minded planners:

"Where's the money coming from? Out of that one hundred million man-years of work wasted; out of that two hundred billion dollars of production which never was produced. It will come from the same place that the bombers, tanks and battle-ships are now coming from—out of the full employment of the people."

Progress Report. Also warmly encouraging for Building's post-war preparations is fact, unearthed by NAREB, that re-zoning and new planning is currently in progress in half of all American cities, often on a comprehensive scale. Even more significant, the reports from real estate boards in 230 cities reveal that defense localities whose land use has been most affected by population shifts, are the ones most frequently involved in such work. Six out of every ten were so engaged last year.

Case Study. Precisely how one metropolis should be rebuilt is proposed in a report on downtown Philadelphia, just issued by the Urban Land Institute. Based on a diagnosis by Richard J. Seltzer, one of Philadelphia's big skyscraper realty specialists, it calls for drastic surgery.

As with other large cities, the Quaker City's chief ailment is a flight of popu-

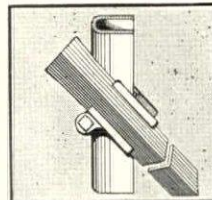
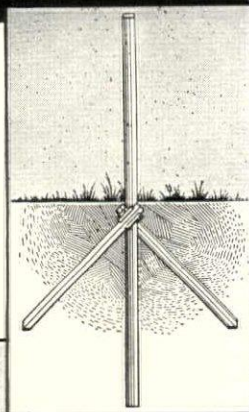
(Continued on page 48)

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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.



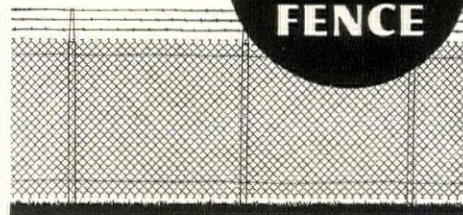
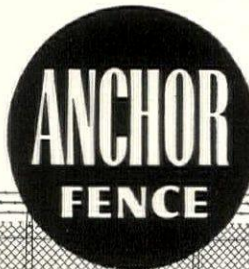
Anchor Post Clamps

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

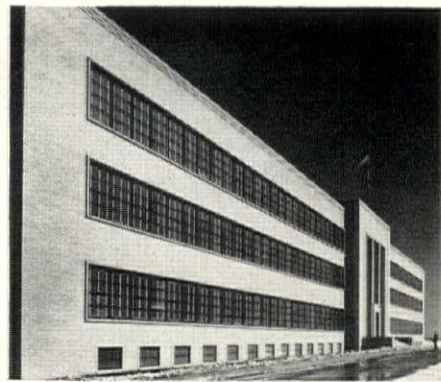
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FREE The West Dodd Engineering Department will be glad to assist in planning the application, or estimating costs.

MONTH IN BUILDING

(Continued from page 46)

lation into the suburbs which leaves its central area with the creeping paralysis of blight. Add to this a 52 per cent increase in auto traffic inside a decade, with no compensatory increase in street space, plus a disproportionately heavy tax load on property owners, and the major causes of urban decay are told.

Realtor Seltzer's prescription for improvement boils hard. His program includes rezoning, provision of parking areas on the present business district's edge, construction of apartments, duplexes and single family dwellings elsewhere, with ample green space around each building and numerous parks, playgrounds, other recreational areas. Traffic would be re-routed and stringently regulated, building heights restricted to size of lot. To assemble land in units large enough for such reclamation, the city would be given the right of eminent domain with a proviso that development be carried through by private capital. Needed municipal improvements would be selected by a non-political city planning commission working with a fiscal budget committee and a zoning commission.

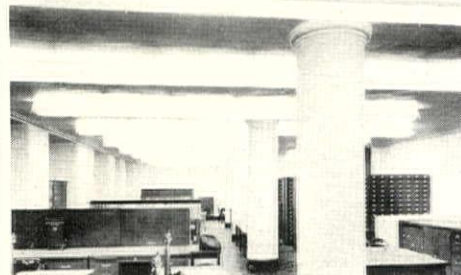
This report is fifth in ULI's series on decentralization problems. Earlier studies deal with Boston, New York, Cincinnati, Milwaukee. Scheduled for clinical treatment: Louisville, Detroit, Chicago, Cleveland, Des Moines, St. Louis, Richmond, winding up with an over-all report spotting common denominators which determine current urban trends. (For report on a proposed scheme to revamp Los Angeles street pattern, see "Forum of Events," p. 10; reviews of other publications on urban redevelopment, "Books", p. 22.)

Sour Note. With U. S. urban planning moving in high gear elsewhere, only discord last month came from New York City where the Planning Commission, currently engaged in some fancy feuding with the Housing Authority on project occupancies, took time off to junk the land-use maps prepared when ex-New Dealer Rexford Tugwell (now Governor of Puerto Rico) was chairman.

Eighteen months in the making, these maps had provoked opposition from taxpayers and property owners who feared the value of their holdings would be jeopardized by segregation of the city's area into sections deemed suitable for residential, business, manufacturing, other uses. Explaining its new stand, the Commission frowned formally on plans which suggest "drastic and revolutionary changes in ownership."

Numerous greenbelts around residential areas were included in the Tugwellian scheme of metropolitan expansion. Dirged Robert Moses, the Planning Commission's newest member: "Greenbelts are dead."

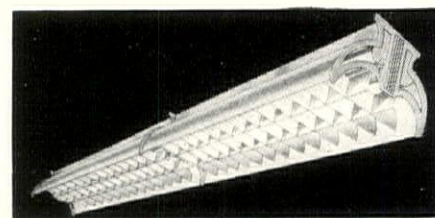
★ ★ ★ **Guth** ★ ★ ★
**Fluorescent
LIGHTING**
VITAL
Equipment
FOR
**THE ARMY THAT
WORKS INDOORS!**



*I*N factories, in drafting rooms, in warehouses, in offices — this is a war of nerves. Long, extra hours of eye-strain can greatly hinder America's productive efficiency — commit unintentional but damaging sabotage through errors, spoilage and waste.

Workers can do more work — better work — and enjoy all the other tremendous benefits of clear, effortless seeing with the help of GUTH Fluorescent Lighting. Users are proving this statement daily, attesting to better morale and greater working comfort — with efficiency up 15% and more in many cases.

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40th Anniversary of **Guth** Lighting Leadership
The EDWIN F. GUTH CO. • 2615 Washington Ave., St. Louis, Mo.

Architects: S. Harold Fenno, Utica, N. Y.;
 Sidney Morris (Chicago), Associate;
 Builders: Garrick Construction Co., Chicago



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Note the trim finished, ultra-modern appearance of Brasco Construction, with wide, safe grip on the glass.



WHEN you plan a store front with Brasco Construction, you automatically obtain the full benefits of its outstanding value — its ultra-modern, brilliant, enduring beauty—at moderate cost.

Exclusive mechanical features, combined with heavy-gauged metals and thoroughly reinforced bar members, provide girder-like strength and proven glass safety. Long, trouble-free service is assured. The over-all high economy of the installation is apparent.

The Brasco line is complete in every detail, with every complementary item essential to modern store front technique, carried out in unified, harmonious beauty and effectiveness. Brasco Construction has been perfected by

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National Distribution Assures Effective Installation

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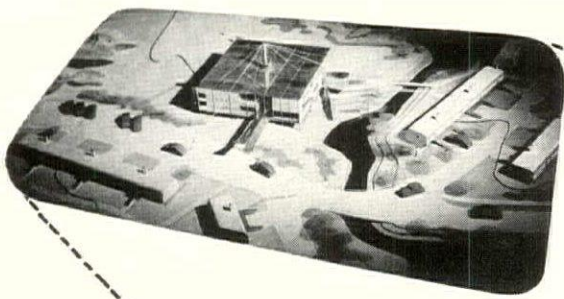
Send Samples and Folder of New Details of Brasco Modern Store Front Construction.

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Address.....

Individual.....

F342

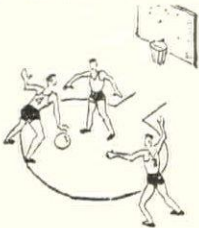


DEMOUNTABLE SPACE

the need: demountable space

the social center for changing civilization in the postwar period must fulfill many varied demands.

- group activities
recreation
exercise
facilities



- movies
lectures
religious
services
drama
production
conferences



- social
activities
exhibits
displays



- discussion
conference
clubs
library



- beginners care
and instruction
nursery
health



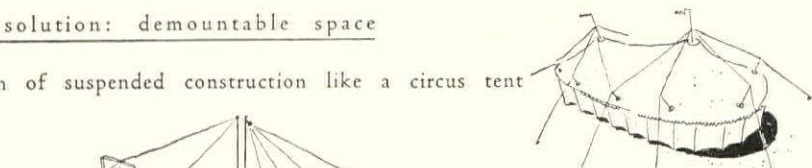
- instruction
in crafts and
technical
subjects



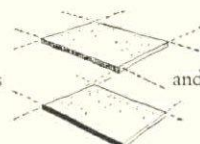
the solution: demountable space

system of suspended construction like a circus tent provides the most economical demountable space

the central column is a spiral welded structural chimney serving also as an erection crane



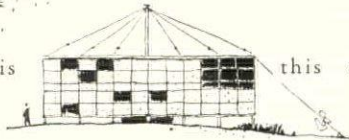
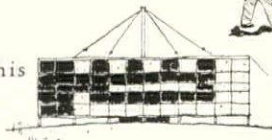
for standardized 12' x 12' floor and roof fabricated panels and for 12' x 18' wall frames



which standard light wall panels and window sections are inserted as

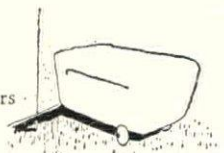
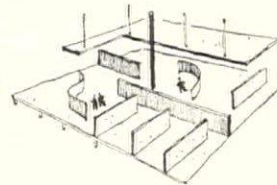
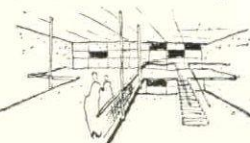


needed like this or this this system of space construction

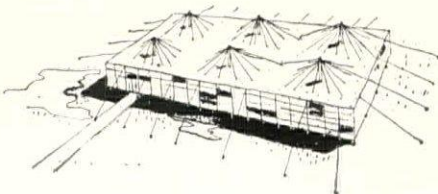


provides flexible packaged space that can be subdivided and replanned according to changing requirements

mezzanines hung to central column from above toilets and kitchenettes in prefabricated trailers



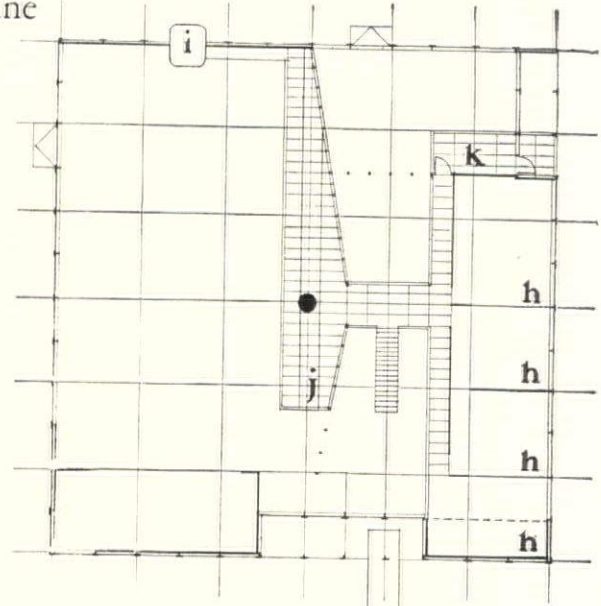
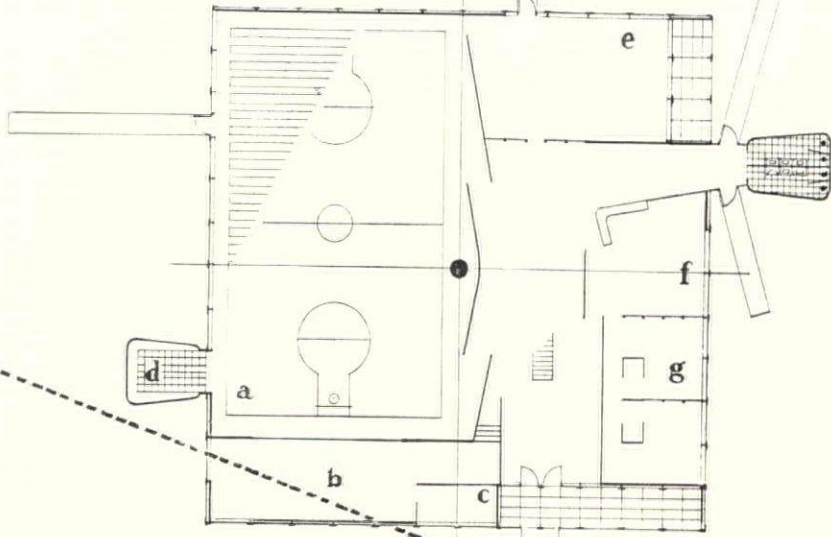
suspension system is adaptable to warehouse construction, factories, canteens, etc.



this demountable space study made by
EERO SAARINEN

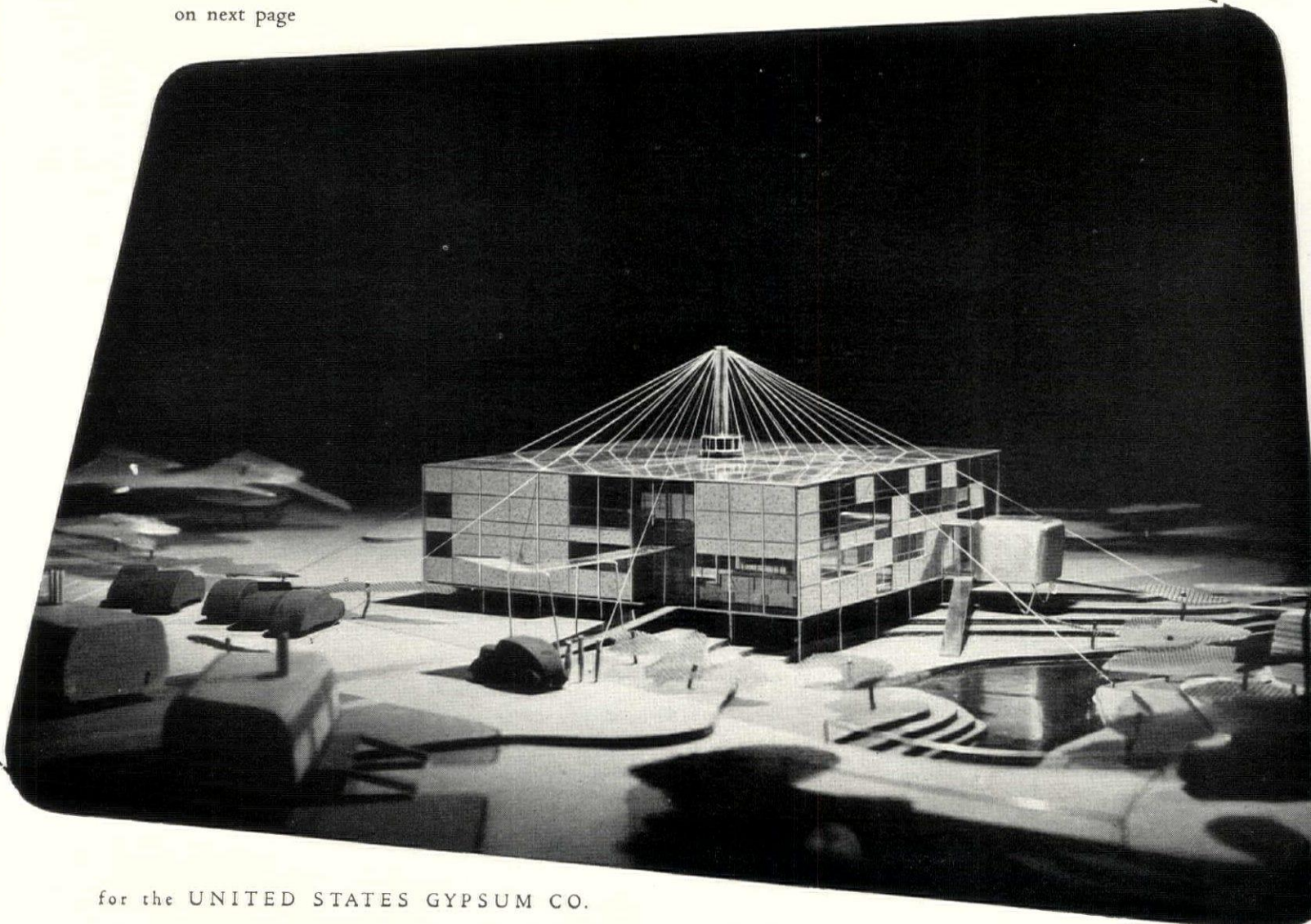
first

mezzanine



- a auditorium, gym
- b stage, club room
- c dressing rooms
- d kitchen
- e nursery
- f main office
- g manager
- h conference, meeting
- i projection room
- j balcony
- k observation

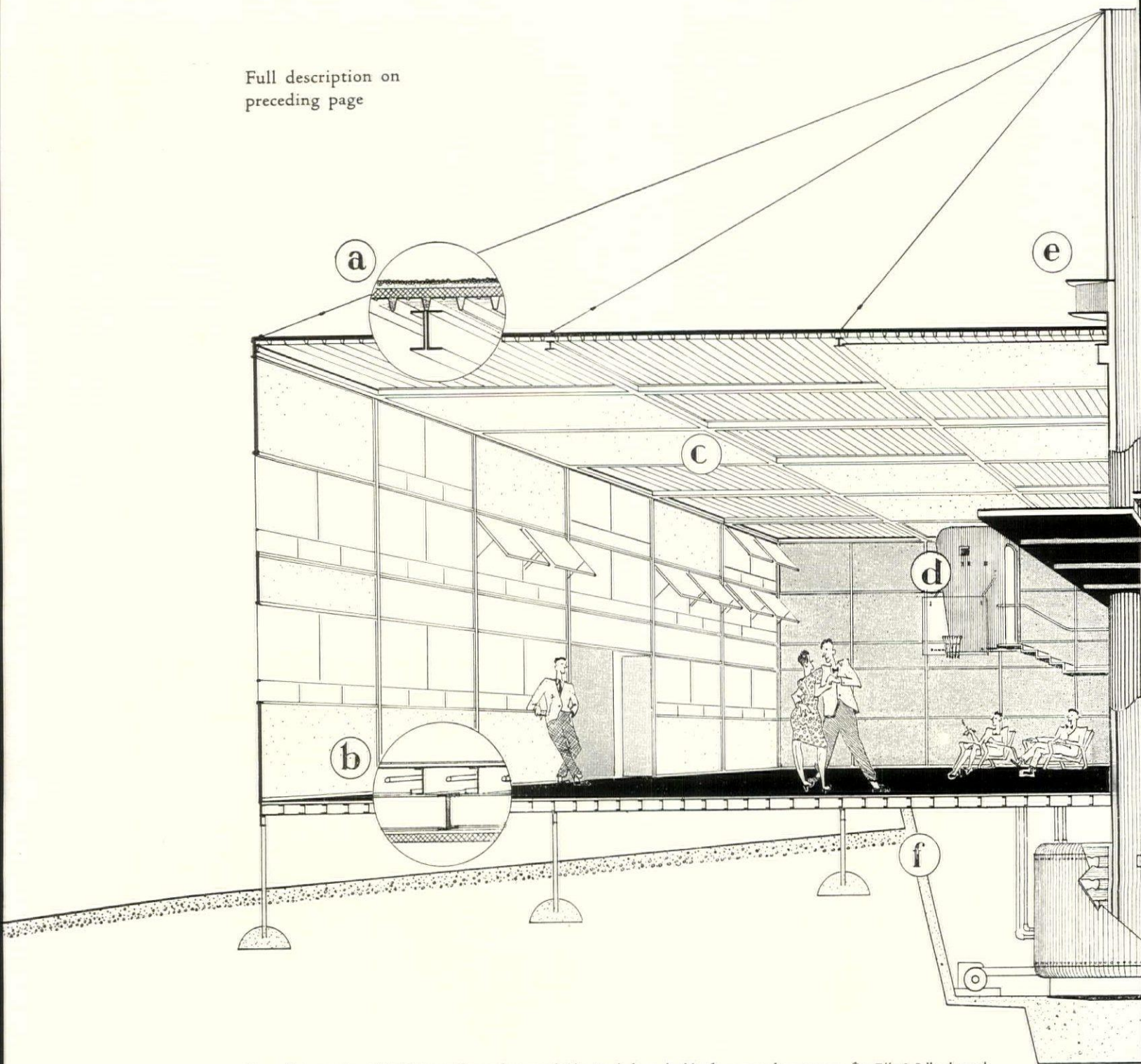
See detailed section
on next page



for the UNITED STATES GYPSUM CO.

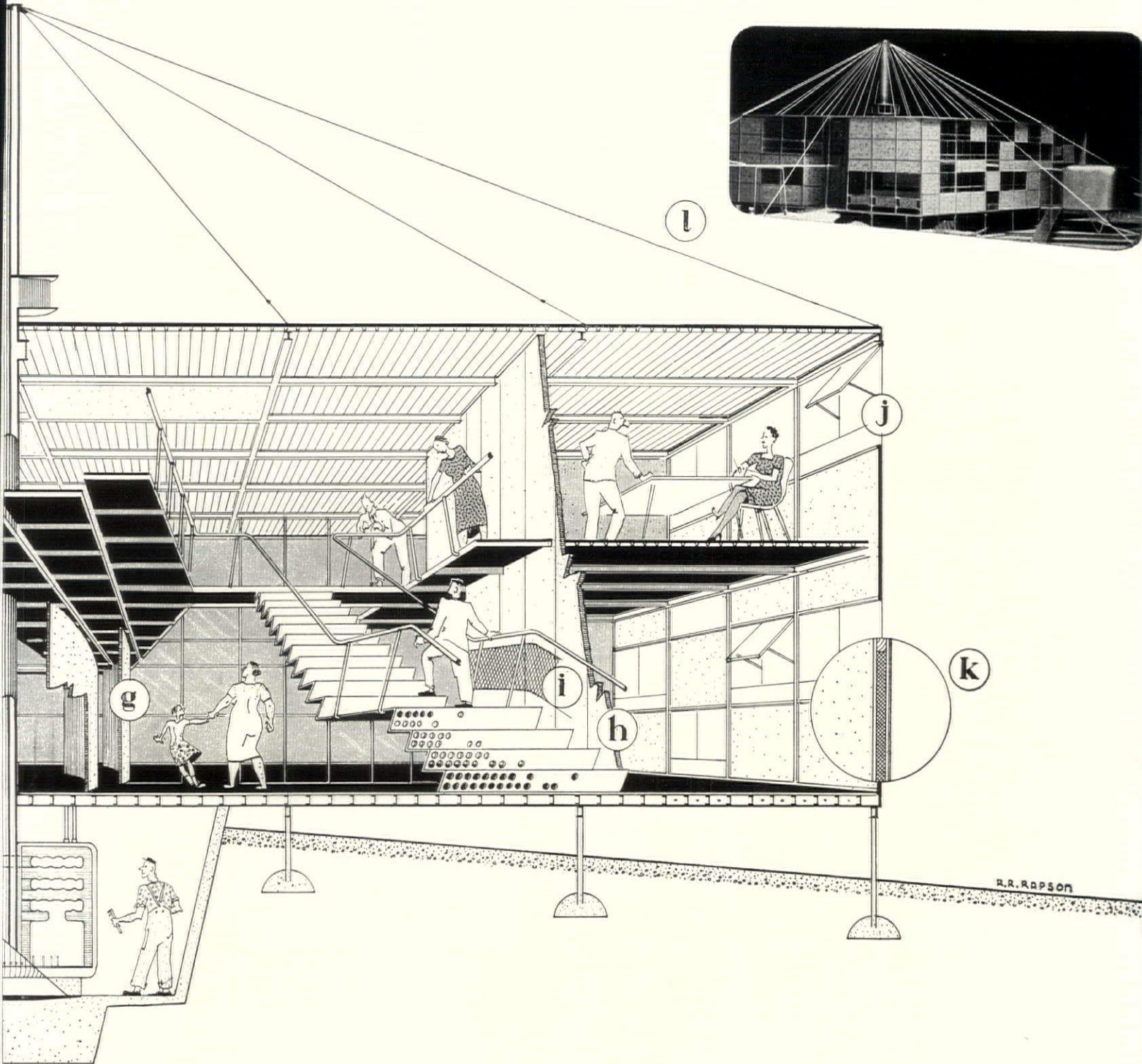
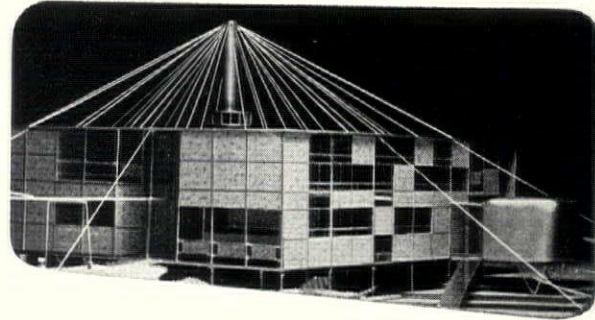
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Full description on
preceding page



- a roof construction 12' x 12' portable panels suspended by ring bolts and cables from central mast-crane. five 7"—9.8 lb. channels in frame form 2—6' spans for USG Steel Roof Deck two plies of USG 15 lb. asphalt-saturated felt mopped on 1" Weatherwood* roof insulation mopped to felt. built-up roofing: USG No. A-20-PB, 20 year, class A (no gravel) total weight, each panel, 1350 lbs.
- b floor construction composed of special design pressed steel panels 5" deep, supported by light structural steel frame 12' x 12'. battleship linoleum surface cemented over one layer of saturated felt, and ½" linoleum floor fill. radiant floor heating coil. Red Top* insulating wool bats or ½" Weatherwood insulation board. total weight approximately 1000 lbs. per panel.
- c acoustical treatment 1" Weatherwood low density board (noise reduction factor .75 absorption $C_r = .93$) in panels as required is easily alterable to suit varying occupancy demands for noise reduction or auditorium correction. may be tinted or vacuumed.
- d special fabricated projection booth hung from roof construction arranged for either interior use or projection to a screen hung between trees for "drive-in" or large summer assemblies. basketball back-board pivoted from face of booth.
- e spiral welded steel double central heating stack serves as structural mast, erection crane and exhaust stack. fully portable.
- f mechanical room — special fabricated central oil-fired boiler — radiant floor panel heating, footing for supporting mast.
- g curved interior partitions Weatherwood Hard Board in large sheets — providing maximum flexibility in re-use. unpainted.
- h shop fabricated flat interior partitions Sheetrock* in mountable panels. two coats USG Texolite* "330" washable paint.

*Reg. Trademark



- i stair and balcony guards Shelf-X* flattened expanded metal, painted. strong, low-cost, smooth, snagless, adaptable material.
- j standard 4' x 6' and 2' x 6' window panels inserted as needed in standard 12' x 18' frames give fully flexible fenestration.
- k standard 4' x 6' and 2' x 6' wall inserts of 1½" Weatherwood faced both sides with plywood. exterior finish painted canvas glued to plywood. alternate wall panel double USG steel deck bolted together with 1" Red Top insulating wool bats.
- l spun steel tension cables attached to central mast carry roof panels, and are guyed to ground, to stabilize structure.



UNITED STATES GYPSUM

*This famous trademark identifies products of United States Gypsum Company
—where for 40 years research has developed better, safer building materials.*

INSULATION • PLASTER • LATH • WALLBOARD • ROOFING • PAINT

Building Reporter

(Continued from page 4)

light-colored black coating serves to make room interiors more cheerful.

SHEET FIBER, developed as electrical insulation, offers low cost blackout protection. Gillette Fibre Co., 248 Boylston St., Boston, Mass.

Name: Gillette Black Fibre.

Features: This material comes out of the electrical insulation field where it has been competing as a substitute for vul-

canized fiber. Black, opaque, remarkably tough in ratio to its weight, it can be readily creased or folded to fit snug against window frames, thus permitting fastening with thumb tacks or push pins. When not in use, the sheets can be rolled into a comparatively small tube. Stock size: 44" x 80" in .019" thickness. Cost: approximately 1½ cents a square foot.

BLACKOUT AWNING keeps sun out by day, room light in at night. Acklin Stamping Co., 1923 Nebraska Ave., Toledo, O.

(See cut on page 2)

Name: Meta-Fold Blackout Awning.

Features: In a half-raised position, this product looks and functions like its stand-

ard peacetime metal awning cousin. However, it goes a step further: in a fully closed position, it becomes an effective barrier to any telltale light from the windows of factories, offices, homes, so on, during possible air raids. Supplied with an inside lock, it also serves as protection against prowlers. Each fireproofed galvanized steel segment is sealed from the next by a lightproof, noise-absorbing gasket. (Product obtainable only with priority ratings.)

WINDOW SHADE, lightproof, is also protected against wind pressures. Higgin Products, Inc., Newport, Ky.

Name: Higgin Light-Tight Shade.

Features: Developed originally to meet all darkroom requirements, this custom-built shade now finds itself meeting a new wartime need. The cloth—dark green or pebble grain black—rolls on a one-piece, spring-actuated metal tube. Metal side braces, in pairs, prevent wind pressures from forcing the cloth out of its channels, thus making blackout assurance doubly sure.

WINDOW SHADE has edges clipped or framed light tight. Clopay Corp., Clopay Square, Cleveland, O.

Name: Clopay ARP Shade.

Features: A washable fiber sheeting, this product has a dark base covered with an extra heavy oil coating containing exceptionally opaque pigments. (Alternate: an uncoated sheet of creped kraft fiber.) Shade laps over window casing, while hold-down brackets and side clips hold it secure against any light leakage. Wrapper provides a hood for the top. Also available, a blackout frame for holding shade edges firmly in place. Made of fiberboard covered with a washable ivory-painted fabric, its four 30" sections can be installed quickly on the window casing with four screw eyes.

BLACKOUT SYSTEM includes self-laminating paper sheet, daylight vent. U. S. Defense Materials Corp., 315 Berry St., Brooklyn, N. Y.

Name: Blackout Materials.

Features: One of the first to come on the market, this system consists of two simple elements: 1) a self-laminating blackout sheet which is applied direct on the window glass, 2) a preassembled daylight vent with movable panel which can be closed at night. The blackout sheet is

(Continued on page 56)



The Barcol OVERdoor

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GET enduring, efficient door service and keep maintenance at a minimum by using Barcol OVERdoors with Barcol Electric Door Operators. Barcol hinged-roller construction is an outstanding feature of this free-running, non-sticking door that closes tightly yet opens easily. Thousands of industrial installations testify to the success of the Barcol OVERdoor for industrial service. Ask your Barcol representative for detailed information.

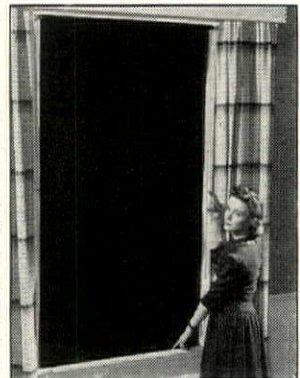
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SALES, INSTALLATION, AND SERVICE REPRESENTATIVES IN PRINCIPAL CITIES

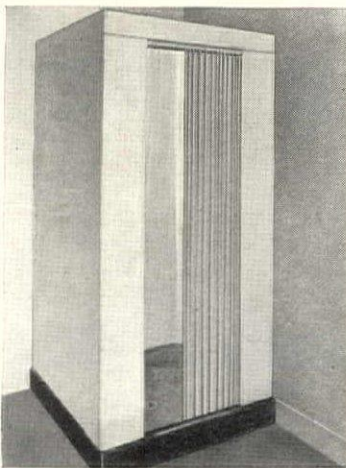


This paint-gripping metal meets many housing project needs

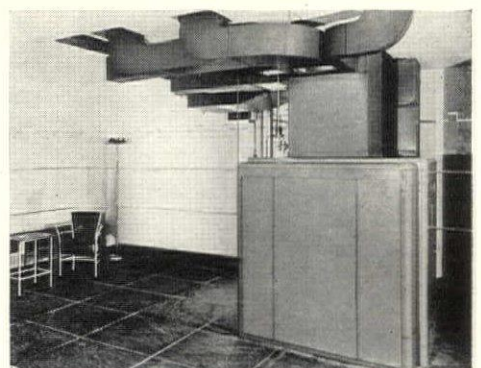
• Gutters and downspouts of ARMCO Galvanized PAINTGRIP Metal were specified for this government housing project at Zanesville, Ohio.



• Shower cabinets manufactured of ARMCO PAINTGRIP have a durable, attractive baked-enamel finish. They are moderate in cost and give extra-long service.



• Year-round metal awnings when made of ARMCO PAINTGRIP can be painted any color. Because the paint sticks tenaciously they keep their fine appearance in all kinds of weather.



• The furnace casing and the exposed air ducts are formed of ARMCO PAINTGRIP. You can paint them immediately and turn a basement into a pleasant recreation room.

VICTORY housing projects and other priority construction must go through fast, must be presentable for workers' morale, and must last. ARMCO Galvanized PAINTGRIP meets all these requirements for painted sheet-metal work.

Ordinary galvanized metal dries out paint oils and causes early peeling. This also happens when it is acid-etched to receive the paint. Yet ARMCO PAINTGRIP can be painted as soon as the work is erected. And it has a special bonderized film that insulates the paint from the galvanizing. Exposure tests show that good paint

lasts several times longer on PAINTGRIP sheets.

Illustrated on this page are some of the many building uses of ARMCO Galvanized PAINTGRIP—for national projects now and for private construction after the war. Write for complete data on ARMCO PAINTGRIP, the original bonderized galvanized metal. The American Rolling Mill Company, 591 Curtis St., Middletown, Ohio.



Building Reporter

(Continued from page 54)

black paper with an integral thermoplastic adhesive, protected by a removable covering of glassine. When needed, the sheet is merely stripped loose from the glassine and its adhesive-coated surface is ready for lamination. Tough but flexible, it can readily be cut to size with shears or knife. Even should glass panes be cracked into hundreds of splinters, the paper is sufficiently sturdy and sticky to keep fragments from flying. Available in

50 yd. rolls, 26" wide, packed in individual cartons weighing 10 lbs. each. Day-light vent has a flat channeled frame in which its movable panel slides. This assembly is likewise furnished with an integral adhesive, is available in individual window sash sizes.

BLACKOUT GLUE provides speedy fastening of blackout materials. Midland Glue Products Co., 1488 Madison Ave., Detroit, Mich.

Name: Blackout Glue.

Features: Either brushed or sprayed, this waterproof adhesive permits waterproof paper, cloth, other acceptable blackout materials to be attached to glass, metal, wood, other structural materials.

PROTECTIVE TRANSLUCENCY

Not in all cases is total blackout of windows desirable. Some degree of illumination may be needed, especially in guiding traffic. For this purpose this new product.

TRANSLUCENT PAINT permits signs and windows to be dimmed blue. Wilbur & Williams Co., Park Square Bldg., Boston, Mass.

Name: No. 3 Blue Translucent Paint.

Features: Developed primarily to cover glass areas, such as electric directional signs and certain industrial windows, where a minimum of light rather than a complete blackout is called for. (Also available: a window glass blackout exterior paint; an inside white paint; a white traffic guide paint based on formulas found effective in London.)

PROTECTIVE TRANSPARENCY

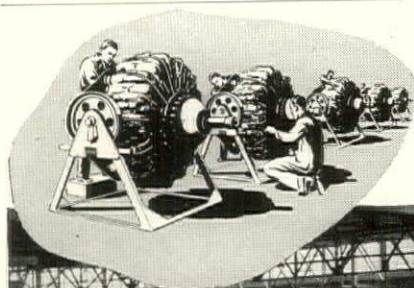
As England's wartime experience has shown, flying splinters of glass from bomb-blasted windows constitute the biggest civilian hazard. Most of the new blackout materials logically take this possibility in their stride, combine assurances of light tightness with promises that they can hold broken glass in place. However, in many instances the light-proofing and splinter-proofing virtues are preferably divorced. Thus, for windows with independent blackout controls, these:

GLASS COATING turns window glass into safety glass. Garinol, Ltd., London, England. American representative: Edward J. Fay, 522 Fifth Ave., New York, N. Y.

Name: Garinol.

Features: Originally developed to prevent the loss of expensive pharmaceuticals in case their glass containers should break, this product now boasts extensive use in England as a government-approved means of protecting the population against flying glass. A transparent liquid, it is brushed or sprayed on the inside window surface, dries into a hard, transparent finish of high tensile strength. Two coats are recommended for heavy glass. Being practically colorless, the coating does not interfere with the glass transparency. Tests show that it strengthens the glass, although breakage is not prevented. Broken pieces, however, are held together: no matter how badly shattered the window may become, there is no scattering of sharp-edged fragments. Treated glass is non-inflammable. Obscuration can be obtained by adding dyes or by applying any blackout paint. The coating adheres strongly, does not deteriorate or become brittle, is only mildly affected by atmospheric conditions, can be cleaned with water or dry duster. A solvent is required for removal. Production facilities are now being set up in the U. S. with marketing expected to begin immediately.

(Continued on page 58)



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COMES *Construction*



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CURING concrete factory floors, airport runways, access roads and structures — closing in — protecting materials, equipment and finished work — in these and numerous other ways, tough, waterproof SISALKRAFT paper is right in the thick of America's tremendous program of war construction. • Quickly rolled out over freshly finished concrete, SISALKRAFT assures thorough curing and effective protection without further attention, saving time, man-power and money. For speed, efficiency and economy in concrete curing — specify SISALKRAFT. Available for essential war construction needs in rolls, blankets and covers to suit every job. Convenient distributors' stocks throughout the country.



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DEFENSE HOUSING



FITZGIBBONS BOILER COMPANY INC.

reports on its activity in supplying HEAT for DEFENSE

THOUSANDS OF ACRES OF BUILDINGS

have been constructed to house troops in training, Army and Navy hospitals, laundries, recreation centers, store rooms, miscellaneous structures . . . plants for manufacturing airplanes, tanks, guns, munitions . . . housing for the workers in those plants . . . a multitude of other structures too numerous to list. . . .

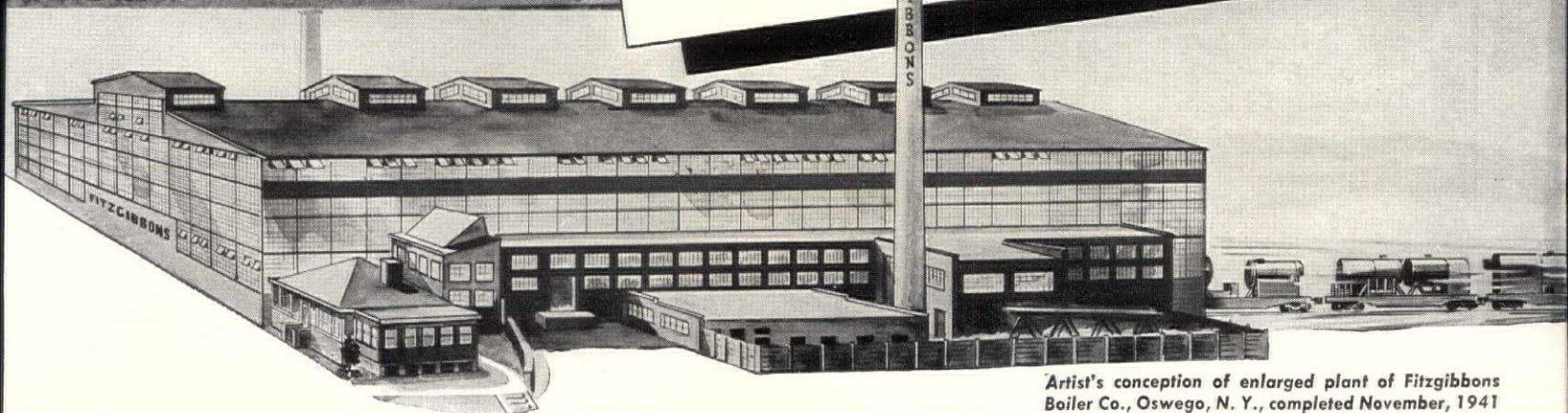
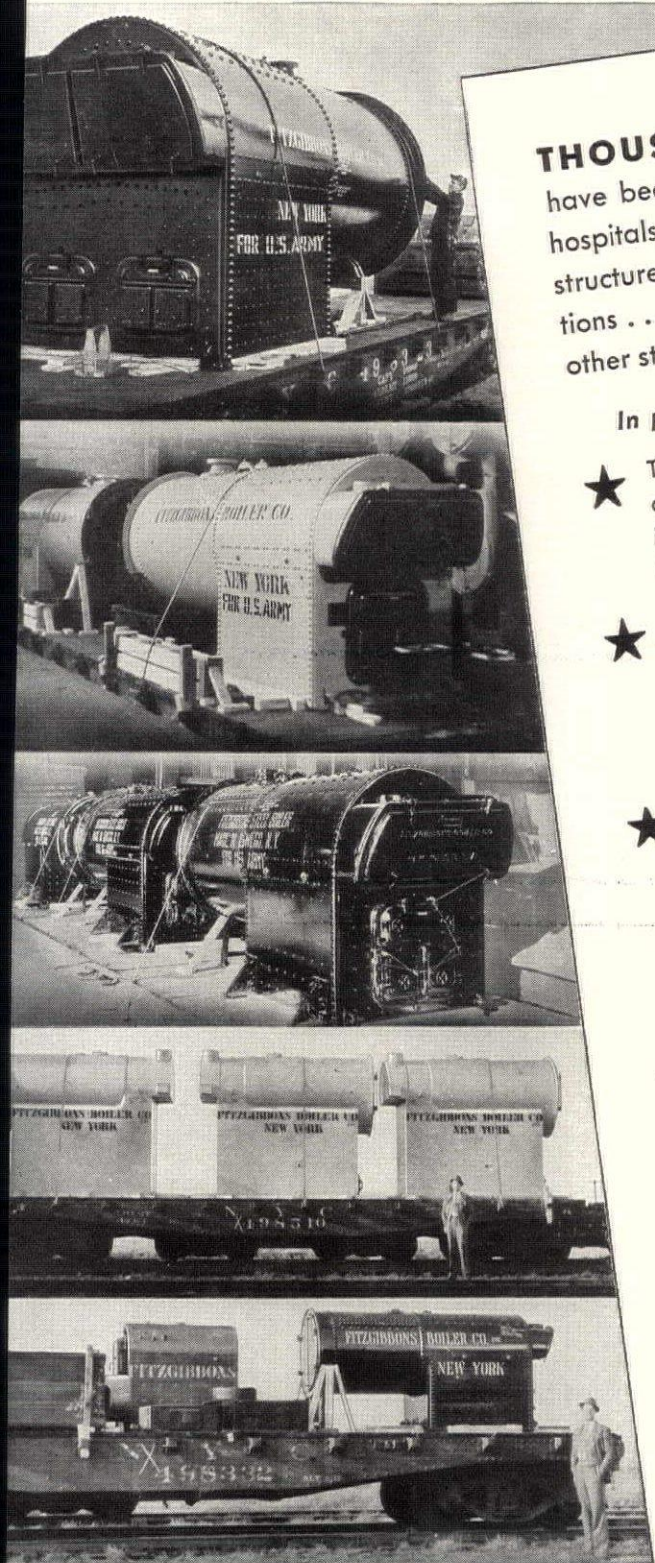
In practically all of those buildings, HEAT is as necessary as roofs.

- ★ To meet this need, Fitzgibbons has been called upon to supply its full share of the required heating capacity. Due to the importance and relative standing in the heating industry of the Fitzgibbons Boiler Company, this share is a very large one.
- ★ We have regarded this call to arms as a challenge of our productive ability. We have set our house in order by thoroughly modernizing our plant . . . girded ourselves for battle by focusing upon this huge productive effort, all of the skill and brains of our specialized engineers, past masters not only of heating unit design and construction, but also of time-saving production methods.
- ★ Roaring over the rails and roads has gone and is going, an unending and ever-growing stream of cars and trucks loaded with Fitzgibbons steel boilers and warm air furnaces — loaded, we should say, with COMFORT and HEALTH for the ordered multitudes of young men who are learning their part in the maintaining of our National Security — and learning it more rapidly because of the favorable living conditions established in a large measure of Fitzgibbons steel boilers and furnaces. This production must and will go on.
- ★ Naturally, Fitzgibbons deliveries for non-defense heating are retarded somewhat during the defense emergency. But the Fitzgibbons organization, veteran of three wars, in its fifty-five years of continuous productive existence has met and weathered these conditions before, and has helped its customers to do so.
- ★ Fitzgibbons has never neglected its obligations to the heating trade, to the architectural profession, to the army of home owners and builders who value its product — and will maintain those obligations by every means within its power, during the present phase of National defense.

Signed

Thomas Adams
President

FITZGIBBONS BOILER COMPANY, Inc.
101 Park Avenue, New York, N. Y.



Artist's conception of enlarged plant of Fitzgibbons Boiler Co., Oswego, N. Y., completed November, 1941

Building Reporter

(Continued from page 56)

GLASS COATING scatterproofs windows, does not obscure vision or light. Roxalin Flexible Finishes, Inc., Elizabeth, N. J.

(See cut on page 4)

Name: Roxaneal.

Features: This water-white transparent liquid is brushed on the interior glass surface, dries to form a film that does not stop the glass from fracturing but definitely keeps the broken glass in place. It does not obscure vision or light. (Avail-

able also in blackout type.) Windows may be cleaned with mild soap solutions without affecting the film's strength.

GLASS SUBSTITUTE uses Cellophane and cotton netting as protection against fragmentation. The Dobeckmun Co., 3301 Monroe Ave., Cleveland, O.

Name: Doplex Lamination.

Features: This flexible, lightweight transparent sheeting, previously used in packaging work, is currently being promoted as a substitute for window glass. Large quantities have been purchased by the Treasury Dept. for lend-lease export. Composition: two sheets of Cellophane sealed together, with 1/4"-mesh cotton netting in between for sturdy reenforcing.

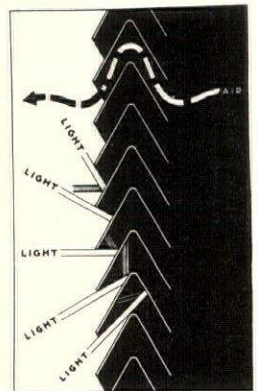
BLACKOUT VENTILATION

When windows are made light tight, they usually also become air tight. Thus arises another perplexing ARP problem—the provision of adequate ventilation during blackouts. Hence this newcomer:

BLACKOUT VENTILATOR'S louvers trap light, but allow air to flow freely through window. Ingersoll Steel & Disc Div., Borg-Warner Corp., 310 S. Michigan Ave., Chicago, Ill.

Name: Lite-Tite Ventilator.

Features: An outgrowth of the company's Koolshade screen, this ventilator's basic principle is simple: inverted V-shaped strips of cold-rolled sheet steel, forming a 60° angle, are set horizontally in a metal frame,



one above the other not less than 30 to the foot. Air passes through these louvers, but their precise angle and accurate overlapping blocks all light (see cut). Three models are offered: *Type A*, for steel or wood double-hung windows; *Type B*, for industrial sash, replacing regular swinging ventilator or stationary 4-light, 6-light, 8-light sections; *Type C*, also for industrial sash, replacing single 12" x 18" or 14" x 20" lights. To install, glass panes are removed, ventilator panels are substituted, clipped in and reputted. Ventilator can be shut off when not needed.

BLACKOUT ILLUMINATION

Not all lights need be obliterated in an air raid. Some lighting is essential in order to mark the position of hazards or obstructions, thus enable civilians to find their way safely in the dark—provided always, of course, there is no possibility of detection by hostile planes. To meet this requirement, this batch of products:

PHOSPHORESCENT CLOTH panels soak up light, then glow in the dark. Continental Lithograph Corp., Conti-Glo Div., 952 E. 72 St., Cleveland, O.

(See cut on page 2)

Name: Conti-Glo P-10.

Features: This material is a flexible phosphorescent lighting sheet, sold by the yard in the form of rolls (35" wide). In daylight it looks like an oil cloth: its surface is a near-white, smooth in finish and easily washable, with a closely woven, tear-resistant fabric backing that can be easily cut by knife or scissors into any desired shape or symbol. These cut-outs or panels are then taped, tacked or

(Continued on page 60)

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BOOK

A new book on the five types of Aerofuse Outlet — the scientifically built diffuser for Air Conditioning, Heating and Ventilating — contains complete engineering data, sizing system, dimension schedules, etc. Makes selection of the proper unit for the job quick and convenient. Send for your copy at once.

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2. Rapid Temperature Equalization.
3. Perfect Air Distribution.
4. Total Elimination of Drafts.

TUTTLE & BAILEY, Inc.
NEW BRITAIN, CONN.

NEW YORK CHICAGO PHILADELPHIA HOUSTON

½ a loaf is better than none... But



**THE INSULITE APPROVED
WALL OF PROTECTION
gives you the Whole Loaf**

**in building
protection!**

MODERN heating, air-conditioning and humidifying systems have created new problems in wall construction.

The Insulite Approved Wall of Protection gives you the whole loaf of protection against these problems.

Today, sound construction demands that the walls be built with a vapor barrier on the inside stud spaces to retard vapor travel and that outside walls be so constructed as to allow vapor that may escape the barrier to pass harmlessly on to the outside air.

Leading scientific authorities recognize this fact and state that unless walls are so constructed, destructive condensation within the wall is likely to occur.

The Insulite Approved Wall of Protection meets these requirements, and gives you:

- *Double insulation*
- *A double strong weathertight wall*
- *Double protection against destructive condensation within the wall.*

← OUTSIDE

Bidrite Insulating Sheathing allows what little vapor that may have escaped the vapor barrier to pass on to the outside air.

Build with Insulite Approved Wall of Protection, and get the whole loaf in scientific wall construction.

Write today for "Scientific Facts" booklet which quotes unimpeachable authorities on moisture condensation. Address your inquiries to Insulite, Dept. AF32, Minneapolis, Minnesota.

→ INSIDE

Sealed Graylite Lok-Joint Lath with an asphalt vapor barrier effectively retards vapor travel.

U Value... 0.15

INSULITE

**THE ORIGINAL WOOD FIBRE STRUCTURAL
INSULATING BOARD**

INSULITE
Minneapolis,
Minnesota



Division of
Minnesota and
Ontario Paper
Company

(Continued from page 58)

cemented to walls, ceilings, doors, stair nosings, handrails, entrance steps, or any surface over which blackout traffic must be directed. They can also be used to make fire fighting and other emergency equipment. Unlike fluorescent materials which require invisible black light radiations for their activation, the panels are activated by exposure to daylight or artificial sources of light, then continue to glow unassisted in total darkness. The

greater the intensity of light falling on the sheeting, the greater will be its initial emission of light. Permanently fixed wall and ceiling panels should therefore be placed near artificial light sources so as to become properly excited prior to any blackout. If the panels are sufficiently large, their afterglow is ample enough to permit even printed pages to be read—thus constituting an emergency lighting system for small rooms that operates independent of any wiring or power hook-up. Material lasts indefinitely indoors, at least six months outdoors, regardless of how many times it is activated.

BLACKOUT LUMINAIRE embodies British experience, yields light that cannot be seen

from air. Holophane Co., Inc., 342 Madison Ave., New York, N. Y.
(See cut on page 2)

Name: Holophane Blackout Unit.

Features: Developed in collaboration with the company's engineers in London and intended for non-detectable illumination of factory yards, store entrances, highways, other outdoor installations, this fixture follows the rigid requirements of the British Air Raid Precautions Specification. Its overhanging brim housing has an outside diameter of 10 3/16", is equipped with a prism glass ray spreader with black-enameled center designed to prevent telltale light from shining directly downward. Mounted at a height of 20' with a spacing of 100' between units, its 6-watt lamp spreads a maximum of 0.0004 foot candles of illumination on the ground—"the approximate equivalent of starlight on a clear night."

BLACKOUT LAMP provides soft blue down-beam for safe indoor lighting. Wabash Appliance Corp., 335 Carroll St., Brooklyn, N. Y.

(See cut on page 2)

Name: Wabash Blackout Bulb.

Features: Lamp is lined inside with silver. This hides all filament glare, projects the light downward. Light leaks are prevented by a black silicate coating that covers the bulb up to the extreme lighting end, colored a deep blue. Consumes 25 watts, lists at 45c.

GLOW LAMPS promoted for blackout use. Lamp Dept., General Electric Co., 410 Eighth St., Hoboken, N. J.

Name: G-E Neon Glow Lamps.

Features: Not precisely new as a product but boasting a newly discovered virtue, these low-wattage lamps are being promoted for use as location or switch indicators during blackouts. Containing gases that become electrically excited, they produce a very low intensity, orange-red light that is sufficient only to outline nearby objects and cannot be seen from afar. Having no filament, they do not produce any appreciable heat, can withstand shock and vibration.

RAID ALARMS

Even if municipal air raid sirens were a more certain quantity, it would still be a question whether their wail could penetrate the din of most industrial plants. To resolve any doubts on this score, there comes this new communicator:

ALARM-PAGING SYSTEM includes talk-back feature. Executone, Inc., 415 Lexington Ave., New York, N. Y.

(See cut on page 2)

Name: Industrial Paging System.

Features: System accommodates 2 to 70
(Continued on page 62)

The High Cost of Thermostat Jiggling

WOULDN'T you say that the same common sense facts, that apply to the economical running of a car are true with heating also?

The fellow who drives in fits and jerks, regardless of the speed, eats up more gas than the steady mile-in-and-mile-out driver.

If such be so, then the constant jiggling of the thermostat by different members of the family, uses more fuel than if left alone at a steady comfortable average temperature.

It's been proven beyond all argument that an even temperature of 70 for day and 62 for night is one giving the most economical comfort. It's the proven economy-comfort range.

And another thing, for every degree above 70 to 75, three percent more fuel is used. That means a 75 temperature uses 15 percent more fuel than a 70. In terms of coal, it's 300 lbs. out of every ton burned.

In any event, Burnham Yello-Jacket Boilers sting the fuel bill, in spite of the thermostat jigglers.



Mother pushes it up.
Father pushes it down.
Grandpa takes a hand.
Bill, the high school son,
yaps: "For Pete's sake stop
everlastingly arguing and
jiggling that thermostat.
Someone someday will make
one that can be set and
locked and then there'll be
peace around here." Bill,
you've got something there.

Burnham Boiler Corporation

Irvington, N. Y.
Dept. J

Zanesville, Ohio
Dept. J

Representatives In All Principal Cities
of the United States and Canada

It's time to think twice... before you specify paint



You're money ahead
when you paint with

White Lead

BUILDING construction in times like these demands the utmost prudence in looking and planning a long, long way ahead.

To protect your work from weather's ravages, it is more important than ever to specify pure white lead paint today—for two common-sense reasons.

First, with pure white lead paint, you know you're getting top-quality protection. The best painters have used and recommended white lead paint for generations.

Second, white lead paint has no superior when it comes to withstanding weather — *and that's vital today because there's no telling how long a paint job may have to last.*



"Historic New Jersey in Pictures"

Remember, white lead is made from lead—a metal that's second to none in durability, in resistance to exposure. White lead endows paint with this same toughness and weatherability.

That's why white lead paint gives you such long-lasting protection against the climate's worst. That's why it keeps its good looks, season after season, wearing down slowly and evenly—without cracking and scaling.

White lead costs no more than regular quality paints. Its beauty and grace, its standout protection, make a good

job look even better — make it another case where the best is cheapest.

LEAD INDUSTRIES ASSOCIATION
420 Lexington Avenue, New York, N. Y.

INFORMATION FOR ARCHITECTS—Pure white lead is sold by paint stores in two different forms: (1) as a paste, commonly known as "lead in oil," for use by painters and decorators in mixing their pure white lead paint to order for each job, (2) as pure white lead paint in ready-to-use form, in popular-size containers. Remember you are not confined just to white — a wide range of colors is available.

White lead is also the backbone of other quality paints. In specifying exterior paint it is a safe rule to follow: "*the higher the lead content, the better the paint.*"

210 YEARS OF HOSPITALITY, ENHANCED BY WHITE LEAD—The Village Inn, Englishtown, N. J., has been operated continuously since 1732. Its inviting looks and sound condition after two centuries are tributes to the lasting protection afforded by pure white lead paint.

FREE GUIDE TO BETTER PAINTING — Send today for valuable booklet "WHAT TO EXPECT FROM WHITE LEAD PAINT" containing complete information about low-cost quality painting on all types of surfaces.



Building Reporter

(Continued from page 60)

stations. Anyone seeking to signal an alarm merely approaches the nearest station and talks into the mouthpiece of a specially engineered, telephone-type handset. The trumpet speakers at all other stations announce the call. If used for paging, the person hearing his name called, no matter where he is, approaches the nearest station and removes the handset. Private two-way conversation is then established. All trumpets are automati-

cally silenced. Round-table conferences with any number of persons are also possible. When system is in use, either for paging or for two-way conversation, a busy-signal light flashes on all stations.

FIRE FIGHTING

The Normandie's overturned hulk alongside a Hudson River pier illustrates poignantly what can happen when a fire is drowned in a deluge of water instead of being gently smothered into extinction. With incendiary bombs the problem is acutely serious: if drenched too abruptly, they explode. To overcome this hazard:

NOZZLE converts water stream into water-fog, projects smothering mist into fire at

high velocity. Rockwood Sprinkler Co., 38 Harlow St., Worcester, Mass.

(See also cut on page 4)

Name: N-20 Rockwood Waterfog Nozzle.

Features: By a method known as internal impingement, this nozzle breaks the water stream into small mist-like particles, produces a combination of high and low velocity waterfog patterns. The high velocity



pattern helps project the low velocity fog into the seat of a fire, thereby permitting it to be extinguished from distances not possible heretofore with fog or spray type nozzles. Evaporation of the moisture results in a cooling effect which aids the fog blanket materially in smothering the blaze. Fires in flammable liquids or in electrical equipment can be extinguished quickly at a safe distance. Ditto with oil and phosphorous type bombs. Thermit magnesium bombs can be prevented from starting fires by simply cool-wetting the areas on which they rest while they burn themselves out.

SAWDUST, chemically treated, extinguishes incendiary bombs. Flameproofing Engineering Co., 1917 Bay St., Los Angeles, Calif.

Name: De-Oxo-Lin-Treated Sawdust.

Features: Simply cover incendiary bombs or any magnesium fire with the sawdust. Gases generated from the chemically treated material will stifle the blaze.

FOAM MIXING CHAMBER designed for oil tank fire fighting. American-LaFrance-Foamite Corp., Elmira, N. Y.

Name: Evertite Mixing Chamber.

Features: Installed on oil storage tanks of the pressure type this unit produces a blanket of foam which smothers any burning oil surface. A glass diaphragm, glazed in a metal frame, prevents vapors in the tank from entering the mixing chamber under normal conditions, yet ruptures fully and easily under foam pressure in event of a fire, allowing the foam blanket ready access to blazing surfaces. Diaphragms are easily replaced.

FACTORY PROTECTION

Fire as a major instrument of war—whether by saboteurs or bombardiers—gets full attention by the National Fire Protection Assn., in a new booklet on how to organize industrial workers and plants into effective fire brigades. Copies may be obtained from the Assn.'s headquarters—60 Battery March St., Boston. Price: 25 cents each.



"ELECTRIC EYE"

opens new doorway
to success

Here's a practical, low-cost way to modernize, attract new customers, win favorable publicity! Install "The Phantom Doorman" on your hinged entrance or service doors.

"The Phantom Doorman"—easily adapted to various door conditions—also prevents unnecessary loss of air conditioning. On service doors (in restaurants, industrial plants) it saves time and repair cost.

It is manufactured by the makers of the famous YALE Line of locks and hardware.

Engineering Firms Help Plan, Install, Service

Engineering contractors in major cities have been appointed distributors. Write for details and name of your distributor.



**"THE PHANTOM
DOORMAN"**

**ELECTRIC-EYE
CONTROLLED DOOR**

**OPENER
CLOSER**

TRADE **YALE** MARK

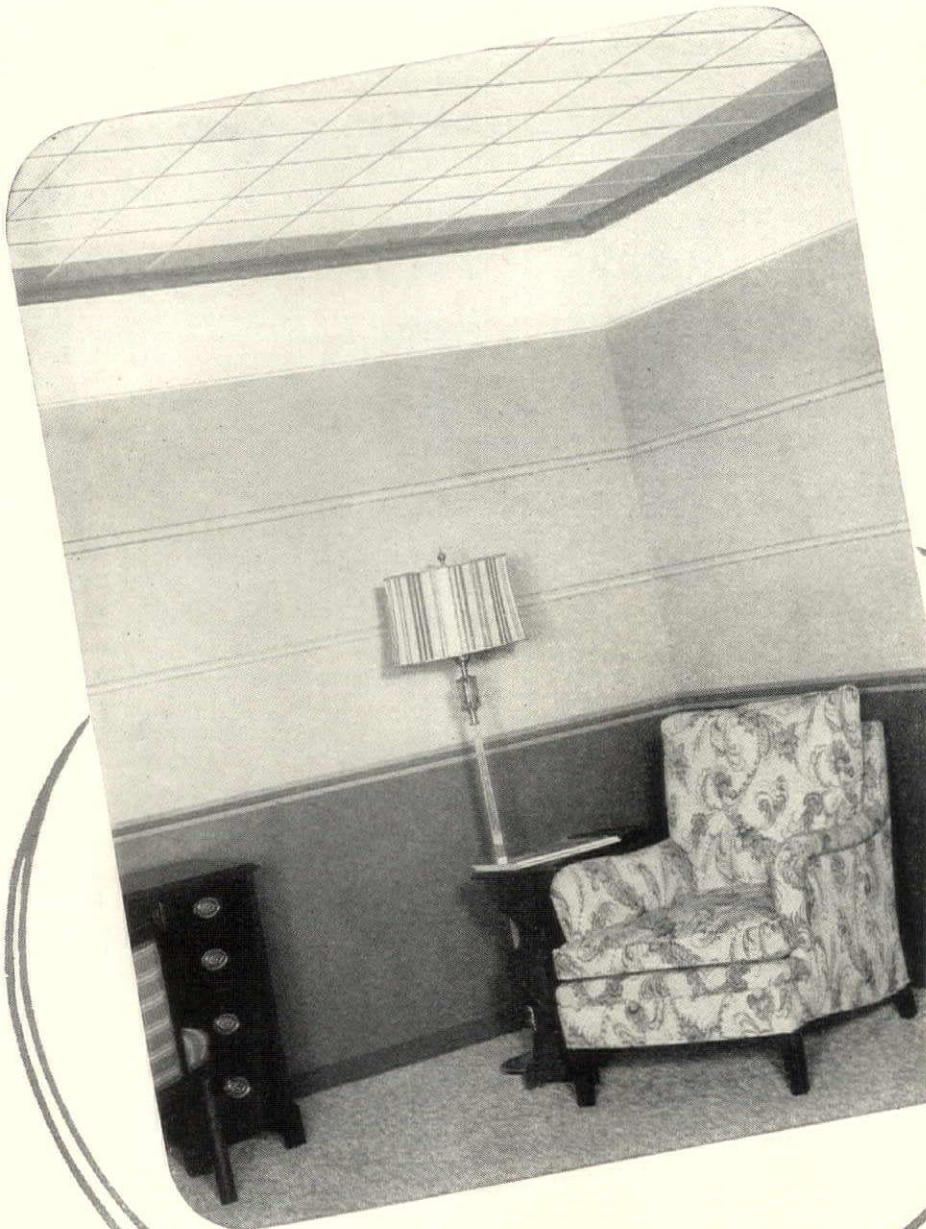
The Yale & Towne Mfg. Co.
Dept. 43, Stamford, Conn.

Please send free Bulletin, "The Phantom Doorman," together with Information Sheet enabling me to get price quotation and complete blue-prints.

NAME

ADDRESS

CITY STATE



**FOR A BETTER
MEASURE OF
VALUE CHOOSE**

Nu-Wood
**INTERIOR
FINISH!**

• There are excellent reasons why Nu-Wood Interior Finish is able to maintain its position of leadership year after year . . . why it remains first choice among insulating interior finishes with so many architects. For behind Nu-Wood is a program of continuing research, devoted to the single-minded task of keeping Nu-Wood value far above the average. That is why Nu-Wood has been so constantly improved . . . why it is always a step ahead of the field. And that too is why it offers your clients a greater measure of beauty, efficiency, and service.

FADEPROOF COLORS—Nu-Wood Kolor-Fast interior finish has warmer, richer hues that blend harmoniously with each other. Nu-Wood colors are made fadeproof by an exclusive process.

BETTER JOINT TREATMENT—A superior type tongue and groove joint on Nu-Wood Tile, Plank and Wainscot provides for application of various sized units in combination to produce an attractive and distinctive wall and ceiling treatment.

CONCEALED CLIP APPLICATION SYSTEM—A special clip system is available whereby nails are concealed—lending additional refinement to Nu-Wood applications where Adhestik is not used.

KOLOR-TRIM MOLDINGS—The warmer, richer colors of Nu-Wood blend harmoniously with Kolor-Trim pre-decorated wood moldings—enhancing Nu-Wood beauty and distinctive charm.

STA-LITE—Nu-Wood Sta-Lite has a special white matte surface with the high light reflection factor of 76%—a surface which grows lighter with exposure.

A WEYERHAEUSER PRODUCT—Nu-Wood is manufactured by the Wood Conversion Company—a division of Weyerhaeuser, the world's greatest name in lumber. No wonder you get more value in Nu-Wood products!

NU-WOOD
Kolor-Fast **INSULATING INTERIOR FINISH**

WOOD CONVERSION COMPANY
Dept. 147-3 First National Bank Bldg., St. Paul, Minnesota
Gentlemen: Please send me complete information about the new Nu-Wood Kolor-Fast and Sta-Lite.

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

LETTERS

(Continued from page 26)

able to step forward into wider fields of activity (see Lt. Col. Homer Saint-Gaudens' article in the January 'Military Engineer'). The general effort called for a great sacrifice. To belittle this work is neither just nor generous.

While writing in a critical vein, may I point out what seems to be another error. On page nineteen of the same issue appears this phrase: "Thus on an infra-red

photograph real trees appear almost white while painted ones show up black." I am no expert in photography, but according to findings to date, it seems that one must distinguish between deciduous and evergreens, as the latter, deficient in infra-red reflectance, show dark in infra-red photographs like the artificial trees.

Still another item might be disputed. Referring to the illustration on page twenty-four, I wonder if the dummy factory is not too close to the real factory (except under conditions of dive bombing). There are some who would suggest from two to three miles as a safer minimum, lest the real factory be hit by mistake.

These criticisms aside, I think that on the whole you have produced a valuable document.

GREVILLE RICKARD

New York City

FORUM editors agree with Messrs. Rickard, Root and Embury that the contributions to camouflage made in World War I were important, regret that they unintentionally helped spread a misconception as to the value of this pioneering work. Concerning Mr. Rickard's other criticisms: it is true that not all trees show up light in infra-red photographs—evergreens do photograph dark. As for the acceptable minimum distance between a camouflaged military objective and its dummy, so many factors would have an influence in actual practice that the point cannot be discussed in the abstract. The dummy causeway in the famous Binner Alster example (p. 20) was well under a half mile from the original, and would have failed in its purpose if a rigid minimum distance had been adhered to.—Ed.

POST-WAR BRITAIN

Forum:

There is more public enthusiasm for reconstruction and replanning in Britain than there has been for many years.

Long before the war is over Britain hopes to see a Ministry of Physical Planning set up and endowed with all the requisite powers for its work. The Government has already pledged itself to the principle of Central Planning and has before it, not only the recommendations of the Royal Commission on the Distribution of the Industrial Population, but also that of a Committee appointed to consider the question of speculation in land values.

This latter has reported in favour of each town being given compulsory powers to enable it to buy out the owners of its land, where necessary, at prewar values. Everyone therefore, is beginning to look forward to the ideal of a planned Britain; that is, one with perfect town and perfect country subsisting side by side and complementing instead of destroying each other.

Britain is reaching a period of stable population which should make replanning easier, while the raids have created in many places opportunities to get rid of the slums and other maladjustments.

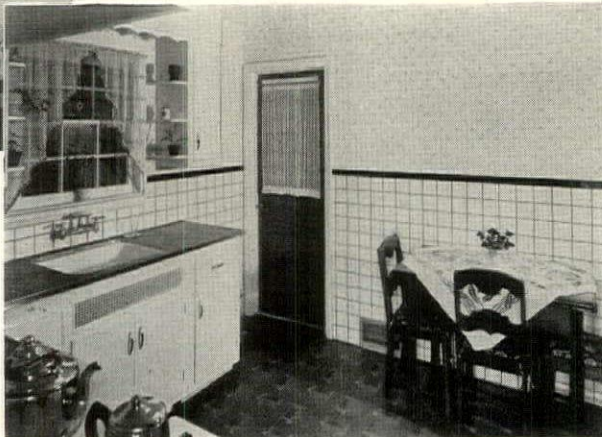
It is generally assumed that a further committee of experts, which has been appointed, is already engaged in drawing up the outlines of the main plan for the whole country. They would settle, for instance, such questions as which new coalfields should be opened up; where new water power is to be developed—the River Severn with its great tides might be utilized by means of a barrage; which main line railways, if any, are to be turned into motor roads; whether certain routes, like the Great North Road, should be duplicated; and, most important of all, which of the great towns are to be reduced in size by moving their factories, which towns are to be increased, and where new ones are to be placed to take the overflow from the old.

(Continued on page 66)

Marlitz for Defense Homes ..Low Cost..Speedy Installation ..Minimum Labor



400-Home Blue Ridge Development uses Marlitz in all Kitchens and Bathrooms. Homes sell for \$4500 top.



MARLITE is more than adequately meeting the need for a modern, colorful and durable wall treatment for defense home kitchens and bathrooms... one that can be installed quickly and easily. Being Pre-finished, Marlitz requires no finishing on the job. Its tough, glass-smooth surface is highly resistant to mild acids, alkalies, soaps and other common detergents. Installation requires no special craftsmen. A good carpenter can readily cut the large wall-size panels to proper size and shape and apply in a minimum of time. Available in over 100 colors and patterns. See Sweet's Section 11. Or write for New Catalog.

MARSH WALL PRODUCTS, INC. • 31 Main St., Dover, O.



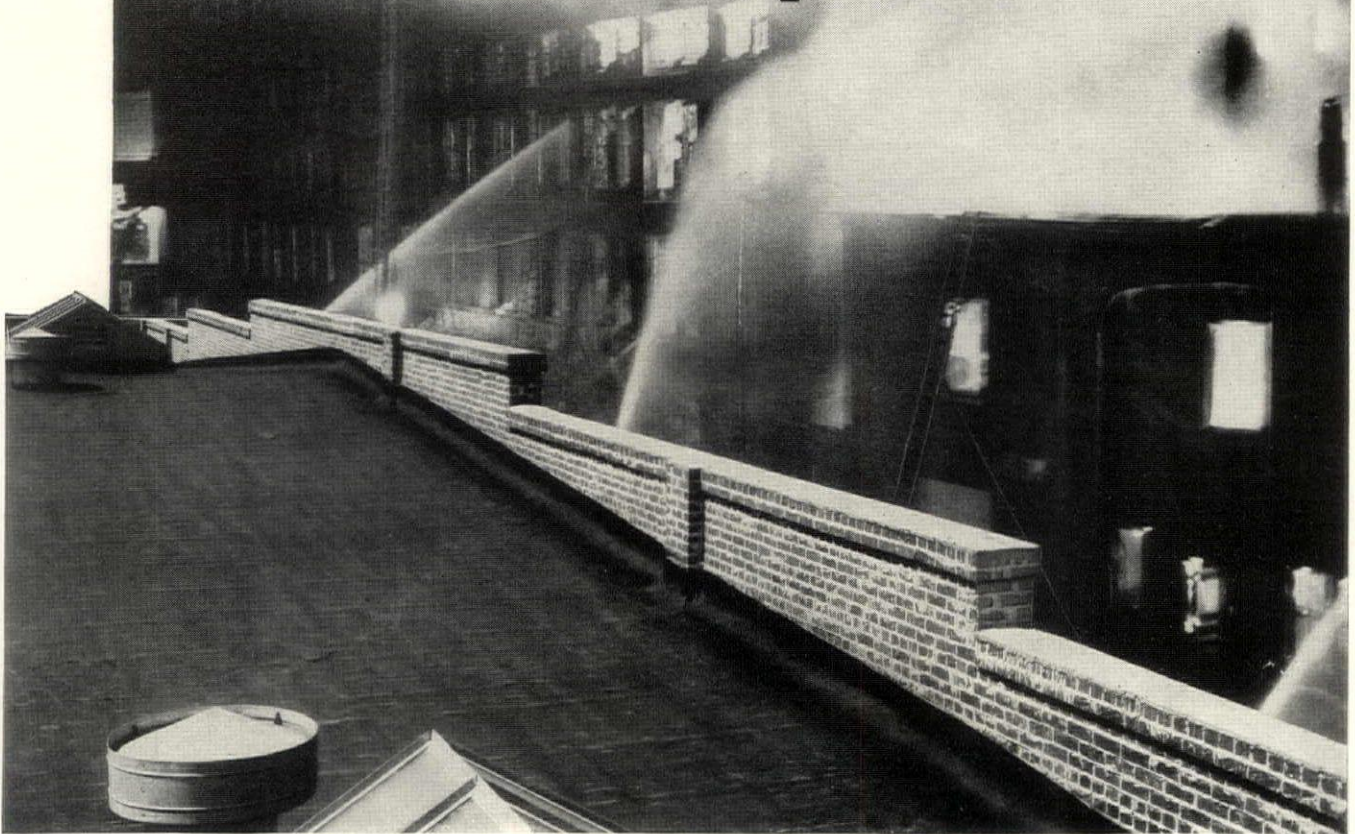
*Trade Mark
Reg. U. S. Pat. Off.

Pre-finished WALL PANELS

FOR CREATING BEAUTIFUL INTERIORS

PLAIN-COLORS HORIZONTALINE WOOD-VENEERS • HEATEX •
TILE-PATTERNS MARBLE-PATTERNS • CARSTENITE • MARSH MOULDINGS

Never before has FIRE-PROTECTION been so important!



A Johns-Manville ASBESTOS Built-Up Roof protects against fire at the most vulnerable part of any building

There's every reason why you should be thinking about fire-protection today—but no reason why the roofs you specify should be at the mercy of flaming embers from a near-by fire. With a J-M Smooth-Surfaced Roof you provide the protection of ASBESTOS! In our files are many records of buildings which, threatened by outside fires, have been saved by their J-M Roofs.

And a J-M Asbestos Roof offers equal protection against high upkeep costs. Rotproof, it needs no periodic coating to withstand the drying-out action of the sun. Many J-M Roofs that were applied 20, 25 and 30 years ago are still giving excellent service with little or no cost for maintenance!

You should have all the facts about these safer roofs. Write Johns-Manville, 22 E. 40th St., New York, for a copy of the 48-page book, "Things you should know about your Roof."



JOHNS-MANVILLE
Smooth-Surfaced
ASBESTOS BUILT-UP ROOFS

**THE ROOF
WITH THE SAFETY
FACTOR**

LETTERS

(Continued from page 64)

It is hoped that the Ministry of Planning will grow, out of the existing Ministry of Works and Buildings and with the same Minister, Lord Reith, for his driving power and his disinterestedness have been proved.

Already he has the power to prevent anyone spending more than \$500. on a building operation without a licence. By retaining such powers when the war is over for the reconstruction period at least, it will be possible to say not only where every

new building should be placed, but what it should be made of, and what it should look like. . . .

First, with such powers it will clearly not be possible to rebuild some of the 'blitzed' areas at all. In any case some can be left as open spaces and gardens. The Paternoster Row area, behind the buildings in St. Paul's Churchyard for instance, would make a delightful resting place with the views of the Cathedral between and over the buildings.

Then some of the larger 'blitzed' areas may make it possible to let "tongues" of real country into London and other towns. The ideal of the star-shaped town with no buildings more than a mile from the open

country might be approximated. In London it would be possible to mark the position down each spoke of the star by a tall tower as the municipal office of the borough in question, and allow no other buildings of a similar height to interfere. These towers would radiate round the centre of the town as Wren's church towers did round St. Paul's and, if lit up at night, express throughout the twenty-four hours the configuration of the city.

Circumferential roads would, of course, cross the tongues of country, but there should be no buildings other than farm buildings in these areas. There might even be, as a long term policy, a circumferential green belt where in most towns today there is a decaying area of Victorian streets which are of no architectural interest and destined to become slums.

Under this green circular belt might be a circular railway connecting the main railway lines and so taking both goods and passenger traffic from the centre. Above the surface a wide circular drive should be planned, with elegant clover-leaved crossings where main radial roads are met with.

Where it is not possible to bring in a patch of green country, the radial roads might be parkways lined with trees and grass, bringing a breath of the country into the heart of the town, as so often done in the States.

But whatever shape the final town may take, it must end clearly on one side of the road with no frayed edges or even, as is the case today, a rash of badly built houses sprawling for miles into the country. . . .

The canal roads of today, with houses on both sides, should disappear except as connecting links between areas. Instead, blocks of flats and terraces of houses should be built in these districts, so spaced and designed that every living room gets the sunlight, while the building itself subtends an angle not greater than twenty degrees over its opposite neighbour.

With such blocks of ten-storey flats 250 ft. apart, one could have density of population as great as in any slum area at present. Most of the dwellings could have their small private gardens, but such an arrangement would mean a Park City with all its residential buildings facing the sun and set among trees.

Round the municipal tower in each area would be grouped the educational, recreational and religious buildings as well as the shopping centre.

Radiating to this centre would be paths from the park-like residential area of which it is the focus. I imagine such a local centre built in its distinctive materials and colours, and with all its buildings in architectural relation to each other—for the sense of community must be fostered.

Some of this may be a dream, but it is the dream of many in Britain today, and some of it will certainly come true.

C. H. REILLY, F.R.I.B.A.

London, England

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SAFETY
BEAUTY
ECONOMY
DURABILITY

MODERN in style, economical to maintain and engineered for long life, Knapp Metal Casings fit perfectly into any type of modern building — permanent or temporary.

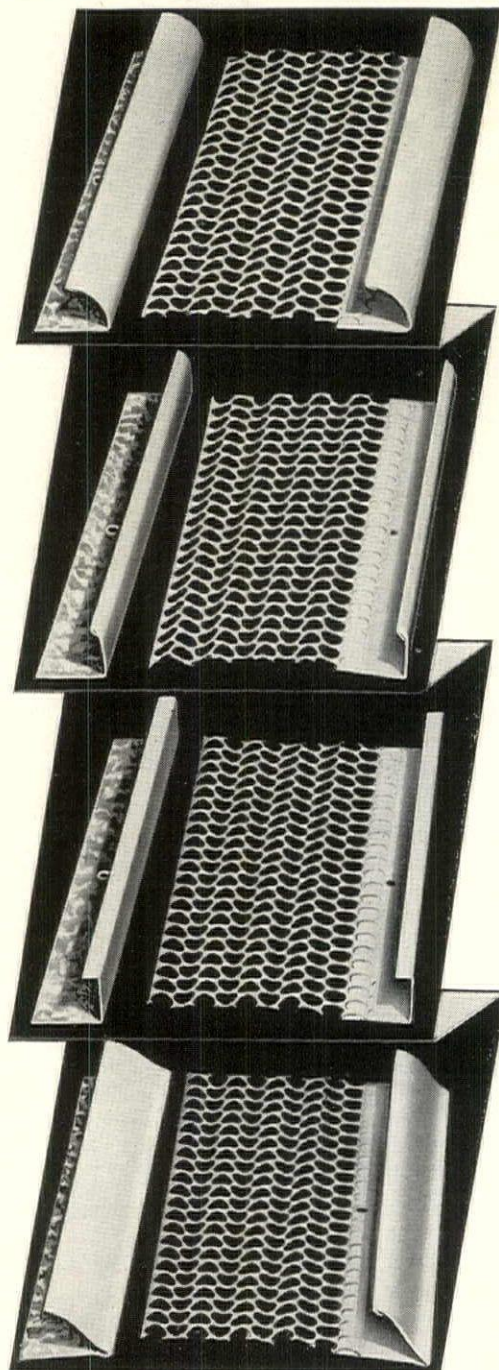
Knapp makes a complete line of metal building products, including window and door trim — window stools — base — chair rails — blackboard trim and chalk trough — picture moulds — corner beads —

screeds and many others.

FOR FURTHER INFORMATION



Write today for a complete set of full size details of all Knapp trim.

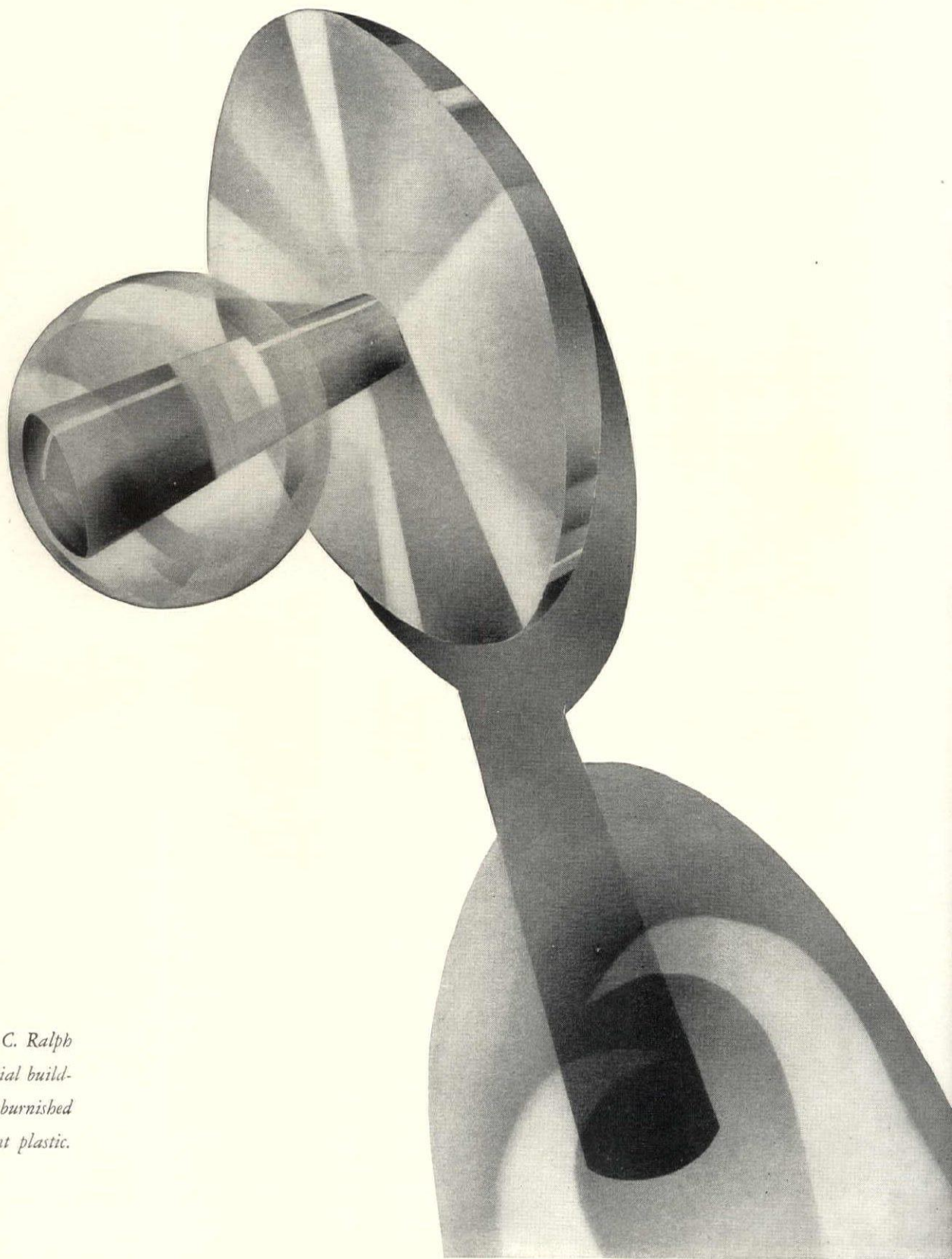


KNAPP METAL TRIM

KNAPP BROS. • MANUFACTURING CO.
GENERAL OFFICES • JOLIET, ILLINOIS

"... 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 Morris Ketchum, Jr. and C. Ralph Fletcher present a design for commercial buildings. The plate and shank are of burnished white metal, the knob of translucent plastic.

Reading presents a series of interesting 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

"PYROFAX" GAS Can Help You Sell Defense Housing!

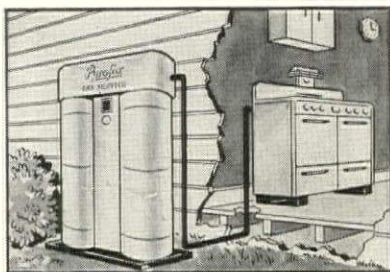


Section of Tremont Gardens Development at Falls Church, Va., which is now using "Pyrofax" Gas.

HOUSING for defense workers is creating a boom in realty—much of it in property beyond the city gas mains. To progressive architects and builders, "Pyrofax" gas offers the opportunity of providing defense workers with all the conveniences, comforts and health gained by cooking, heating, and refrigeration with modern gas.

"Pyrofax" gas is real gas—not a liquid fuel. It burns with a clean, blue flame that leaves no soot or disagreeable odors. And it is so economical that it can operate room and water heaters and refrigerators as well as cooking ranges at costs well within the means of limited incomes.

If you want to add the most modern home appliances with the most modern gas fuel to your development—investigate "Pyrofax" Gas Service. Write today for free data sheets on installations to Dept. P-1, "Pyrofax" Gas Division, Carbide and Carbon Chemicals Corp., 30 East 42nd St., New York City.



DEPENDABLE
"Pyrofax" Gas Service has brought gas to homes beyond the city mains for over 20 years! Installations are simple. They require no digging.

PYROFAX

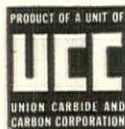
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FOR FURTHER
INFORMATION

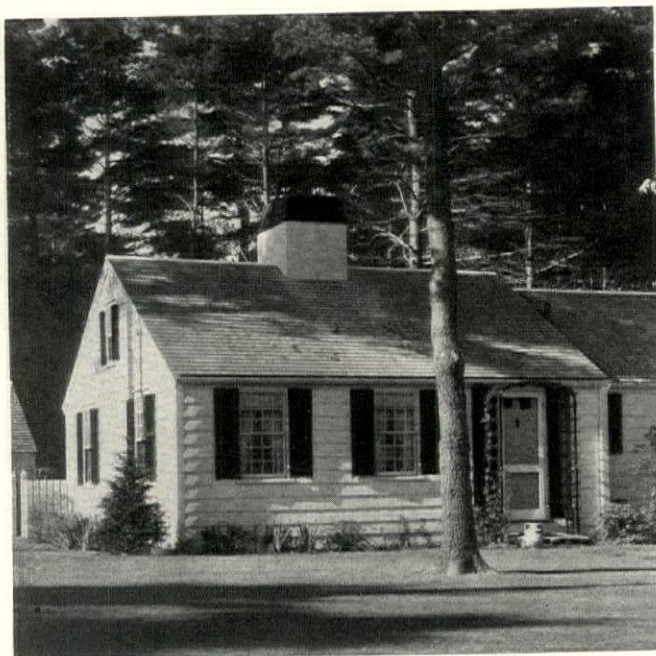


SUPERIOR GAS SERVICE

COOKING • WATER HEATING
REFRIGERATION
BEYOND THE GAS MAINS



Thrifty Insulation for WAR Housing



"Quilt" insulated house, Hingham, Mass.
Architect: George R. Paul, Hingham

Cabot's "Quilt" meets *all* the requirements of an insulating or sound deadening material for defense projects. It is economical to buy. It is quickly and easily installed. Its convenient blanket form permits air circulation, thus preventing harmful moisture condensation in the walls. "Quilt" is rot-proof, vermin-proof, stays permanently in place, and does not settle.

for thrifty beauty
and protection — use
Cabot's Shingle Stains

FREE BOOKLET

Build Warm Houses. Write today for your copy of this informative, file-size booklet, which gives much data on insulation. Address Samuel Cabot, Inc., 1266 Oliver Building, Boston, Mass.

Cabot's "Quilt"

Heat Insulating

Sound Deadening

MIAMI CABINETS and ACCESSORIES

Provide Bathroom Beauty and Utility in

LOW COST HOMES

Every architect knows that when he must create an unusually luxurious bathroom, a MIAMI CABINET is one of the answers to his problems.

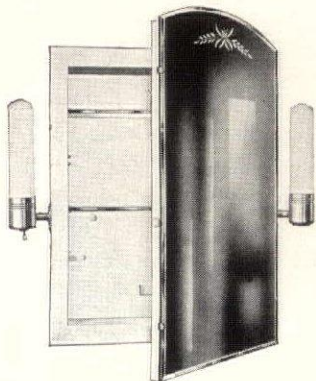
Not so generally known is the fact that Miami also produces beautiful and distinctive cabinets that are correct in size and price for low-cost homes; and that these models are just as outstanding, price for price, as Miami's finer creations.

Regardless of the price class Miami Cabinets offer superior quality, more alluring beauty, more convenience features. And because this is true, more families are enjoying the luxury of Miami Cabinets than any other metal bathroom cabinet built.

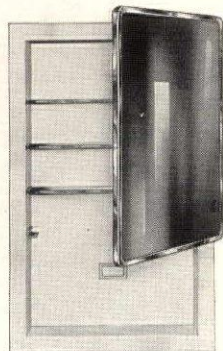
Whatever your bathroom cabinet problem—whether for public or private housing, for cottage or mansion—you'll find the answer among MIAMI'S 140 lovely models. See Catalog in Sweet's, or write for illustrated book, address Dept. AF.

MIAMI CABINET DIVISION

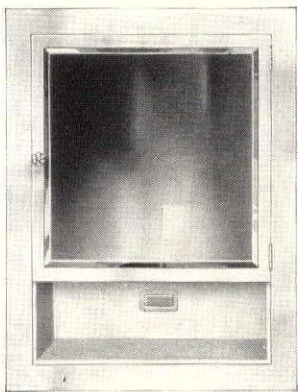
The Philip Carey Mfg. Company
MIDDLETOWN, OHIO



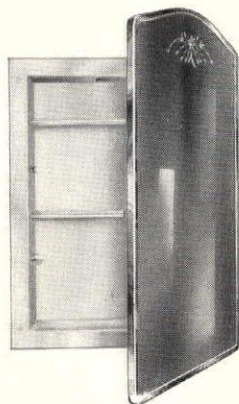
No. 406
An all-mirror front model with demi-tubular light bracket completely wired at factory.



No. 1616
Ideal for a man's bathroom. Open shelf below door for shaving articles. Mirror set in stainless steel frame.



No. 210
This flush door recessed cabinet is a popular model for government housing projects.



No. 400 CF
For the inexpensive bathroom where chrome accessories are used. Mirror is set in stainless steel frame.

A typical bathroom in the "DESIGN FOR HAPPINESS HOMES" illustrated below. The cabinet is a MIAMI Colonial model No. 405 with all-mirror front and suitable for houses in the \$4000 price class.



"Happiness Homes" built by Dale M. Garnsey, Toledo, Ohio. Architects: Mills, Rhines, Bellman & Nordhoff, Inc., Toledo.



FORUM OF EVENTS

(Continued from page 12)

AWARDS

Three national student prize winners were selected by the American Institute of Decorators in their sixth annual Rorimer Design Competition. First award went to Miss Jane M. Dorsey of the New York School of Interior Decoration, second to Mr. John W. Thiele of the New York School of Interior Decoration and third to Miss Martha Templeton of the University of Washington. "A Community Day

Nursery" was the Competition problem. Twenty-five of the best entries have been selected to be sent through the country as a traveling exhibition.

Dr. Frederick Ernst Giesecke, Professor Emeritus, Heating, Ventilating and Air Conditioning, at A. & M. College of Texas, was awarded the F. Paul Anderson Gold Medal by the American Society of Heating and Ventilating Engineers for distinguished scientific achievement, at the 48th Annual Meeting of the Society in Philadelphia. Dr. Giesecke was born in Washington County, Texas, in 1869 and was graduated from the Agricultural and Mechanical College of Texas. He later studied abroad under Dr. H. Rietschel

and subsequently received degrees from the Massachusetts Institute of Technology and the University of Illinois. He taught at A. & M. College from 1886 to 1912, after which he became Professor of Architecture at the University of Texas. In 1927 he returned to A. & M. College of Texas as director of the Engineering Experiment Station, a position he held until his retirement in 1939. In 1940 he was President of the A. S. H. V. E. He is the author of several books including "The Design of Gravity-Circulation Water Heating Systems," and joint author with A. Michell and H. C. Spencer of "Technical Drawing and Technical Drawing Problems."

PERSONALS

ASSOCIATED LANDSCAPE ARCHITECTS, 664 North Michigan Avenue, Chicago, announce the formation of an organization, in addition to their individual practice, composed of the following six professional landscape architectural firms who are collaborating in the planning and supervision of landscape and defense projects: C. B. Andrews, Fitzgerald & Atkinson, Robert Bruce Harris, Ralph Rodney Root, Simonds West & Blair, F. A. Cushing Smith & Associates.

E. E. ROBERTS AND ELMER C. ROBERTS, Inc., Architects, announce the removal of their offices to 22 East Huron Street, Chicago, Ill.

MR. JOHN W. ROSS, Architect, has been elected Vice President in charge of new business of the William L. Crow Construction Company, New York City.

MR. HAROLD H. EHLERT, Detroit Architect, formerly of 730 Whitmore Road, announces that his new address is 7380 Franklin Road, Franklin, Mich., and asks that manufacturers make note of this change.

VICTORINE AND SAMUEL HOMSEY AND THEODORE FLETCHER, Architects, announce the removal of their office to Lancaster Pike, Hockessin, Delaware.

ANNOUNCEMENTS

A Civilian Defense Reference Center, containing information on all phases of public, domestic and industrial air raid precautions, has been established in the free public library at Cooper Union in New York City. Technical material for air raid wardens and general instructions for small home and store owners are available to all adults from 8:30 a.m. to 10 p.m. on weekdays, and 1 to 9 p.m. on Sundays. The new center was installed at the request of the Office of Civilian Defense and various departments of the art and engineering schools at Cooper Union, and it contains an extensive public collection of books and pamphlets on

(Continued on page 74)

★ A quick glance down the column at the right shows instantly how extensively Weisways fit into our Nation's "all out" military and production program.

These complete, self-contained, leakproof baths have the qualities of adaptability and dependability which meet, exactly, the problems of bath facilities in all types of civilian defense housing as well as in our far-flung Military and Naval establishments.

Already Weisways are helping maintain the health and morale of our fighting forces and of the men and women on the all-important production "front"—and many thousands more will be required for the vast expansion to be made this year. Architects should have complete and up-to-date information about Weisways for today's vital needs.

New catalog booklet, in full color, illustrated above, is just off the press. Write us now for your copy, without obligation.

Henry Weis Mfg. Co., Inc., 302 Oak St., Elkhart, Ind.

**WEISWAYS ARE
BEING INSTALLED
IN**

**Defense Plants
Dormitories and
Barracks**

**Demountable
Houses**

House Trailers

Army Posts

Naval Bases

Officers' Quarters

Hospitals

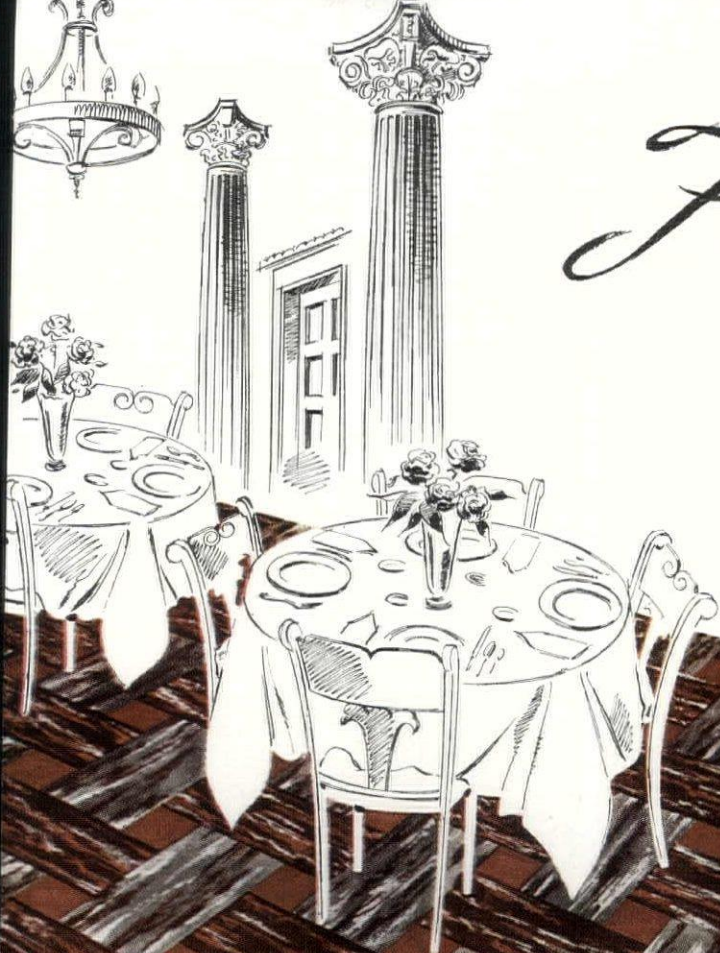
Nurses' Homes

**Civilian Defense
Remodeled
Housing**

First course
for BETTER ROOMS

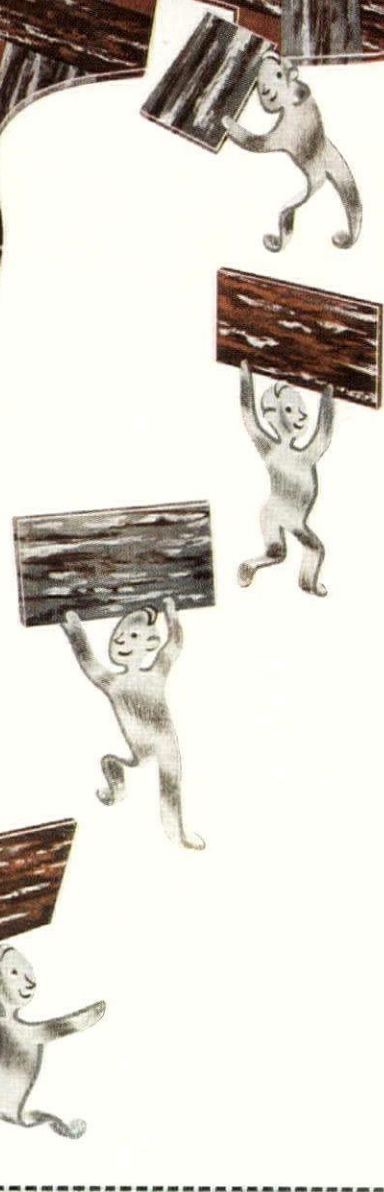
KENTILE
Asphalt Tile

Trade Mark Reg



Want a better looking and better serving interior—today? Start with the floor. Kentile, the new low cost floor that is so speedily laid, piece by piece, does wonders for a room. Here are just a few of Kentile's advantages:

1. Kentile, although resilient underfoot, is one of the most durable floorings made—practical even in heavy duty plants.
2. Kentile is one of the lowest cost floors made.
3. Kentile is moistureproof—perfect even on basement concrete in direct contact with earth.
4. Kentile resists almost any kind of staining.
5. Kentile is laid with amazing speed—is available immediately—is installed by authorized contractors in any part of America.
6. Kentile offers a million patterns—any design you conceive with its 44 colors, 15 tile sizes.
7. A Kentile floor can be altered in any part—without disturbing the other areas.



GREASEPROOF KENTILE

isn't stained by any animal, vegetable or mineral oils or fats. Check "Grease Tester" on the coupon for our fascinating grease testing kit. Or send for a representative. There's absolutely no obligation.



Learn ALL about Kentile NOW! Without any obligation send for our big, fully detailed, full color catalogue. Mail the coupon now.

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Catalogue NAME

Grease Tester ADDRESS

Representative CITY, ETC.

PRACTICAL AIR RAID PRECAUTIONS

(Continued from page 149)

house" on the 3rd floor, moved into position in a scheduled elevator trip immediately following an alarm.

BLACKOUT

Since the precautions plan includes shutting off electric current throughout the building on receipt of an air raid warning, blackout provisions are extremely simple. Tenants have been requested to turn out their lights to avoid danger of electrical burns in pulling the feeder switches, but even their failure to do so in some instances will not prevent complete blackout of the building. Windows

of the pump room,* where lights are on the same circuit as the fire stairs have been obscured with blackout paint.

PERSONNEL PROCEDURE

As with any plan worth its salt, the effectiveness of the Postum Building's ARP system depends more on personnel than equipment. Here volunteer wardens from among the tenant office staffs, plus the building's own trained and experienced employes provide the answer. In general, responsibility of the volunteer

*Since the Postum Building is atop the right of way of the N. Y. Central, it has no basement. Storage and service rooms are therefore located above the first floor level.

wardens is for *people*, that of the building staff for *things*. Thus volunteer wardens see to it that offices are evacuated, direct traffic down fire stairs to the proper floors and supervise the corridor refuges until the "all clear" is sounded. Elevator operators complete scheduled trips (20th floor tenants are taken to the 10th floor corridor on one such trip, emergency equipment brought from the 3rd to the 17th floor on another) and stop their cabs at predetermined points. Those stopping at the first floor go up fire stairs to 3rd floor refuge, meanwhile checking any traffic down these stairs beyond the safe level. The elevator starter assigns the operator schedule, notifies the chief mechanic that trips have been completed and power can be shut off. Meanwhile, the chief mechanic and his assistant cut off power and gas, other employees turn on emergency corridor lights and light lanterns in toilet rooms, and the emergency crews assemble at their stations on the 3rd and 17th floors.

This, in brief, gives some idea of the carefully scheduled time table that has been worked out to meet the needs of this particular building. Actually, of course, it is much more complicated—too complicated to describe here. The main point, however, is easy to grasp: every employee of the building, every occupant, knows where to go and what to do. Sidewalk wardens known where to direct persons coming in off the street, office employes know who is to put away important records before they "retreat" to the refuge corridors, stairways are guarded against petty thieves and unauthorized inter-floor traffic. And, before normal operations are resumed, a careful check is made on all equipment before turning on power; pilot lights on gas burning equipment are reignited and the fact that receptionists are back at their posts in large offices is verified before resuming elevator service to their floors.

SIGNIFICANCE

Besides demonstrating—as well as anything short of an actual raid can ever demonstrate—how immune from bombardment the occupants of a modern, multi-story building can be, Postum's ARP system also shows how far from prepared many a newer and larger U. S. building is. The very elaborateness of its plans is simply an index of the confusion (if not disaster) that would inevitably result from an unplanned, untested attempt at evacuation of any similar building in an emergency. An increasing number of office buildings are equally, or almost as well prepared, but a far larger number probably are not. Postum's precautions show not only that adequate air raid precautions for tall buildings are relatively easy and inexpensive, they also show the necessity for taking similar steps wherever the possibility of a raid exists.

BUILDING "BELIEVE-ITS"

STRANGE STORIES THAT STICK

4000 CALIFORNIA WARTIME HOUSES BUILT WITH LAUCKS GLUE

GLUE IS NOW BEING USED IN WARTIME HOME BUILDING BECAUSE OF ITS STRENGTH—ECONOMY AND SPEED OF CONSTRUCTION



GLUE STICKS FOR 5000 YEARS!
EGYPTIANS 5000 YEARS AGO VENERED WOOD BY HEATING GLUE OVER A FIRE—SPREADING IT WITH A BRUSH AND HOLDING THE GLUED PARTS TOGETHER WITH CAULS WEIGHTED WITH BAGS OF SAND....



GUNS FOR DEFENSE

A RECENT DEVELOPMENT OF I.F. LAUCKS ENGINEERS THE LAUCKS GLUE GUN IS SPEEDING PREFABRICATION DEFENSE HOUSE CONSTRUCTION—IT SAVES TIME, SAVES GLUE AND IS CHEAPER TO USE THAN NAILS

THOUSANDS of jobs in wartime building demonstrate spectacularly what Laucks chemists and engineers have proved for years . . . the superiority of Laucks glue in construction.

Laucks Construction Glues are being used for affixing millions of feet of wall-board to studdings, joists, etc., by contractors and prefabricators . . . in making laminated arches and beams for factories, barns, hangars, churches . . . for innumerable "glue-welding" jobs.

Why have Laucks CONSTRUCTION GLUES been selected almost exclusively for this work? Because they are formulated especially for this use. They are . . .

SELF-BONDING . . . no heavy weights or clamps are required, simply good contact.

WATER-RESISTANT . . . meet U. S. Navy and Army, federal aircraft specifications.

STRONGER . . . "stronger than nails" by test—and easier to get!

Builders, architects, contractors, dealers—write Laucks for full information!

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Seattle—911 Western Ave.
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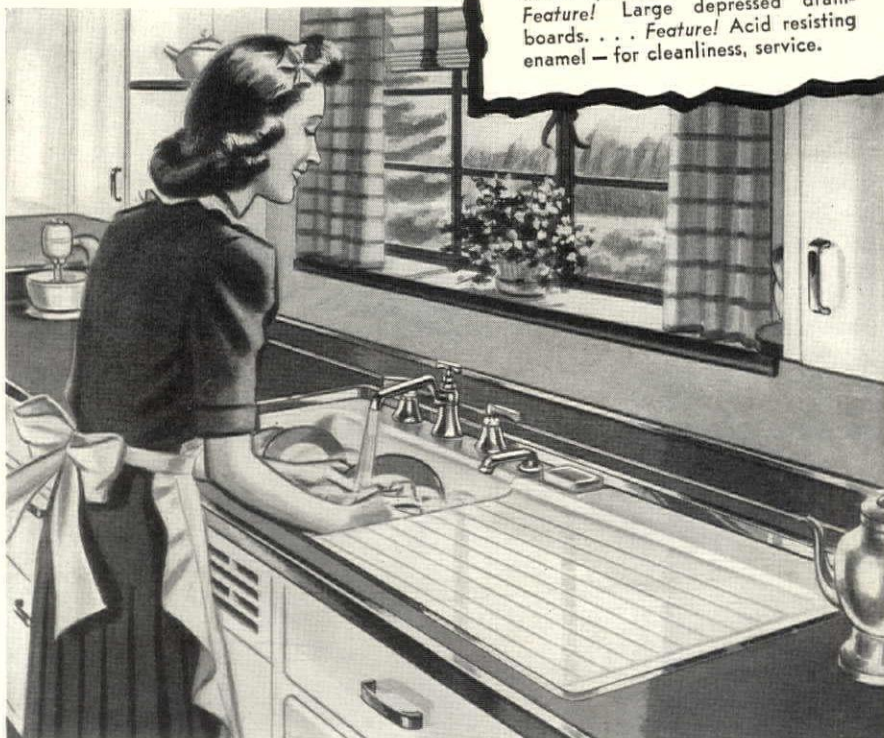
• LAUCKS CONSTRUCTION GLUES •

FOUR *New* Counter-top Sinks! A Complete Line for Military, Naval and Defense Housing

• *New* flat-rim ledge sinks, for building into counter tops of linoleum, tile or composition over metal or wood cabinets. These four, with the popular Delafield and Mayfield sinks, make up a line in lengths from 24 to 60 inches, all 21 inches wide. *Models to meet every need of today's market!*

• All Kohler sinks are of one-piece enameled cast iron, the most widely used material. Public preference has

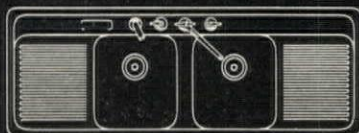
The new Chatfield Sink, 42 x 21 inches, just right for low-cost homes. (See panel, right, for new sinks in Kohler line.)



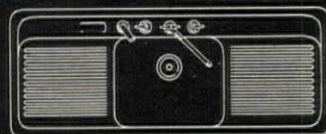
continued for many years and is growing despite the promotion of substitute materials. Their careful design means continued efficiency. Always insist on Kohler fixtures — for first quality, fair price, fine service. Kohler Co. *Founded 1873.* Kohler, Wis.

FEATURE! . . . Wide full-length ledge with integral soap dish makes sanitary base for fittings, provides space for soaps and cleansers. . . . **Feature!** Handy mixer-type fitting with long swing spout. . . . **Feature!** 8-inch-deep basin with Duostrainer which opens or closes outlet. . . . **Feature!** Large depressed drainboards. . . . **Feature!** Acid resisting enamel — for cleanliness, service.

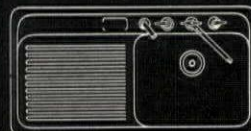
New CLEARFIELD



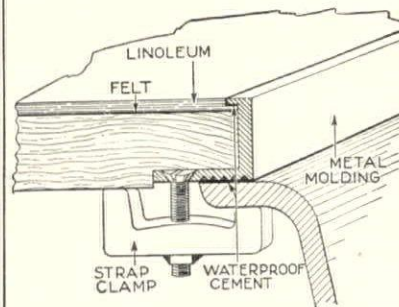
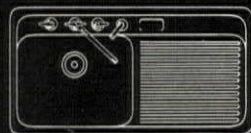
New WINFIELD



New CHATFIELD (Left Drainboard)



New CHATFIELD (Right Drainboard)



Detail showing method of building-in

KOHLER OF KOHLER

PLANNED PLUMBING AND HEATING

ALSO—Kohler offers a full line of Cabinet Sinks, all in acid resisting enamel on rigid non-flexing cast iron, with various combinations of basins and drainboards—to suit any kitchen and every budget. . . . Kohler quality costs no more.

Why You Should Specify **STREAMLINE** FLOORING for DEFENSE HOUSING



SAVES VALUABLE DAYS ON THE JOB

Bruce Streamline Factory-Finished Flooring is ready to use the instant it's laid. No sanding or finishing on the job—no delays due to slow drying weather. No expense of temporary wiring for sanding machines.

CUTS LAYING TIME

Streamline lays fast too, because the 3¼-inch strips cover 44% more area than the usual 2¼-inch strips.

Send for new book on floors for Defense Housing

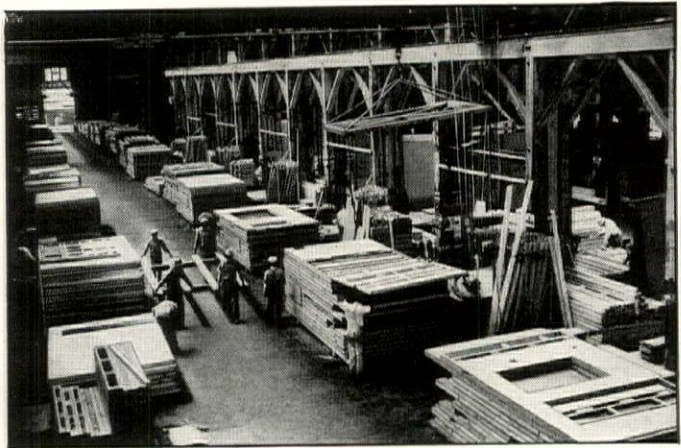
You will find valuable information in this new book: "Low Cost Floors For Defense Housing." Send for your free copy.

E. L. BRUCE COMPANY
1496 Thomas St.
Memphis, Tenn.



E. L. BRUCE CO.
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Please send me a copy of "Low Cost Floors For Defense Housing."

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



Oakland, California, plant of Barrett & Hilp

In this plant 792 HOUSES WERE BUILT IN 43 WORKING DAYS

—that's an average of 18½ houses per day! Prefabrication continues to demonstrate its outstanding value—on one war housing job after another... continues to point the way to tomorrow's employee housing, to large-scale realty developments and similar projects.

THE ARCHITECTURAL FORUM'S Washington Building Letter says the progress of prefabrication and its "post-war implications"... constitute "one of the most significant new developments in housing, should be watched by everyone... architects, engineers, builders, realtors, bankers, dealers and producers".

Leading the prefabricated field is Homasote Precision-Built Construction—the system pioneered by Homasote Company in 1935 and already used in \$6,000,000 of architect-designed private homes. Homasote Precision-Built Homes feature the use of Homasote—oldest and strongest insulating and building board on the market—for extra strength... tight, sure insulation. Homasote prevents dangerous

chipping, falling plaster... eliminates ugly wall joints and batten strips through the use of large sheets (up to 8' x 14'). These large sizes are essential to satisfactory prefabrication.

The architect has complete freedom of design with Homasote Precision-Built Homes; they may be of any size... any style—and in any section of the country. Homasote Precision-Built Homes are built by local labor, of standard, quality materials—purchased locally. They are ideal for private home construction... large-scale real estate developments... employee housing... slum clearance... tourist camps.

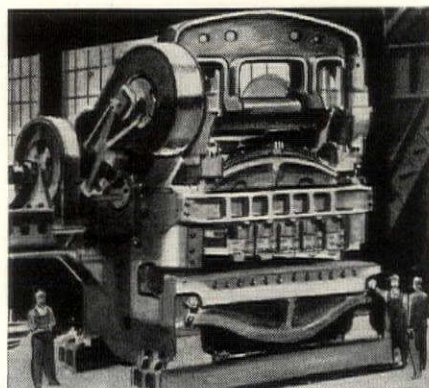
At the end of the present national emergency, fabricating plants throughout the country will supply architects and builders with Homasote Precision-Built Homes, for non-defense purposes. Then, more than ever before, Homasote Precision-Built Homes will represent the utmost in value for the building dollar—the vital key to the small-homes market.



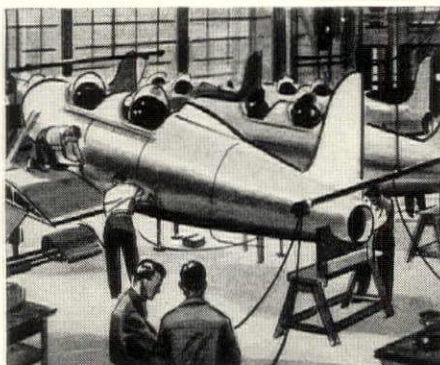
HOMASOTE COMPANY • • • TRENTON, N. J.

To cool OIL-GLUE-BLOOD

...THEY TURNED TO →



To cool oil used to lubricate huge presses making armor plate. A General Electric condensing unit provides the necessary refrigeration to lower the heated oil to a suitable working temperature.



To cool the glue used in assembling the fuselages of naval planes, an aircraft factory is using a G-E condensing unit. This unit cools water which in turn cools the glue.



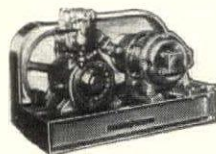
To cool blood, five hospitals in Philadelphia use G-E storage refrigerators. The temperature in these blood banks is maintained between 36° and 40° F.

What's YOUR problem?

Are you faced with unusual or difficult air conditioning problems for blackout plants? — for proper control of temperature and humidity where precision machinery is used? — or for any other of the many industrial refrigeration applications in today's war picture? Then turn to G-E for *your* air conditioning

and refrigeration equipment. G-E makes the complete refrigeration cycle, has a wide range of sizes and capacities to help solve almost every problem. Let G-E experience, G-E engineering ability aid you as it is aiding so many others today. General Electric Company, Div. 2133, Bloomfield, New Jersey.

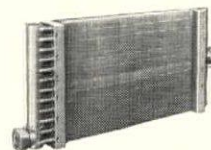
— GENERAL  ELECTRIC —



G-E Condensing Units (Scotch Giant), a complete line of air, water and evaporative cooled models. Sizes from 1/4 to 125 hp.



G-E Evaporative Condensers and Coolers. Available in a full range of sizes from 5 to 60 tons of refrigerating capacity.



G-E Coils for steam, water and direct expansion—"tailor made" to specifications.

AIR CONDITIONING . . . COMMERCIAL REFRIGERATION . . . WATER COOLERS

FORUM OF EVENTS

(Continued from page 70)

civil defense. A bibliography of the outstanding sources of air raid information has also been prepared by the library staff and may be obtained free at Cooper Union. Available for reference are technical books and articles dealing with the application of fluorescent and phosphorescent materials to civilian defense, the protection of air filtration plants, the use of reinforced concrete in wartime manufacturing plants, mechanical aids for

moving traffic in the absence of street lighting, protective planning and camouflaging of large structures, economics of steel in large-scale construction, and the installation of bomb-proof shelters and air raid signal devices.

Delegates from twenty-one Art Societies, representing 10,000 artists, met recently at the Architectural League of New York for the purpose of uniting in one body so that they might cooperate more effectively in the war effort. An executive committee was elected, headed by Mr. Hobart Nichols, president of the National Academy of Design. The meeting adopted a resolution uniting all the groups represented into the Artists Council for Vic-

tory, which was instructed "to place itself and the membership it represents at the disposal of the Government of the United States to make fully effective the talents and abilities of the artistic professions in the prosecution of the war and in the protection of the country." Among the groups composing the Council are the New York Chapter of the American Institute of Architects, American Artists Congress, Architectural League of New York, the New York Chapter of the American Society of Landscape Architects, National Society of Mural Painters, National Sculpture Society, United American Artists and the Alumni Association of the American Academy in Rome.

Candidates are being considered for the eleventh annual Kate Neal Kinley Memorial Fellowship. The Fellowship was established in 1931 to promote advanced study in the Fine Arts and yields \$1,000, which is to be used by the recipient toward defraying the expenses of a year's advanced study of the Fine Arts in America or abroad. Applications should reach the Fellowship Committee not later than May 1, 1942. Requests for application blanks and instructions should be addressed to Dean Rexford Newcomb, College of Fine and Applied Arts, Room 110, Architecture Building, University of Illinois, Urbana, Illinois.

CALENDAR

The New York Society of Craftsmen will hold its annual Exhibit at the Barbizon-Plaza Hotel from March ninth through twenty-second. It will be open daily, including Sundays, from 1 to 6 p.m. and on Thursdays until 10 p.m. The Exhibit will include work by the Society's members in many of the Crafts, including Ceramics, Metalwork, Jewelry, Woodworking, Sculpture and Textiles.

COMPETITIONS

A competition to select an architect for the Administration Building of the Municipal Airport at Fitchburg, Massachusetts has been announced. It is open to registered architects throughout the country; architects from states which have no registration laws must give evidence of at least three years of professional practice.

The competition is authorized by the Mayor and Council of the city of Fitchburg, and Dean Joseph Hudnut of Harvard will be professional adviser. Drawings will be due on April 25, 1942, at noon (Eastern War Time). John Holabird, George Howe and Eero Saarinen are the architects on the jury.

The winner of the competition will be retained by the city as architect for the building at a fee of six percent. He may be further retained to design the fixed and movable furniture.

(Continued on page 78)

BUILD FOR THE FUTURE

with Pennsylvania Wire Glass

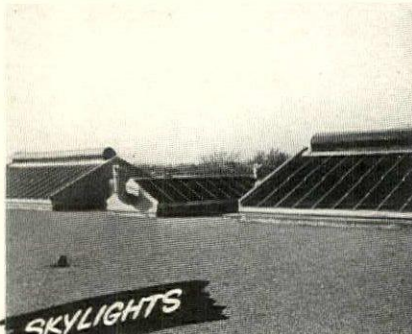
Now more than ever before it is essential to build for the future. Defense plants, warehouses, factories and all types of industrial construction must now be built to "take it." National defense demands expert planning, sound construction and quality building materials.

For many years leading American builders have relied on Pennsylvania Original Solid Corrugated Wire Glass for skylights, sidewalls, and sawtooth construction.

Scientific corrugations diffuse daylight, and relieve worker's eye-strain . . . so important for 'all-out' production. Strong wire mesh imbedded in glass eliminates danger of flying pieces, and provides a fire-resistant barrier.

Pennsylvania Original Solid Corrugated Wire Glass is geared to defense construction. Strong, sturdy and economical to maintain, this outstanding structural glass is now providing light and protection for thousands of skilled workers in defense plants throughout the nation.

When you specify Pennsylvania Original Solid Corrugated Wire Glass—you build for the future.



Pennsylvania Wire Glass Company

1612 MARKET STREET

PHILADELPHIA, PA.

SAVED:

33% CONCRETING TIME

68% FORM RENTAL COSTS



● Atlas High-Early cement speeded completion of this building in Chicago. *Architect, Holabird & Root; Contractor, Dahl-Stedman Company, both of Chicago.*

See how Atlas High-Early cement cut a whole month off concreting time... eliminated the rental of 85,000 sq. ft. of metal pan forms.

HOW can I save time and speed up construction economically?" That's the question you must answer, now that "Rush" is the order of the day.

Here's another example of "speed-up" building made possible by Atlas High-Early cement.

This structure is approximately 600 feet long by 300 feet wide. The ground floor is concrete. Reinforced concrete beams and girders support the reinforced concrete roof slab, which was constructed with the metal pan system.

The contractor states that three months were estimated for completion of all concrete work using standard portland cement; but by using Atlas High-Early cement, one month was wiped off the sched-

ule—concrete work was completed in two months.

And another thing. Atlas High-Early cement knocked 68% off metal pan form rental cost. With normal portland cement, 125,000 square feet of forms would have been needed. With Atlas High-Early, it was possible to strip the metal pan forms earlier and re-use them. Result: Atlas High-Early concrete required only 40,000 square feet... *a straight saving in rental cost of 85,000 square feet of forms.*

Don't spar with building schedules. Knock them out *fast* with Atlas High-Early cement. Specify Atlas High-Early cement on your next job. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Bldg., N. Y. C.

OFFICES: *New York, Chicago, Philadelphia, Boston, Albany, Pittsburgh, Cleveland, Minneapolis, Duluth, Kansas City, St. Louis, Des Moines, Birmingham, Waco.*

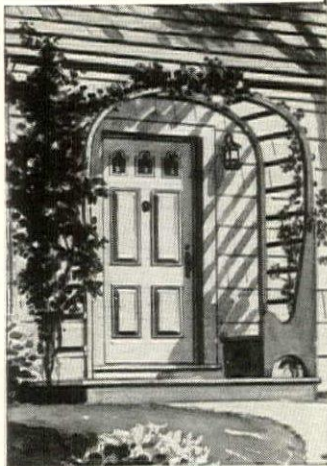
ATLAS HIGH-EARLY CEMENT

A UNIVERSAL ATLAS PRODUCT



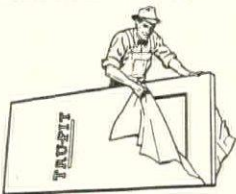
Like sterling silver...
DOUGLAS FIR STOCK DOORS
 are high quality throughout!

For Entrances!



• *Tru-Fit Douglas Fir Entrance Doors come factory-fitted, scuff-stripped, grade-marked and packaged!*

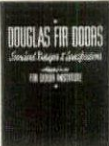
The enduring beauty of Tru-Fit Douglas Fir Entrance Doors is the result of architecturally correct designs, skilled workmanship and the exclusive use of all-heartwood, vertical-grain, old-growth Douglas Fir—the wood made durable by nature. Tru-Fit Entrance Doors give superior performance in any climate... save time and labor because they come pre-fitted, ready to hang. Scuff strips and packaging protect them from damage. One of the 27 distinctive designs is exactly right for every house you build. Send for free color catalog.



The pre-fitting of Tru-Fit Entrance Doors often saves builders \$1.50 per opening!

DURABLE DOUGLAS FIR STOCK DOORS

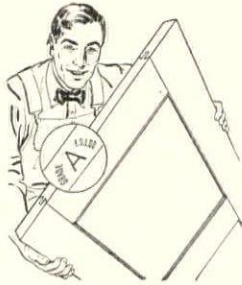
FREE CATALOG! Send now for "Douglas Fir Doors—Standard Designs and Specifications". It contains illustrations of all Tru-Fit and Douglas Fir Stock House Doors, complete list of sizes, grades, etc. Fir Door Institute, Tacoma, Wash.



For Interior Use!

Douglas Fir Stock Doors are manufactured in strict accordance with U.S. Commercial Standard CS73-38. This is your assurance that you will receive beautifully proportioned, well-made, well-finished doors of durable Douglas Fir when you order them from your dealer.

Douglas Fir Stock Doors give a lifetime of satisfaction in every structure in which you specify or use them. They cost no more than ordinary doors because they are manufactured by mass-production methods in huge modern factories. Order them from your dealer pre-fitted and grade-marked. The cost of factory-fitting is slight and is more than equalled by savings in time and labor.



Look for these grade-marks on all stock fir doors:



A-grade doors are recommended for ALL finishes.



B-grade: recommended primarily for paint finish.



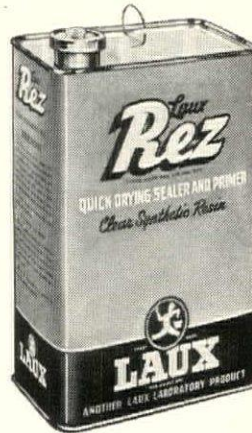
ONLY paint finishes are recommended for C-grade Douglas fir stock doors.



MR-grade doors are made in 1 1/2" thickness only; combine materials from A, B and C grades.



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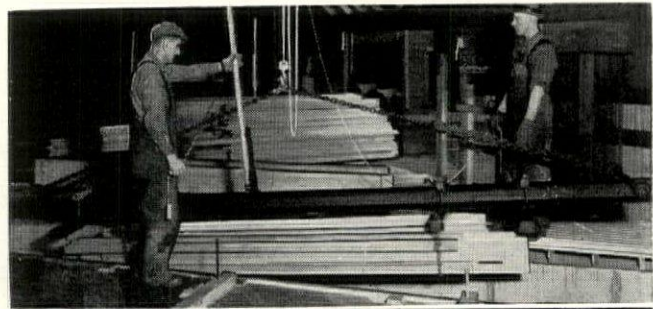


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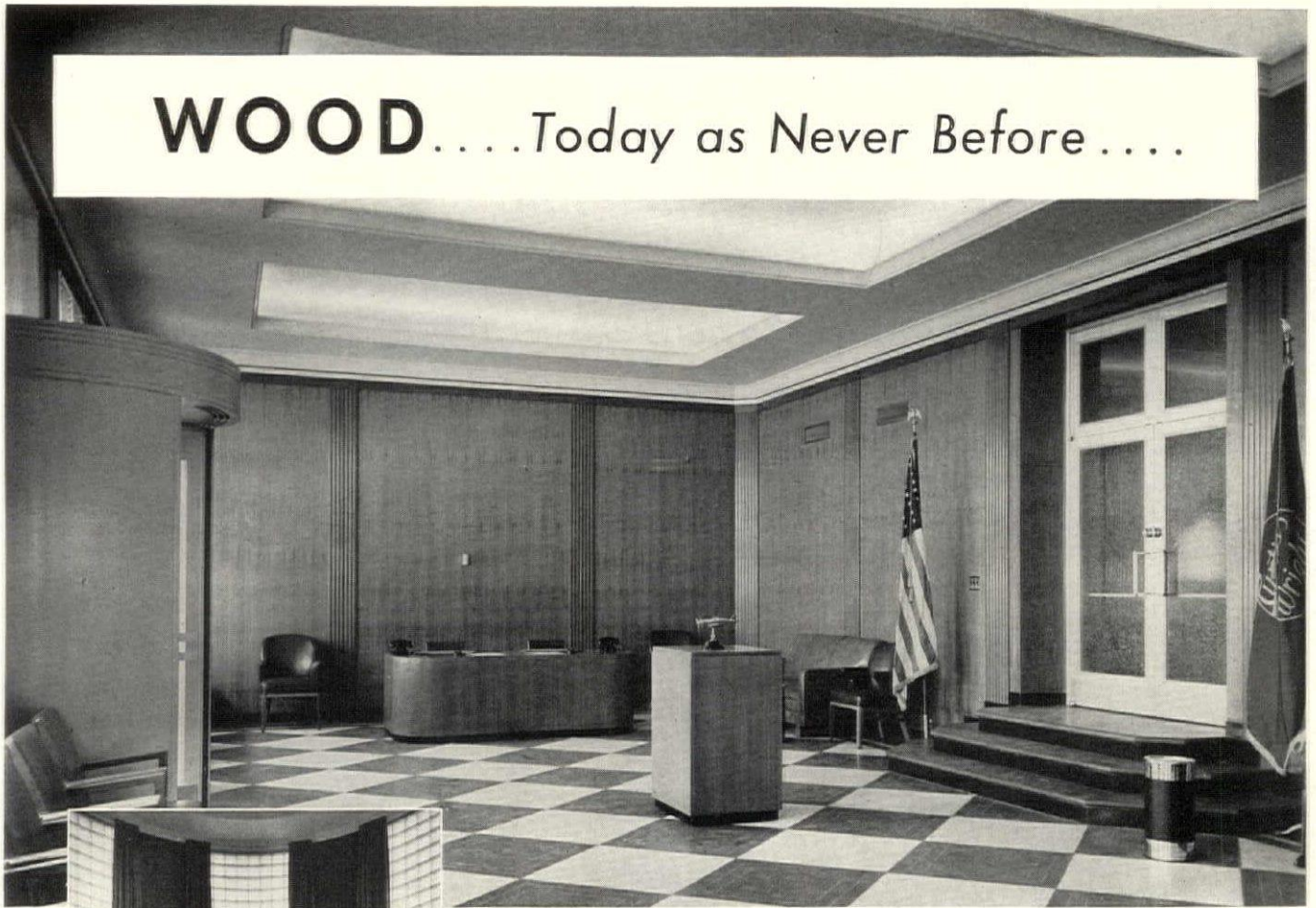
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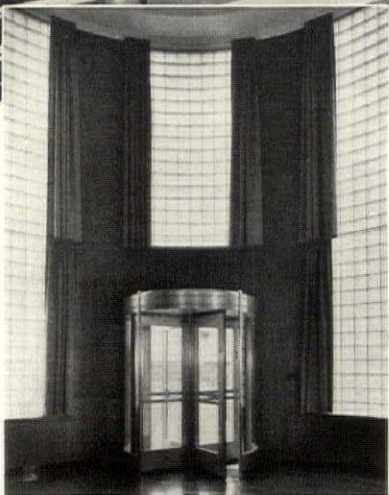
Seattle, 911 Western Ave., Div. A Los Angeles, 859 E. 60th St., Div. A
 Chicago, 6 N. Michigan Blvd., Div. A
 Portsmouth, Va., Commerce and Broad Sts., Div. A
 Vancouver, B. C., Granville Island, Div. A

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The Austin Company
- Douglas Bomber Plant—Tulsa, Okla.
The Austin Company
- Ford Bomber Plant—Ypsilanti, Mich.
Albert Kahn, Inc., Archt.

FORUM OF EVENTS

(Continued from page 74)

Copies of the program may be obtained upon application to Joseph Hudnut, Robinson Hall, Harvard University, Cambridge, Massachusetts.

The American Hospital Association announces a competition for posters whose themes will emphasize the scientific, personal and social values of the community hospitals of today. Prizes include one \$200 award and three of \$50 each. The posters will be used to commemorate Na-

tional Hospital Day, and are due on March 20th. Entries and requests for further information should be sent to C. Rufus Rorem, National Hospital Day Committee, American Hospital Association, 18 East Division Street, Chicago.

DIED

DR. LEON PRATT ALFORD, 64, chairman of the Department of Administrative Engineering at New York University. Dr. Alford was a member of the American Society of Mechanical Engineers and the American Engineering Council. In 1931 he received the Henry Laurence Gantt Memorial Medal for his accomplishment in management engineering. Dr. Alford

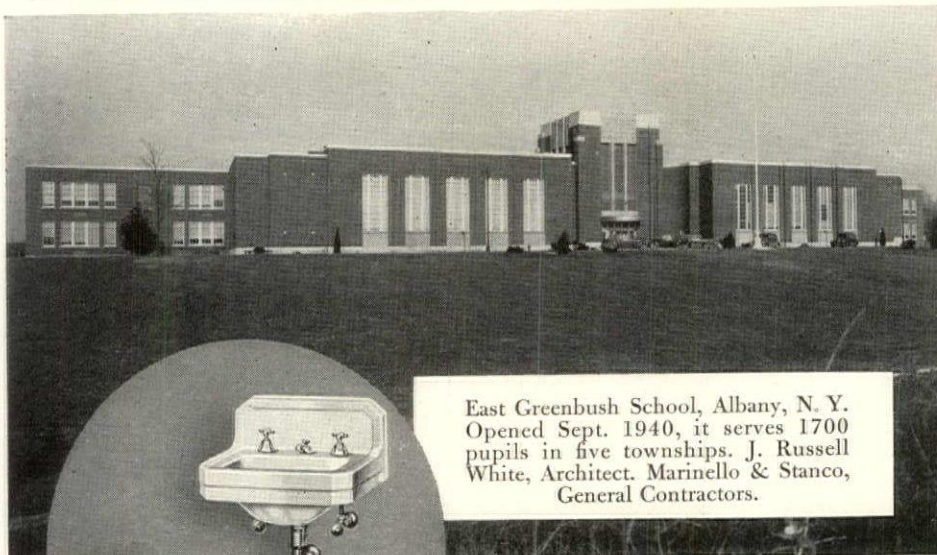
was born in Simsbury, Conn. and was graduated from Worcester Polytechnic Institute in 1896, where he later obtained his doctorate. He was associated editorially with various trade publications, including "The American Machinist," "Industrial Management," "Management Engineering" and "Manufacturing Industries."

F. C. HIRONS, 59, architect and founder of the Beaux Arts Institute of Design in New York City. Mr. Hirons was born in Birmingham, England and came to the United States in 1892. He was graduated from the Massachusetts Institute of Technology in 1902 and attended the Beaux Arts School in Paris from 1904 to 1909. He was a Rotch scholar in 1904, and a Paris prize fellow in 1906. Mr. Hirons was a former professor of design at Columbia University and former senior professor of design at Yale University. He received an honorary degree of Master of Science from the Catholic University of America in 1932. Among the structures he designed are the George Rogers Clark Memorial at Vincennes, Ind.; the Worcester (Mass.) War Memorial Auditorium; the Rockland County Courthouse, New City, N. Y.; the Beaux Arts Institute of Design Building in New York City and the Davidson County Courthouse at Nashville, Tenn.

DR. FRED EUGENE FOSS, 79, professor emeritus of civil engineering at Cooper Union, in New York City. Professor Foss retired in 1938 after 29 years as head of Cooper Union's civil-engineering department. He was largely responsible for the creation and development of facilities for testing materials there, and planned the department's first laboratories in the Hewitt Memorial Building. Born in Wales Me., Professor Foss was graduated from Bates College in 1883 and from the Massachusetts Institute of Technology in 1886. He joined the faculty of M.I.T. in 1891, and served as head of the civil-engineering departments at Pennsylvania State College from 1893 to 1907 and at Carnegie Institute of Technology from 1907 to 1909. During the World War he served for a year as director of the physical testing laboratories of the United States Army Ordnance Department in Pittsburgh. He was a member of Phi Beta Kappa and Phi Kappa Phi societies, the American Society of Civil Engineers and the American Railway Engineering Association.

JOSEPH C. HILTON, 69, engineer. Mr. Hilton was project engineer since 1939 for the Public Works Administration in the construction of the Belt Parkway in Brooklyn and Queens. Between 1926 and 1935 he was engaged in construction work in Colombia and Chile, and in 1935 he became resident engineering inspector for the Public Works Administration in New York.

(Continued on page 82)



East Greenbush School, Albany, N. Y. Opened Sept. 1940, it serves 1700 pupils in five townships. J. Russell White, Architect. Marinello & Stanco, General Contractors.

IN THIS MILLION-DOLLAR CENTRAL SCHOOL

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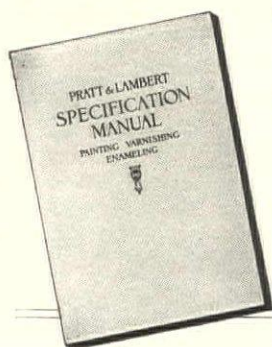
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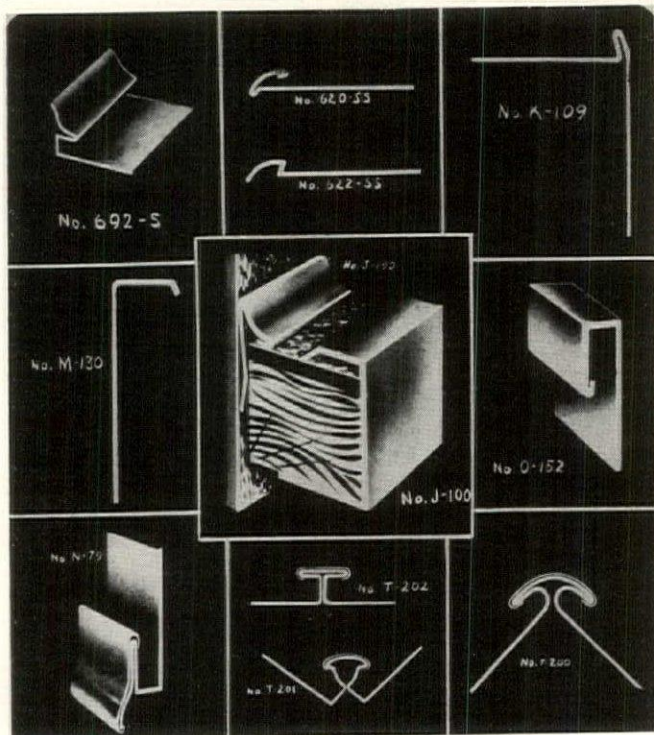
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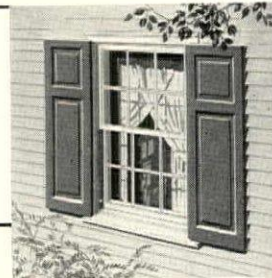
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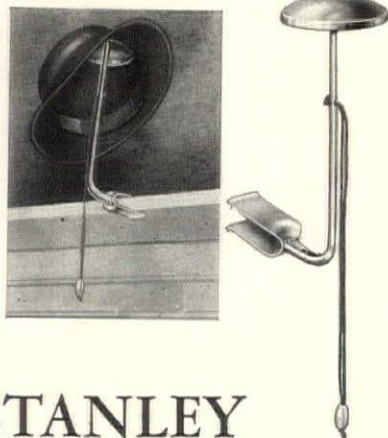
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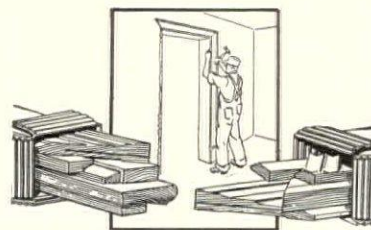


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FORUM OF EVENTS

(Continued from page 78)

DIED (continued)

WILLIAM M. ODOM, 57, president of the New York School of Fine and Applied Arts. A native of Columbus, Ga., Mr. Odom was a graduate of the school of which he became president in 1930. He studied in Italy, France and England, and established the Paris ateliers of the school, with research classes in Italy. He was the author of "History of Italian Furniture," and was made a Chevalier

of the Legion of Honor for his contribution to cultural Franco-American relations. **MAXWELL STEPHEN**, 45, draftsman for Gibbs & Cox, Inc., naval architects and marine engineers. Mr. Stephen had been associated with shipbuilding firms in Scotland and Ireland before coming to the United States in 1923. Prior to joining Gibbs & Cox, Mr. Stephen had been a steel structural engineer for the Consolidated Edison Co.

J. C. STEWART, 81, retired president of James Stewart & Co., engineers and contractors. Born in Kingston, Ont. in 1860, Mr. Stewart attended the preparatory school of Washington University and joined the Stewart firm, which had been

established by his father, in 1892. His first large-scale building project was the rebuilding of the Galveston waterfront, which had been devastated by floods in 1899. His work abroad included the \$7,000,000 Westinghouse Works in Manchester, England, and the \$2,000,000 Savoy Hotel in London. The structure of the latter has withstood such heavy bombings during the present war that it is used as a safety zone for many enterprises. During the World War Mr. Stewart designed and set the first anti-submarine nets which guarded the mouths of the Thames and Humber Rivers. He also had charge of a large part of the London underground railway system. His buildings here included the New York Central Office Building, the 60 Wall Street Tower, and many Government buildings throughout the country.

E. M. WALDRON, 77, building contractor, president of Edward M. Waldron, Inc. Mr. Waldron was born in County Mayo, Ireland, and came to the United States when he was sixteen. After working as a journeyman brick mason for a period, he became a partner in Moran & Waldron, builders. He started his own firm in 1888. Among the buildings he erected were the City Hall, Sacred Heart Cathedral and the administration building of the Essex County Park Commission, all in Newark, and Our Lady of Help of Christians in East Orange. He built the first ten-story structure in Newark on a site now occupied by the National Newark Building. Mr. Waldron was elected to the Board of Aldermen in Newark in 1895 and was influential in framing the building code which is still operative in that city.

CHARLES A. SHEA, 58, construction engineer. Mr. Shea, who was born in Portland, Ore., was president of J. F. Shea & Company and the Oregon Shipbuilding Corp. Projects on which he worked included the Golden Gate and San Francisco Bay Bridges, the Grand Coulee Dam, drydocks at Pearl Harbor and tunnels for the water supply systems of New York and Baltimore.

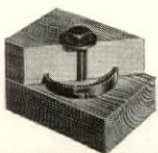
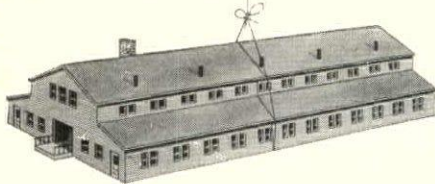
LIEUTENANT COLONEL GEORGE D. BABCOCK, 65, director of engineering management of the Federal Works Agency. Colonel Babcock was a native of Corinne, Utah, and a graduate of Purdue University. During the World War he was chief ordnance supply officer for the American Expeditionary Forces. Prior and subsequent to the war he was a production engineer with the Franklin Manufacturing Company and Dodge Brothers. Since 1934 he had been employed by the Government in various engineering capacities.

HORACE B. COLLINS, 68, associate of Electus D. Litchfield. For many years Mr. Collins was in the office of the late Donn Barber. He later worked with firms in Hartford and Detroit before entering the New York office of Mr. Litchfield.



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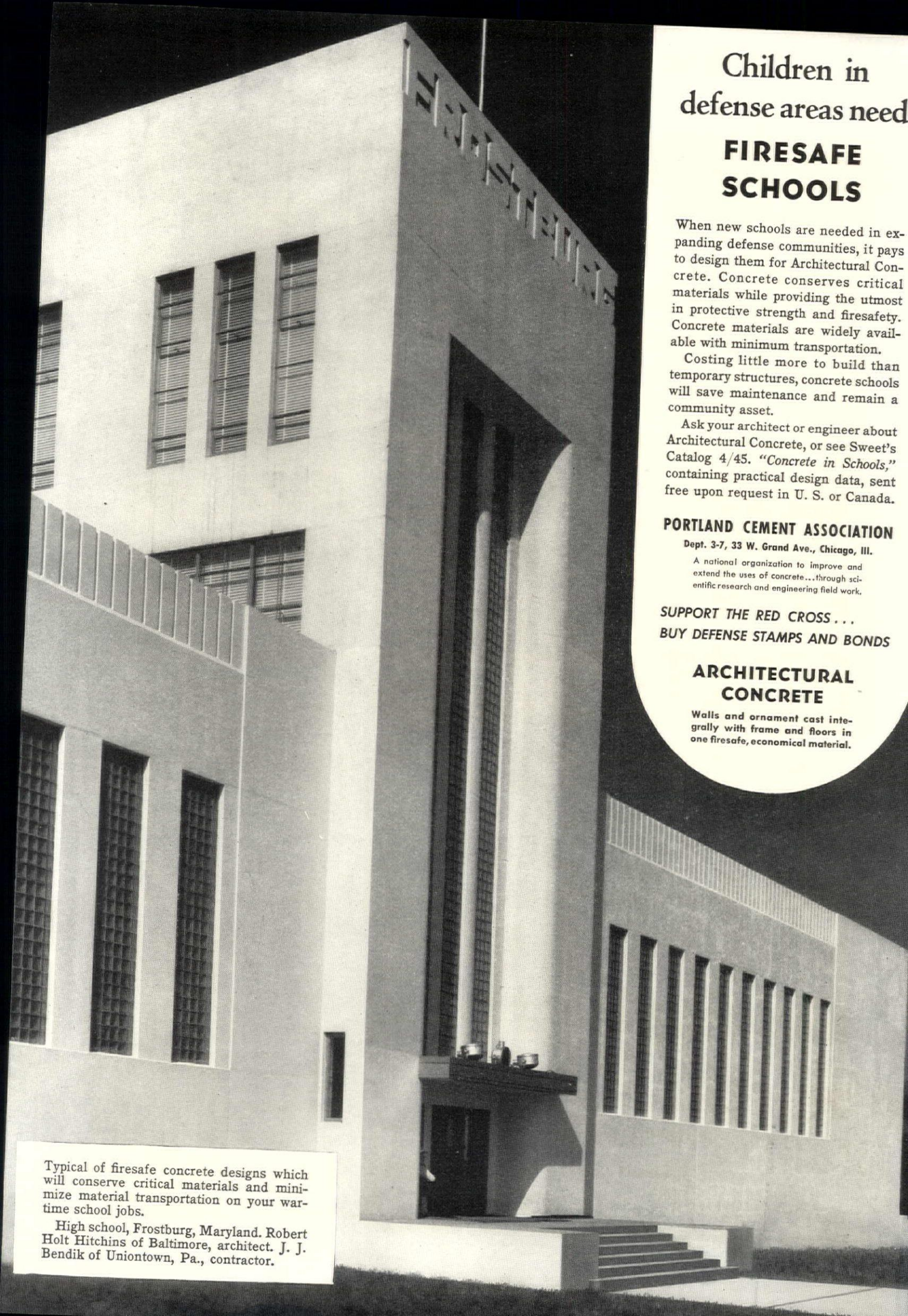


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High school, Frostburg, Maryland. Robert Holt Hitchins of Baltimore, architect. J. J. Bendik of Uniontown, Pa., contractor.

BOOKS

(Continued from page 22)

give the city realty corporations power to acquire land, by condemnation if necessary, for the purpose of replanning and redevelopment. This last point may almost be taken as a touchstone in examining any of the many proposals for rebuilding that will be offered in the months to come. Without this power, properly safeguarded, post-war planning will never get very far beyond the drafting room. While it has over a hundred pages, the

scope of the subject approached in this book is so vast and so complex that the treatment approaches the form of a synopsis, and any attempt to present a comprehensive review of the legal, economic and administrative proposals offered would take as much space as the book itself. Boiled down to its bare essentials, the study is an attempt to view the urban problem as a whole, to consider measures which might be realized before the millenium, to reconcile the conflicts of interest that will necessarily arise, and to outline a possible course of action rather than establish an iron-clad procedure. While there will inevitably be disagreement over many of the proposals

(the desirability of a "city realty corporation" might be one) it would be difficult indeed to quarrel with so realistic and objective an approach. If given the consideration it deserves, the FHA study could save the many groups concerned with the urban problem a great deal of time, trouble and money, for it is one of the most constructive publications to come out of the Government Printing Office in a long time. For those by whom any extension of government initiative is viewed with alarm, the closing paragraph may provide some reassurance: "the primary purpose of this handbook is not to make easy the spending of large sums of money for 'work relief' upon unplanned projects. It is concerned to see an effective partnership of private capital and public capital in planned undertakings of vital public interest. It attempts to establish a pattern for local thinking and action without which effective cooperation with Federal agencies, operating under such powers as the Congress may see fit to give, cannot be expected."

URBAN REDEVELOPMENT AND HOUSING, by Guy Greer and Alvin H. Hansen. National Planning Association, Washington. 24 pp., 7 $\frac{3}{4}$ x 5 $\frac{1}{4}$. 25 cents.

The similarity of subject matter in this and the FHA study, and the almost simultaneous appearance of the two booklets make a comparison inevitable. The thesis of Messrs. Greer and Hansen is that extensive replanning and rebuilding of American towns and cities is urgently required, and that Federal and State aid will be needed to do the job. Their proposal calls for a Federal program whereby national funds will be used to assist communities which set up plans for rebuilding. Plans would be prepared now, and the necessary Federal and State legislation would be passed. There would be a housing program inaugurated in conjunction with the broader planning process, which would not only stimulate public and private housing to a maximum degree, but would involve the formation of a Federal research and experimental agency to develop industrial techniques of building on the largest possible scale. Formation of another new agency is proposed coordinating all Federal activities having to do with the structure of urban communities. Local governments would be aided to acquire land. The entire program, on a national scale, would operate as part of the public works reservoir, with appropriations stepped up during sags in the business cycle.

This brief summary shows a number of features similar to those developed in the FHA study. There is again emphasis on the necessity for setting up some machinery whereby a municipal land agency can acquire property for purposes of redevelopment. It also envisages the lease-

(Continued on page 86)

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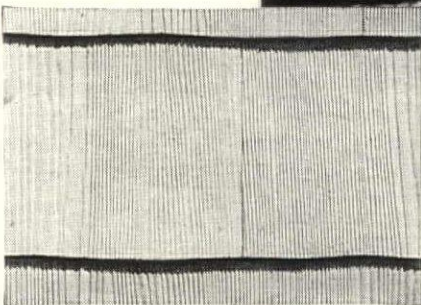
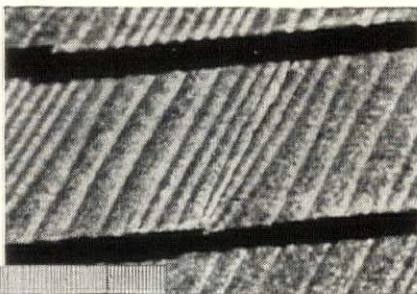
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BOOKS

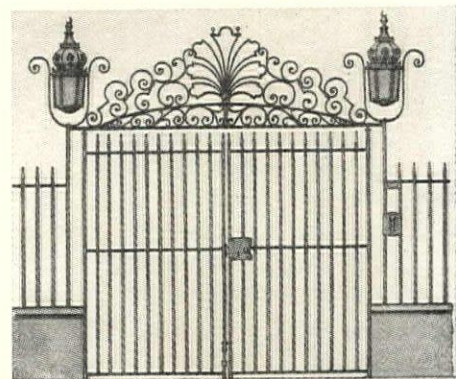
(Continued from page 84)

ing of some of this land to properly qualified private groups. The end implied in this recommendation would be community ownership of a large part of its own land, a state of affairs which was found quite satisfactory in a number of countries abroad, notably Sweden, pre-Nazi Germany and Austria. The main differences between the FHA and Greer-Hansen proposals would seem to be a matter of detail and of emphasis. Housing, for

example, receives much more attention, proportionately, in this pamphlet, and the suggestion of a Federal body to do housing production research is discussed at length. The authors, finding a contradiction between the quality of government-subsidized housing and that which could be paid for by the great bulk of U. S. wage earners and farmers, turned to technical improvements in building as one possible means of keeping the quality and lowering the price. These are matters not considered in the FHA study. It will be noted, however, that both schemes involve a continuance of public housing and express a desire to stimulate private work in this field. In a sense the two

plans supplement each other. The one under discussion here is concerned only with the broadest aspects of the problem; the FHA booklet touches upon almost every phase of the replanning process. Regarding the financing of these tremendous operations, Messrs. Greer and Hansen are optimistic: "There is no reason to fear that, over a long period, the outlays involved for the Federal Government will result in any serious strain on its financial resources. If the national income is maintained and steadily increased—and the replanning and rebuilding program will help to maintain and increase it—we shall have cause for continued confidence in our fiscal capacity. With the fruitful cooperation between the Government and private enterprise that will of necessity be involved, we may expect to see a continued high volume of mass purchasing power and a constantly rising standard of living for all the people. And with the progress of replanning and rebuilding, we may look forward to the day when our towns and cities will become not only tolerable places to live and work in, but wholesome and beautiful as well." These are hopeful words, and there is little in our past record to justify them. The authors can speak with authority, however, for Professor Hansen is Special Economic Advisor to the Board of Governors of the Federal Reserve System and Mr. Greer is in the Board's Division of Research and Statistics. And considering the state of our cities, as they and others have described it, we could do a lot worse than try to prove their economic predictions correct.

THE EARLY IRONWORK OF CHARLESTON, by Alston Deas, with illustrations by Richard J. Bryan. Bostwick & Thornley, Inc., Columbia, S. C. 111 pp., illustrated with measured drawings. 9¼ x 12¼. \$6.00
A handsomely printed and very intelligently written book, with a history of Charleston's early ironwork, its English and French backgrounds, and the men



who designed and made it. There are about sixty illustrations, all of which are fully described by the author. These illustrations are splendid examples of an especially difficult kind of drawing. There is an index and bibliography.

(Continued on page 88)

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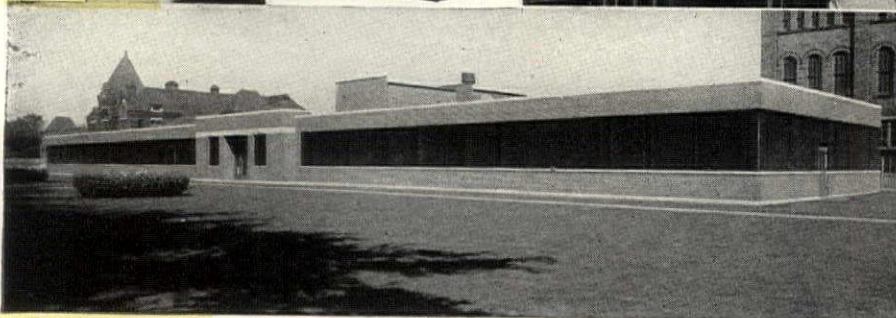
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KOOLSHADE* SUN SCREEN

again proves it's cheaper
to keep out the heat
than to cool it!

KOOLSHADE is a fine-mesh metal fabric—made like a tiny Venetian blind, so it stops sun heat rays outside the window.



Engineering Building, Pullman-Standard Car Mfg. Co., Chicago

WITH KOOLSHADE
A 40-TON UNIT
COOLS THIS BUILDING
INSTEAD OF A 50-TON UNIT
— a big saving in
critical materials

Reduces sun load as much as 80% to 85%

- Eliminates Sun Glare
- Automatic—needs no adjustment
- No interference with view or breeze
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Framed and installed like ordinary screens. Keeps out insects, too

The tremendous window expanse of this building is fine for the engineering staff it houses, but it lets in tremendous sun heat, too. Air Conditioning Engineers calculated that with Venetian blinds, a 50-ton cooling unit would be required—and necessarily rapid air changes would cause undesirable drafts.

With KOOLSHADE to keep out sun heat, the cooling load was so sharply cut that only a 40-ton unit was needed—result-

ing in a net saving of \$3,000 on original equipment, reduced consumption of critical materials and operating savings of \$20 monthly in water and electricity.

The interior illustration above shows the windows with KOOLSHADE in the sun's full blast. You do not notice the KOOLSHADE at all, but it is completely stopping heat rays and eliminating glare. Compare *that* with any other shading method you have ever seen!

● There are KOOLSHADE Distributors in all principal cities ready to counsel with you regarding application, framing and installation.

Ingersoll

KOOLSHADE*

"It's Cooler in the Shade!"

SUN SCREEN

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Borg-Warner Corporation, Dept. F3
310 South Michigan Avenue, Chicago, Illinois
Please send your Sun Heat Demonstration Kit (without charge) and also complete KOOLSHADE Sun Screen literature.

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Firm

Address

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

BOOKS

(Continued from page 86)

TECHNICAL DRAFTING, by Charles H. Schumann. Harper & Brothers. 793 pp., illustrated. 6½ x 9½. \$3.50.

A very complete textbook on drafting, covering every type of technical drawing commonly required in architects' and engineers' offices and industrial establishments. The book starts with a consideration of the instruments and accessories used, shows how to use the equipment, describes the usual varieties of technical lettering, and explains the common processes of metalworking and manufacture. There are descriptions of the common machine tools, their parts and standard operations. The beginner is shown how to make orthographic projections and simple perspectives. Symbols frequently used in various kinds of drawings are given. For the draftsman who wishes to become proficient in another technical field, the book is an invaluable aid in learning methods and conventions.

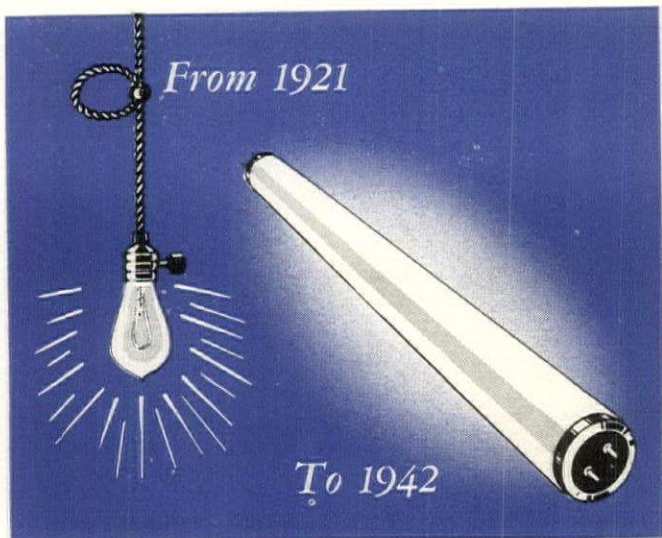
WOOD TECHNOLOGY, by Harry Donald Tiemann. Pitman Publishing Corporation. 316 pp., illustrated. 6¼ x 9¼. \$3.50

This is the first American book that has attempted to deal completely with the subject of wood. While there exists a very imposing list of technical publications on the subject, these are extremely specialized studies dealing with wood chemistry, mechanics, physics, physiological botany and processes, far too detailed to interest the general user of wood. It is curious that a general survey should have not appeared before this, in a country where wood has been used more than all other building materials combined.

The author is a recognized international authority. He has been in government research for thirty-five years, is now Senior Wood Physicist at the U. S. Forest Products Laboratory, and is Lecturer in Forest Products at the University of Wisconsin. As an advanced research worker, Mr. Tiemann is well aware of the great strides made by materials which have in many cases replaced wood. He insists, however, that the material has qualities which will never end its great usefulness: "Wood is obtainable almost anywhere on the face of the earth; it is convenient; it floats; weight for weight it is one of the strongest and the stiffest of all materials; it is the only thing which comes in the form of sticks of all sizes, and the only thing which splits longitudinally into long lengths; and finally, after it has served its purpose for all kinds of useful articles, it is still available for fuel, and instead of forming an unsightly junk pile, it can all be easily disposed of by burning." In addition to this eloquent description, Mr. Tiemann might have added (had the book appeared somewhat later) that priorities in metal are giving wood an entirely new significance; of all the materials used during the war to replace metals, wood is the only one that offers important possibilities.

The contents of the book start with a discussion of what wood really is, and proceed to the life of a tree and the structure of the material. Detailed consideration is given to methods of identifying species: there are two long chapters on this subject and they include an identification key developed by the author. Further information covers wood shrinkage and swelling, collapse and mechanical properties. There is a survey of synthetic wood products. Processes, such as the electrical methods for drying and gluing wood, are described.

Fortunately, despite the highly technical nature of the subject matter, the author has kept the non-specialist reader in mind, and the material has been treated in a simple and thoroughly intelligible manner. Bibliographical references at the end of each chapter suggest supplementary reading matter, and a generous use of photomicrographs and diagrams helps clarify the text.



INDUSTRIAL LIGHTING SPECIALISTS

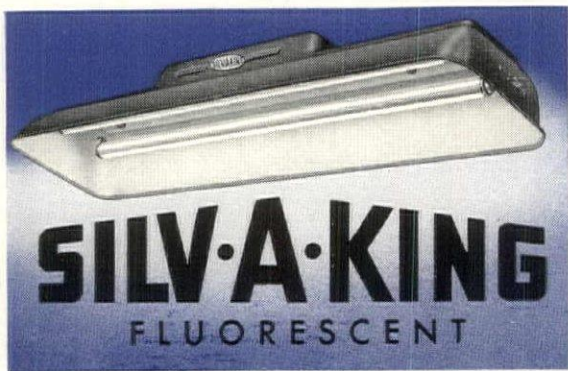
Even in these war-busy days, a 21st birthday seems important enough to warrant a little celebration . . . and we have been at this lighting business now since the beginning of Warren Harding's administration, way back in the "good old" flapper-and-speakeasy days.

As specialists in the research, design and fabrication of equipment for the broad fields of industrial, commercial and flood lighting, we have developed many dependable ways to control incandescent, mercury vapor, fluorescent—and now the new RF—light sources to achieve maximum efficiency. Why not put your lighting problems up to a specialist? Bright Light Reflector Co., Inc., 1037 Metropolitan Avenue, Brooklyn, N. Y.

Quality and dependability through two decades have linked the Silv-A-King name with such famous names-in-industry as:

AC SPARK PLUG • BETHLEHEM STEEL • BUICK • CHEVROLET
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and many others

Write for these Silv-A-King Lighting Guides:
LG1—Fluorescent, or LG2—Incandescent.



MAKES *Light* WORK FOR YOU

AT THE NEW WASHINGTON NATIONAL AIRPORT



GLASS SELLS THE DRAMA OF AIR TRAVEL

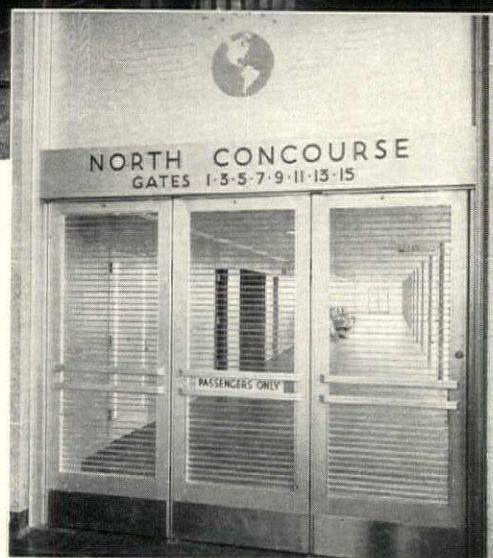


Magnificent Vision, Streamlined Beauty Achieved by Dramatic Use of Plate Glass

• All the fascinating activities of Washington's great new airport are on view for passengers and visitors alike. Thus interest in air travel is focused and intensified for thousands of present and prospective air travelers in the United States.

Through the broad sweep of Libbey · Owens · Ford plate glass windows and partitions, arrival and departure of airliners is clearly visible. Inside the terminal Tuf-Flex glass doors provide an uninterrupted view, lend sparkling modern beauty. Other glass applications specified by architect Howard L. Cheney for one of the world's greatest air terminals include Tuf-Flex bannisters and railings.

In the great new field of airport design, the Washington air terminal forecasts the important role that plate glass will play. For helpful information on new types and uses of plate glass write Libbey · Owens · Ford Glass Company, 1323 Nichols Bldg., Toledo, Ohio.



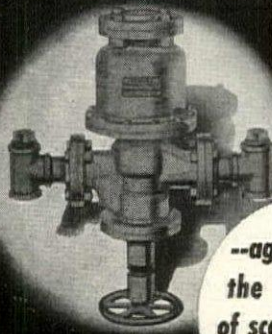
Above: All-glass doors of TUF-FLEX, made by Libbey · Owens · Ford, provide a full view of the passenger concourse.

•
Below: Banisters, railings and partitions of TUF-FLEX glass lend sparkling beauty and provide clear visibility.



LIBBEY · OWENS · FORD
Quality Flat Glass Products

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the danger
of scalding water
in shower baths
and wash sinks



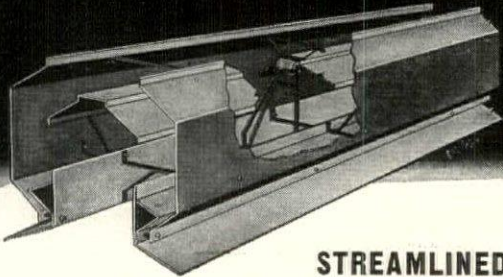
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will SAFEGUARD as many
as 25 showers against scalding water

Use Powers thermostatic water mixing valves for Group Showers, Wash Sinks, Hot Water Line Control and Industrial Processes. Capacities up to 2,650 g.p.m. Write for Circular 3017. THE POWERS REGULATOR CO., 2735 Greenview Ave., CHICAGO. Offices in 46 cities.

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Roof Ventilators • Oil Filters • Exhaust Heads

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Miracle Walls

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Classifications:

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TYLAC walls combine colorful beauty with outstanding permanence and economy. TYLAC is a wall covering with more practical features. Needs no painting or varnishing on the job—no refinishing. TYLAC sheets are easily ap-

plied over old or new surfaces, flat or curved. Ideal for bathrooms, kitchens—any place where inexpensive walls of colorful, permanent beauty are desired. Four basic patterns, sixteen beautiful colors permit an endless variety of effects.

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TYLAC COMPANY, MONTICELLO, ILLINOIS



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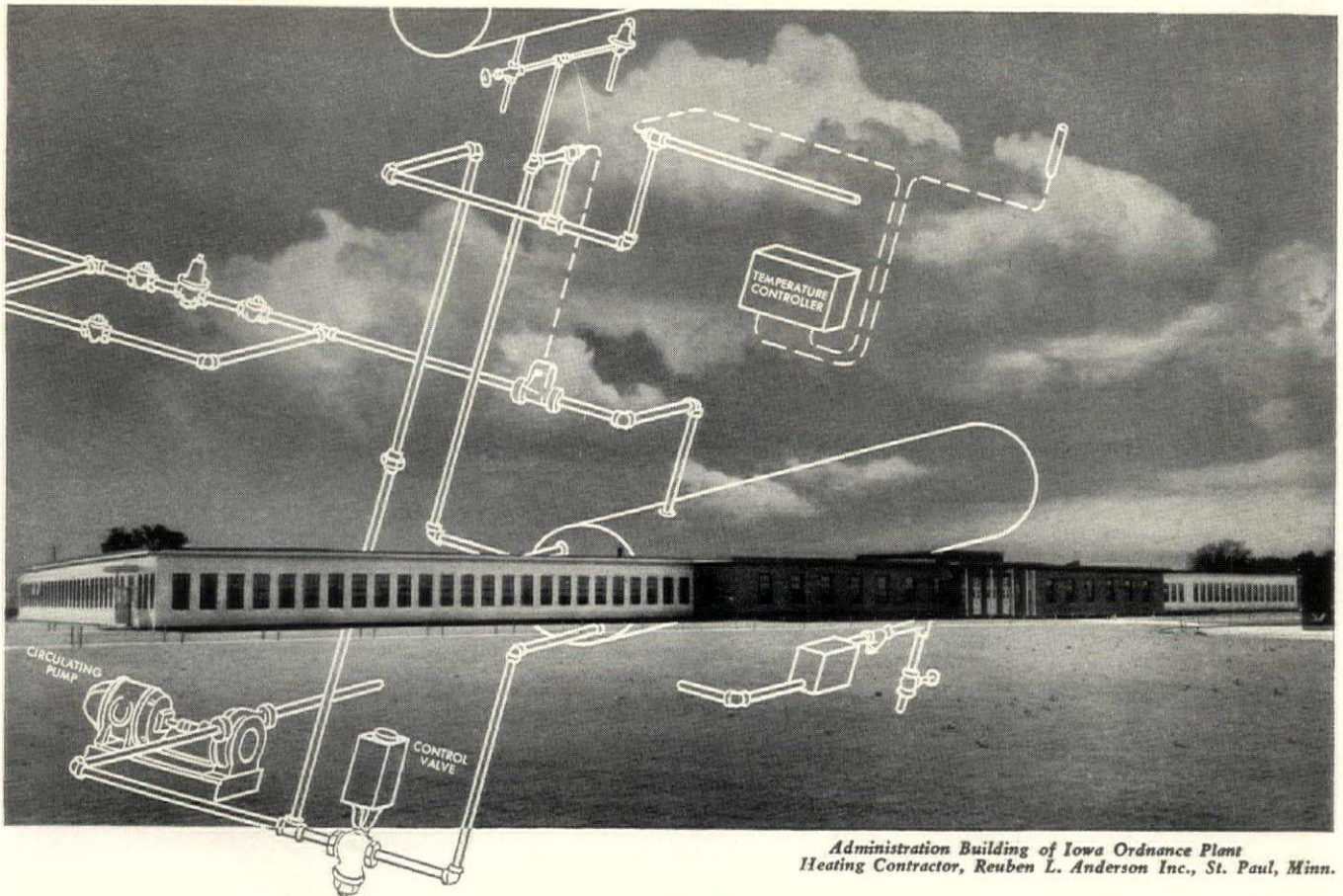
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Modernfold Doors are beautiful, adding to the attractiveness of any room. The precision-built metal frame assures quick, trouble-free operation. There's a variety of beautiful fabrics, colors, and finishes. Be sure to get full details today — there is no obligation.

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1112 Merchandise Mart, Chicago, Ill.





Administration Building of Iowa Ordnance Plant
Heating Contractor, Reuben L. Anderson Inc., St. Paul, Minn.

Munitions Plant HEATING

...WHERE UNIFORM ROOM TEMPERATURE IS A "MUST" FOR SAFETY

In the touchy business of loading high explosive shells, *uniform room temperature* is one of the primary safety requirements. The Iowa Ordnance Plant achieves this essential condition in its TNT melt-load rooms with Hoffman Hot Water Controlled Heat.

This system of *continuously circulated* hot water provides a hair-breadth control of temperature—holding it constant at any desired degree. It literally anticipates the weather and accurately governs the heat supply to prevent over- and under-heating.

Hoffman Hot Water Controlled Heat avoids intermittent bursts of heat. The coordinated controls of the system automatically select the water temperature necessary to keep the building at any predetermined degree. With delicate precision, these controls smoothly vary the temperature of the circulating water so that an exact balance between heat loss and heat supply is maintained.

Every type of building, whether for Defense industries or for commercial or residential use, can be better and more economically heated with this latest refinement in controlled heating. It affords the comfort and health-protection obtainable only with a constant room temperature. Any new or old automatically fired boiler can be easily equipped with the three operating units of Hoffman Hot Water Controlled Heat. Send today for descriptive booklet. Hoffman Specialty Company, Dept. AF-3, Indianapolis, Indiana.

Hoffman Control Valve

This valve admits graduated quantities of hot water to the circulating stream in accordance with the need for heat.

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Outdoor and indoor temperature bulbs actuate this mechanical "brain" to exactly match the heat supply to the heat loss.

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A small electrically operated pump, which continuously circulates heated water through the system.

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Vast Plant Put Into Operation In Record Time

Motors Roll Off Line Just 243 Days After Start of Factory

Signalizing the launching of mass production of Buick-built aircraft engines in the immense Heirbau plant just 243 days after the project was launched, the first big power unit designed for an American bomber roared on test blocks yesterday.

It rolled off the production line a few days ago, fore-runner of thundering thousands which will comprise a major contribution to vastly increased United States air power.

Total Cost \$41,000,000.

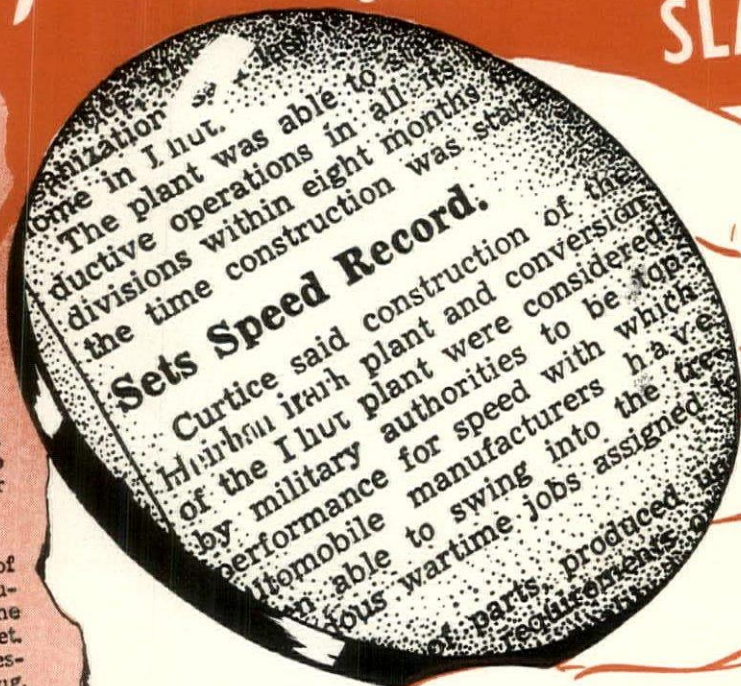
The Heirbau plant, one of the largest aviation air craft manufacturing establishments in the world covers 1,600,000 square feet. Cost of the building and the necessary tooling, plus cost of tooling. The Buick engine division, the I hut plant, totalled \$41,000,000.

The plant was able to start productive operations in all its main divisions within eight months from the time construction was started.

Sets Speed Record.

Curtice said construction of the Heirbau plant and conversion of the I hut plant were considered by military authorities to be top performance for speed with which automobile manufacturers have been able to swing into the tremendous jobs assigned to

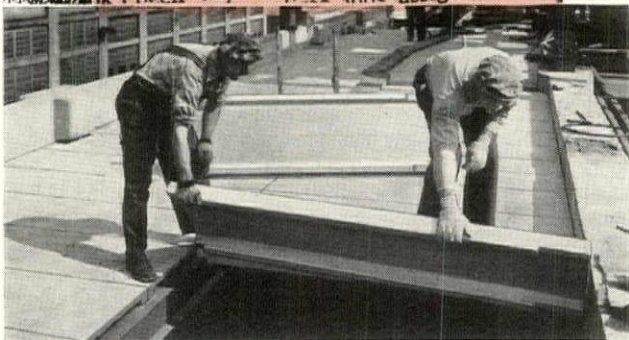
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SCORES of defense plants around the country are enabled to conserve valuable time and labor and to get into production with minimum delay, because *Featherweight* Precast Concrete Slabs are used for the roof deck. On this particular plant, there are over a million square feet of *Featherweight* Concrete Slabs.

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Slabs are speedily laid on the roof purlins in any weather and the weatherproof covering applied immediately thereafter.

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TODAY, architects are realizing more than ever the unlimited possibilities of *light specification*, in clearer vision, improved man-hour efficiency and greater economy.

And in both construction and maintenance the managements of industrial, commercial, school and hospital buildings are alert to secure the advantages of improved illumination through proper painting. They find such reward as increased production, improved health, reduced accidents and better conditions for work among the benefits of experienced color planning.

You can specify better lighting for your clients' buildings with Pittsburgh Glorified Light Maintenance Finishes—Snolite for normal interior surfaces and Snotex for abnormal conditions. These custom-made finishes diffuse and reflect all available raw light, natural or artificial, into beneficial illumination . . . minus the hazards of glare or gloom.

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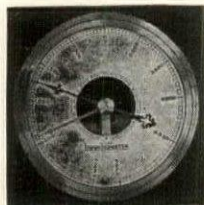
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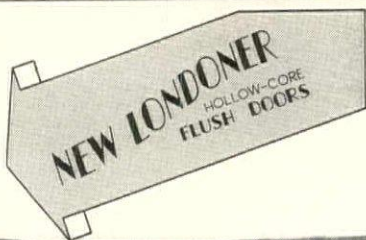
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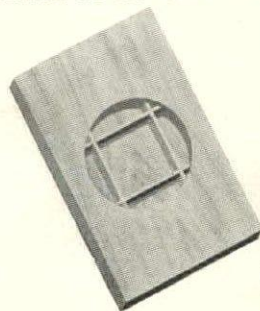
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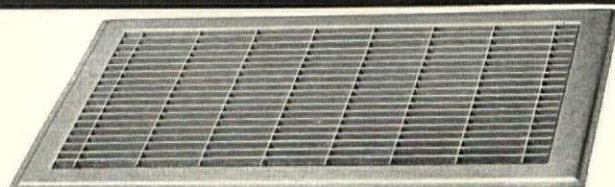
Middletown Housing Project. Geo. Howe, Architect

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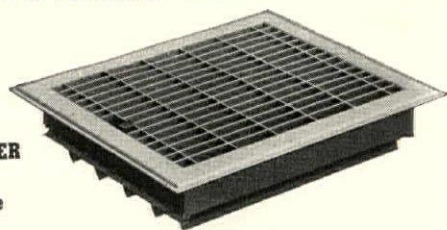
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DURABILT Floor Registers and Cold Air Faces have close mesh design in all models— $\frac{1}{2}$ " by 2" on centers. Surplus Strength results from amply heavy materials and rigid cross-bar assembly, the bars which form the face being mortised and locked at every cross joint, and also securely interlocked to frame. Frame is welded and reinforced at corners, joints are close fitted and will not pull apart. Entire assembly is extra durable, tight and true, and faces are level and heel-proof. Wherever stout, shock-proof construction is required—use DuraBilt!

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And because Benjamin's industrial lighting equipment includes practically every type of fixture required in industry . . . fluorescent, incandescent and mercury vapor . . . you can use this Benjamin Manual with an assurance that your information is unbiased and complete. For your complimentary copy, mail the coupon or address the Benjamin Electric Mfg. Co., Dept. YY, Des Plaines, Ill.

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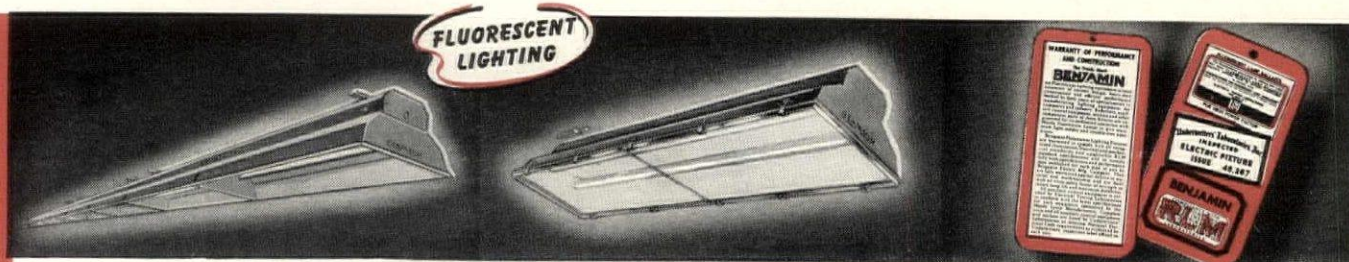
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DISTRIBUTED EXCLUSIVELY THROUGH ELECTRICAL WHOLESALERS



New Benjamin "Lite-Line" System (left) provides, economically and at low installation cost, from 35 to 75 footcandles of lighting. Benjamin Type II-G Dust-Tight Fluorescent Unit (right) is designed for use in ordnance plants and other locations with explosive dust in atmosphere. Other Benjamin Fluorescent Fixtures: "Stream-Flo"; "Twin-Flo."

Backed by Benjamin Warranty of Performance and Construction; approved by Underwriters' Laboratories; most types certified to meet RLM Specifications.



Benjamin RLM Dome Reflectors (left), Elliptical Angle Reflectors and others are available with special Benjamin Turnlox Hood construction which permits removal of reflectors with lamp for easy cleaning or lamp renewal on the floor.

Benjamin "Stock-Bin-Lite" is designed for efficient lighting of stock bins, tool crib bins, file rooms and similar locations.

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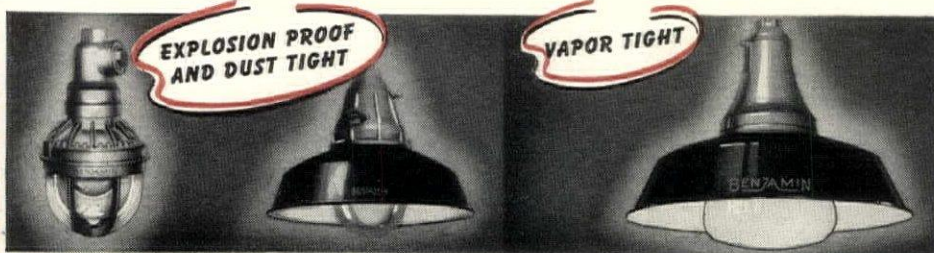
Please send me, without cost or obligation, a complimentary copy of your 400 page Encyclopedia on Industrial Lighting and Floodlighting, and The Manual of Factory Lighting Practice.

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Benjamin Explosion Proof and Dust Tight Units for the safe lighting of hazardous locations are tested and approved by Underwriters' Laboratories.

Underwriters' Laboratories approved Benjamin Units are available for locations exposed to moisture, smoke and non-combustible fumes, vapor and dust.

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For Low-Cost Homes!

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- Weathertight wide blind stop
- Leakproof locked sill joint
- Steep sill slope and chamfered blind stop that hastens drainage.
- Bed puttied B quality labeled glass
- 1½-inch thick sash
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- Precision milling

The "Victory" is a quality window—at a price that permits its use in even the most inexpensive home!

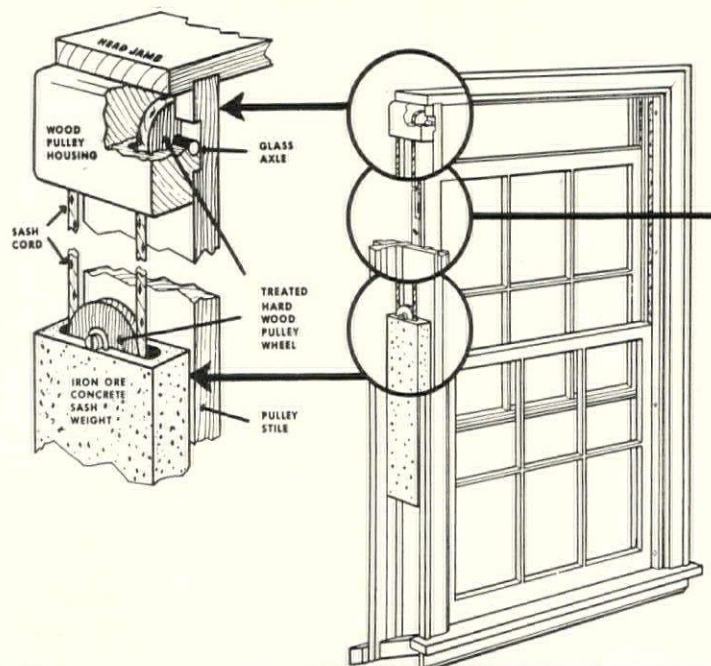
TIME-TESTED COUNTERBALANCING *RETAINED!*

Easy Sash Operation Always Assured

Andersen's time-tested, fool-proof system of counterbalancing has been retained by the use of alternate materials.

Sash weights are made of concrete, containing iron ore aggregate. Sash cords used in place of sash chain. Pulley wheels made of treated hard wood. Pulley axles are Pyrex glass. Pulley housings are treated wood. Metal reduced to only a few ounces!

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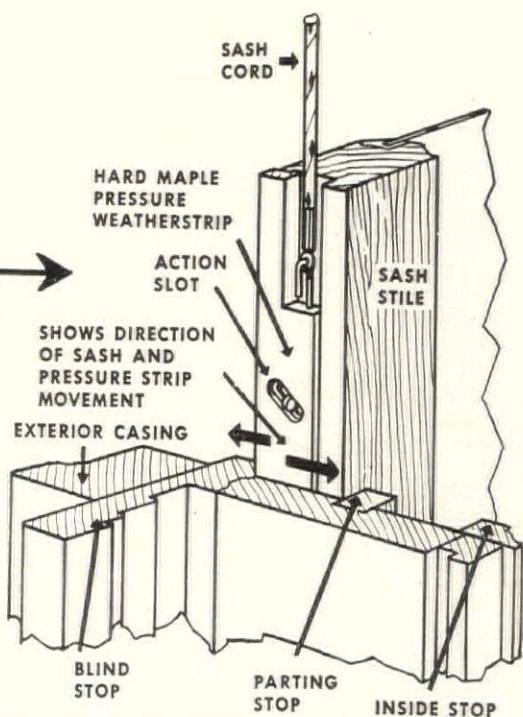
VICTORY Window Unit

BRAND NEW!

WOOD ON WOOD

PRESSURE-SEAL WEATHERSTRIP!

THE NEW Andersen pressure-seal weatherstrip is brand new—utterly different. The sash of the Victory Window are automatically pressed against the parting stops so that infiltration is positively and effectively stopped.



WEATHERSTRIP IS CONCEALED

The secret lies in the action of movable hard maple pressure strips concealed in the sash stiles and attached to the sash through diagonal slots. The sash cord is attached to these movable strips instead of directly to the sash. The pull of the sash weights produces a lateral movement of the pressure strips which pushes both upper and lower sash firmly against the parting stop, thereby creating a tight seal against infiltration. Sash movement releases the weatherstrip pressure and easy operation is assured at all times. Weatherstripped windows save up to 20% on fuel. This conservation of fuel oil and coal is an important contribution to our national wartime effort.

PRACTICALLY NO METALS REQUIRED

97%
of the
CRITICAL MATERIALS

IN
WEATHERSTRIPPING
AND
COUNTERBALANCING

ELIMINATED!

Less than 13 ounces of critical metals used! One-thirtieth of the metals used in ordinary double-hung windows, which require about 28 lbs. of metal.

SUPPLY ASSURED!

Corporation BAYPORT, MINNESOTA

SPECIFICATION AND BUYING INDEX

The advertising pages of THE ARCHITECTURAL FORUM have become the recognized market place for architects and all others engaged in building. Each month these pages offer the most complete guide to materials, equipment and services to be found in any magazine. A house or any other building could be built completely of products advertised in THE FORUM. While it is not possible for a magazine to certify building products, it is possible to open its pages to those manufacturers whose reputation merits confidence. This THE FORUM does.

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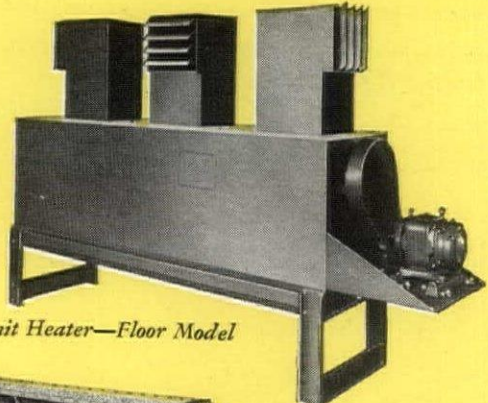


The new Buick Plant at Melrose Park, (Chicago) Illinois.
 Designed by Albert Kahn, Associated Architects and Engineers, Inc., Detroit.

Actively Engaged!

**McQUAY COILS HEAT AND COOL
 THE NEW BUICK PLANT**

AGAIN, McQUAY equipment has been selected for another of Albert Kahn's outstanding jobs . . . this time the new Buick Plant at Melrose Park, (Chicago) Illinois. Standard McQUAY Heating and Cooling Coils will provide year around industrial temperature control for this up-to-the-minute plant . . . Special units were designed to meet the exacting specifications covering certain areas, where split-degree control was essential . . . In Defense Plants from coast to coast, McQuay Proven Products are actively engaged in speeding production. When you specify McQuay Heating and Cooling equipment, you are enlisting the services of an organization dedicated to the building of Quality Products and delivering them on time . . . McQuay, Inc., 1609 Broadway St. N.E., Minneapolis. Representatives in principal cities



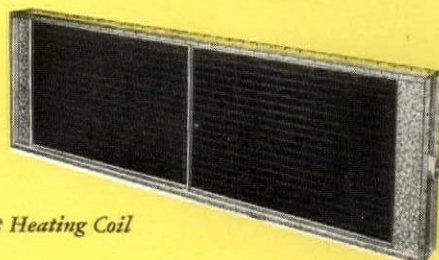
Blower Type Unit Heater—Floor Model



Water Cooling Coil



Down Flow Unit Heater



Blast Heating Coil



Standard Unit Heater

McQuay INC.

Another of a series of advertisements depicting the part of McQuay, Inc. in the defense program

**AIR TEMPERING EQUIPMENT
 ESPECIALLY DESIGNED
 FOR INDUSTRY**

"Aw — who ever heard in a \$4000 house!"

*For years builders have installed complete G-E Kitchens
in low cost homes. Here's why!...*

THOUSANDS OF OWNERS have reported that they have found it costs less from the *very first month* to live in a home with high quality equipment.

The buyer of a \$4,000 home can least afford poor kitchen equipment, wasteful heating plant or skimpy wiring system. He, of all clients, needs most the economies of lower operating costs, lower maintenance costs, and longer life

that are possible only with efficient, high-grade equipment.

THE BUILDER PROFITS too! Establishing a reputation for building *better* low-cost homes that cost *less to live in* is a wise move that pays dividends. Safeguarding your clients' interests safeguards your own, because the homes you design and build today are the homes that build your reputation for tomorrow.

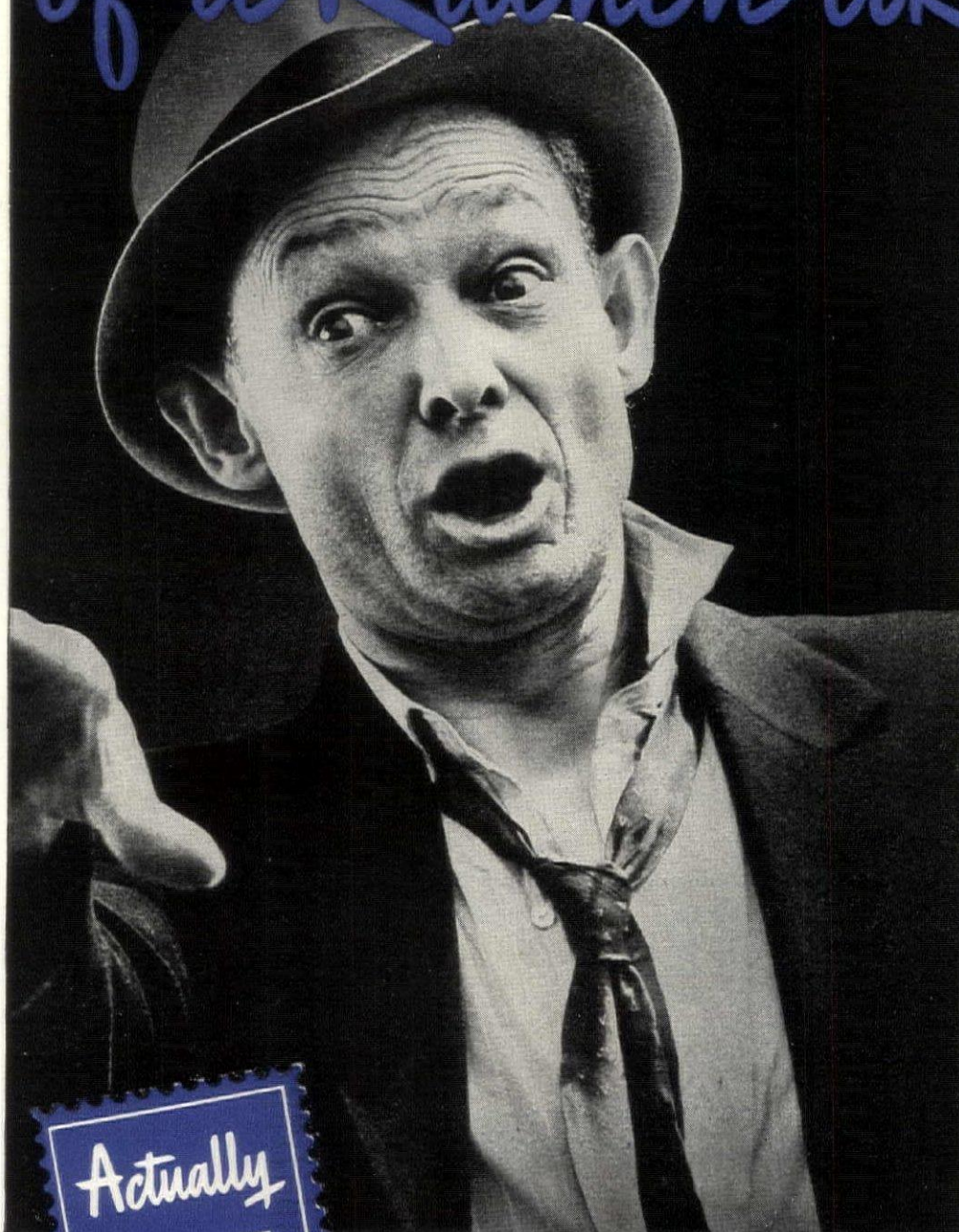


This kitchen is but one of many arrangements possible in a new \$4,000 home.

Write for book with complete details on operating equipment for small homes.



of a Kitchen like this



Good will plus!—Busy housewives everlastingly appreciate the time-saving, work-saving, money-saving advantages of a G-E Electric Sink that washes and dries the dishes and disposes of garbage electrically.

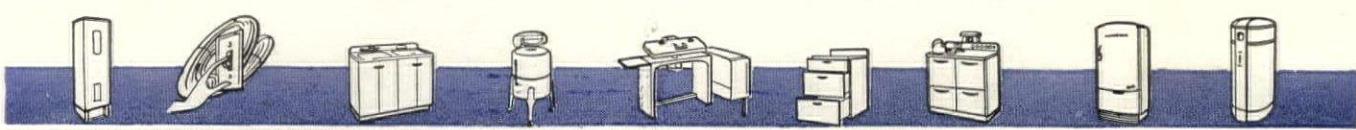


Automatic Heat—Folks who live with a General Electric Furnace — residents of the mill district as well as the boulevard — report savings in fuel bills from 25 to 50%. That's vitally important in times like these!

Actually
IT CAN COST
LESS TO
LIVE BETTER

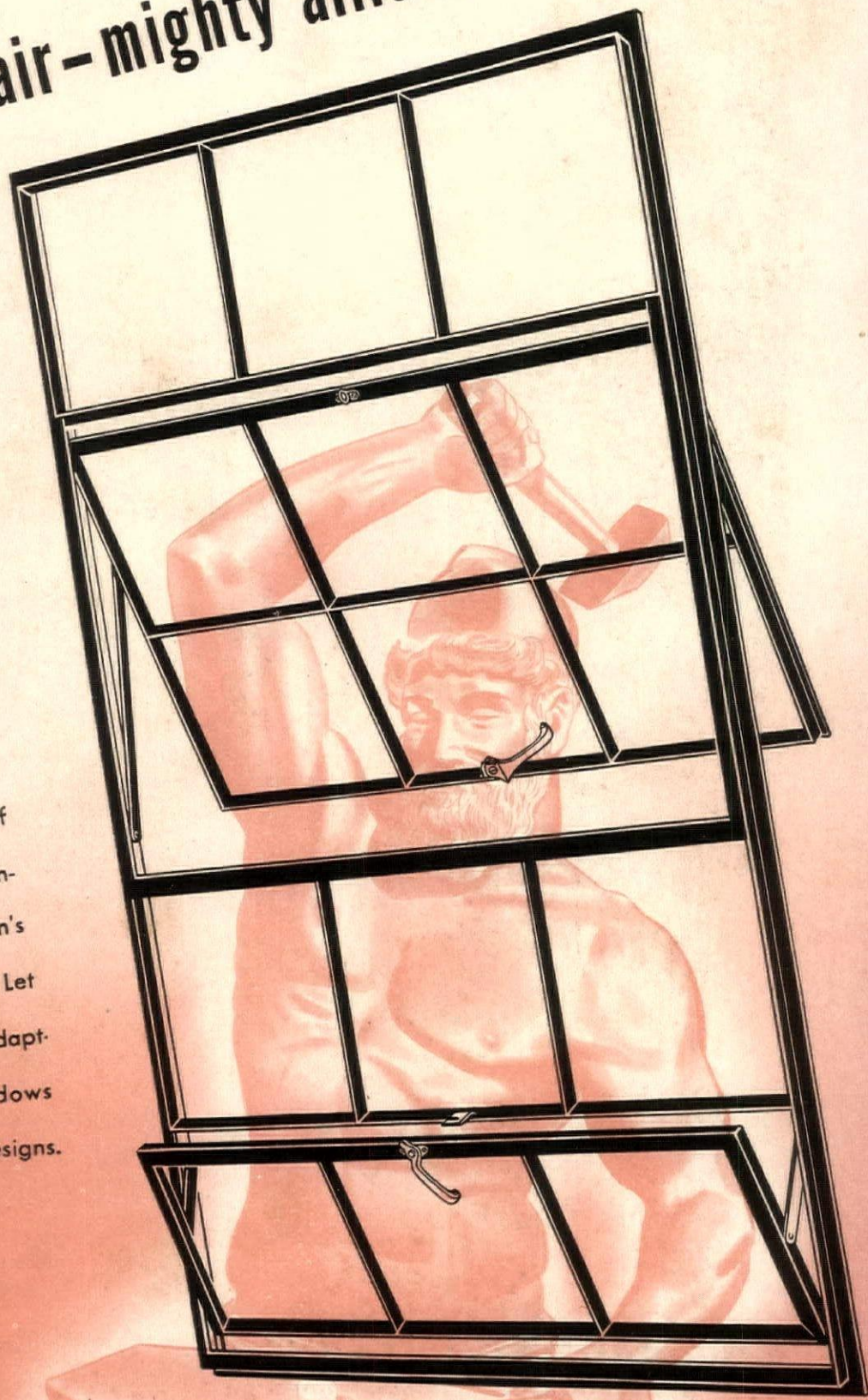
A complete electric kitchen in a \$4,000 home can contribute more in operating economies for the owner than any slight increase it may cause in monthly payments when financed under a long term mortgage.

GENERAL  **ELECTRIC**
HOME BUREAU BRIDGEPORT, CONN.



natural light and air—mighty allies of production

• The hand of industry moves steadily and the eye is sure, when nature's lavish gifts of light and air are fully utilized with the aid of Truscon Steel Windows . . . These instruments of illumination and ventilation serve two-fold purposes: they permit the quick erection of modern structures; and they induce greater efficiency in man's mental and manual efforts. Let "SWEET'S" be your ally in adapting Truscon Steel Windows to distinctive building designs.



TRUSCON STEEL COMPANY
YOUNGSTOWN • OHIO
Subsidiary of Republic Steel Corporation

LOOK!

SELECTED FOR
DEFENSE...

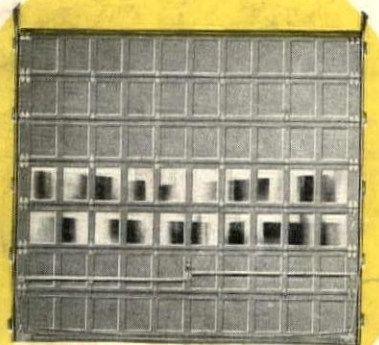


Quality construction--expert installation--are still the two essentials for long service and easy operation. The "OVERHEAD DOORS" now being installed in Army, Navy and Marine bases, Coast Guard stations, defense manufacturing plants and home garages in defense areas will be giving the same efficient service for many years after the present emergency is over. Choose The "OVERHEAD DOOR" for your job, industrial or residential.

One door or hundreds, wood or steel--Manually or electrically operated--Sold Installed by a Nation-Wide Sales-Installation-Service.

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"OVERHEAD DOOR"
TRADE MARK
WITH THE
MIRACLE WEDGE



OVERHEAD DOOR CORPORATION

HARTFORD CITY, INDIANA, U.S.A.