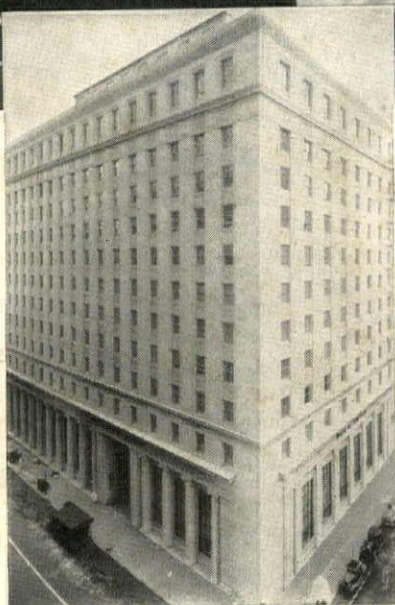
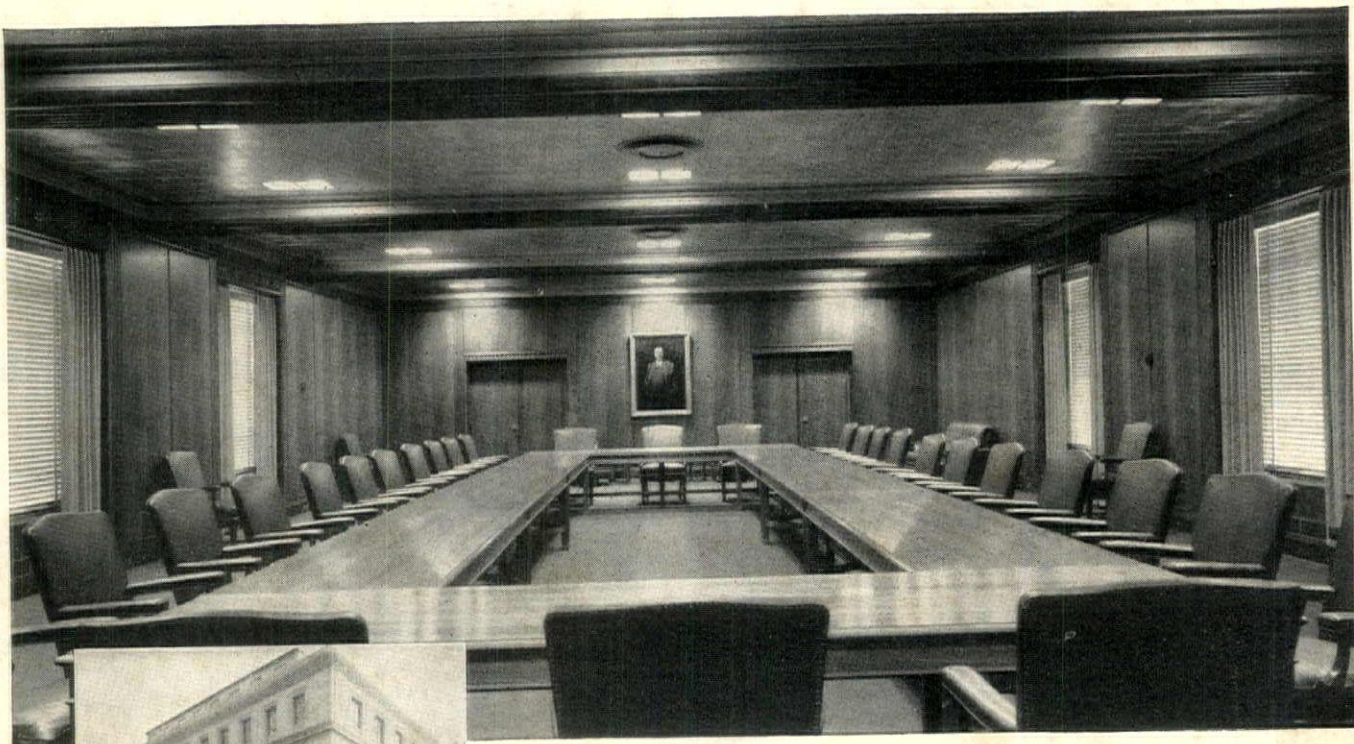


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THE ARCHITECTURAL FORUM

JUNE 1942

It Is Our Privilege to Have Furnished the *Sound-Conditioning for San Francisco's New* **BANK OF AMERICA BUILDING**



Above: Celotex Sound Conditioning provides perfect acoustics in the directors' room atop San Francisco's new 12-story Bank of America Building. Below: The imposing exterior of the Bank of America's new home.

LET CELOTEX SOUND-CONDITIONING HELP SOLVE YOUR ACOUSTICAL PROBLEMS

SAN FRANCISCO is justly proud of this new Bank of America Building. Nothing has been left undone to make it right in every regard—an efficient home for the two-billion-dollar institution which makes its headquarters here.

It is our privilege to have furnished the sound-conditioning—not only for the beautiful penthouse directors' room, but throughout the twelve general office floors.

In availing yourself of Celotex sound-conditioning experience, you are sure of (1) Proved engineering practice, (2) Uniformly dependable acoustical products, and (3) Guaranteed results. If you have not yet received your copy of our new text, "Less Noise, Better Hearing," please let us have your name.



CELOTEX

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SOUND CONDITIONING

In Canada: Dominion Sound Equipments, Ltd.

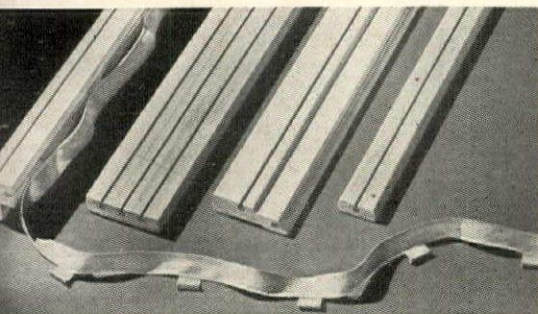
THE CELOTEX COMPANY • CHICAGO

JUNE 1942

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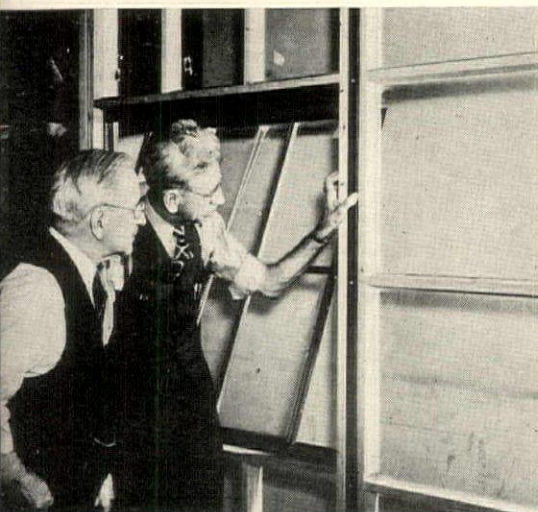
Building Reporter



WOOD MOLDINGS INSTEAD OF METAL RODS



TEN TONS OF DEBRIS NO WAR HAZARD HERE



ARCHITECT ALBERT KAHN AND ASSOCIATE JOHN SCHURMAN INSPECT WOOD FACTORY SASH

For additional information on any product described in this section write direct to the manufacturer.

WOOD MOLDINGS. Slots and a glider tape replace metal rods in hanging curtains.

Name: Jiffy Slotted Moldings.

Purpose: For use wherever ceiling or curtain traverses are specified.

Features: Moldings are available in several different styles. Illustrated at left: 1) a double-slot molding for attaching to top of window head trim, 2) a triple-slot traverse for building into boxed wooden valance, 3) a double-slot molding for making window head trim or for setting over plaster reveal, 4) a single-slot molding for ceiling traverse. Slider tape is first sewed to top of curtain, then each little slider is inserted into the slot, one after the other, through a small aperture near the end of the molding. One pair of curtains or draperies can be hung at windows which are finished with single slot moldings. With double slots, either sheer glass curtains or blackout curtains can be hung under draperies. Moldings are made of kiln-dried, processed medium-hard woods. They come in 4, 6, 8 ft. and other standard lengths with apertures for inserting sliders at one or both ends. The slider curtain tape can be ordered in any desired footage.

Manufacturer: Jiffy Join, Inc., 203 East 18th St., New York, N. Y.

AIR RAID SHELTERS. Indoor models of solid timber sleep two adults and a child.

Name: Solid Timber Shelters.

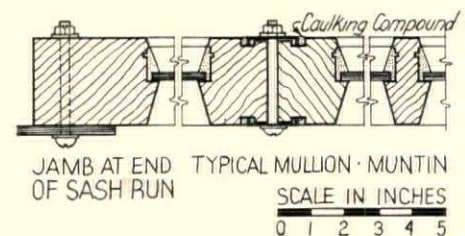
Purpose: For use in the home as protection against the hazards of air bombardments.

Features: Two types are available—an arch shelter (illustrated at left) and a table shelter. Both are made of 4-in. timbers, use no critical materials—no glue and not even a nail. Both have specially designed lift-up doors with holes for ventilation. The arch model measures 8½ ft. long, 4 ft. wide, 42 in. high at its highest point. It accommodates a standard double-bed mattress, with space for equipment at both ends. Tests show that it will withstand 10 tons of debris should the house be shattered by demolition bombs. The table model has the advantage of being usable as a piece of furniture in between emergencies. Like the Morrison shelter in England, it may be set up in the living room and used as a family table. Unlike its prototype, however, its bottom beams are designed to distribute the load

evenly. Thus, a concentrated load is not put upon the floor at any one point as is the case with table legs which are likely to puncture the floor under a heavy load. According to tests, the table will support a total load of 5 tons. It is also built so that a standard twin-bed mattress can be used, leaving space for equipment at both ends. List prices: \$135 and \$155.

Manufacturer: Solid Timber Products Co., Inc., 101 Park Ave., New York, N. Y.

WOOD FACTORY SASH. Kahn organization develops steel-saving unit, offers its unrestricted use to Building.



Name: Kahn Victory Sash.

Purpose: To replace steel sash in war factory construction.

Features: Most praiseworthy is fact that John Schurman, its designer, and the Albert Kahn organization of which he has long been a member, have waived all patent rights to this development. Blueprints describing the new sash in detail are available to anyone engaged in war building. The wood window takes full advantage of experience gained in the development of steel sash. Its simple frame and mullion construction and its compact ventilators are all built up at the factory in standard units on a 4-ft. module. These single units permit extreme heights with a considerable saving in horizontal supporting members, allow maximum light for the amount of material used. As the units are erected, the two mullion supports, each approximately 2 x 4 in., are joined by coverplates of light pressed metal which lock over small intervening grooves to accommodate the wood's expansion and contraction in varying weather. Caulking furnishes complete weatherproofing. Putty is applied on inside of window rather than the outside, and the wood is shaped to form a flange for the putty, thus preventing its edge from curling up. Ventilators continue to be made of steel parts. For blackouts, plywood sheets can be easily fastened to the outside of the sash, with sections cut out to accommodate the ventilators.

Sponsor: Albert Kahn Associated Architects and Engineers, Inc., New Center Bldg., Detroit, Mich.

(Continued on page 60)

ATTIC INSULATION ONE ANSWER TO HOUSING PROBLEM

**Makes possible extra bedrooms in existing buildings;
adds to fuel economy; meets Government regulations**

Under present Government restrictions on new building and remodeling, increased attention is being paid to the extra living space which can be obtained by remodeling millions of unused attics throughout the nation. In most cases it is found that comfortable new attic bedrooms can be created at prices well under the W. P. B. ruling.

- *Improved type blanket insulation being used*

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- *Presdwoods* for finishing*

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FORUM OF EVENTS

PRIZE-WINNERS

At a dinner at the Architectural League of New York last month, Hugh Ferriss (far left), winner of the Brunner Scholarship for 1941, listened to Albert Kahn* talk about factories and the war. The dinner opened "The Power of America in Buildings," a show of drawings in the best Ferriss manner, made on a trip through the U. S. Prominently displayed on the back wall are drawings of TVA projects. Chief TVA Architect Roland Wank (far right) was the principal speaker at the dinner. Flanking Mr. Kahn: League President Woodbridge and Mrs. Woodbridge.

Below: Rainbow Bridge, spanning the Niagara River, was voted the most beautiful bridge in its class for 1941 by a jury of the American Institute of Steel Construction. Engineers: Waddell & Hardesty. Architect: Aymar Embury II.

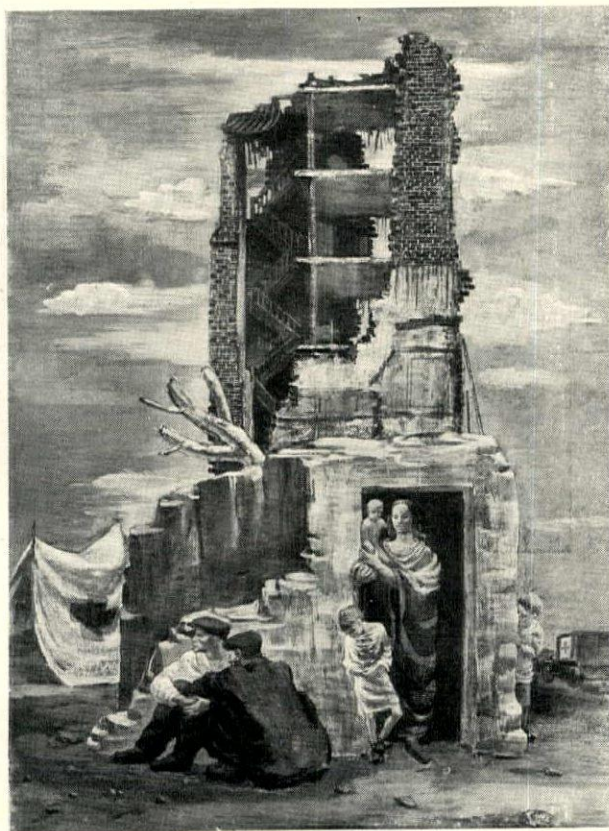
*See page 373



Below, winner of one of the purchase prizes in the American Red Cross's recent national competition: "In the Field," a water color by Joseph Lasker of Brooklyn.

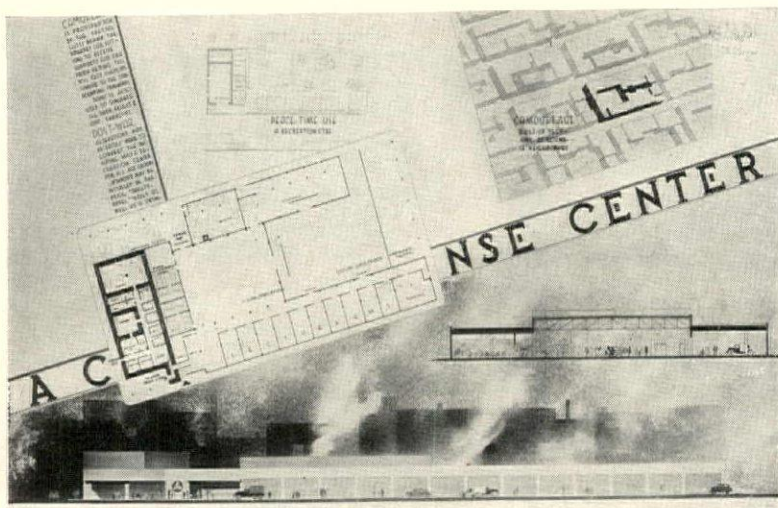


RAINBOW BRIDGE



Left, winner of the first prize in the ARCHITECTURAL FORUM competition for 1941. Problem of the student competition by the Beaux Arts Institute of Design was to design a civilian defense center with provisions for camouflage. Designer Weiss of the University of Pennsylvania not only met the requirements of the program, but showed a highly practical and intelligent scheme for conversion to peace-time use as a recreation center.

(Continued on page 6)



A CIVILIAN DEFENSE CENTER, F. WEISS, DESIGNER

THIS *Tough* MODERN MATERIAL

STANDS UP TO MANY KINDS OF GRIEF



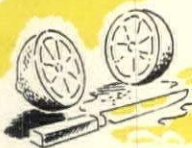
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Color charts and installation details on request.

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THE FORMICA INSULATION COMPANY

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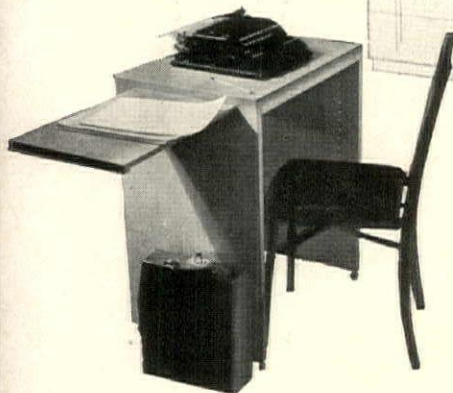
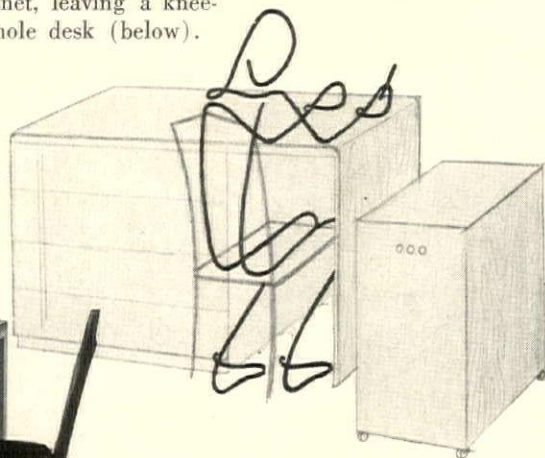
CINCINNATI • OHIO

FORUM OF EVENTS

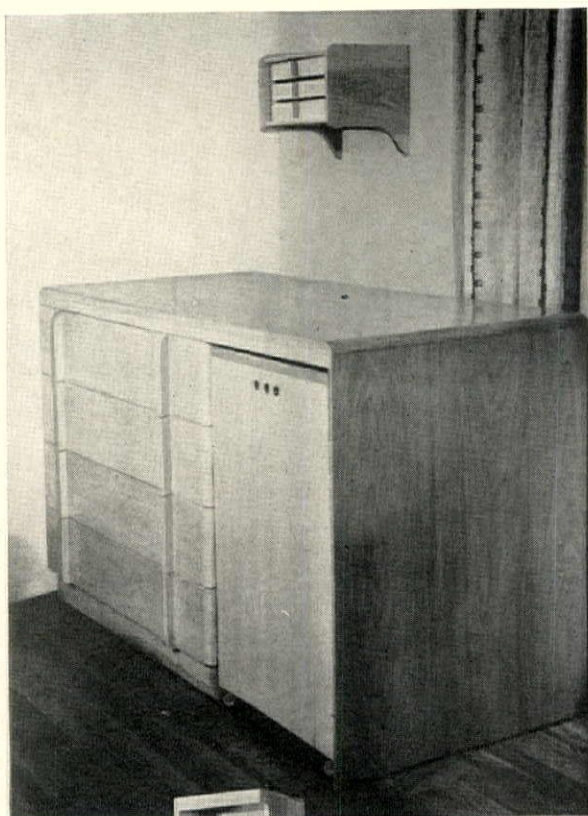
The bookcase divides into two vertical sections.



The table can be pulled out of its cabinet, leaving a knee-hole desk (below).



The pull-out table (right) as a cabinet for artist's materials, and (above) as a small desk. A built-in board gives an extra working surface.



One or both of the bookcase sections can be placed on top of the drawer-desk unit. The furniture is white poplar with a light natural finish.



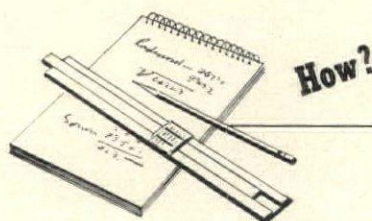
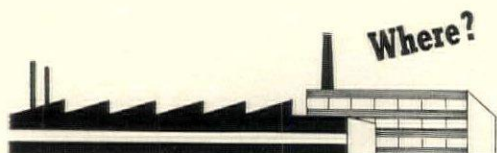
FLEXIBLE FURNITURE FOR INFLEXIBLE HOUSING

These furniture units were worked out by a young New York advertising artist to meet a very familiar problem of limited space and budget, now as common in the new war housing as it has been in the average apartment. Designed by Shirley Plaut, who also prepared the page layout, the pieces include a vertically divided bookcase, a drawer unit, a movable table and a desk. While it was built to meet the working and storage requirements of a commercial artist, the furniture is adaptable for use in the small home. The drawers, for instance, used to store paper, drawing boards, etc., would serve equally well for linens, while the table on casters, used with or without shelves, would be very handy for a variety of purposes. Most interesting of the devices to gain flexibility is the bookcase treatment, a very ingenious solution for the small living room. Many special designs of this type have appeared recently, all of which could now be of great service to the people moving into war houses.

(Continued on page 34)

The "EXPERIENCE POOL"

answers



questions on

RADIANT HEATING

All architects and engineers today have one job in common: to do more and more with less and less, in an uncharted field. The structures now being built are highly specialized parts of a gigantic war machine. Yesterday's standards, yesterday's practice, and in many cases yesterday's materials, can no longer be indiscriminately applied.

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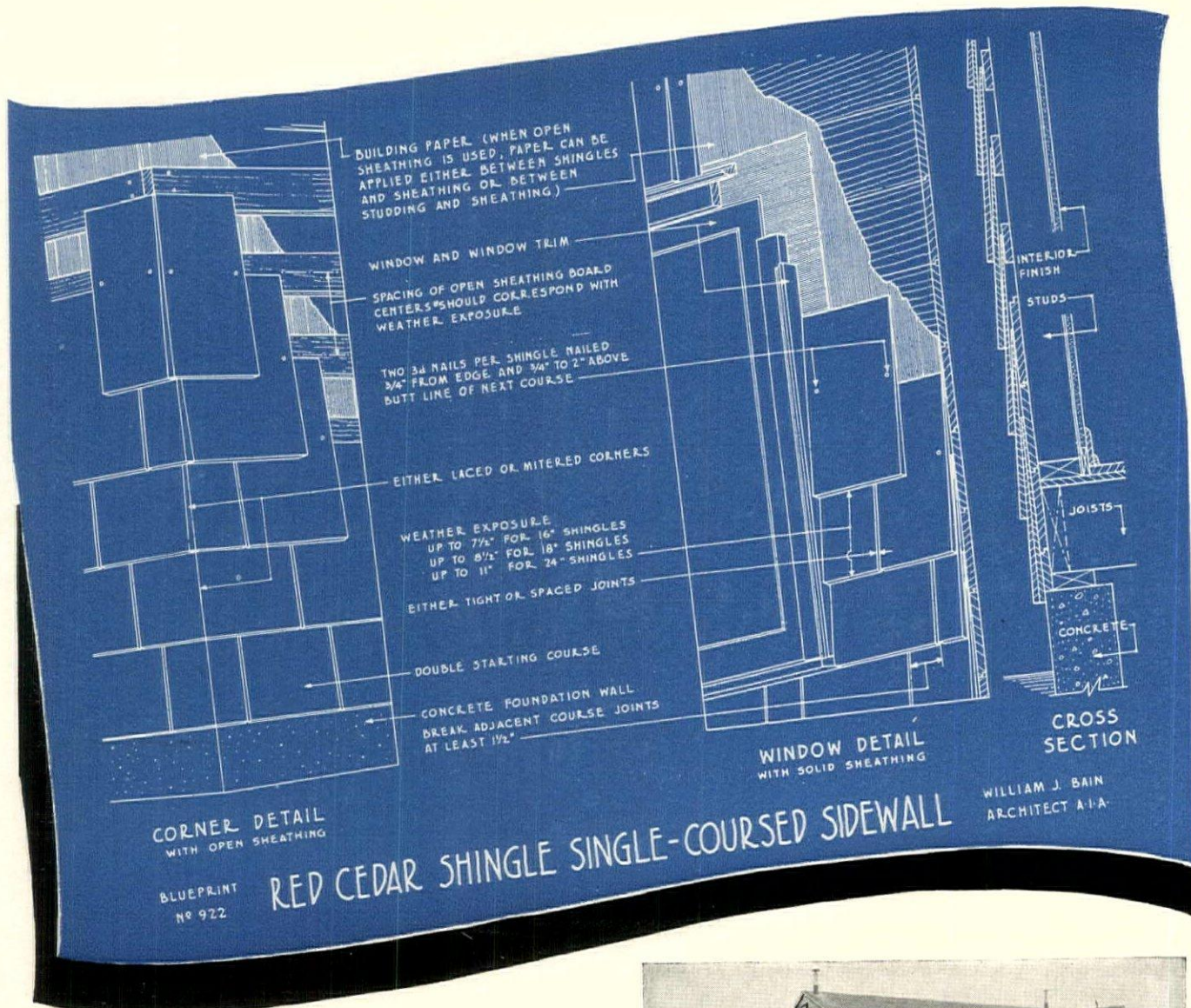
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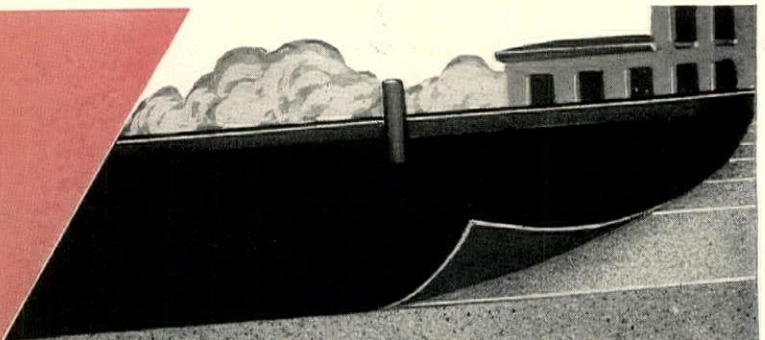
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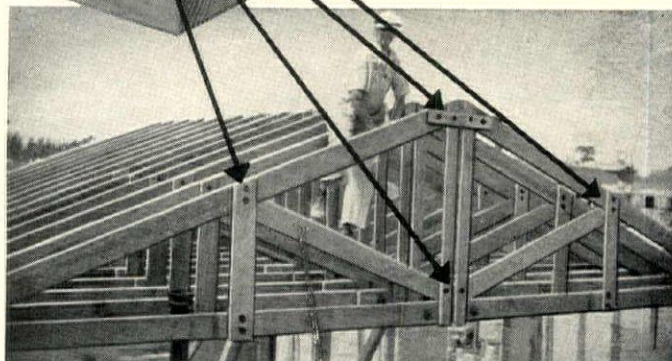
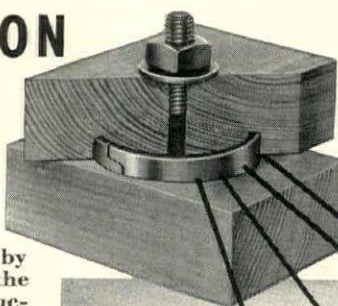


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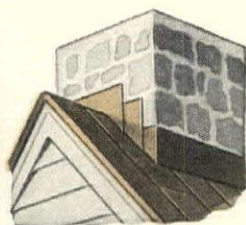


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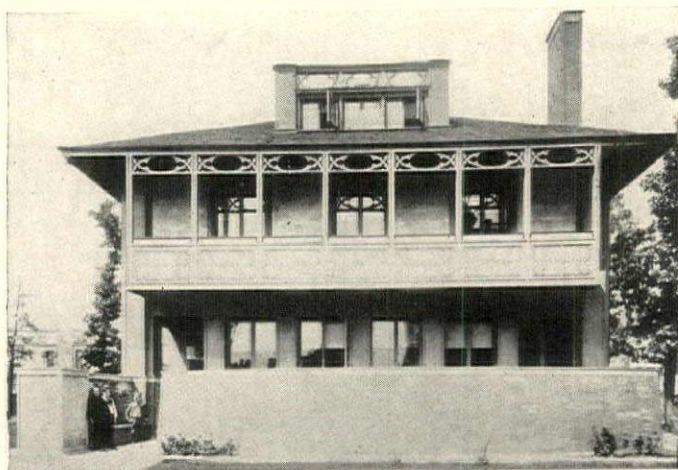
Subsidiary of Anaconda Copper Mining Company

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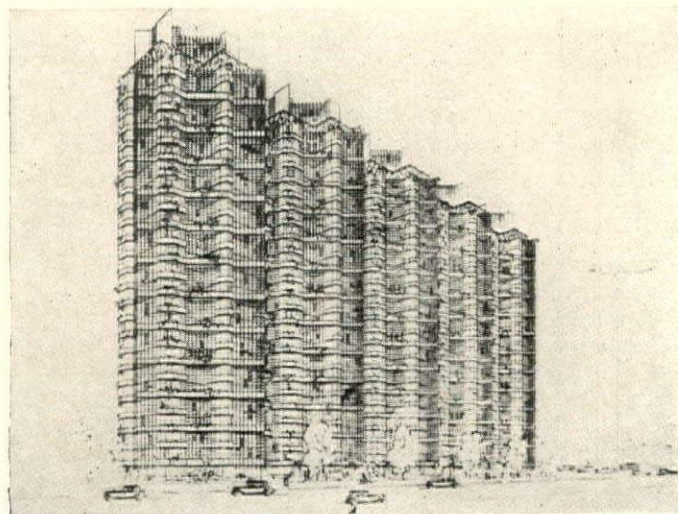
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Anaconda Copper & Brass

BOOKS



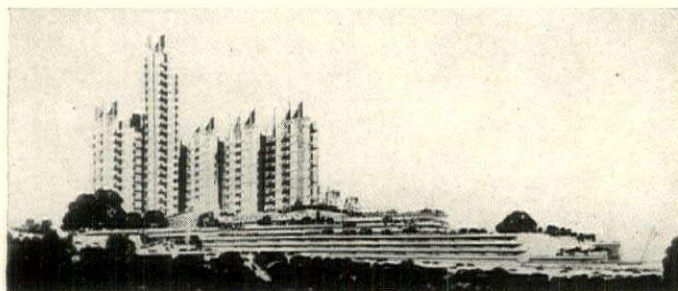
HARLAN HOUSE, CHICAGO, 1892



PROJECT: GROUPED APARTMENT TOWERS, CHICAGO, 1930



ANN PFEIFFER CHAPEL, LAKE LAND, FLA., 1940



PROJECT: CRYSTAL HEIGHTS HOTEL, WASHINGTON, D. C., 1940

IN THE NATURE OF MATERIALS, by Henry-Russell Hitchcock. Duell, Sloan & Pearce. 130 pp., illustrated. 8½ x 8¾. \$5.

Unlike most stern and deliberate writers on architecture, Mr. Hitchcock has a boundless delight in his subject. To him Frank Lloyd Wright is all things to all men, "the prophet of modern architecture," social thinker, city planner who, at 73, "stands poised for new triumphs." His book is monument to his belief; it describes in detail every work that Wright either completed or projected from 1887 to 1941. Together with more than four hundred illustrations, themselves profusely captioned, the chronologically arranged chapters seem to march forward like some army under a succession of triumphal arches. If nothing else, this is a critique of pure enthusiasm.

A multitude of well-handled facts, however, bolster up the superstructure of approval. Hitchcock shows, through use of photographs of the 1887-95 houses of Adler and Sullivan, how persistent apprentice-Wright's influence was on his masters' work. He traces Wright's independent work of these years; here the young architect showed "his own mastery" even before he set up for himself. Until the turn of the century, in what Hitchcock calls, "the maturity of Wright" period, his houses broke the path toward the later "prairie" style, which established him as the spokesman for the Middle West in architecture. Primarily a domestic architect, his non-domestic work of the first ten years of the century is detailed in all its bold originality; the Hillside House School and the Larkin Administration Building became generic for future industrial building in both Europe and America. In these years, Wright, like Carl Sandburg, rose out of the landscape like a midwestern monolith.

By 1910, as Wright's commissions in the Chicago area had begun to run out, Berlin, Tokio and the rest of Europe perked up. Besides the first Taliesin and a few minor works, the milestone of this period was the Imperial Hotel, cantilevered, lush with ornamentation, expansive and elaborate, withstanding the fury of storm and earthquake. Despite smaller, less ambitious building in Japan ("The Fukuhara house at Hakone also had a superb site—indeed, part of it slipped off with the edge of the cliff in the earthquake. . . .") the Hotel, "with less of a Japanese air than much of his early work," remains Wright's most widely known work.

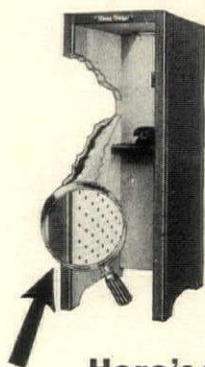
The depression years hit Wright as well as lesser men hard—his work is remembered mainly for elaborate projects never executed. Unable to build with sticks and stones, he often turned to words: 1932 saw the publication of *The Disappearing City*, a description of Broadacre City and a stinging indictment of the existing urban setup. Building convalesced in 1936, and Wright's architectural career recovered with it. The spectacular Kaufmann House ("Falling Water") and the Johnson Administration Building (whose ceiling detail resembles a vast collection of hyperthyroid mushrooms) are major works of recent years, symbols of a perennial inventiveness, the beginning of a new era of productivity.

Physically, Mr. Hitchcock's book is attractive but unwieldy. Cost undoubtedly dictated the separation of text and illustration, but the present arrangement makes reference to figures at the back half of the volume (average: four times to a page) inconvenient and tiresome. The illustrations are excellently printed, the plans clear and explicit, and the accompanying captions are terse and useful.

(Continued on page 38)

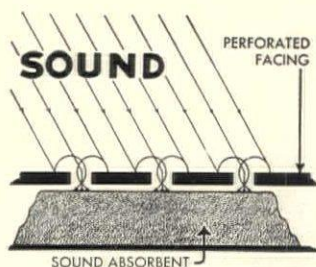
3 ANSWERS to the question—

How can I design a modern telephone booth ???



Here's why this Acousti-Booth is quiet inside

Burgess Acousti-Booths make use of patented Burgess acoustic principles. The reinforced plywood walls are perforated with thousands of holes. Behind the perforated surfaces, the walls are filled with sound-absorbent material which soaks up noise and produces a "zone of quiet" within the booth. Telephone conversations cannot be understood outside of the booth because such sounds also pass through the perforations in the booth walls and are blotted up. Privacy is thus assured, without doors.



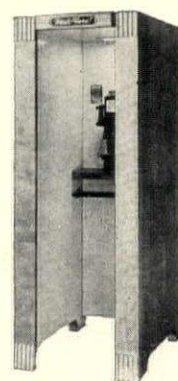
Operating under Burgess Patents

When your plans call for telephone booths, the following information will prove helpful in designing distinctive interiors. With Burgess Acousti-Booths, you can now provide your clients with streamlined, acoustically treated booths that are not only attractive in appearance but provide quiet and privacy without trouble-making doors. To architects and builders, three solutions are available:

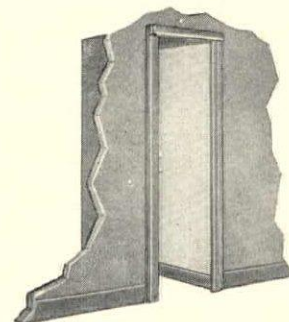
1 BURGESS COMPLETE ACOUSTI-BOOTHS
Several attractive styles, constructed throughout of heavy birch plywood, are available in walnut stain finish or unfinished to permit adaptation to any decorative scheme. These booths provide quiet and privacy without doors. The acoustic lining prevents conversation from being heard outside the booth. Never stuffy—easy to clean.

2 BURGESS ADAPTOR ACOUSTI-BOOTH
The same patented acoustic construction is used in this Adaptor model Acousti-Booth, which is supplied unfinished and without trim so that it can easily fit into any outer housing designed by the architect. Effective in use—attractive in appearance.

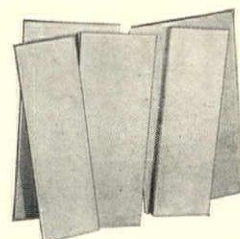
3 ACOUSTI-PANELS FOR REMODELING
Old style booths may now be lined with these patented Acousti-Panels to provide privacy and quiet for telephone users. Such remodeled booths need no doors and can be given the streamlined appearance of standard Burgess Acousti-Booths. Available in five convenient sizes.



Burgess Model 208 Acousti-Booth for use where booth is not built in.



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



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

STOP
NEEDLESS
NOISE
HELP AMERICA KEEP CALM

MAIL COUPON FOR DESCRIPTIVE LITERATURE

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

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

Name

Address

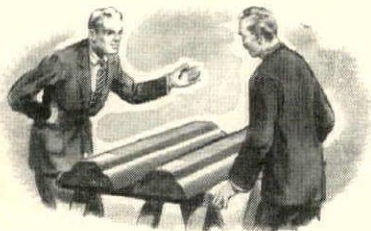
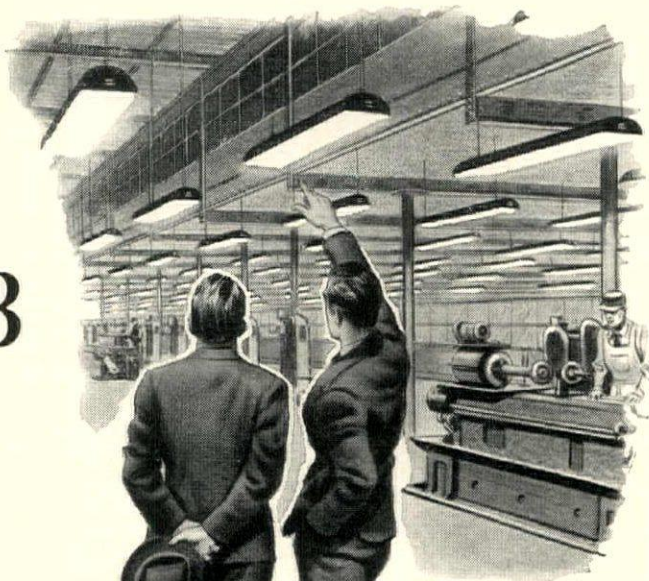
City

State

BURGESS Acousti-Booths



"This is going to make a TOUGH JOB EASIER!"



1.

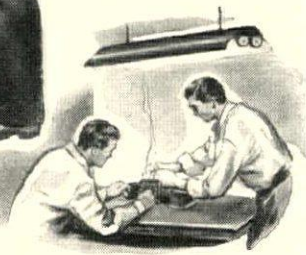
"So this is the 24 hour 'daylight' you're bragging about! Good looking equipment. Where'd you get it?"

"They call 'em FLEUR-O-LIERS, Mac . . . *certified* fluorescent lighting fixtures. About 40 manufacturers make 'em. Quite a variety. We've had FLEUR-O-LIERS in the old plant for almost a year. That's why they're going in here."



2.

"You see, wartime production is a tough job—and *urgent*. 24 hour 'daylight' is an important tool because it helps us get out the stuff faster and better. With vital work like ours, I need service—*plus*. I get it with FLEUR-O-LIERS! When you're ready to buy, keep your eyes open for this label."



3.

"What's the reason they're so good?"

"Just this—if I were building a fixture, I'd do it the way they do with FLEUR-O-LIERS . . . get lighting experts of the MAZDA Lamp makers to set up definite specifications. Then get Electrical Testing Laboratories in New York to test and pass on the fixtures after they're built. Then you're *sure*!"



4.

"What about maintenance?"

"That's important. Replacement parts take time and trouble to get, and maintenance crews spread out pretty thin over a 24-hour operation. But with *certified* parts, like ballasts and starters, all we fuss with on FLEUR-O-LIERS is occasional cleaning and replacing normal tube burnouts. And with the swell lighting job they do, what more can you ask?"

SEE HOW FLEUR-O-LIERS HELP YOU!

Check these important features

- ★ **Certified ballasts and starters** . . . assuring balanced, economical operation—most light from your lamps—high power factor (over 85%).
- ★ **Maximum light output**
- ★ **Flicker correction** (on two-lamp circuits).
- ★ **Durability and safety**
- ★ **Correct ventilation**
- ★ **Ease of maintenance**
- ★ **Every unit carries the FLEUR-O-LIER Manufacturers' guarantee.**



Fluorescent lighting has become a vital tool in wartime production. When you buy fluorescent fixtures, you must get the necessary WPB priority rating. Any of the FLEUR-O-LIER Manufacturers will be glad to work with you on this, and on getting the best lighting possible for your needs. See your electrical contractor or wholesaler or your electric service company.

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Fleur-O-Lier Manufacturers, 2119-6 Keith Bldg., Cleveland, O.
Please send me FREE new booklet "50 Standards for Satisfaction," together with list of Fleur-O-Lier manufacturers.

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New England Mutual

Insures Its New Home

Outstanding structure has Johns-Manville Office Building Specification throughout

COMPLETED last fall, the New England Mutual Life Insurance Company Building offers many features of exceptional interest. Because it is constructed almost entirely of materials selected for their durability, beauty and fire-resistance, the complete building is virtually an insurance policy in itself . . . a policy covering fire, wear and maintenance, and one which also provides for the highest type of employee efficiency and good-will.

No detail has been overlooked to make this building thoroughly modern. Noise-quieting, air conditioning and fluorescent lighting are among the features which contribute to the efficiency and well-being of workers. Decorative treatments are designed to make surroundings pleasant and comfortable. Offices are planned to anticipate future changes with minimum cost and disturbance to routine.

To achieve these results, the architects used the Johns-Manville Office Building Specification throughout. This provides acoustically treated ceilings, movable asbestos partitions, decorative, resilient floor coverings, and a fireproof asbestos built-up roof for the building.



New England Mutual Life Insurance Company Building, Boston, Mass. Architects: Cram & Ferguson, Boston. General Contractor: Turner Construction Co., Boston.

Johns-Manville Asbestos Built-Up Roof

Today, with fire protection more important than ever before, the architects wisely chose a Johns-Manville Asbestos Built-Up Roof for the New England Mutual Building. The asbestos felts used in this type of roof cannot burn, and are immune to rot and decay.

Although these roofs are specified as J-M 20-Year Roofs, they promise protection for a much longer period. Known as "the roofs with the safety factor," they are constructed to provide a generous margin of safety against

future repairs or replacements. Scores of case records show that such roofs are in prime condition after 25, 30, and more years of service, with little or no upkeep.

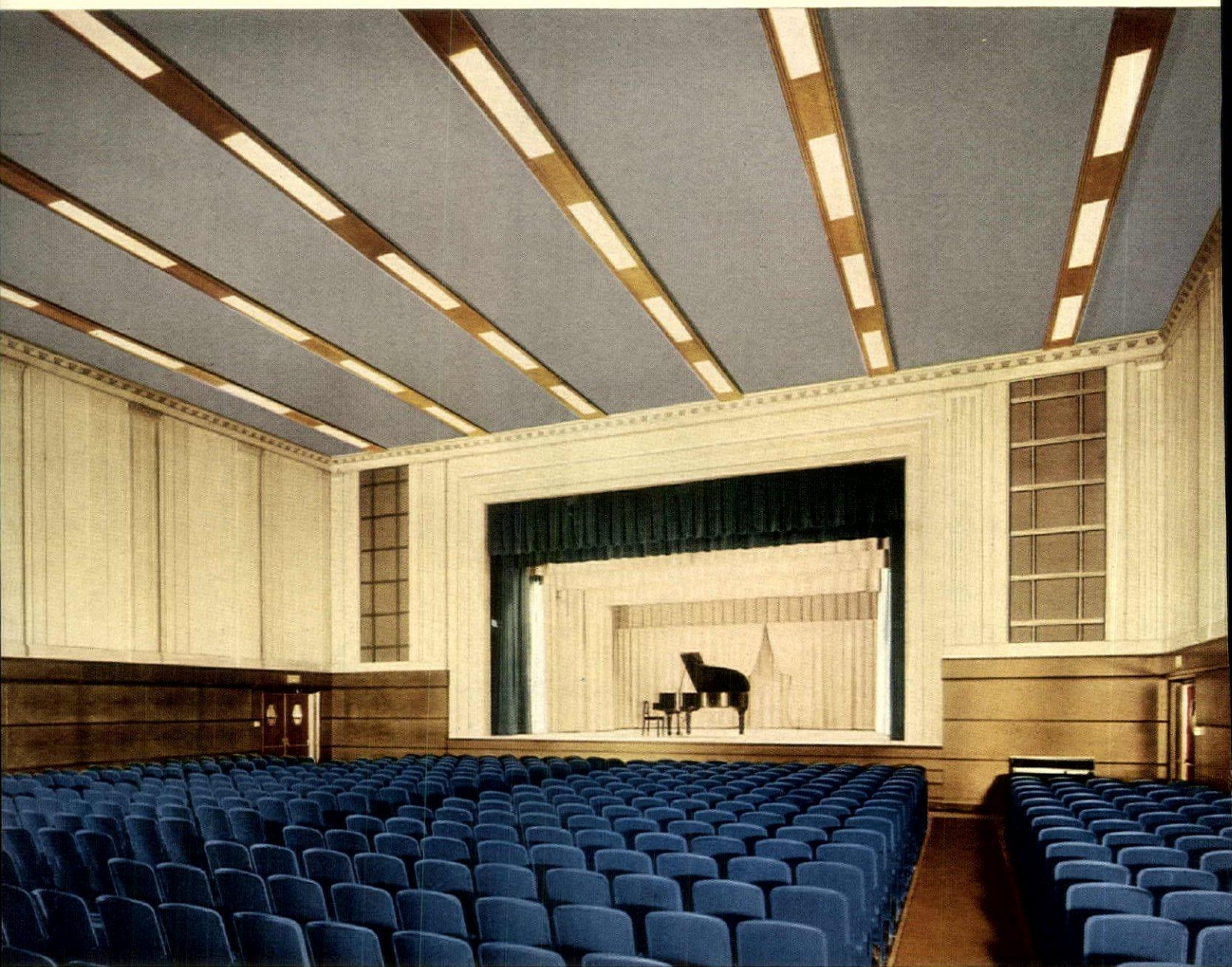
To provide maximum comfort in top-floor offices during hot weather, as well as to assure minimum fuel and air-conditioning costs, all roof areas are insulated with 2" of Johns-Manville Rock Cork—a basically mineral, rot-proof, highly moisture-resistant insulation that maintains its high efficiency indefinitely.

(Continued on next page)

NEW ENGLAND MUTUAL LIFE BUILDING

ROOFS





AUDITORIUM, New England Mutual Life Insurance Company Building. The ceiling of square-edge Transite Panels provides correct acoustics and is in perfect keeping with the dignified treatment of this beautiful interior.

Johns-Manville Sound Control guards against noise and faulty hearing conditions throughout this modern building

In New England Mutual's new home, the importance of noise-quieting and acoustical treatment is fully recognized. Offices and corridors, elevator lobbies, the auditorium and the recreation rooms are treated with Johns-Manville Materials. Several different types are used, applied in accordance with recommendations of J-M Acoustical Engineers.

As a result, noise in working and recreational areas is hushed so that it can never reach disturbing volume. Thus nerve strain is minimized and high working efficiency assured.

The auditorium, shown above, presents an interesting example of how J-M Materials may be employed to meet both decorative and acoustical

requirements. Here J-M Transite Acoustical Panels with square edges were used. This material, a perforated Transite facing backed by an all-mineral sound-absorbing element, provides a fireproof ceiling of pleasing architectural appearance, at the same time assuring correct hearing conditions for speech and music throughout the auditorium.

This installation also marked the birthplace of a new type of construction which combines acoustical treatment and fluorescent lighting in one specification. The standard suspended ceiling construction employed with J-M Sanacoustic Units made it possible to recess the fluorescent lighting troffers, thereby eliminating the need for hanging fixtures. This modern suspension system also provides space for the complete concealment of air-conditioning ducts, wiring, piping, etc., yet insures their ready accessibility at all times.

**Johns-Manville Asphalt Tile Floors
combine beauty with the lasting qualities
of asbestos and asphalt**

A major contribution to the beauty of the interiors in the New England Mutual Life Building is made by the flooring. This, too, is a Johns-Manville Material . . . J-M Asphalt Tile. The architects specified this modern resilient flooring throughout because it combines the beautiful with the practical as few floor coverings do. Its wide range of colors and sizes permit complete freedom of expression in creating distinctive floor patterns.

One of these patterns is shown in the general lounge, below. Here, three of the many beautiful marbled colors available in J-M Asphalt Tile were selected. In the offices, designs that harmonized with furniture and equipment were used to help make working quarters more attractive. And

in corridors and other public areas, patterns were chosen that are definite contributions to the dignity and beauty of the entire building.

Its exceptional durability and ease of maintenance are other important advantages of J-M Asphalt Tile which dictated its choice for the floors of New England Mutual's new home office. Being a combination of asbestos and asphalt, two of the most durable materials known, it combines in itself the lasting qualities of both.

J-M Asphalt Tile possesses a toughness and resistance to abrasion that withstand severe traffic conditions and assure years of service with little or no maintenance except cleaning. The excessive upkeep expense so often required by less durable floorings is thus eliminated. Just the usual mopping with an occasional waxing is the only attention this remarkably wear-resistant flooring requires to preserve its original beauty.

(Continued on next page)

GENERAL LOUNGE, New England Mutual Life Insurance Company Building. To achieve this beautiful floor pattern, the architects selected Johns-Manville Asphalt Tile in three of its many attractive colors.



**Transite Movable Asbestos Walls
provide decorative, maintenance-free
partitions and exterior furred walls**

One of the most interesting architectural features of the New England Mutual Building is the fact that it is the largest dry-wall office building in the world. This was made possible because of the unique advantages of Transite Walls.

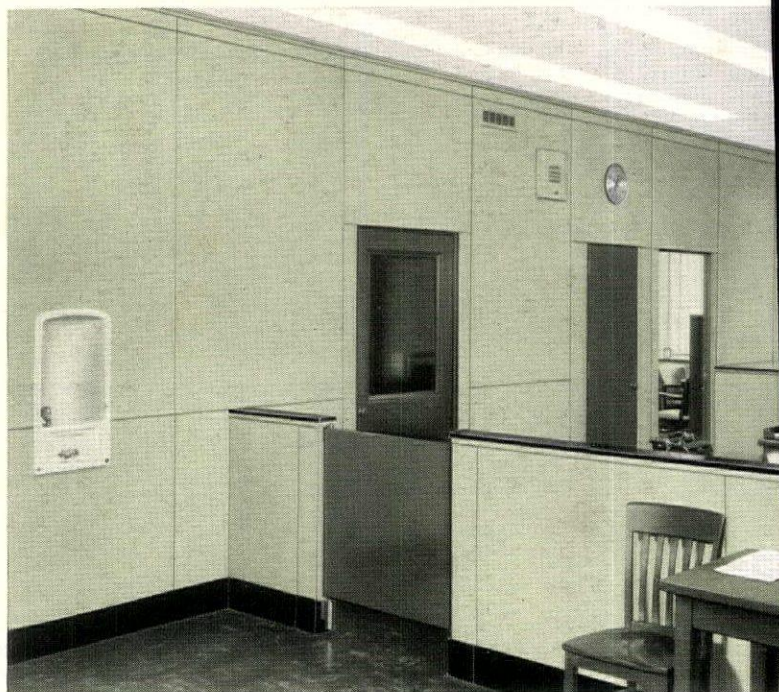
Made of asbestos and cement panels, these modern movable partitions combine the best features of both fixed and movable walls. Because of the ingenious construction method employed, their installation is simple, rapid and economical. And when changes are necessary, the same construction method makes re-location just as easy . . . permits complete salvage of materials.

Any type office wall can be formed. In this modern building, for example, the types used range from low railings to free-standing and ceiling-high partitions, both solid and with glass. Here, too, the unusual flexibility of Transite Walls also permitted their use as exterior furred walls—an achievement which would not have been practical with most types of movable partitions.

Another notable feature of this installation is the use of *integrally colored* Transite Walls. This new Johns-Manville development provides a richly beau-

tiful, durable wall finish which, because it is an integral part of the material itself, maintains its original appearance indefinitely—without refinishing or maintenance of any kind.

Transite Walls are also used here with painted and with factory-applied wood-veneer finishes—two of the many treatments which adapt these versatile partitions to practically any decorative requirement.



GENERAL OFFICES



ABOVE: An example of the new integrally-colored Transite Walls which contribute to the attractiveness of New England Mutual's new home offices. Both low railing and ceiling-high partition are built with standard Transite Wall parts.

* * *

LEFT: This photograph shows how Transite Movable Walls were employed as exterior furred walls in the New England Mutual Life Building. Note also the smooth, unbroken surface of the acoustical ceiling with its recessed fluorescent lighting—an advantage secured by using J-M Sanacoustic as the noise-quieting material.

JOHNS-MANVILLE

Building Materials for Industry and Home



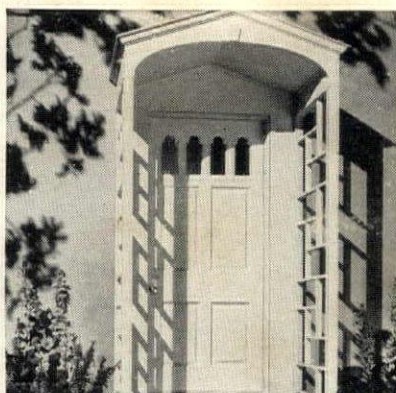
WHAT—NEW WOODWORK LIKE THIS FOR LOW-COST BUILDING?

YES—IT'S "IN TUNE WITH THE TIMES"!

Curtis again makes woodworking news with new woodwork styles, carefully and accurately detailed . . . beautiful enough for the finest home . . . *at prices low enough for the most modest budget.* Here is your answer to the question of putting more beauty, more style, more quality into low-cost housing and remodeling! And remember, the price includes Curtis quality craftsmanship in stock designs. Here are just a few of the many styles available in the new low-cost Curtis woodwork line:



Mantel C-6059, designed by Willis Irvin, Architect. Note the careful detailing, the distinguished simplicity. This is low-cost woodwork, thanks to Curtis' standardization.



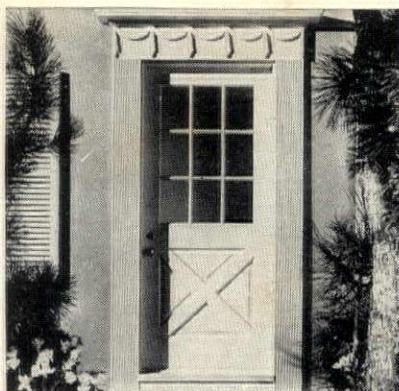
Entrance C-1768, Cameron Clark, Architect. Practical and beautiful, this new Curtis entrance shows that good design need not be expensive.



China Case C-6525, H. Roy Kelley, Architect. No dining room or nook need lack appeal when such woodwork is available for low-cost homes!



China Case C-6529, designed by H. Roy Kelley, Architect. This case may also be used in a straight wall by specifying rectangular back.



Entrance C-1765, Cameron Clark, Architect. Design of famous architects—plus Curtis production—makes such entrances available.



Mantel C-6076, Willis Irvin, Architect. Once, such a distinguished mantel was available only for higher price homes. Now, any home can have it!

1866 CURTIS WOODWORK

CURTIS WOODWORK IS SOLD BY
RELIABLE DEALERS EVERYWHERE

Get all the facts about this new low-cost Curtis Woodwork — see for yourself why it fits the lowest cost home or any home, either new or modernized.
Mail coupon for literature.

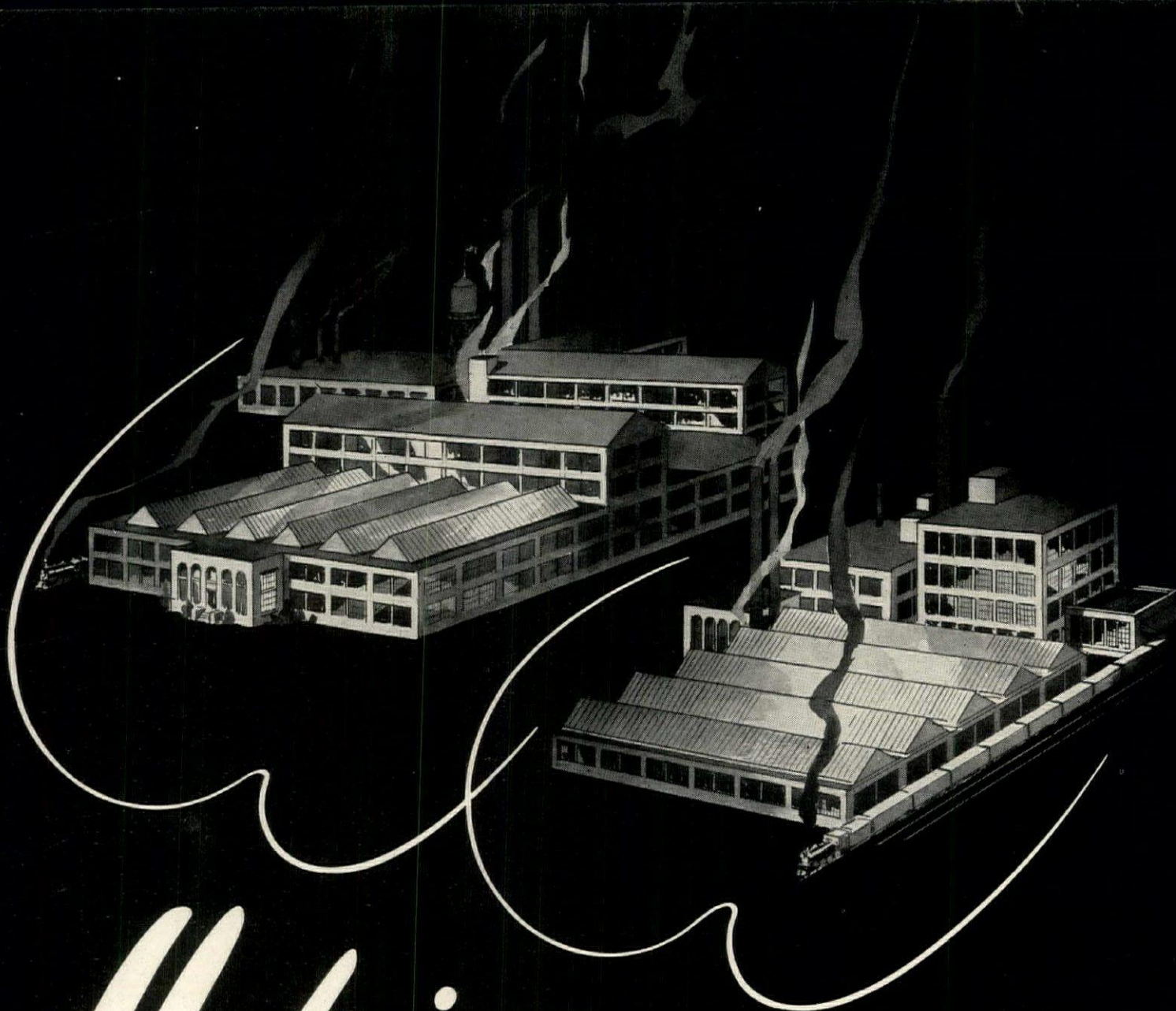
CURTIS COMPANIES SERVICE BUREAU
Dept. AF-6W, Clinton, Iowa

I want to know more about the new, low-cost Curtis Woodwork designs. Please mail me complete information.

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



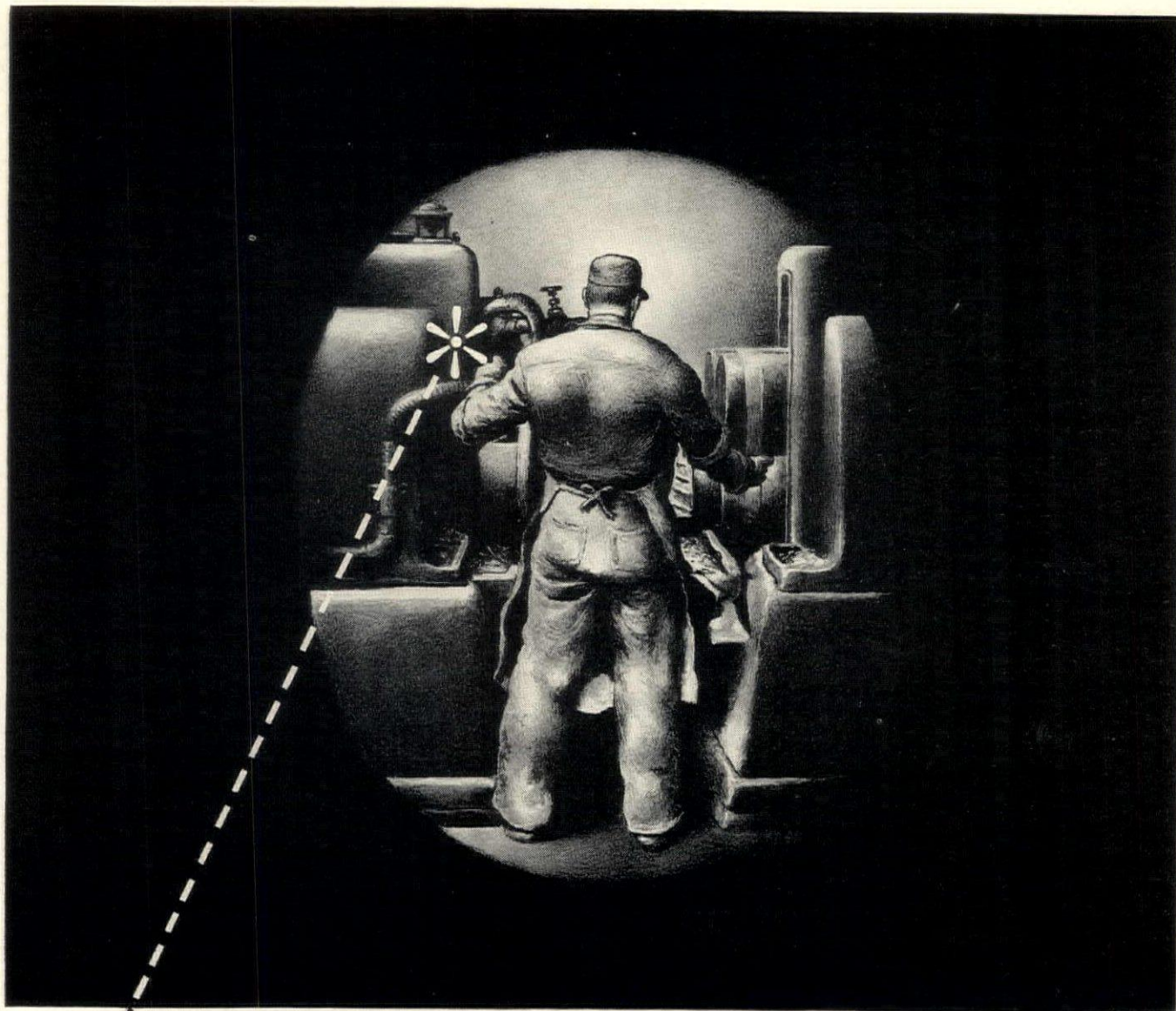
Helping **THOSE WHO HELP**

M-H UNIT HEATER CONTROLS KEEP DEFENSE WORKERS AT TOP EFFICIENCY



Minneapolis-Honeywell is not only doing its share in the all-out war program, but is helping others who help as well. Minneapolis-Honeywell automatic processing controls and automatic heating and air conditioning controls provide faster production, conserve raw materials and promote employee efficiency. When you convert your present plant to war production, or build a new one, remember the essential importance of M-H Controls. Remember that M-H Controls eliminate production waste by maintaining product uniformity and conserve fuel by maintaining exactly the temperature needed. Minneapolis-Honeywell manufactures a full line of both electric and pneumatic controls and is in a position to assume undivided responsibility for the complete control system. Minneapolis-Honeywell Regulator Company, 2740 Fourth Avenue South, Minneapolis, Minnesota.

MINNEAPOLIS-HONEYWELL
Regulator Company



*No need of a
blackout inside
a plant...*

Consider the blackout. It aids all-out production by affording factory protection against enemy raiders that fly by night.

But blackout conditions *inside* your client's plant will sabotage his Victory effort. Inefficient light in a factory wastes electric power and money—tires workers needlessly—lowers production!

Johnson's Wax-Fortified Paints (high-quality paints fortified with wax) *increase light reflectivity up to 20%*. This is because the wax, which permeates the paint film, leaves a smooth protective wax finish on the painted surface *to which dust and grime do not readily stick*.

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Wax-Fortified Paints and Enamels are exclusively made by Johnson. There is a full line for almost every industrial and commercial use. Won't you discuss with us their application to plants and buildings *now on your drawing boards?* S. C. Johnson & Son, Inc., Industrial Maintenance Division, Racine, Wisconsin.

MAKERS OF JOHNSON'S WAX

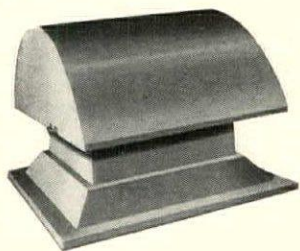


Trim, overhead mounted Trane Projection Unit Heaters contribute to the efficient appearance of the plant.

Architect and Engineer: Albert Kahn Associated Architects and Engineers, Inc., Detroit. General Contractor: Thorgersen & Erickson Co., Chicago. Heating Contractor: S. J. Reynolds, Inc., Chicago. Photos by Hedrich-Blessing.

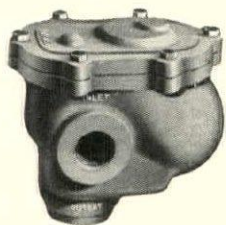


HOW **TRANE** COMFORT HELPS BUICK SPEED AVIATION ENGINES



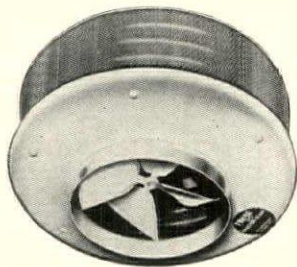
TRANE BLACKOUT VENTILATOR

Positive ventilation for blackout plants. The Trane Blackout Ventilator is engineered to the requirements of modern industrial buildings. Weather-proof, light-proof, and easy to install.



TRANE FLOAT TRAP

Working in conjunction with Trane Unit Heaters on many a plant heating system are Trane Float Traps—representative of the Trane Heating Specialty line which includes Valves, Traps, and Fittings for steam, vapor, vacuum, and hot water heating equipment.



TRANE PROJECTION UNIT HEATER

Trane Projection Unit Heaters provide the easy solution to the problem of heating large areas efficiently. Available in a variety of sizes for a wide range of mounting heights with or without diffusers.

Trane Projection Unit Heaters comprise the heart of the heating system at Buick's Aviation Engine Plant. Generally mounted at a height of 23½', the units diffuse even and comfortable warmth over the entire area of the plant.

But the problem of heating and ventilating a great plant like Buick's didn't end here. Also on the job are Trane Winter Supply Ventilators, complete with face and by-pass dampers, Trane Heating Coils, adjustable vane diffusers, and thermostatic control. Fresh air is supplied through roof ventilators. Trane Torridor Blower Type Unit Heaters serve the boiler house and also are used for door blanketing purposes in the factory area. Neat appearing and space saving, Trane Convectors heat the office space.

Completing this array of Trane heating and ventilating equipment are the Trane Steam Heating Specialties used throughout the heating system—on various heating units, mains, and riser drips. Trane No. 30 Valves and B-1 Angle Traps are used with the Unit Heaters to remove all air and condensate and facilitate the 100% efficiency of the heating system.

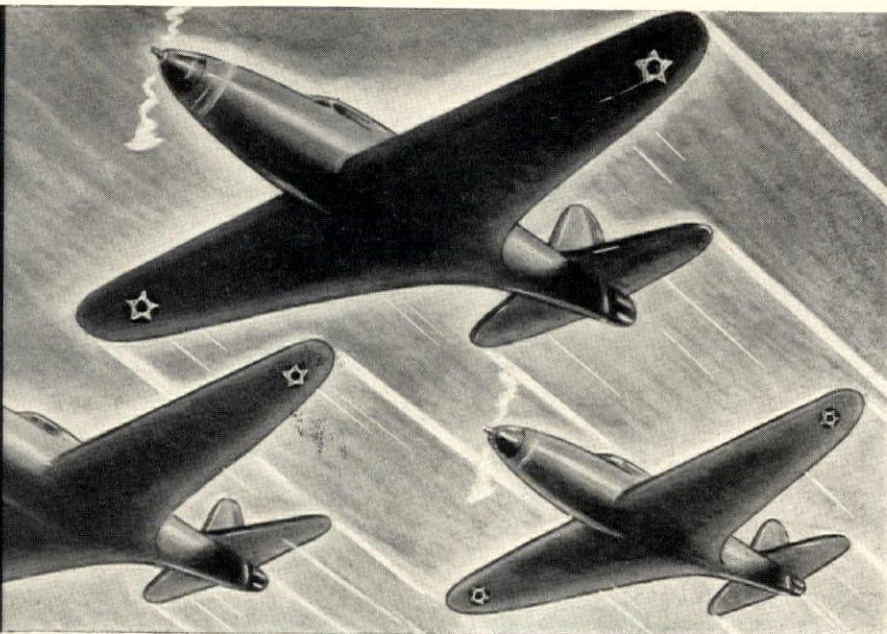
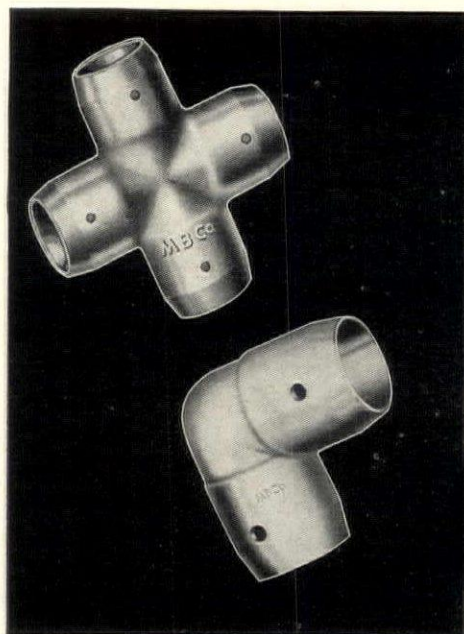
This installation is a concrete demonstration of Trane's ability to serve war industry, processes, and all types of military and naval construction with the nation's broadest line of heating, cooling, and air conditioning equipment for every purpose. There is a Trane representative near you.

TRANE



THE TRANE COMPANY, LA CROSSE, WISCONSIN • Also TRANE COMPANY OF CANADA, LTD., TORONTO, ONTARIO

MANUFACTURERS OF HEATING • COOLING • AIR-CONDITIONING EQUIPMENT • 85 BRANCH OFFICES



Copper:- TOPS FOR PLUMBING PIPING ...YET MORE VITAL STILL TO *"Keep 'Em Flying!"*



WINNERS OF NAVY "E" AWARD



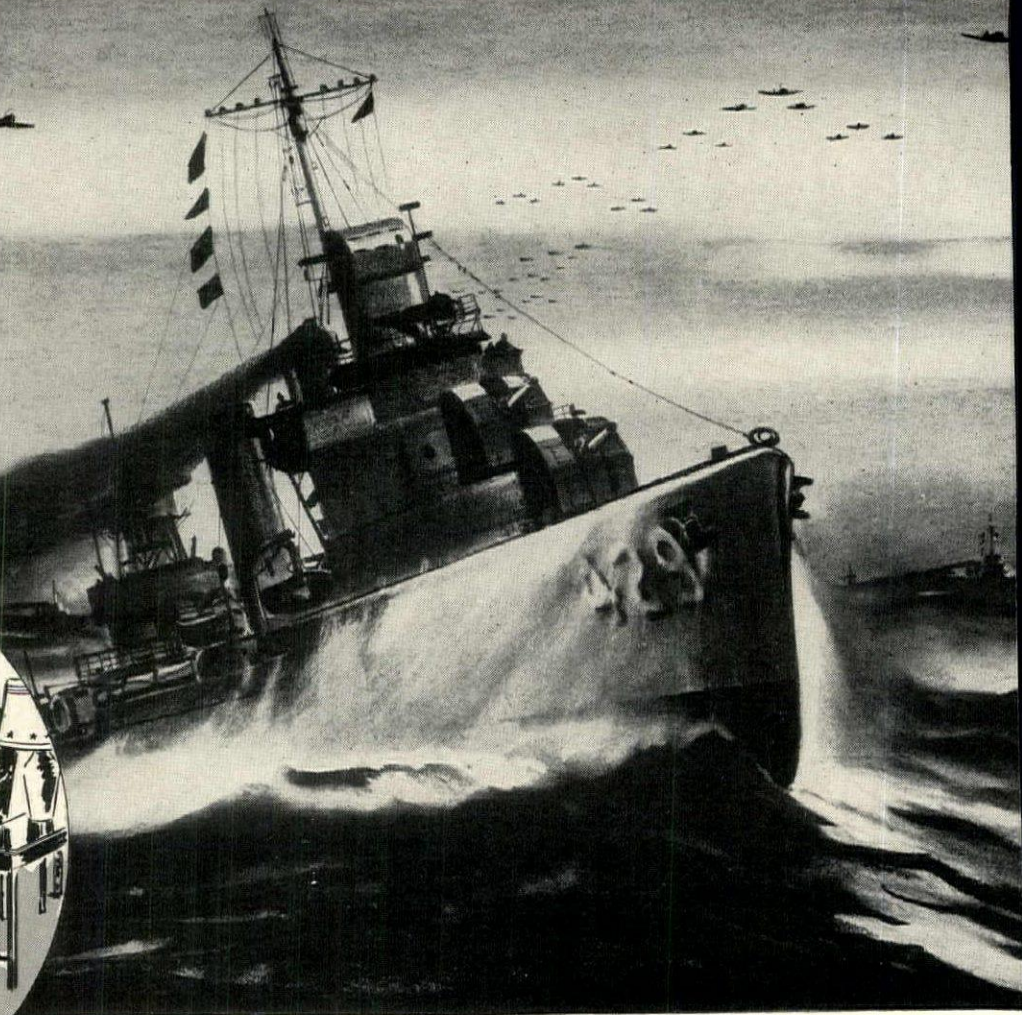
● Up until a few short months ago STREAMLINE copper pipe and bronze solder type fittings were installed in thousands of buildings where a permanently reliable plumbing or heating system was essential. They were used for air conditioning, for water service piping from main to building—for sewage disposal systems and a thousand other uses where dependability and long service life were of prime importance. They were, and still are, universally considered the finest materials that money can buy.

But today copper, bronze and brass have more vitally essential uses in the manufacture of munitions for our Army, Navy and Air Force—and today, too, the skill of the men and women of the Mueller Brass Co. plant and the full capacity of its productive machinery are now engaged 100% in doing their full share on this most important and gigantic task of our nation's history.

Today copper, brass and bronze are safeguarding the very life of the nation, but in happier days to come, they will again protect the health and promote the comfort and prosperity of its people in the form of STREAMLINE copper pipe and fittings. Our jobbers will stock them; our salesmen will sell them and our master plumbers will again install them.

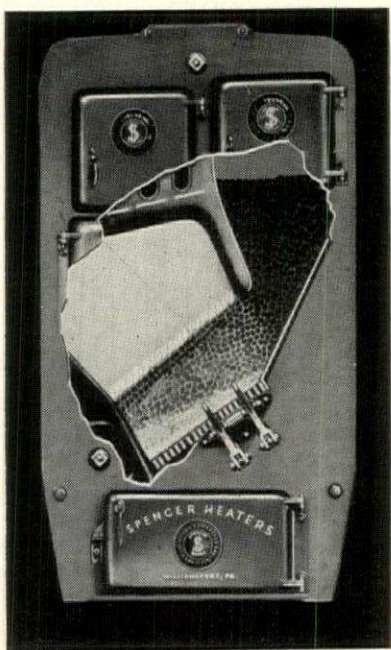


STREAMLINE
PIPE AND FITTINGS DIVISION
MUELLER BRASS CO.
PORT HURON, MICHIGAN



Your Part

LOWER THEIR HEATING BILLS THEY CAN BUY MORE **WAR BONDS**



Many families look to you for efficient home heating. You can guarantee it to them if you specify a Spencer Magazine Feed Heater. It burns low cost small size Anthracite or coke and automatically stokes the fire without motors or moving parts. One of the family just fills up the magazine — then they forget it for a day, even two days in moderate weather.

This automatic stoker is just one of a number of Spencer Boilers — each one designed for a special purpose. There's a special Spencer for every type of fuel and for every size of building, from the biggest (42,500 feet steam) down to the "K" Boiler for small-home defense housing.

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Division — The Aviation Corporation
Williamsport, Pa.

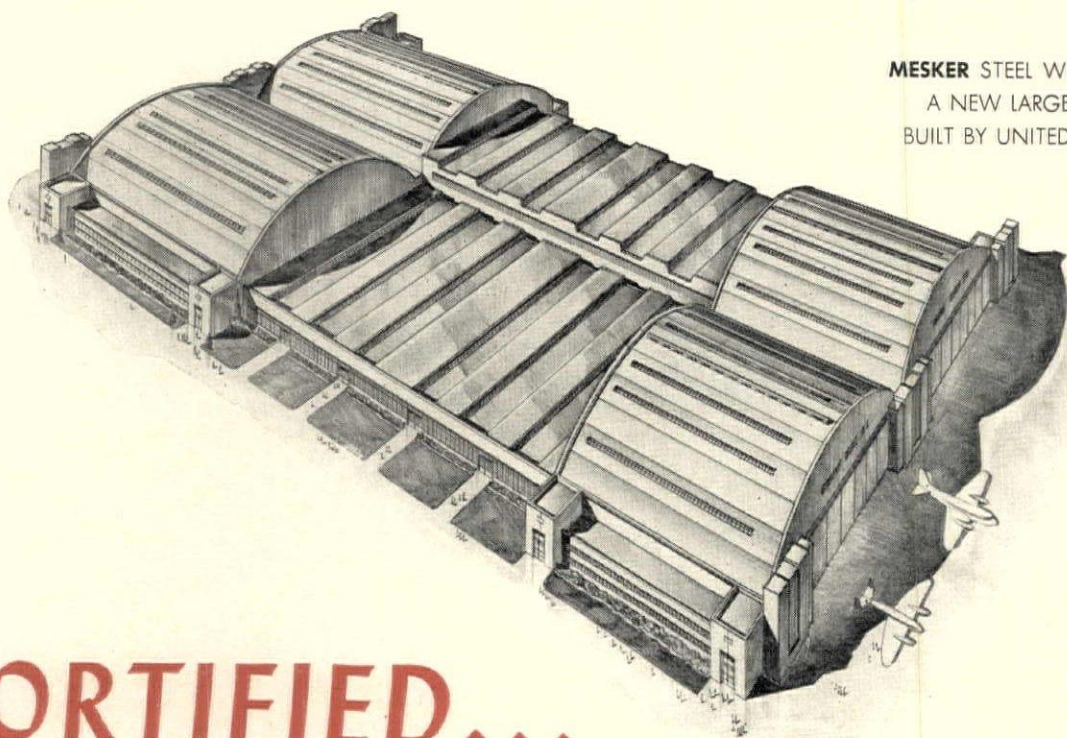
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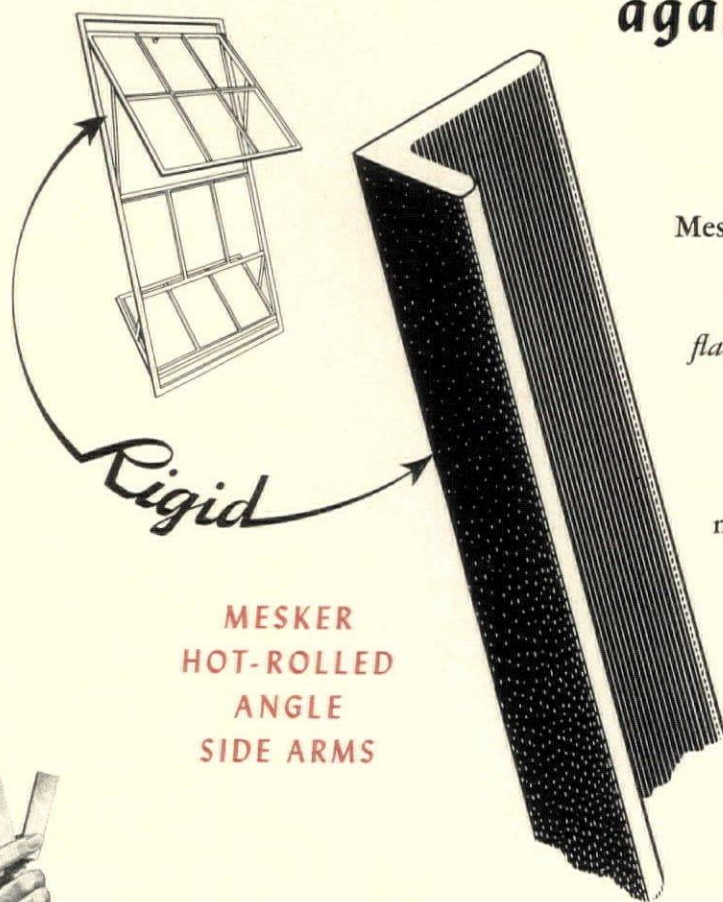
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NOT *one*... their double strength prevents excessive side-sway and distortion of open vents... in transit, during erection, in use. In the future, get the "extras"... at no extra cost... *specify MESKER*.

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LETTERS

VERTICAL FORTRESS

Forum:

I wonder how much interest has been shown in *bomb resistance* as a factor in *base design*.

In these days of aerial bombardment an Army or Navy *base* should be treated as a "vertical fortress."

As many more of these projects are to be designed by private architects, it might be helpful to hold a forum of ideas on the subject. . . .

GEORGE COOPER RUDOLPH
New River Marine Barracks, N. C.

FORUM editors wonder too, welcome the suggestion. Chief difficulty is that information regarding the design of military establishments is not readily released, and few non-military engineers are sufficiently familiar with the problem.—Ed.

BOMBPROOF HANGARS

Forum:

In studying the events of the past two years and especially since the destruction on December 7 at Pearl Harbor, we have some striking examples of what might have been done for protection against bombing. With lack of foresight for protecting planes and personnel and all the other things connected with same, our Congressman and the War Department and especially the Military Air Corps, did not think it necessary to provide bombproof shelters . . . their policy was that the expense was too great. Our bombers cost from \$175,000 for the medium bombers and nearly \$500,000 for our largest bombers. Bombproof hangars, accommodating from six to eight of the largest planes can be built for the price of two of the large bombers, if they are in a location where sand and gravel is plentiful. Only recently I was told that bombproof hangars did not justify the expense. Instead, a revetment of earth consisting of a bank of sand and earth on three sides, is built high enough to conceal the bomber plane, but does not give protection against a direct hit or offer any protection for repair work and servicing in bad weather. In many sections of Europe camouflaged canvas tarpaulins are the only protection used for repairing and servicing planes. These should be the most important considerations of an up-to-date military airport. It is safe to say that it might have been a different story had Hawaii, Midway, Wake and the Philippines had proper aeroplane bombproof protection. Let us not deceive ourselves and rely too much on temporary structures and camouflage for protection.

The strongly fortified Corregidor was

General MacArthur's salvation in his heroic stand as practically all American planes and airfields were wiped out. This has been a tragic lesson in loss of lives and property, and in our leased bases we should profit by it. It is practical and possible to have bombproof hangars adjacent to our airfields that will be a part of the natural landscape if properly designed and located, and later same can be converted into a civilian airport. . . .

New York, N. Y. J. H. PHILLIPS

WAR HOUSING

Forum:

After reading your War Housing Number I am still amazed that the efficiency of multiple-family housing in four- or five-story buildings has been so completely ignored, particularly where an acreage plot must be completely developed. Take for instance the 75 permanent units for rental at Fort Wayne, Ind. The individual buildings are not bad looking, but the group on the dead level terrain is far inferior in appearance to the single building by itself.

A handsome single building could have been constructed which probably would have cost no more and would certainly have been cheaper to maintain and operate. In addition, instead of roughly 2,000 lineal feet of sewers, and of course other utilities, and about 2,000 sq. yds. of paving of one sort and another, probably less than 200 lineal feet and 500 sq. yds. respectively would be required. Balancing the possible disadvantage of not having a ground floor entrance for each apartment would be the pleasing view over the countryside and the fact that at least 3,000 sq. ft. of ground could be made available to each tenant for a kitchen garden.

In general I believe that instead of building sprawling one- and two-story developments four- and five-story buildings will give advantages of air and view and pleasing appearance with material savings in roads and utilities and efficiency of living. We all remember the "mill towns" in many localities. These housing developments will degenerate into "mill towns" very quickly whereas it is my firm belief that the apartment-house type would remain desirable as low-cost housing for a long time.

HOWARD P. MICHENER
New York, N. Y.

FORUM editors agree with the Reader Michener's conclusion, feel that the question of appearance is presently irrelevant. In all probability one reason why the project took the form it did was the habit of thought that places esthetic considerations

on an equal footing with the practical issue of winning the war. An ugly airplane capable of sinking a Japanese battleship or destroying a Nazi tank is preferable to a pretty one that is not; an ugly housing project which supplies the maximum number of workers to war industry with the minimum expenditure of materials and labor is preferable to an attractive project that is less efficient. Let us first decide on practical grounds what type of temporary housing best fulfills war requirements, then try to make it as attractive as possible.—Ed.

THE TENANT SPEAKS

Forum:

Mr. Leonard Wayman deserves our thanks for bringing to the fore some of the principal criticisms of public housing in his "sprightly" and interesting article "The Public Tenant Speaks" (FORUM, April 1942); but he overlooks one most important factor and thereby creates a wrong impression in the mind of the reader.

These projects are built and operated at a loss, which is met by public funds, to provide healthful homes for those who heretofore have been living in slums, because they could not afford to rent decent houses.

Critics of public housing fall into two groups. One contains those who contend that it is "socialistic" and therefore damnable to take the taxpayers' money and use it for housing the poor. . . .

The second group complains that these projects are "not good enough" as they do not conform to American standards of living. From this group comes the plea for porches, basements, more closets (with doors on them), free washing machines, separate dining rooms and the like. Mr. Wayman evidently belongs to the second group.

If, in his series of interviews, he had followed up each question with two supplementary questions: 1. "Did you have this improvement on your old home?" and 2. "Would you be willing to pay 50 cents, \$1 or \$2 per month more rent for this improvement?" he would have gotten very different answers. . . .

Public housing is still in an experimental stage; only by trial and error shall we reach a commonsense solution, and it is only by open discussion such as Mr. Wayman's thoughtful article that the "bugs" can be exposed and dealt with.

LESLIE H. ALLEN
Newton Highlands, Mass.

Should the question be "willing" or "able?"—Ed.

EVANSVILLE, INDIANA, APRIL 12, 1942

Still Another STRONG-BILT Project...



Designed and built by Bradford Homes Inc., Evansville, Ind., Gale Bradford, Pres.

First House completed in 19 days

TODAY in this hustling town on the banks of the Ohio, occurred one more event of high significance to America's builders of homes.

Here, under the observing eyes of FHA officials and prominent civic backers, another acorn was planted for what is destined to become the building industry's sturdiest oak—the small house.

Here in the chill of an early Spring Sunday, over 7,000 Evansville people left the comfort of their homes to stand in line for their chance to inspect a *low-cost* exhibition home, the first of hundreds to be built in this area for incoming war industry workers.

Visitors trooped out in droves, expectant, with hope in their eyes. And they were not disappointed. Here was tangible evidence

that it *could* be done. It *had* been done. A fine modern home completed in only 19 days.

And so it happened in Evansville, as it has happened in many another American community during the past few months. Eager, intense interest in a well built home the common man can afford. And among much-praised new features: outspoken appreciation for *crackproof* walls and ceilings of lasting beauty, made with new Strong-Bilt Panels.

Wherever thinking builders fight against costs and cracks, Strong-Bilt Panels receive a warm welcome. For here, indeed, is a product which satisfies the rapidly growing demand of today for dry-built construction.

If you want to have a part in wartime housing—if you want to use now, a method of finishing interior walls and ceilings already firmly established among the newest and most practical of cost-saving methods, write us quickly for details of how it is done. *Proved in over 10,000 public as well as privately-built, low-cost houses.* The Upson Company, Department 2-D, Lockport, N. Y.

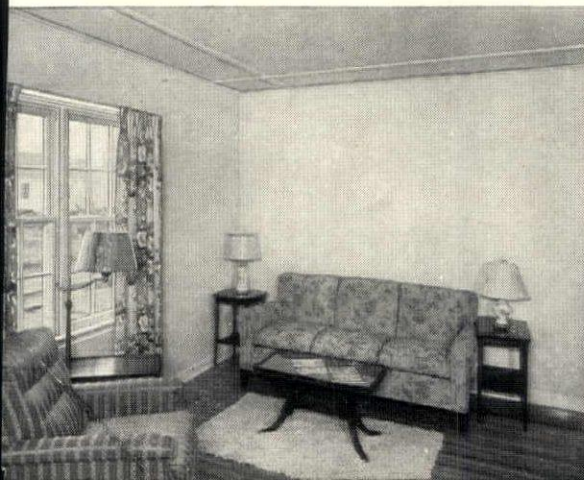
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NEW AND ADDED BEAUTY FOR BATHS AND KITCHENS
Upson Dubl-Thik Fibre Tile provides greater beauty, strength and insulation value at approximately one-half the applied and finished cost of similar materials.

Speed and Economy with Crackproof **STRONG-BILT PANELS**

- ★ **Dry-built with insulation value.** Applied any month of the year. Three-and-a-half times the insulation value of plaster.
- ★ **Applied with utmost speed.** 40 to 50 man hours for average small home. No waiting for plaster to dry. Building time cut two to three weeks.
- ★ **Full wall construction.** Panels 4' wide . . . or giant panels 8' wide and long enough to cover the entire wall of an average room, without seams or joints.
- ★ **No visible nailing.** The miraculous little Upson Floating Fastener (patented) nailed to studs and joists, grips the panels from the back anchoring them securely.
- ★ **Saves painting cost.** Panels pre-sized at the factory. A single coat of paint is usually sufficient—never more than two.
- ★ **FHA accepted.** New terms streamlined for the duration in war production areas.
- ★ **Pre-Fabrication.** In projects of 100 units or more, needed sizes are pre-cut and numbered at the factory—ready for lifting into place at the site, or in pre-fabricating plant.

Walls and ceilings of enduring beauty which will remain forever free from ugly, creeping cracks.

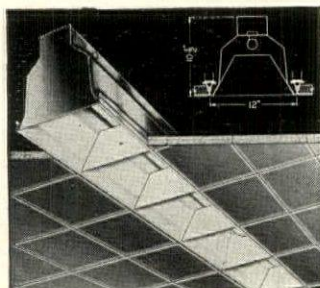


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The design of Day-Brite Fluorescent Fixtures takes into account all of the most advanced principles that effectively control the output of this newest source of light . . . Correct spacing of tubes — proper shielding — maintenance of cut-off angles that govern light distribution — high-power-factor ballasts, lamp starters and other approved accessories — all are combined in Day-Brite Fluorescent Lighting Fixtures to assure an effective flood of glare-free illumination over the entire work area . . . Look to Your Ceilings . . . Add Victory Hours with Day-Brite, the Rival of Day Light!

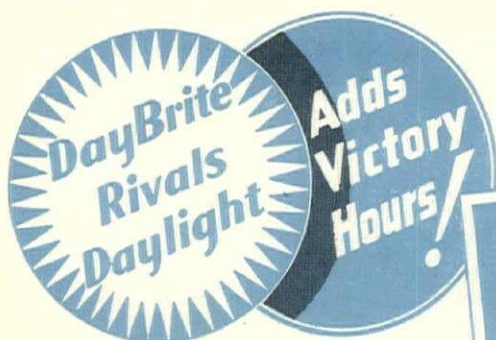


Cross-section and installation view of Day-Brite Continuous Single-row Louvered-type Troffer.

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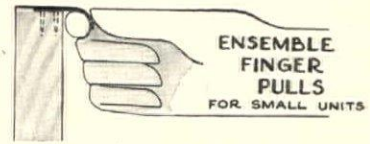
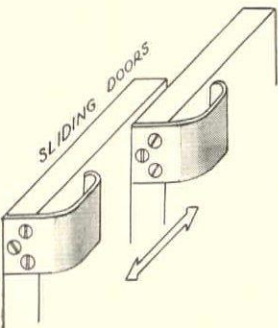
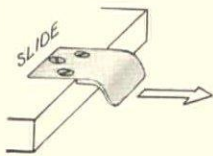
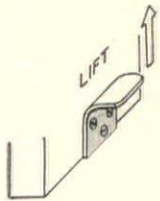
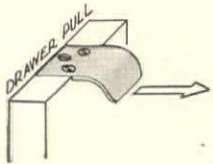
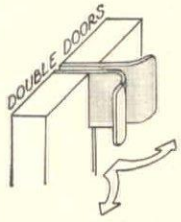
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"... an ugly doorknob made by hand is a regrettable incident, but a million vulgar doorknobs in use are a calamity."

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



Architect Burnham Hoyt suggests a complete ensemble of one-finger pulls for small units. Adaptable to many applications, these pulls are designed to lend a harmonious appearance to all units.

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

YOU CAN GET 'EM **ANDERSEN WOOD**

NARROLINE
DOUBLE-HUNG
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YOU CAN USE 'EM WINDOW UNITS

There is no shortage today of Andersen Wood Window Units. Andersen's huge factory, the nation's largest plant devoted exclusively to the manufacture of wood windows, is able to take care of your window requirements promptly.

Neither is there any government ruling which prevents you from using Andersen Wood Window Units in the Victory homes you are building today.

There are a number of good reasons why you should be using Andersen Wood Window Units today:

- They make minimum use of critical metals.
- They assure you lifetime quality and repair-free operation.
- They are prefitted; you save installation time.
- They are weatherstripped; they conserve fuel.
- They are toxic-treated to prevent decay and damage by termites.

By the thousands, Andersen Wood Window Units are being used in Victory housing projects. Likewise, Andersen Window Units are playing an important role in the remodeling, restyling, modernization and repair of homes already built.

For information regarding Andersen Windows: prices, sizes, stock layouts, deliveries, write Bayport, or see your lumber dealer or millwork distributor.

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**BLACKOUT
CAMOUFLAGE
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PROTECTIVE
PAINTS**



For Protection that's DOUBLY NECESSARY now

Protecting buildings and equipment against the ravages of weather has always been common-sense economy. It is a down-right necessity now that facilities of all kinds be kept at their best for the duration. And today's needs call for special provision for security—through blackout and camouflage.

Sonneborn's Blackout and Camouflage paints meet this two-fold need fully—economically. Because they are basically protective coatings, they afford protection against weather and other sources of corrosion. *They meet Government requirements as to opacity and non-reflecting qualities assuring a minimum of light-reflection and are available in colors which reflect only the longer infra-red radiations and absorb most of the incident light.* The range of finishes has been expanded to include types required to complete defense contracts for various Government agencies. Masonry, wood, glass, metal, etc. are among the surfaces to which these are applicable.

Write today for full details on Sonneborn Blackout and Camouflage paints, and get your copy of the New Building Products Catalogue.

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Waterproofing—above and below grade; colorless treatment for exterior walls.

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IMAGINEERING: GETTING OUT OF THE GROOVE

THESE FOUR YOUNG WOMEN, so earnestly mastering the art of torch-welding aluminum, suggest that someone, somewhere, has checked out of the groove and started some practical Imagineering.

THEY PROVE what we've been saying for years: Alcoa Aluminum is easy to fabricate. The man who started the school where these girls are learning, and graduating to war jobs, simply had imagination enough to believe that



easy really means easy. Then he did something about it!

IMAGINEERING is letting your imagination soar and then engineering it down to earth. It is ingenuity in modern dress.

IT IS THE THING that has enabled the aluminum industry to keep on top of a plane schedule, increased tremendously in numbers, but also calling for almost twice as much aluminum per plane as the average plane needed two years ago.

IT IS WHAT EVERY ONE OF YOU are doing on your war job. Simplification, standardization, training. New methods, new materials, new records.

THIS WAR is showing Americans what they really can do if they try.

LET'S MAKE a vow to carry this same spirit over into postwar America. We'll all have the skills, the habit of work, the thrill of doing. There will be lots of aluminum to make into better products than peacetime America ever knew. It will be a great day for Imagineers.

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

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**SO MUCH
SO SOON**
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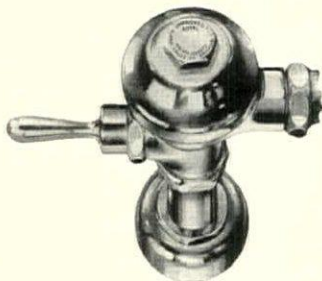
START PLANNING NOW FOR SLOAN-EQUIPPED HOMES



FOR 36 years Sloan engineering has made and kept Sloan Flush Valves the world's standard of excellence. You will find them today in luxury homes, apartments, clubs, hotels, hospitals, schools, and all types of large buildings everywhere. During all these years Sloan Flush Valves have protected health by preventing back-syphonage. They have saved both water and the power cost necessary to pump it. They have always been amazingly low in maintenance cost.

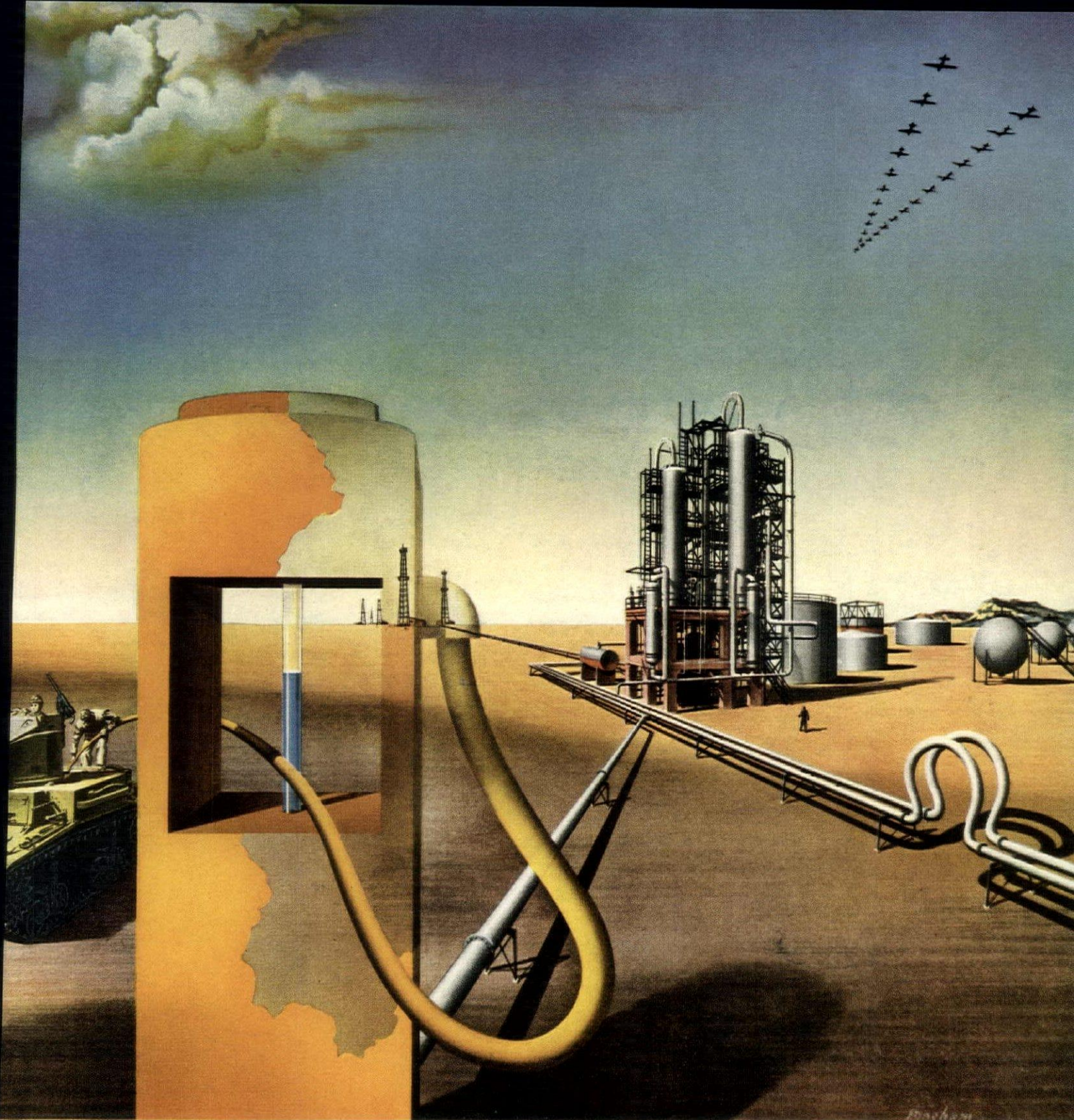
Now, thanks to Sloan engineers, we are able to make this promise:—after the war Sloan Flush Valves, with all their inherent advantages, will be available to even the modest homes.

Sloan-equipped homes are the ultimate in convenience, health and economy. Start planning now for Sloan-equipped residences. Remember: there are more Sloan Flush Valves sold than all other makes combined.



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Victory will be measured in gallons

When you hear, with bated breath, how close the enemy has come to a victory with some raid of fifty or a hundred planes, you may wonder what merciful fate kept them from using a thousand. It was more likely lack of fuel, not fate, that stayed them.

To reach more oil, the Axis has been flailing about Europe and Asia like a monster, sacrificing lives by the hundreds of thousands.

The American petroleum industry, with half the world's reserves, and a tremendous production of the finest gasolines and oils, is

our greatest guarantee of ultimate victory.

For the petroleum industry, Koppers has built plants to remove the corrosive hydrogen sulfide and recover the sulfur in a form that can be readily converted into war-important sulfuric acid.

Koppers produces chemicals to help make gasolines anti-knock; ingredients for the manufacture of inhibitors to prevent gum formation in gasoline; chemicals for solvent refining and dewaxing for the improvement of lubricating oils; chemicals that improve the

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Among other products which Koppers furnishes to the petroleum industry are piston rings; Fast's self-aligning couplings; pressure treated piling, lumber and timber. In its service to the petroleum industry, Koppers feels that it is helping write the history of the war. Koppers Company, Pittsburgh, Pa.

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"HERE'S WHY WE USE THE FLOATING WALL SYSTEM FOR DEFENSE HOUSING CONSTRUCTION..."



writes Joseph Buonodona,
of A. Buonodona, Inc.,
New York City

"WE USED the Gold Bond Floating Wall System at Bellmawr Defense Housing Project, Bellmawr, N. J.", states Mr. Buonodona, "because it reduces room-to-room noise transmission and provides a fire-retardant gypsum lath and plaster wall with a resilient type of construction that protects against cracks caused by expansion, contraction and settling."

Like Mr. Buonodona, thousands of architects and contractors know the Gold Bond Floating Wall System is the best insurance against plaster

cracks. They've found it's a practical way to quiet noise, and know that its one-hour fire rating for walls is a real safety factor. Best of all, the cost is so low you can use this better method of building plaster walls and ceilings in houses selling for less than \$5,000.

FIRST WITH NEW IDEAS

You get the *best things first from Gold Bond*. National Gypsum research has pioneered more than 150 better Gold Bond products for every wall and ceiling use—including plaster, lime, wallboard, lath, wall paint,

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Today, 10,000 Gold Bond dealers, 300 trained representatives, and 21 strategically-located plants are at your service. And there's no buck-passing when you use Gold Bond products exclusively. *All* materials are backed by *one* reliable manufacturer. Write for specifications on the Gold Bond Floating Wall System and other new and better methods of wall and ceiling construction. National Gypsum Company, Buffalo, New York.

NO SPECIAL EQUIPMENT IS NECESSARY to install the Gold Bond Floating Wall System. Any lather can drive the patented nails *between* panels of gypsum lath, providing a resilient tie with the stud as shown in this diagram. Plastering is done in the usual manner.

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Everything - for walls & ceilings

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WALLBOARD...LATH...PLASTER...LIME
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THE MONTH IN BUILDING . . . **NEWS**

Billeting of workers in private homes looms as war housing snags . . . President asks for more housing cash . . . Bureau of Standards issues relaxing code to permit substitutes in house construction (p. 351) . . . WPB prunes factory-building program, wrestles with priorities tangle. Lumber freeze thaws although short copper still pinches (p. 351) . . . Rent control program cheered and jeered (p. 44) . . . FHA's Title VI extension, twice amended, gets FDR's signature (p. 46) . . . N. Y. State and N. Y. City push post-war planning (p. 52).

HOUSING CRISIS

" . . . Building must be prevented wherever possible." Thus FPHA Commissioner Herbert Emmerich greeted the delegates to The National Assn. of Housing Officials' tenth annual convention in Baltimore last month. One Washington official after another added to their gloom with dire hints of further restrictions—so serious is the lack of war housing, so great the obstacles to new construction due to shortages of materials and transport, that war workers may have to be billeted in private homes.

Said FPHA Commissioner Herbert Emmerich: "Without wish to be an alarmist . . . we are woefully behind schedule in providing for the great army of migratory workers—workers who must be provided with shelter and decent human facilities if our Army and Navy and air forces . . . are to prevail. We must put five times as many houses under construction a month as under the slum-clearance program and finish them in a third the time . . . To talk of priorities has become almost academic at a time when there are less nails being made than we need each month—and in a month when lumber of certain types cannot be had even at its source in the Pacific Northwest—when there is not enough copper for strictly military requirements, let alone essential civilian ones—and when the demand for steel necessitated a general limitation order. The strain on our supply of basic materials in a program of this magnitude can hardly be visualized. It has to be felt—and we are feeling it now with a vengeance . . . We are forced to reconsider our entire war housing policy."

Added WPB Housing Priorities Chief Sullivan Jones: "Between 80,000 and 110,000 housing units throughout the country are now completed, nearing completion, or under construction, with no connections for services." (For details, see "Copper Squeeze," p. 42.)

Concluded NHA Homes Registration Director Howard Strong: "In England the threat of billeting, backed by the necessary legal authority, has in the great majority of instances influenced the householder to open voluntarily all his available space to war guests. I believe we should have this mailed fist of legal power within the velvet glove of persuasion."

Closer teamplay between NHA and WPB in dealing with the war housing crisis is also foreshadowed by Administrator Blandford's remarks to last month's Conference of State Governors in Washington. While NHA tries to reduce the demand for strategic materials by promoting its "Home Utilization and War Guest Program," WPB in turn will strive to prevent new housing bottlenecks by steering war contracts into localities where labor and housing facilities are already ample.

HOUSING CASH

Newly moved into Washington's swank Lescaze-designed Longfellow Building, Herbert Emmerich's FPHA may soon find its empty Lanham larder replenished. On May 27 the President asked Congress to appropriate \$600 millions more to house the 1,600,000 workers migrating to war centers. As proposed (see FORUM, May, p. 261), he underscored the need for building temporary dormitories.

MILESTONES

Last month Building celebrated two indirectly linked birthdays:

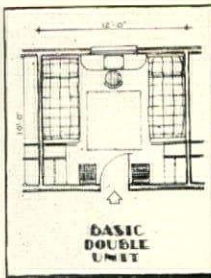
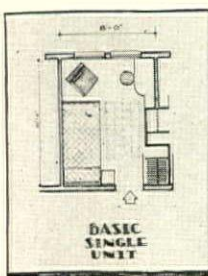
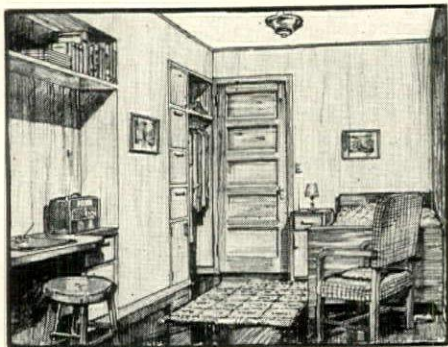
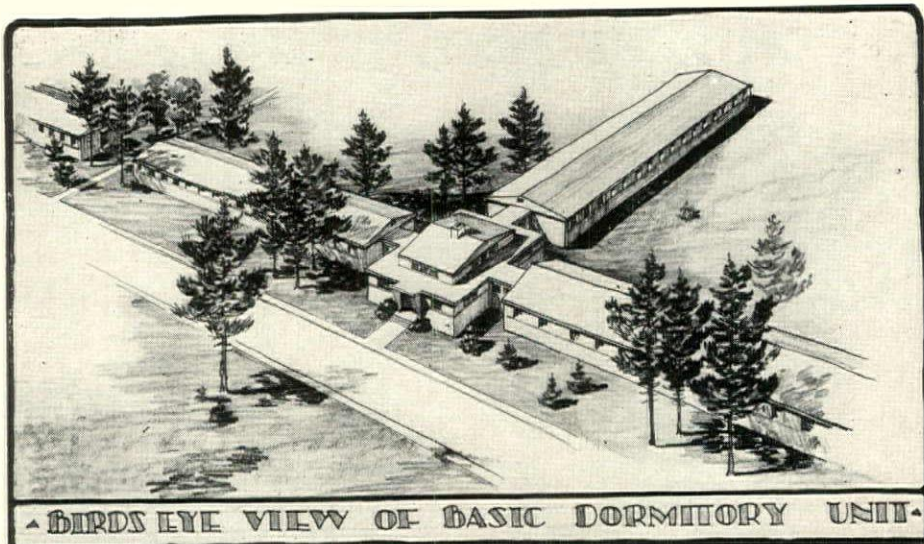
► The New York Building Congress rounded out 21 years of service by electing a new president—Paris-born Architect J. André Fouilhoux. With a proud string of accomplishments already redounding to his credit (with Raymond Hood, the *Chicago*



Wide World

ARCHITECT ANDRÉ J. FOUILHOUX

"Perhaps our time will come."



DURATION DORMITORIES are FPHA's most promising solution to the transportation problem. In crowded areas war workers will be housed near plants in blocks of units like this, temporary in construction but affording all essential services. Each dormitory has two, three or four sleeping wings radiating out from a core of toilets and shower rooms. A separate building will provide dining facilities, a lounge, library and writing room, indoor games room and auditorium, also an infirmary, for each project. FPHA Architect Paul Nelson is in charge of constructing the dormitories and community buildings.

Tribune Tower and the *New York Daily News* Building; with Wallace Harrison, the World's Fair Trylon and Perisphere; currently, with Harrison and Abramovitz, the Clinton Hill housing project in Brooklyn and war work in the Canal Zone), Foulhoux tackles a new problem. He is the Congress' white hope for outriding a war-created membership crisis.

New York has fared badly in the distribution of war contracts. Commented Architect Foulhoux, in accepting the president's gavel:

"I have been told that one of the reasons was high cost of doing business here. Well, I am not sure but that, when you add the cost of new housing, utilities, transportation facilities (all of which already existed here), and of moving thousands of new families to the middle of the prairies, it would not have been cheaper in the end to give some of the war contracts to this territory. Perhaps Washington in its wisdom will see the light and our time will come."

► Turner turned forty. This event got proper commemoration in an impressive display of statistics dug out of the construction company's old records. Since its initial job (a \$690 bank vault), the firm has erected more than 2,000 buildings (total cost: \$565 millions) throughout the

U. S. Most have used reinforced concrete. Last year was best in the firm's history, with war construction 80 per cent of the total. This year war work is expected to mount to 97 per cent.

Also significant is fact that Turner's president, J. Archer Turner, has taken on an additional chore. As newly elected vice-president of the New York Building Congress, he becomes Architect Foulhoux's wartime running mate, thus bolsters local hopes that Washington may be induced to look more kindly on the metropolitan area.

SHIPBUILDER TO HOUSEBUILDER

The West Coast's astounding Henry J. Kaiser, whose revolutionary methods have cut delivery of merchant ships from the standard 105 days down to 60, with 48 days after keel-laying as his current goal, is also snipping Father Time's forelock on housing. As a contractor for FPHA, he has met a stiff 30-day schedule in putting up five dormitories to house 2,000 workers who will build one of his own new shipyards. FPHA demountables of the family type are next in line as housing for the incoming shipworkers, but this work has been held up temporarily. Reason: all lumber has gone to rehouse evacuated Japs in California.

TEMPOS FOR WILLOW RUN

Planned for October occupancy, 15 dormitories for 3,000 men are to be started at once on sites within a mile of Henry Ford's \$130 million plant near Ypsilanti, Mich., where 100,000 workers will shortly mass-produce giant bombers. Soon after this construction is under way, work will begin on other temporary housing—additional dormitories to accommodate 7,000 more workers, including women; 1,500 single dwellings; 8,000 light-housekeeping apartments. All are in addition to the 6,000 UAW-CIO-sponsored permanent units at long last moving into the topo stage. (Future priority circumstances may kill this housing mammoth, however.)

Sidelight: The cheerful tiding of FPHA activity comes via *The Detroit Free Press*, the eminent journal which categorically dubbed THE FORUM's on-the-scenes report of a housing shortage at Willow Run as "moonshine" (See April issue, p. 193, May issue, p. 28).

BRIDGEPORT OCCUPANCIES

War housing can boast no end of surveys on needs. But what happens after dwellings are built and put on the market has had singularly little attention by professional fact-finders. Only now, for the first time, does Building have a faint statistical glimmer as to who is actually moving into the houses—thanks to a case study just released by the Bureau of Labor Statistics.

Connecticut's teemingly typical Bridgeport was selected for the survey. In this area private builders have provided the major share of new housing for incoming defense (now war) workers. During the 12 months ending last September, building permits were issued for 1,924 new privately financed houses. By sampling two out of every seven, the BLS statistical sleuths discovered:

► By February about 77 per cent of the dwellings had been completed. Many other units were almost finished but lacked plumbing or electrical materials.

► Families were already living in nine-tenths of the completed dwellings. There were only two vacant apartment units and one of these had been recently rented. Vacant houses were being held for owner occupancy or for sale.

► Surprisingly, almost four-fifths of the families were not newcomers but had moved from other houses or apartments in Bridgeport. Only about 36 per cent had some member of the family, or a roomer, who was employed in a war industry. (To be eligible for priorities, privately financed houses cannot exceed \$6,000 in selling price or \$50 in monthly rental, but their occupancy is not restricted to war workers as is the case with publicly financed housing.)

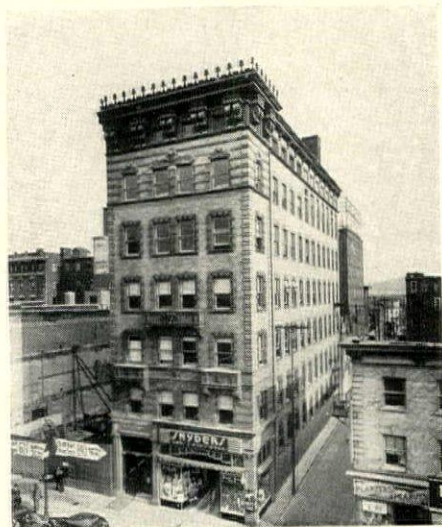
► Over five-sixths of the families had bought their new homes, although only 10 per cent previously owned local houses. In other words, Bridgeport's population shift means most of the surveyed families have

REMODELED OFFICE BUILDING



John A. Kubit

BEFORE

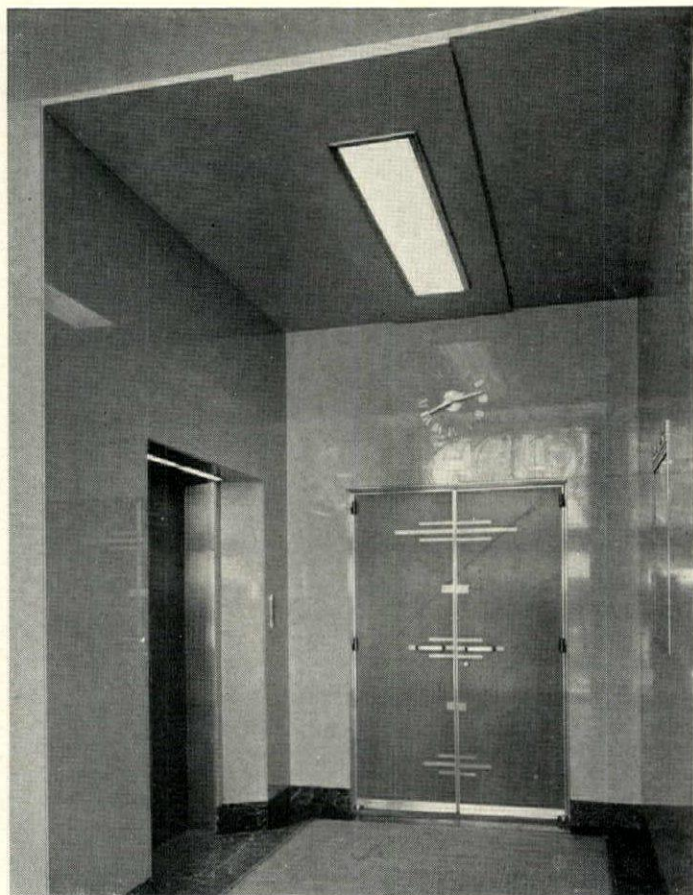


W. W. Graeff

TURNER CONSTRUCTION CO.
GENERAL CONTRACTORS



ELEVATOR LOBBY



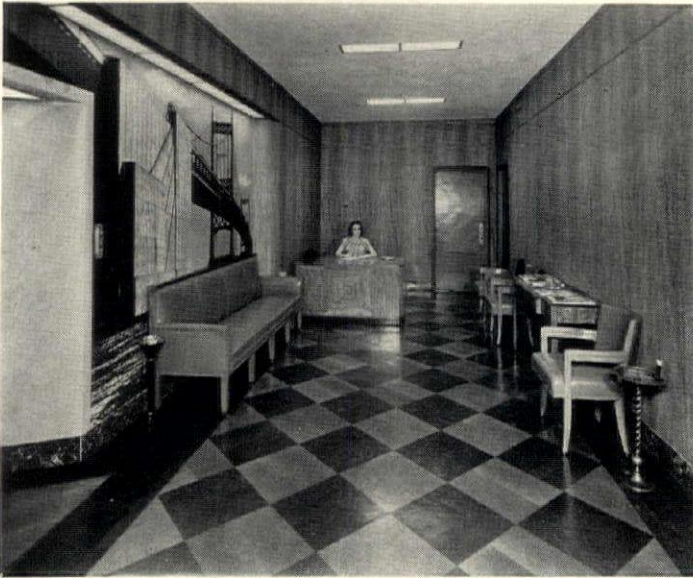
Charles A. Knell



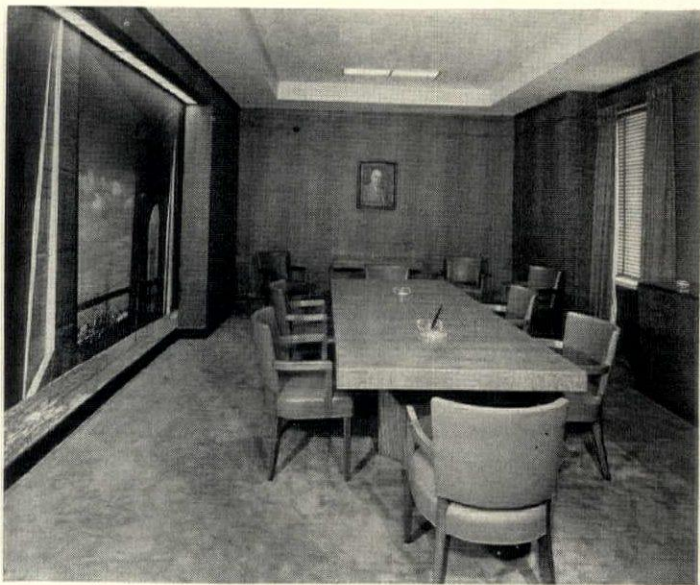
EXECUTIVE'S OFFICE

This modern office building, which serves as the home office of the Lehigh-Portland Cement Co., is a reconstruction and enlargement of a smaller building built for the same purpose in 1902 and occupied by the company before and during alterations. Principal reason for the change, aside from a desire for modern quarters, was the need for more space. This was met by the acquisition of the adjoining property, doubling the area of the first four floors, and the addition of a bay half the width of the new lot alongside the upper three stories. In the process, the top two floors of the old structure were removed and rebuilt, new windows and new exterior walls of architectural concrete installed, and the balance of the building thoroughly renovated. Designed specifically for use by the owner, the new building is also adapted to rental as general office space should this for any reason become desirable.

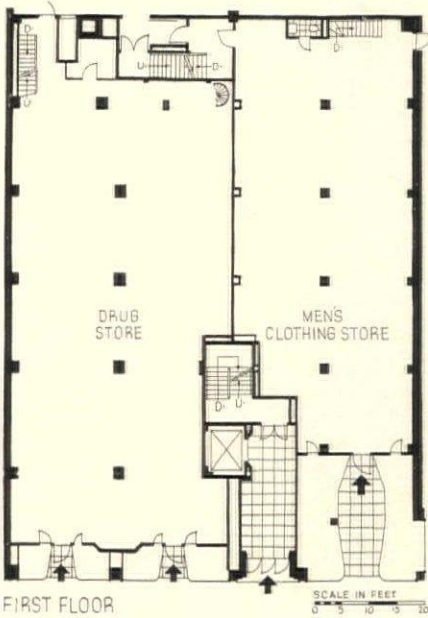
TYPICAL RECEPTION ROOM



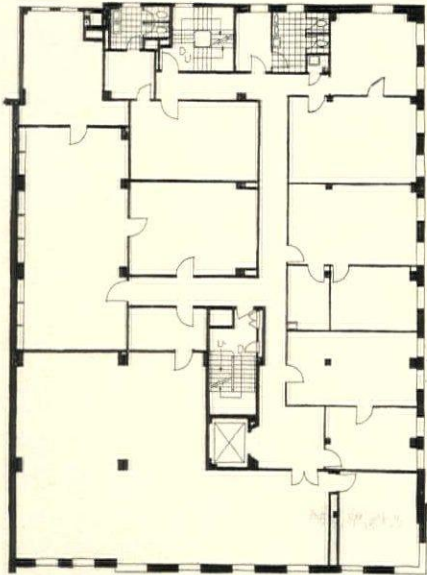
CONFERENCE ROOM



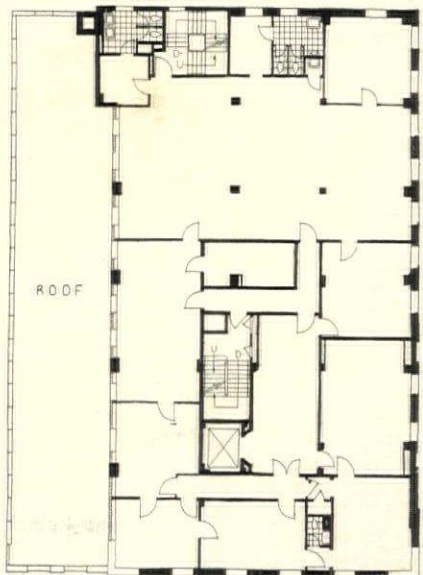
Photos, John A. Kubil



FIRST FLOOR



THIRD FLOOR



FIFTH FLOOR

REMODELED OFFICE BUILDING



Photos, John A. Kubil



Air conditioned throughout, the new building has flush, built-in lighting equipment and concealed radiators. Reception rooms have flexible wood-veneer wall covering and photo murals typifying the various operations of the company; over the entrance door is a three-section sculptured glass panel modeled by Oronzio Maldar-elli depicting the strength, durability and permanence of concrete. Sales department (left) is on the fourth floor, drafting department, with glass block wall (bottom picture), on the seventh. Middle picture shows executive office.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—concrete. Interior partitions—cinder block, Lehigh Building Blocks., lath, Bostwick Steel Lath Co., plaster, U. S. Gypsum Co., tile, Mosaic Tile Co. and Turner Brick & Tile Co. Columns—concrete. Structural steel—Bethlehem Steel Co. Floors—concrete, Waylite, Chicago Waylite Co.

INSULATION: Roofs—rockwool, Glendon Mineral Wool Co.

WINDOWS: Sash—aluminum. Glass—Blue Ridge Glass Co., Pittsburgh Plate Glass Co., and Mississippi Glass Co. Glass blocks—Pittsburgh-Corning Corp. Window bolts—Acker & Man, Inc.

STAIRS AND ELEVATORS: Stairs—metal. Elevators—Otis Elevator Co. Cab veneer—W. S. Tyler Co.

FLOOR COVERINGS: Linoleum, Armstrong Cork Co. Carpet and cork, Bigelow Sanford Carpet Co. and Chas. P. Cochrane.

WALL COVERINGS: Flexwood, U. S. Plywood Co., Inc. Wallpaper—Imperial Paper & Color Corp.

METAL TRIM: Exterior doors—nickel bronze, Superb Bronze Co.

HARDWARE: Superb Bronze Co. and Reading Hardware Co.

PAINTS: Casin Pastelite Paint Co., Keystone Varnish Co. and Sherwin-Williams Paint Co.

PLUMBING: Fixtures—American Radiator-Standard Sanitary Corp. Pipes—A. M. Byers Co., Bethlehem Steel Corp., Jenkins Bros. Valves—Jenkins Bros., Walworth Co., Sloan Valve Co. Water heater—Bryant Electric Co. Fire equipment—Jiffy Mfg. Co. Pipe covering—Keasby & Mattison. Pump—Yeomans Bros. Co. Connections—W. D. Allen Mfg. Co.

ELECTRICAL INSTALLATION: Conduit and duct system—Walker Co. Wire and cable—General Cable Co. Telephone system—Edwards & Co. Switches—Westinghouse Electric & Mfg. Co. Panels and switchboards—Frank Adams Electric Co.

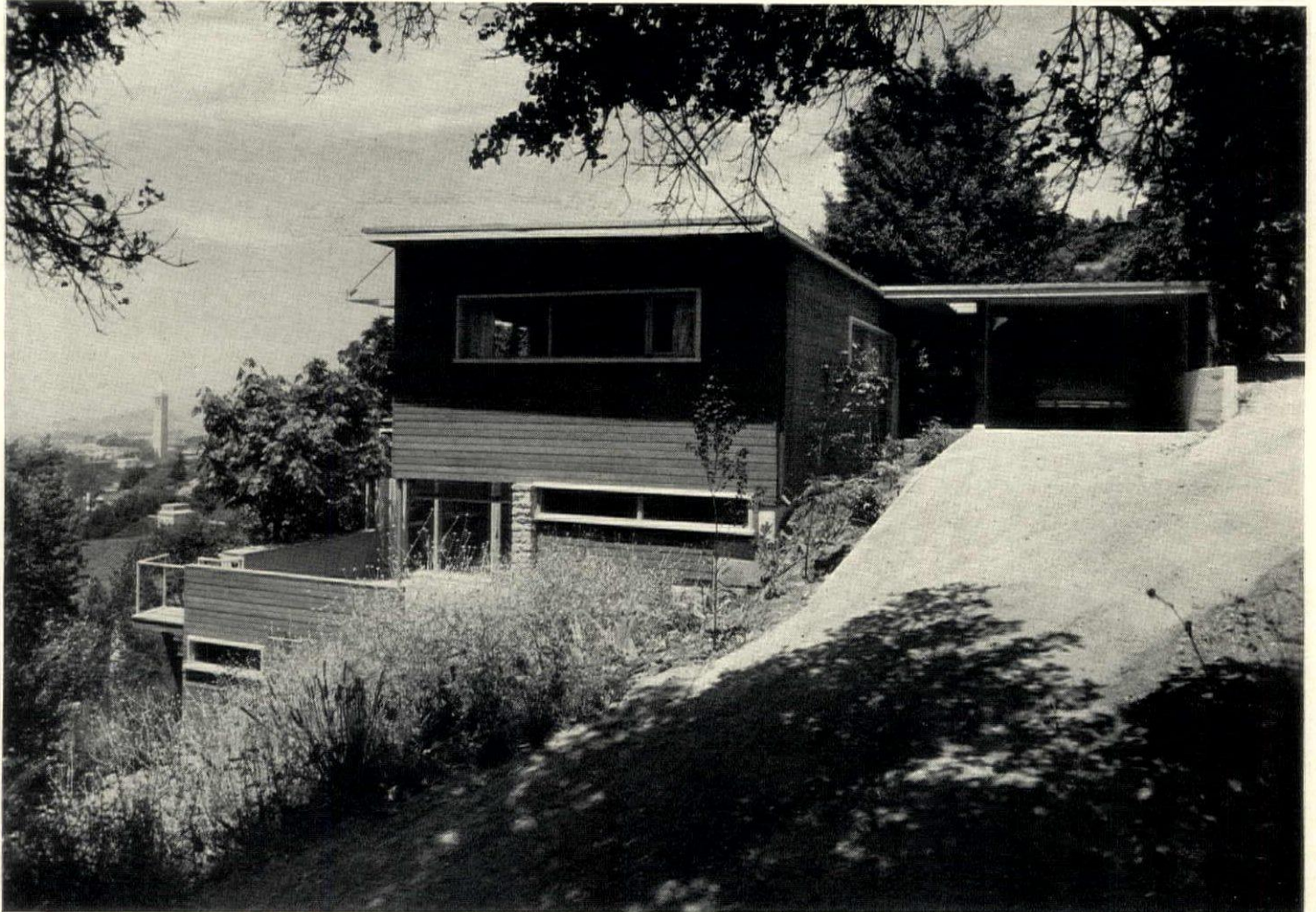
HEATING AND AIR CONDITIONING: Washing and charging tank—American Air Filter Co. Valves—Jenkins Bros. Regulators—Foster Engineering Co. Pumps—Nash Engineering Co. and Worthington Pump & Machine Co. Controls—Powers Regulator Co. Fans—American Blower Co. Motors—General Electric Co. Grilles—Tuttle & Bailey. Water tank and cooler—Patterson Kelley Co.

2 HOUSES IN SAN FRANCISCO, CALIF.

JOHN EKIN DINWIDDIE, ARCHITECT

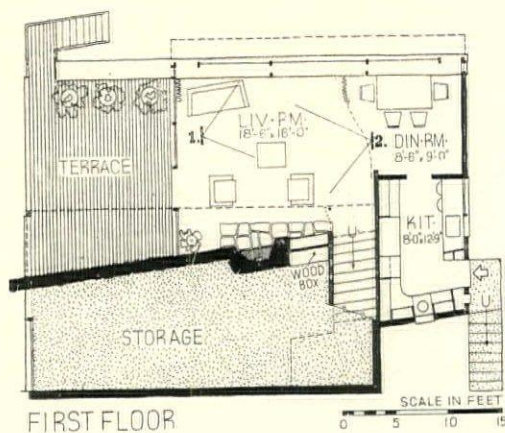
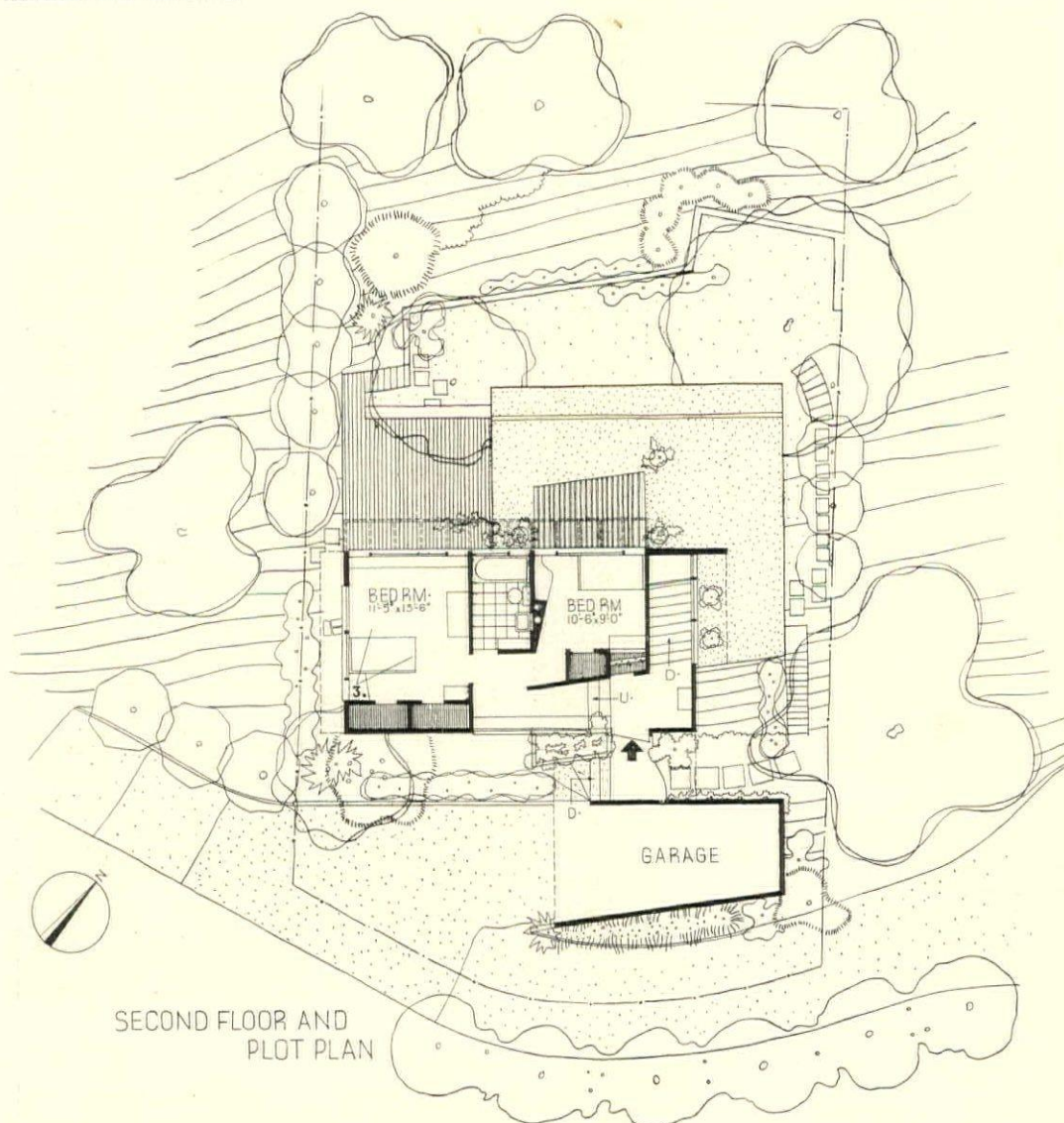
ALBERT HENRY HILL AND PHILLIP E. JOSEPH, ASSOCIATES

I. HILLSIDE HOUSE



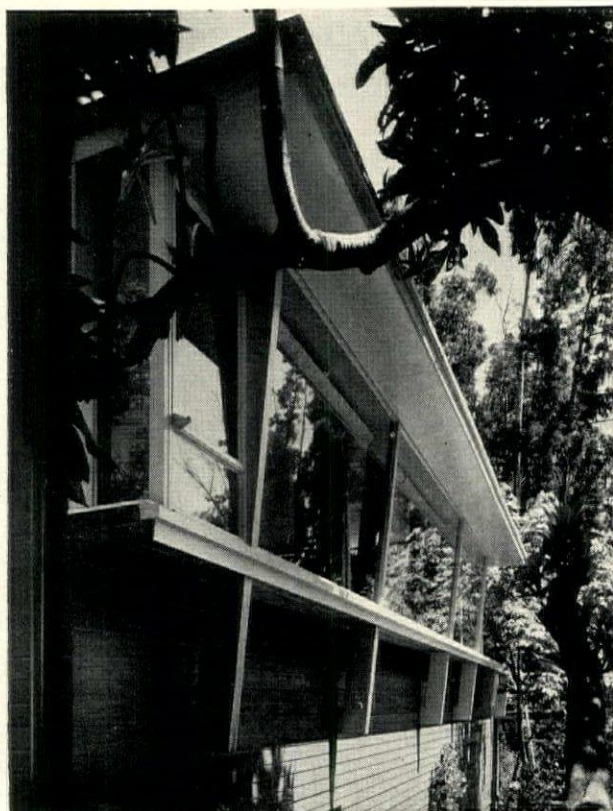
Photos, Roger Sturtevant





GARRETT ECKBO,
LANDSCAPE ARCHITECT

Designed for a steeply sloping site reached from a roadway at the high end of the property, this house has its garage and bedrooms on the upper floor a few steps above the level of the entrance, and its living room, dining room and kitchen a floor below the street. In conformity with the slope, the first floor projects well beyond the body of the house as a one-story wing, permitting a high ceiling without increase in the floor-to-floor dimension, and extends under the bedroom portion for only a short distance, where the ceiling is quite low. The front of the living-dining room area faces a downhill, panoramic view to the northwest, the terrace end still another view to the southwest. Continuous plate glass windows on the long side of the room are fixed throughout most of their length, and slope outward at the top (detail on facing page).



Architectural section drawing of the West Wall of a Living Room, showing the exterior wall construction, roofline, and interior details. The drawing includes labels for various materials and dimensions.

Labels and Dimensions:

- 6" GRAVEL STOP
- 2x4-16" O.C.
- METAL TIE FOR OUTRIGGERS
- 1/4" HARD-BOARD
- SHEATHING
- 1x6 BATTEN
- 1x4 PINE
- BUILDING PAPER
- METAL TIE ROD
- 6" FLASH
- 2x6-16" O.C.
- 4x4-12"
- 3/4" HARDBOARD
- FLASH
- 6" FLASH
- 2x4-16" O.C.
- 6" GRAVEL STOP
- 2x4-16" O.C.
- 2x4-16" O.C.
- BATH TUB
- 6" MASTIC
- 2x6-16" O.C.
- LIV-RM. CEIL
- 1x6 BATTEN
- 1x4 PINE
- 2x4-16" O.C.
- 7x8" REDWOOD SIDING
- BUILDING PAPER
- 6" FLASHING
- 2x4-16" O.C.
- 3/4" x 12"
- 2x6
- 5'-1"
- 2x6 WATERPROOF PLYWOOD
- HEAD
- 2x4-16" O.C.
- 1x6
- 2x4-16" O.C.
- 1x3
- SILL
- LIV-RM. ROUGH FL.
- BLDG. PAPER
- 2x4-16" O.C.
- 2x6
- 2x4-16" O.C.

SCALE IN FEET

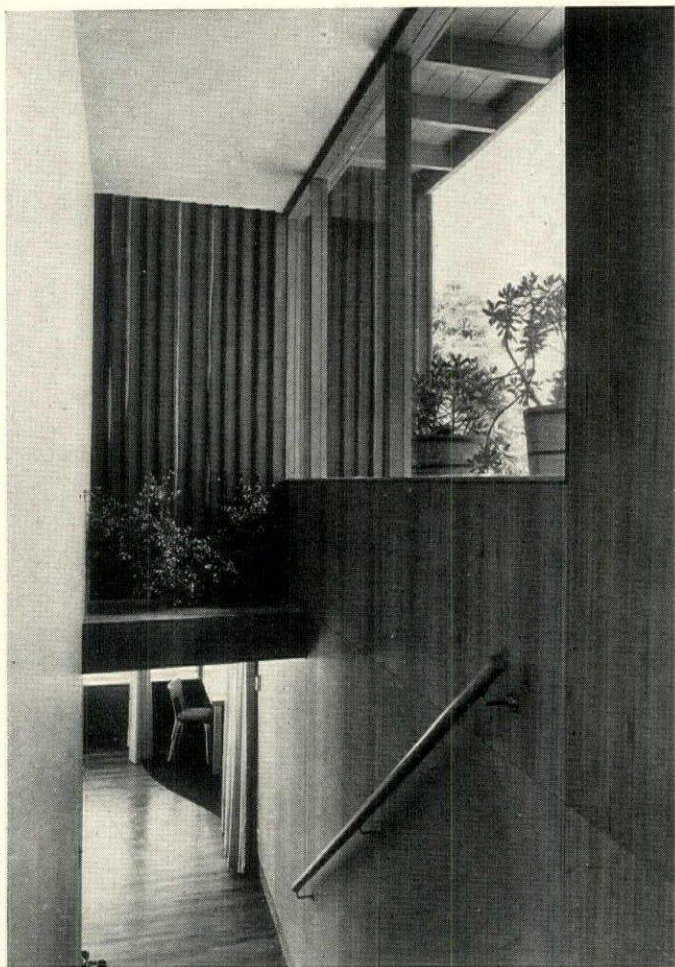
0 3' 6" 9' 1' 2'

SECTION THROUGH WEST WALL OF LIV-RM.

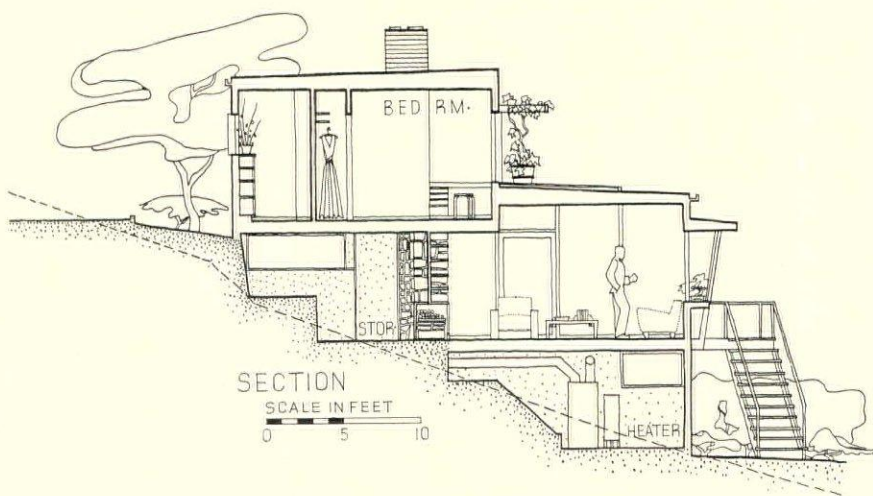


VIEW 3





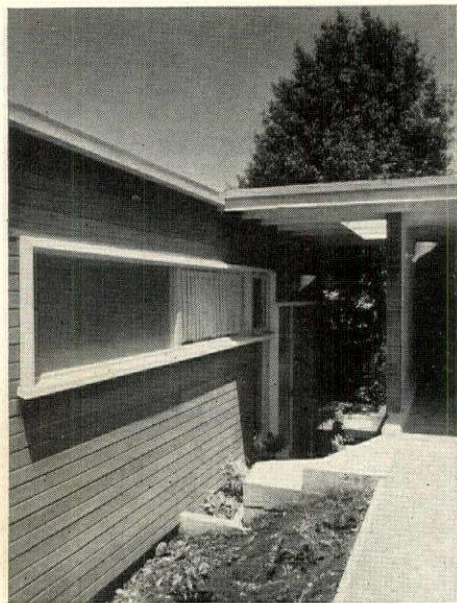
The exterior of the house is covered with redwood siding, stained gray-green, except for the west wall of the bedroom floor, which is covered with vertical pine boards with redwood battens, and stained gray-gold. Trim, sash and mullions are gray and gray-blue. Upper pictures show two views of the entrance hall and stairway to the living room, lower picture a detail of window in the bedroom corridor and sheltered entrance steps. Cost, \$4.50 per sq. ft.



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—redwood, Brownskin building paper, Angier Corp., studs; inside—Sheetrock, U. S. Gypsum Co. and plywood, U. S. Plywood Corp.
ROOF: Five ply asphalt and felt, gravel topping.
FIREPLACE: Damper—Richardson Mfg. Co.
WINDOWS: Sash and screens—steel casement, Soule Steel Co.
FLOOR COVERINGS: Kitchen and bathrooms—linoleum, Armstrong Cork Co.
WALL COVERINGS: Bathrooms—tempered Masonite, Masonite Corp.
HARDWARE: P. & F. Corbin.

PAINTS: W. P. Fuller Co., U. S. Gypsum Co. and Samuel Cabot, Inc.
ELECTRICAL INSTALLATION: Wiring system—knob and tube. Switches—General Electric Co. Fixtures—Karl von Hacht.
KITCHEN EQUIPMENT: Range—Wedge-wood, James Graham Mfg. Co. Refrigerator—Coldspot, Sears, Roebuck Co.
BATHROOM EQUIPMENT: Fixtures—American Radiator-Standard Sanitary Corp.
PLUMBING: Cold water pipes—galvanized iron. Hot water pipes—copper.
HEATING: Hot air, gas fired—Alladin Heating Corp. Water heater—Hoyt Heater Co.

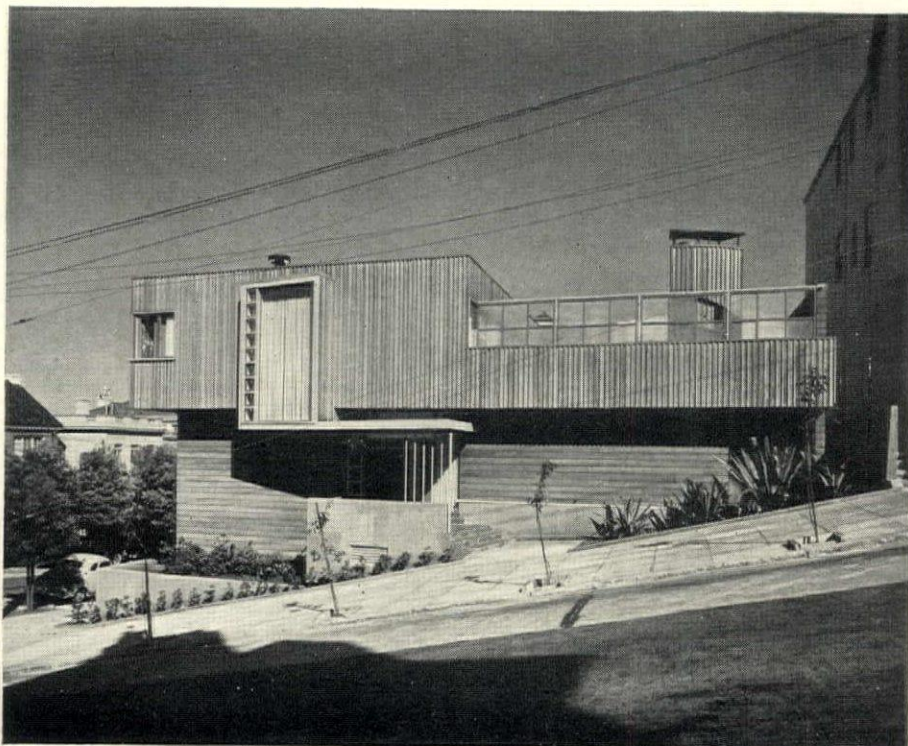


PHILLIP JOSEPH, ARCHITECT

OFFICE OF JOHN EKIN DINWIDDIE,
ARCHITECT, ALBERT H. HILL,
ASSOCIATE

HENRY SANDERS, JR. &
EDWARD WILLIAMS,
LANDSCAPE ARCHITECTS

2. HOUSE IN SAN FRANCISCO, CALIF.



Photos, Roger Sturtevant



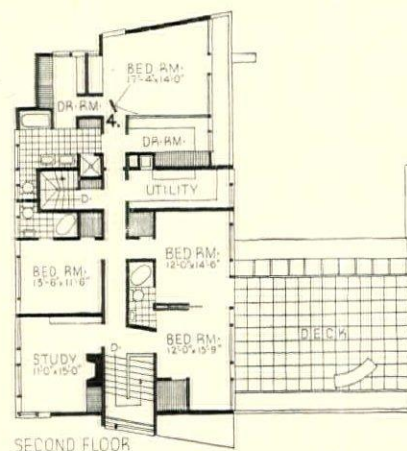
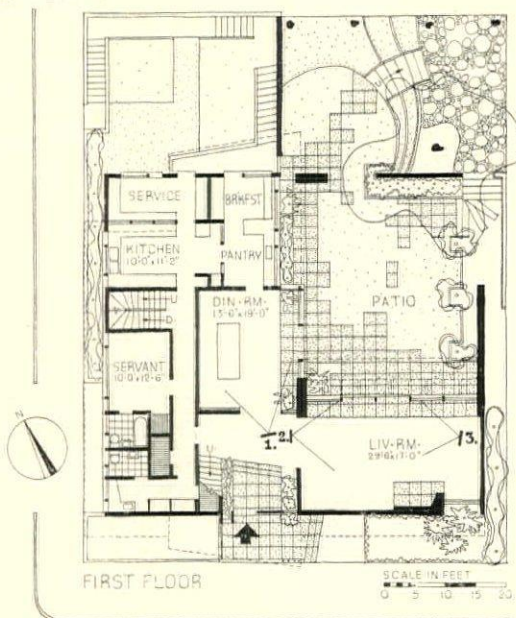
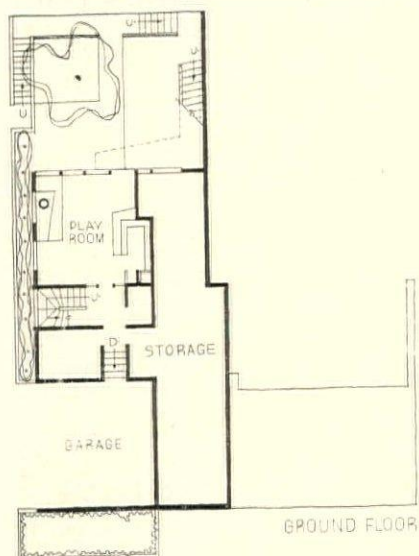


PATIO

This large house, while it occupies most of a small city lot, nevertheless achieves spaciousness through expert design. The body of the house, two stories in height, is set snugly in one corner of the plot, leaving maximum room for a patio that is enclosed at the front by the projecting living room wing. The principal rooms, together with the entrance- and stair-hall surround this patio in the form of an "L" with the entrance hall at its corner, and open onto the patio through generous sliding doors and fixed, floor-to-ceiling windows. Bedrooms are arranged in two rows along a central corridor on the second floor. Taking advantage of a slope towards the back of the plot, a children's playroom and garden have been introduced at the above-ground end of the basement floor. Exterior walls are redwood siding on the lower floors, stained gray-green, and vertical boards and battens on the second floor, stained gray-gold. Trim is coffee-colored, with blue-green sash and mullions.



VIEW 1

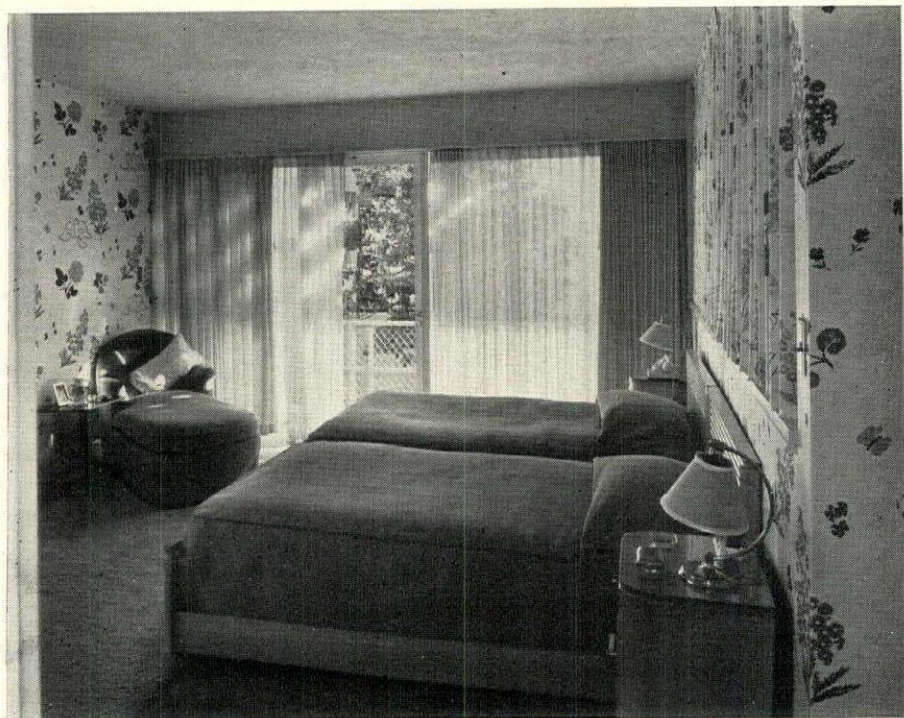




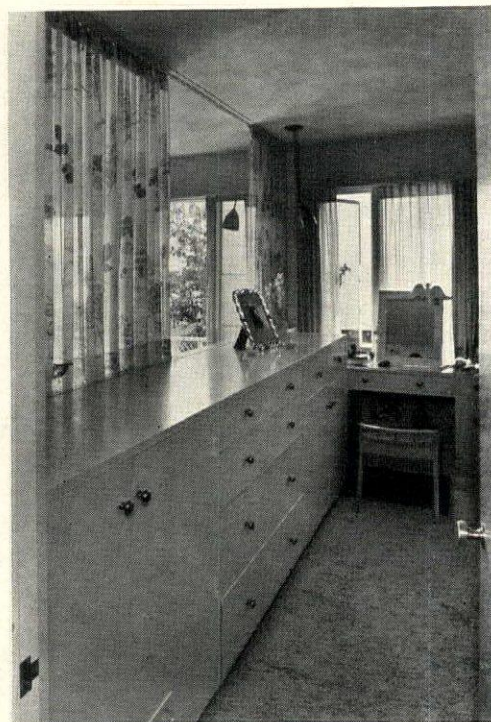
VIEW 2



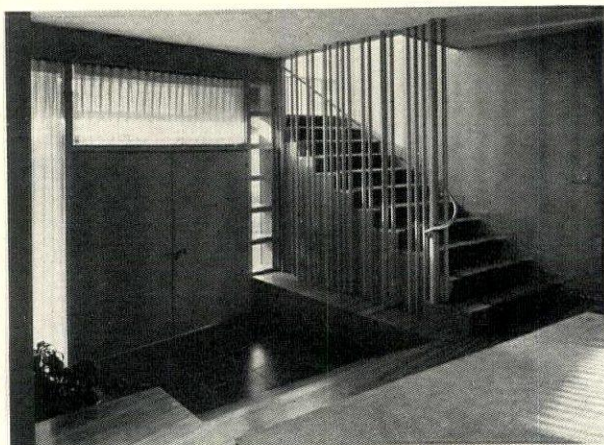
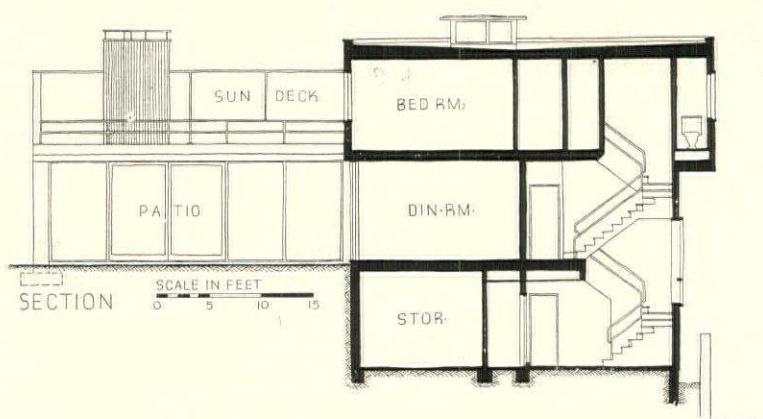
VIEW 3



VIEW 4



DRESSING ROOM



ENTRANCE HALL

**CONSTRUCTION OUTLINE**

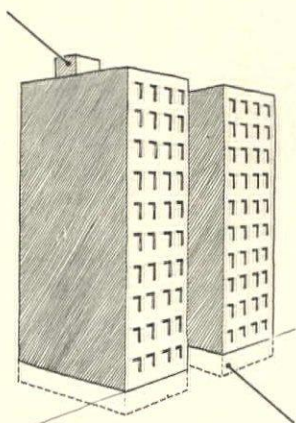
STRUCTURE: Exterior walls—redwood, Brownskin building paper, Angier Corp., studs; inside—plywood, U. S. Plywood Corp.
ROOF: Tar and gravel. Deck—duck boards.
INSULATION: Roof—rockwool.
FIREPLACE: Damper—Richardson Mfg. Co.
WINDOWS: Sash—steel, Michel & Pfeffer Iron Works. Weatherstripping—Chamberlin Metal Weather Strip Co.
FLOOR COVERINGS: Kitchen and bathrooms—linoleum; recreation room—asphalt tile, Armstrong Cork Co.
PAINTS: W. P. Fuller, Samuel Cabot, Inc. and Gunn Carle Co.
HARDWARE: Russell & Erwin Mfg. Co.
ELECTRICAL INSTALLATION: Switches—General Electric Co. Fixtures—Karl von Hacht.
KITCHEN EQUIPMENT: Refrigerator—General Electric Co.
LAUNDRY EQUIPMENT: Washing machine—Bendix Home Appliance, Inc.
BATHROOM EQUIPMENT: American Radiator-Standard Sanitary Corp.
HEATING: Hot air system. Water heater—Hoyt Heater Co.

A. R. P. IN APARTMENTS

New York building superintendents' initiative, plus aid from tenants and owners, produces fire buggies, bomb traps, other ideas for air raid protection.



1.



2.

COMMUNICATIONS

1. This outdoor telephone on a Park Avenue rooftop is rigged direct to the building control center — the superintendent's ground floor office. When an alarm sounds, a watcher is dispatched immediately to the roof to report bomb hits and menacing fires. 2. A control board with nine buzzers connects the bedrooms of the nine floor wardens who live at 243 West 70th Street with Superintendent Alfred Peterson's office. Other tenants take turns doing 3-hour watches between midnight and 6 a.m., when the building employees are off duty. If an alarm is phoned in by the neighborhood warden, the watcher buzzes the floor wardens. Individual families are then awakened and assisted, if so desired, to safety areas while fire-fighting volunteers go to the roof to watch for falling bombs.

The landlord fears for his property, the tenants for their lives—but the building superintendent has to worry about both. If he can boast a large well-drilled staff, his troubles are half licked before they begin. All he needs to take enemy bombers in stride are 1) special equipment for fighting incendiaries, 2) special areas of safety to which the tenants can retire during raids. If, however, he lacks a large staff, then he must rely on 3) tenant cooperation. The fewer the building employees, the greater the need for tenants to organize themselves into a building protection unit—for their own sakes as well as the landlord's. Without efficient organization to man the protective devices, apartment house A.R.P. cannot hope to be successful.

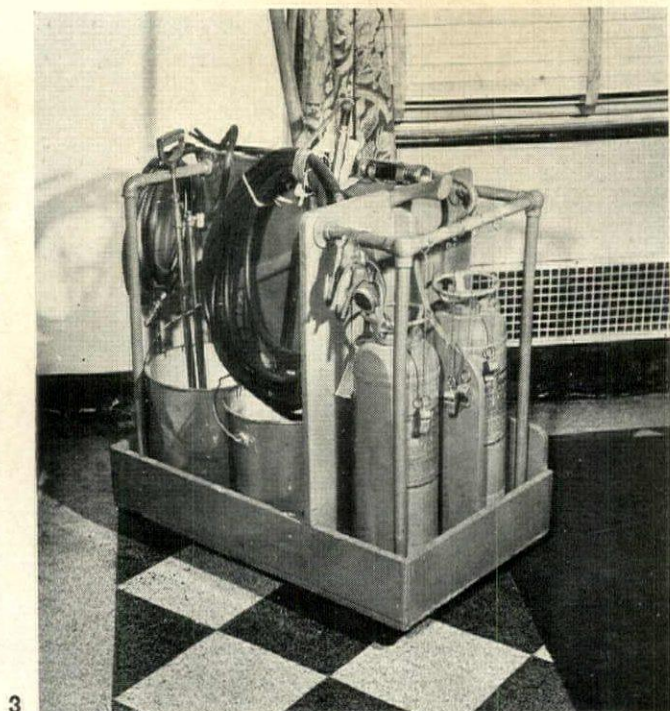
Preparing the building against air attack thus becomes a problem that concerns the owner or realty management company, the tenants, the superintendent alike. But, no clear-cut formula for obtaining needed equipment has yet emerged. Landlords hesitate to take the initiative, since they may only incur lawsuits for their care in case of accidents. (Where safety areas have been set aside, their use by tenants is always suggested, never commanded, and posted signs studiously avoid such words as "safe" and "shelter.") Individual tenants are expected to provide their own black-outs and window treatments. If more than this has been done, it is usually due to the building superintendent's initiative, with or without the aid of various tenants. Generally, however, the landlord is glad to foot the bills.

Considerable ingenuity is shown in the solutions worked out by the superintendents and tenants of various New York apartment houses. Some devices are Rube Goldberg contraptions, but others have a homespun quality that bespeaks practical efficiency in an emergency. THE FORUM therefore culls the best of these innovations, presents them to Building as a series of ideas applicable to any apartment house.

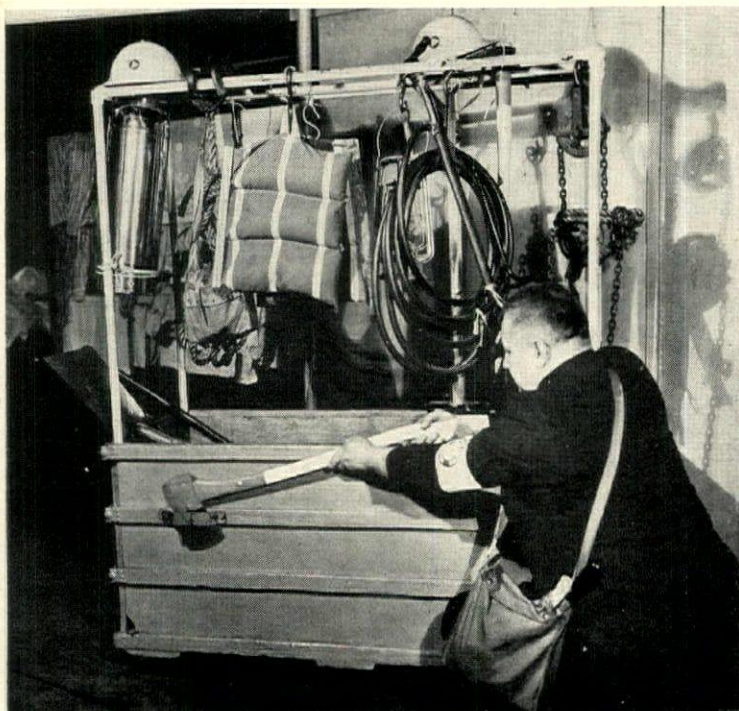
Photos, Ehrenberg



A. R. P. IN APARTMENTS



3



4

FIRE BUGGIES

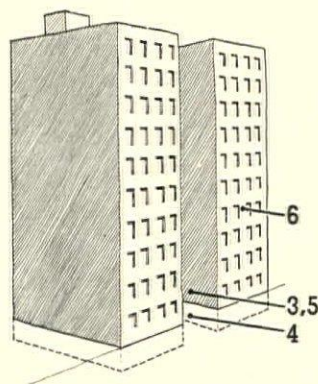
Resembling peddler's pushcarts, these portable units are designed more for utility than for appearance—although the apartment house managements usually keep them on display in the entrance lobby as a shrewd means of reassuring nervous tenants. Quickly wheeled into action, they hold various fire-fighting odds and ends—extinguishers, pumps, buckets of water and sand, shovels, hoes, wrenches, axes, pinch bars, hose, rope; helmets, asbestos gloves, goggles, lamps, whistles, so on. **3.** This buggy was made by the handyman at owner Edgar Ellinger's 1075 Park Avenue for about \$10, plus the equipment. **4.** Likewise made of spare pieces at small cost, this unit was designed by Superintendent Herbert Wilson of 55 Central Park West. It can pass through any apartment or elevator door, includes block and tackle for removing wreckage. Note sandbag, made from an old awning and stapled to a wood bar; dropped over a bomb, the sand spills out to smother the blaze. **5.** A more elaborate type by Superintendent Joseph F. King, costing about \$400 complete. On top is a tool box, in between a shelf for asbestos gloves and blanket.



5

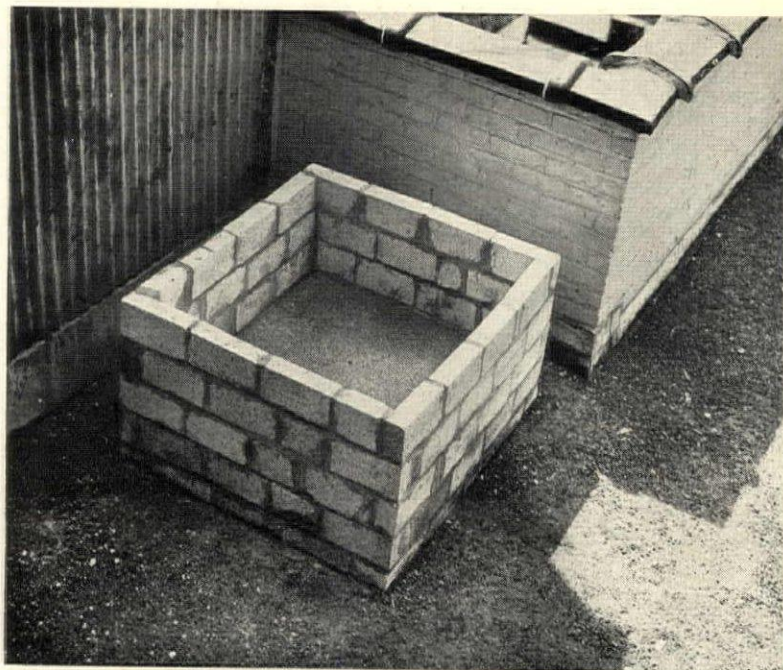


6



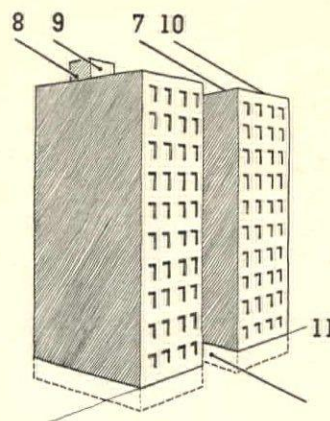
SAFETY AREAS

6. Tenants at 480 Park Avenue have their choice of several foyers like this, to which they can go if bombs fall. Surrounded by unoccupied outside rooms and down three or more floors from the roof, the space is relatively safe. (Glazed doors present a hazard, however.) Standard fittings: painted benches, portable radio, kerosene lamps, sandbags, asbestos gloves, first aid cabinet, paper cups, towels and soap.



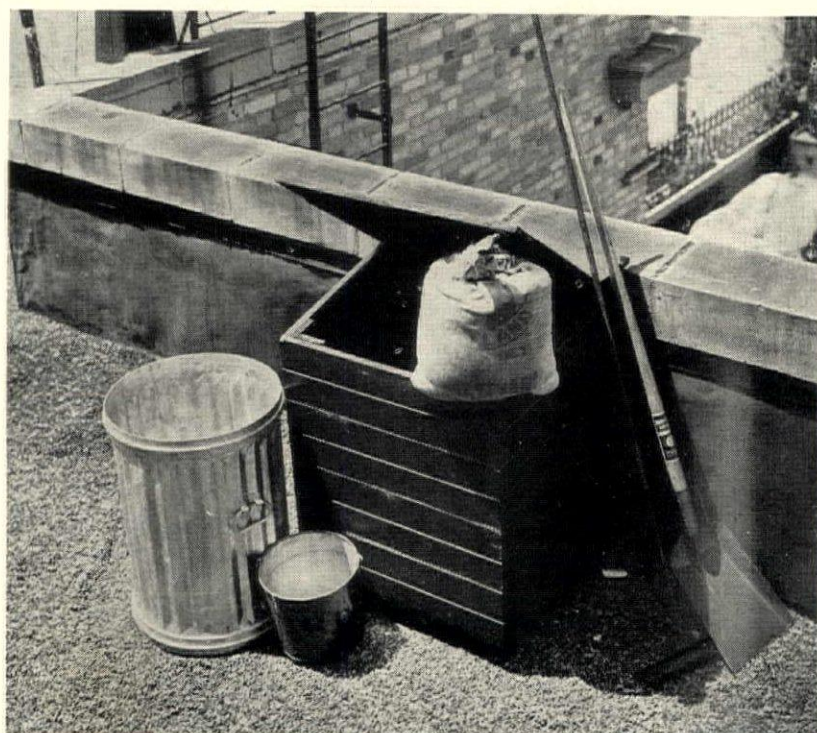
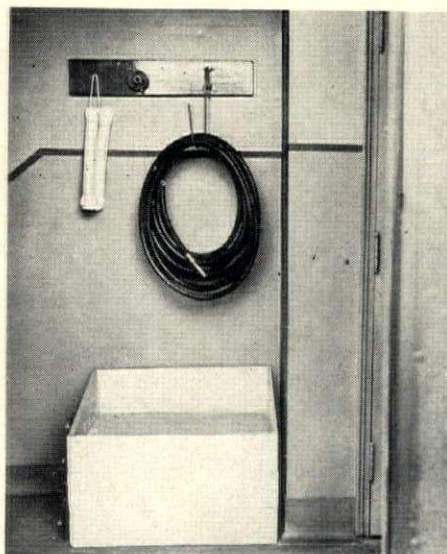
BOMB TRAPS

7. Instead of pushing a fire buggy into action on the roof, Superintendent Peterson and his 100 per cent organized tenants at 243 West 70th Street expect to scoop up the bombs on long-handled shovels and toss them into specially prepared receptacles where they can burn harmlessly. Built of firebrick with a double-layered bottom filled with sand, the traps are placed within strategic tossing range. Cost: about \$25 a pair.



SUPPLY STATIONS

Since incendiaries may fall at a sharp angle, thus penetrate apartments on lower floors, it is considered advisable to have ample supplies of sand and water at intermediate stair landings as well as on the roof and in the basement. 8. Opening on a roof terrace, this station is set up with a sand box, a shovel and axe, 225 ft. of rope, 50 ft. of hose plus a reducer for attachment to the standpipe. 9. Here, a stair landing with seven 25-lb. sandbags, a large can of loose sand, a pail for water, a shovel, a homemade shield for approaching sputtering bombs. 10. For use on this roof, a large water-filled can, a pail, a box with sand conveniently packed in bags. 11. As most illustrations on these pages attest, the lowly garbage can has become a popular A.R.P. device. Here is a further refinement—filled with water, the can holds two submerged buckets which can be quickly pulled out in an emergency. No time is lost in filling the pails.



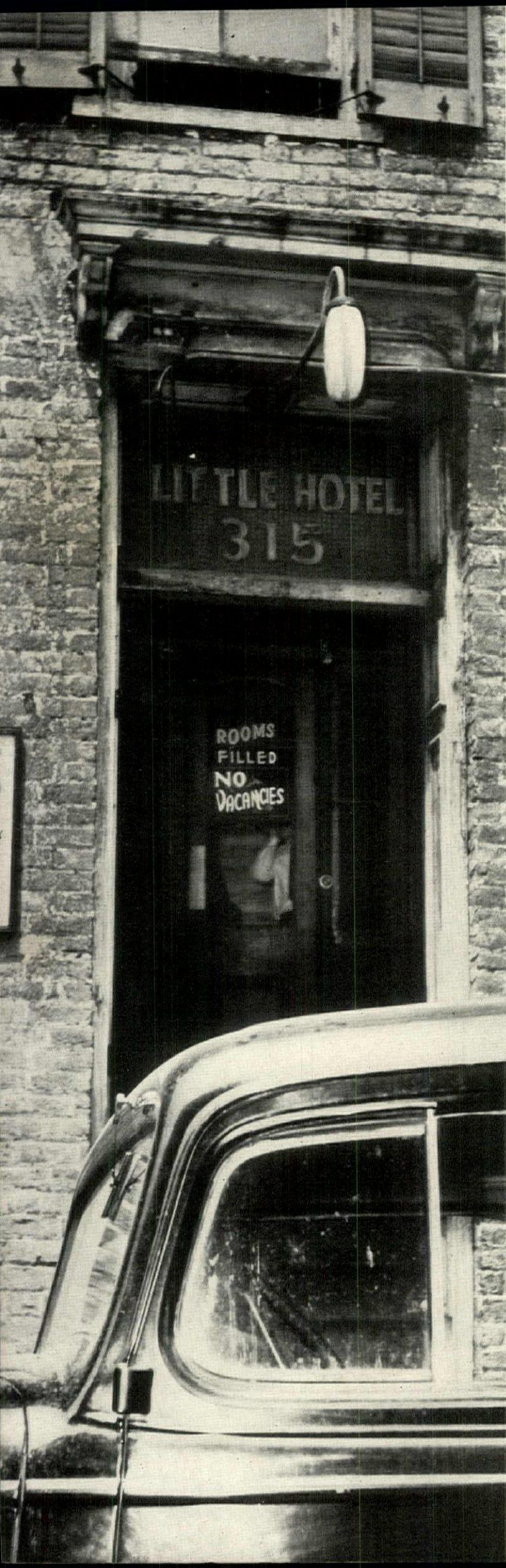
NORFOLK, VA.

Norfolk is familiar with war. During the Revolution it was destroyed by the British; in 1807 its trade was ruined by the Embargo Proclamation. It suffered again in the War of 1812; its shipping business was wrecked by the Navigation Act of 1820; and what was left by the plague of 1855 was finished off by the War between the States. In the 1920's the city had its own private depression, a hangover from two glorious years of war spending and riotous private speculation. Today Norfolk is waiting with a curiously weary indifference for the same thing to happen all over again.

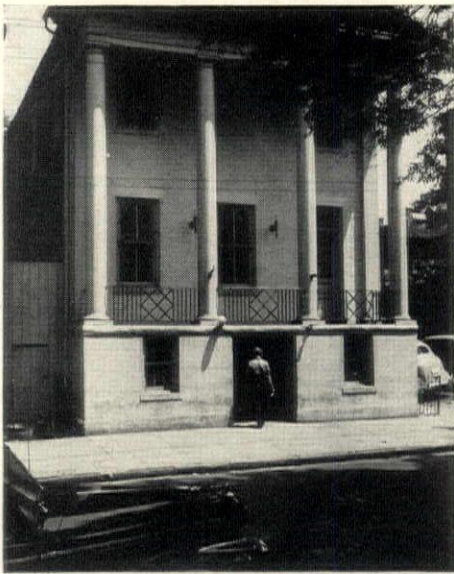
Central in any picture of Norfolk's jumps from feast to famine is Hampton Roads, one of the great harbors of the world, protected from the sea by a remarkable series of natural barriers, reenforced on land by its proximity to the industrial bases of the East. The harbor lies at the meeting point of three rivers and Chesapeake Bay, with Newport News and Old Point Comfort to the north and Norfolk and Portsmouth on the south. In time of peace it handles an immense traffic, with millions of tons of coal, manufactured goods and agricultural products passing through on ships of all nations. But Norfolk's real, big-time business is war. Here, in a comparatively small area, is one of the most powerful aggregations of military establishments ever created. In addition to the Navy Yard at Portsmouth and the Naval Operating Base in Norfolk, there are miles of shipyards, many Army camps and airfields. Since Pearl Harbor this military activity, already impressive, has accelerated tremendously. In 1941, \$8,300,000 was spent for Government construction. In the first four months of this year the figure had already soared to almost \$69,000,000, with no ceiling in sight.

To Norfolk and the surrounding towns, this unprecedented expansion has been a boon and a headache. While shops and hotels upped prices from one record high to another, while food costs went out of sight, almost unbelievable pressures were generated by the increasing population. To the area's 94,000 dwelling units, some 20,000 to 25,000 will have been added by the end of this year. This increase, as yet unparalleled anywhere, has failed utterly to keep pace with the influx. It has strained existing facilities—roads, schools, water supply, transportation, etc.—beyond capacity. The reasons for this failure are not far to seek: they appear everywhere in the fantastically confused activity that has passed for a housing program. For anyone who cares to look, there are villains aplenty in the piece; the difficulty comes in finding a hero.

Norfolk is not much of a town. Nor, for that matter, are its neighboring communities. It reached its high point in commercial and civic building during the late 1880's, and not much happened after that except a flurry of ill-advised building during World War I, a small amount of shop modernization, and a great deal of deterioration. Today the general drabness is so all-pervading that not even the local booster will go very far in singing the praises of his home town. There are many handsome houses down near the center, but these have long since passed into use as rooming houses and tenements, and the remnants of century-old elegance merely intensify the air of decrepitude. Even the new residential developments on the periphery to which some of the citizens have escaped are inadequate to counteract the overwhelming impression of



... "confusion, chicanery, ineptitude"



MANSIONS in downtown Norfolk now used as tenements, rooming houses and (left picture) headquarters of the carpenters' local.



"TEMPORARY" HOUSING left over from World War I. Two views of Titustown, now a typical rural slum.

apathy and decay. Into this picture came a huge war program two years ago, a program since doubled and redoubled. With it came soldiers and sailors and marines and fliers, their wives and children and parents, the shipbuilders and fitters and welders and mechanics and their families. Even at the outset there was hardly room for them. Between 1923 and 1935, not a single year had shown residential building sufficient to meet the normal requirements of about 600 homes annually. This is the town upon which tens of thousands of men, women and children descended almost overnight.

First to become alarmed was the Navy. By the spring of 1940 Admiral Simons was already demanding 3,000 houses for war workers in Portsmouth. In July of the same year Admiral Taussig publicly called attention to the difficulties of married enlisted men in finding accommodations. A year later he was blasting the real estate agents who were taking advantage of the emergency by raising rents, reported that there were 109,588 men (including their families) living in Norfolk and Portsmouth and working on Navy defense projects. As Navy demands began to produce results, the spectre of overbuilding raised its head again after twenty years. Remembering the bitter aftermath of World War I, the banks and other realty owners became alarmed. Delegations and letters and press releases began to march on Washington with the story that all was well in Norfolk, and that the housing shortage was a myth.

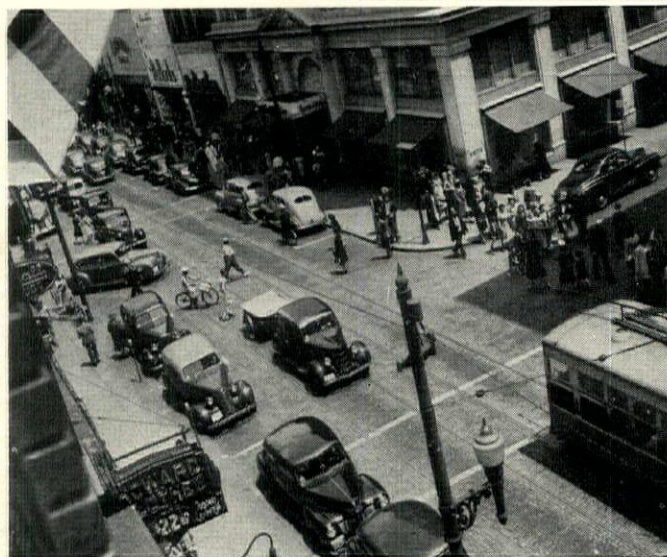
For more than a year, Norfolk has been a bedlam. The hotels are jammed. There are around 7,000 trailers in the area, parked in the country, on the lawns of old mansions, anywhere. Lines form at the movies at 10:30 in the morning. Stores and restaurants have given up the pretense of trying to provide service for their customers. The Home Registration Bureau turns away half of the applicants for rooms. Worst off are the Negroes. In a recent test search for colored accommodations the best available was half a bed for half a day; the rest of both bed and day had already been rented. Personnel officers at the Navy Yard complain that they are losing over 500 men a month, skilled workers who cannot be replaced in a hurry. Production schedules, in the meantime, call for an increase of 1,000 men a month between now and November.

So much for the background. Against it are projected four major groups, all of whom have affected the progress of housing in one way or another. In the divergent interests of these groups lies the key to what has happened to housing in the Norfolk area. And in their efforts to solve this crucial problem of war production lies the answer to the "why" of Norfolk's housing headache and the many other headaches from Seattle to Ypsilanti. These groups are the Navy, the real estate and banking interests, local and out-of-town builders, and the housing agencies in Washington.

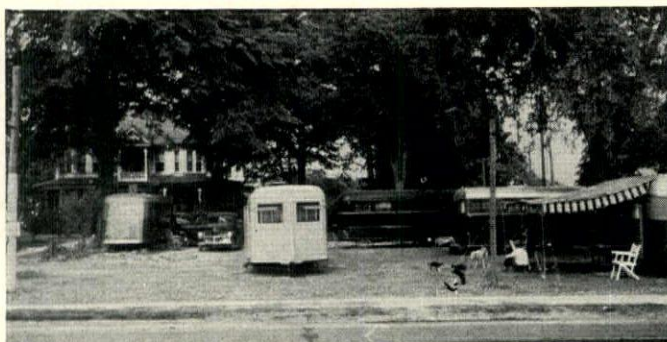
NORFOLK

The Navy's stand on housing in Norfolk is simple: it has to have it. To the Navy, it seemed the most natural thing in the world to turn to local builders for satisfaction of its needs. Here, after all, were men whose business was houses. Here was an active demand, a chance for the local boys to turn an honest dollar. How about it? There wasn't very much about it. The Navy was trying to operate in a town controlled by a small group of men who had a heavy stake in keeping things the way they were, a group against any and all housing that might depress existing values. It was bucking a crowd that considered FHA "unsound" because it eliminated eight per cent second mortgages and had fought USHA to a standstill. One of the first indications that the Navy realized what it was up against was the building of Simonsdale. Early in 1940, Admiral Simons formed a committee of men in the Navy Yard to do something about housing. Head man was E. S. Smith, President of the Portsmouth Central Labor Union. Smith and his fellow committeemen, who were fed to the teeth with their own housing troubles, went to work. They found 143 acres of idle land that could be bought for \$150 per acre. Having no funds, they persuaded the owner to let them subdivide the property, and, without the power to give title, they "sold" enough land to pay for the entire property in four months. Admiral Simons got a FHA man down from Washington, and shortly thereafter a Richmond contractor was given the job to put up the first 35 houses. The project now has about 500, partly sold and partly rented. The significance of Simonsdale lies not in its size, its planning or its cooperative nature, but in its unequivocal demonstration, to anyone who cared to be shown, that the Navy was fully determined to get the necessary housing regardless of how it got it. There has been no let-up in this attitude, nor has there been any mincing of words in the Navy's public statements. Only last October Admiral Simons gave out a release which referred very pointedly to the "harmful attitudes" of "recalcitrant individuals and organizations," suggested that they might give up these attitudes if they realized that their "opposition which has complicated Navy building and planning would constitute a kind of sabotage." "Sabotage" is not a word used carelessly in wartime by high-ranking military officials.

The stand of the small but powerful group that controls Norfolk real estate has been as simple and understandable as that of the Navy: unrelenting opposition to any kind of housing that would impair the value of their property. There is also a general feeling that the Navy's problems are not Norfolk's problems, coupled with a very deep-seated dislike for any kind of change. Since there was no one in the entire area in a position to say how many units it could absorb after the war, the real estate group played safe by opposing building in any quantity. Way back in the spring of 1940, when the Navy claimed a need of 3,000 units in Portsmouth alone, this need was publicly denied by Otto Hollowell, Executive Secretary of the Norfolk Real Estate Board. Events have since shown that this denial had no basis in fact. Two years later, despite the construction of 12,272 units in the interim, the same Mr. Hollowell, in a letter to NHA's John Blandford, states: "Reports are prevalent here that one of the large allotments of demountables for this area is being reconsidered with a view toward cancellation. Since a reduction of the unusually high number of units programmed seems to us to



NORFOLK'S MAIN BUSINESS STREET



TRAILERS PARKED ON A MANSION LAWN



BARS SERVE BEER ONLY, MOSTLY TO SERVICE MEN



THEATER LINES FORM AT 10:30 A. M.

be highly practical, we are wondering if you are in a position to confirm the rumor."

Norfolk's builders have been in favor of building for the same reason that the realtors oppose it. In the offices of the local association of contractors, FHA is considered the finest thing that ever happened to housing, and much is made of the fact that the building and loan groups are against it. To what extent the local builders have been hampered in obtaining financing is not clear, but it is worth noting that outside builders, with outside money, had no difficulty whatever in moving in on the area and putting up several thousand houses. Since virtually all private war building has been under FHA financing, and since local lenders have been distinctly unenthusiastic about FHA, it might be concluded that the local contractors were discouraged, or at least hampered, in their efforts to build. Even if this were not the case, however, there is no lack of other evidence of the unattractive role played during the emergency by Norfolk's landed interests. And yet this group cannot be condemned wholly for its actions. Moreover, its opposition no longer counts for much because more and more local controls have been swept into the discard by the steadily mounting pressure of events.

One of the more colorful individuals in the Norfolk housing picture is W. B. Shafer, Jr., a produce merchant by inheritance and a lifelong promoter by preference. Shafer is credited as the originator of the Soldiers' Bonus, and he has been lobbying in Congress for one thing and another during the past twenty years. A pure example of the old-fashioned booster type, it is Shafer's dream to see Norfolk become a city with a million population. In the war program he saw a chance to do something about it. As the shortage in housing developed, letters began to appear in metropolitan papers, describing the great building possibilities in the Norfolk area, signed by Shafer as Chairman of the Citizen's Housing Committee. The Committee was a convenient fiction, as it consisted of Shafer and a few friends. There were also letters to out-of-town builders and realty firms, and paid advertisements. While this campaign was going on, Shafer and his associates were busying themselves with land options and purchases, and putting up signs in the area decrying the housing shortage. Needless to say, these activities did not endear Shafer to the local bankers and realtors. It is probably more than a coincidence that shortly after Shafer's promotional activities began, builders from New York and other cities began to come down and look around.

The attraction of Norfolk for outside builders has proved practically irresistible. Plagued with priorities in their own territory, in Norfolk they saw a chance to operate on a large scale with preference ratings, and one after another they piled in, even bringing their own workmen in many cases. Among the new arrivals was J. Halperin & Company, a Long Island realty organization, which in considerably less than a year has placed FHA loans on more than 2,000 units, taking around seven million dollars' worth of business from under the surprised noses of Norfolk lenders. These thousands of units caused consternation in local circles, for they were permanent, cheap and a definite menace to the status quo. Again Mr. Hollowell spoke up for the real estate owners: "I cannot imagine a greater catastrophe than to have the out-of-town builders construct the thousands of houses they say they are going to build under Title VI." But by now such protests



NAVY'S E. S. Smith, housing coordinator, who was formerly head of Portsmouth's Central Labor Union, and Rear Admiral Manley H. Simons, who appointed Smith and fathered his first housing venture, "Simonsdale."

were merely gestures. The houses were built. And the Navy, as unconcerned about the future as the landlords were fearful, welcomed the tidal wave of pseudo-Colonial boxes with open arms.

All during this frantic period, Navy officials in Norfolk were sending frequent and fervent appeals to Washington. After two years, the Navy is no more satisfied with the housing agencies than it is with the local realty groups. Although a great deal of Government housing is going up, it is again a story of too little and too late. Here is the statement of E. S. Smith, Housing Coordinator for the Navy in Portsmouth: "The Navy Yard has repeatedly informed the Bureau of Yards and Docks in Washington concerning the anticipated needs for housing. All of these requests were made after careful and conservative survey. As the Navy is not in the housing business, these requests were passed on to the Housing Coordinator. The reason the needed housing has not been provided in time is that the Navy's requests have been tossed about from one housing agency to another. Before finally approving any requests, field checkers were sent to verify the need. This entailed unnecessary delays. The delay in the housing program in this area can be traced directly to Washington." Principal reason for this was that Navy requests for housing had to pass through the office of the Housing Coordinator, which was committed to a policy of "stimulating private initiative," which, in Norfolk, was practically non-existent. Also, there has been a time-consuming lack of coordination. The Homasote Company's 5,000 demountable houses, for example, were held up 111 days between the issuance of the Government's letter of intent and the beginning of construction. This delay, the result of slowness in signing the contract, obtaining priorities and clearing title to the land, took almost as long as the scheduled construction time of 150 days. While a sizable percentage of the houses is now finished, Washington has not yet managed to put through any of the utilities. And yet, bad a job as Washington has done, the housing agencies are not entirely to blame.

Last August, Coordinator Palmer, doubtless weary of the Navy's pleas, asked the National Committee on the Housing Emergency to look over the Norfolk situation. The Committee pulled in the Virginia State Planning Board, which, under the direction of Hugh Pomeroy, went to work. A series of quick surveys was made, chiefly to establish locations for housing still to be built, and to provide a pattern for needed additional utilities. The essential problem, however: What is the housing need still to be met?—could not be tackled

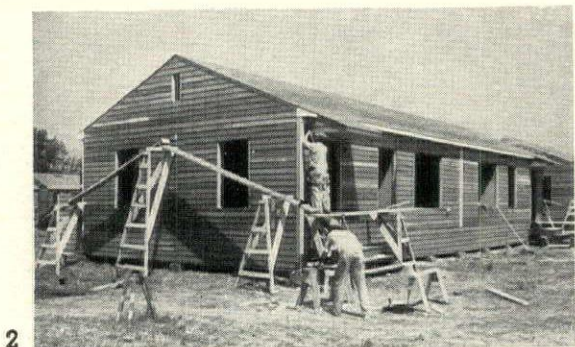
NORFOLK



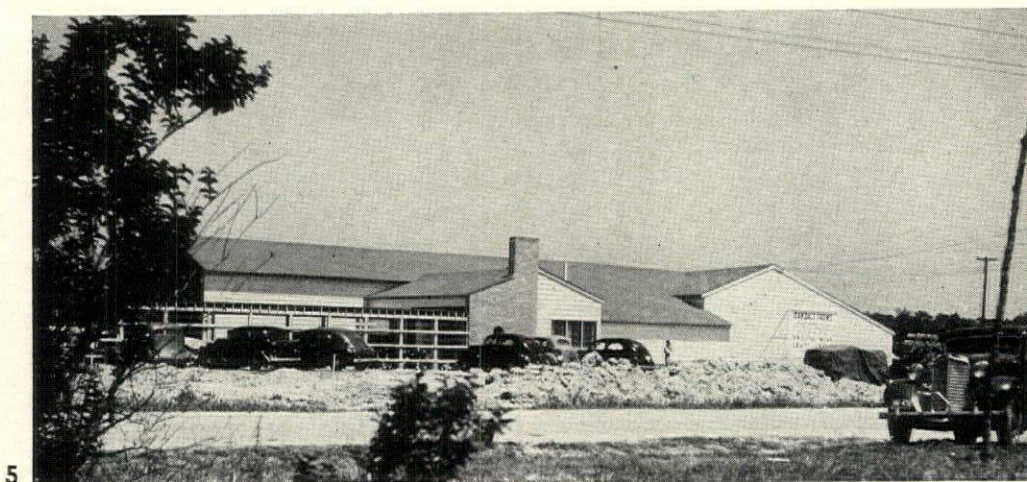
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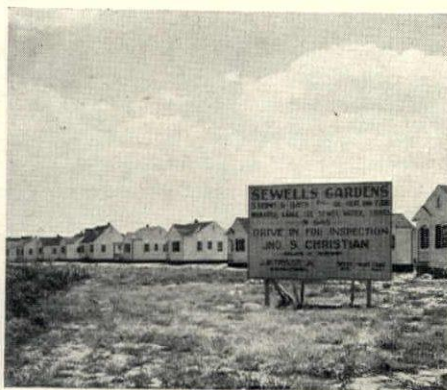
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7

OUTSTANDING projects in the Norfolk area are Barrett & Hilp's 5,000 demountables using Homasote "Precision Built" construction, and Levitt and Son's 750 privately financed, permanent, rental houses for Navy personnel. 1. shows two-man team spraying paint on Homasote houses at the rate of 25-30 per day, 2. "lean-to" scaffolding used for applying trim to these units, which requires no nails to hold it in place. 3. shows the plant in which the Homasote houses

are fabricated, a former fertilizer factory that now produces parts for 54 houses a day, probably the largest operation of its type anywhere in the world, 4. Rear Admiral Gygas opening the second section of the Barrett & Hilp project, 5. shows the field office of the Levitt and Son operation, later to be used for a drug store and super market, 6. a typical Levitt house, and 7. a forest of chimneys awaiting houses in the Levitt project.



TYPICAL new housing in the Norfolk area. Right hand picture shows the Navy's cooperative "Simonsdale" development.

because the necessary information was not put at the Board's disposal. Despite this insuperable handicap, and the lack of power to implement suggestions, the Planning Board nevertheless did something. It helped in the location of many thousands of demountable houses. Its studies of utilities and traffic will be useful if anyone ever decides to do anything about them. Its activities sum up what has been done about "planning" in the Norfolk area.

Oddest of the many odd things in the Norfolk story is that right now, after the years in which such data might have been assembled, nobody seems to know yet what the housing need is. The Real Estate Board felt that the need didn't exist even in 1940, when most of the new housing had not been started. The Navy Yard alone, according to its figures, wants accommodations for about 10,000 new workers and their families by next November. Promoter Shafer believes that after the present 25,000 units have been completed, 15,000 may still be lacking. But this is conjecture only.

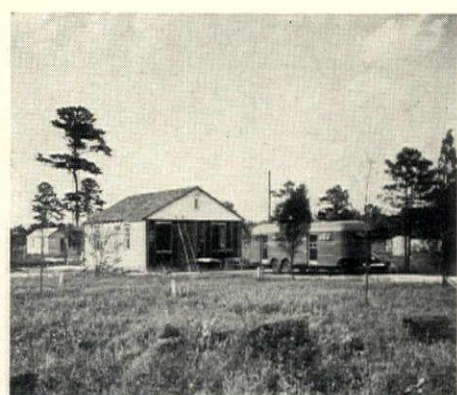
One possible way of checking performance against requirements would be to balance the population increase against new construction. Unfortunately, the figures here are none too precise. Estimates on population growth for the area average out at about 150,000. Remembering that no vacancies existed at the beginning of the emergency, the 20,000-odd units scheduled to date do not appear to be adequate. One thing is absolutely certain, and that is the very serious shortage which exists right now. This, incidentally, has produced a rent problem which has made almost as much trouble as the physical lack of shelter.

Rents have been going up quietly but steadily in the Norfolk area for some time. Recently they have continued to go up, but not so quietly. The OPA announcement that April 1, 1941 had been fixed as the "fair rent date" threw local property

owners into a frenzy of activity. "Fair rent" committees were established, conferences were scheduled, and the *Portsmouth Star*, in an editorial on April 28, urged city officials in the area to get together to avert the establishment of a Federal Rent Control Board. The Norfolk Real Estate Board expressed itself as being "somewhat confused" and made a survey which showed that rents had "not increased substantially." It urged that October 1, 1941 be substituted for April 1 as the "fair rent date" without explaining why, if rents hadn't changed much, this would make any difference.

To Admiral Gygax, Commandant of the Navy Yard, the situation seemed perfectly clear. In a recent statement to the local press he expressed his opinion that local property owners had no intention of correcting existing rental conditions, and further, that they were attempting to obstruct enforcement of any law that might correct such conditions. The wording could hardly have been stronger. He spoke of "disloyalty to the country's welfare" on the part of small owning groups, of their "selfishness and unwillingness to cooperate," and he warned that drastic action would be taken.

Worst of the abuses that have developed is the eviction racket. To avoid charges of raising rent, many owners have been serving 30-day eviction notices. At the end of this period a new tenant comes in at a higher rent, but neither the new nor the old tenant could truthfully say that his rent had been raised. The actual extent of this practice is not known, but the tall piles of letters from desperate workers with families, in the possession of Navy Yard officials, are quite sufficient to indicate its fairly widespread character and its seriousness. The house owners who have tried to do their part in mitigating the unpleasantness of an abnormal situation are probably much more numerous than the profiteers, but their activities have not been publicized.



MOST of the new housing is quite ordinary in appearance. Middle view shows how existing farmhouses are left standing.

NORFOLK

Norfolk, Va., May 6, 1942

Mr. E. S. Smith

New Gosport Housing

Portsmouth, Va.

Dear Sir:

I called your office this morning to see if you would help me find someplace to move. I would be well satisfied to have a trailer. After explaining my reasons to the office girl I was told to write you a letter.

Sometime ago I wrote you about getting a house. At that time there were three extra people living with me. Now there are 4 people less, as my mother located elsewhere and a week ago I lost my little girl. She died of pneumonia.

I explained to you in my first letter the condition this house is in and someone is always sick as this house is very drafty, full of holes in the floors and doors. The toilet room is always wet due to leaky

plumbing which has been that way for years according to a previous tenant. The sink drain is bursted under the house and water stands under the kitchen all the time and the floor is always damp.

When my baby died I had my rent in my pocket but fearing something would happen I held it and the day my baby was buried I explained to the agent and asked him to wait one week as I had no insurance on my baby and it took every cent I had for the doctor and undertaker. Mr. Abbott (the agent) said it would be all right so just as soon as I had paid it out he got a court order to make us move instead of waiting as he had promised.

So, I must have a place by next week the 11th or I will just have to leave the Navy Yard and go back home. I can't find a place anywhere.

I would be truly grateful if you could

just find me a trailer to live in until I can get one of your houses. There is just myself, wife, one baby 3 years and one aged 2.

I'm not angry with the owner of this place but the health department should force him to make it a decent place to live in.

Since coming to Norfolk a year ago I have been unable to locate a place where I could stay permanently and it is very expensive to keep moving about. I don't owe anyone a cent for rent except for this past month here which I am perfectly willing to pay.

I'll be anxiously waiting to hear from you and hope you will be able to help me as I like my work and only ask for a chance to take care of my family.

Yours truly,

(Signed) HARRY C. BOSTAIN

TYPICAL LETTER (ABOVE) to the Navy's housing coordinator selected from hundreds received in the past few months.

The conclusions to be drawn from this tale of confusion, chicanery and ineptitude are not flattering to the local interests which have been so stingingly excoriated by the highest ranking Navy officials in the area, nor do they reflect much glory on the housing agencies in Washington. Nevertheless, these are not the real villains of the piece.

Consider the position of the real estate groups. It is true that they have not produced a single constructive, disinterested suggestion since the war program began. It is even possible that the difficulties they will undoubtedly face after the shooting is over will have been richly deserved. But there is this to remember: a comparatively small area was suddenly confronted with an emergency not of its making, with a program over which it had no control, and with a problem no aggregation of small communities could hope to cope with. Norfolk—and this goes for the whole area—is now a one-industry town, and that “industry” has expanded to a point far beyond the capacity of existing community facilities. Remember too, that none of the towns has any way of predicting how this gigantic operation is going to function next year or ten years from now. In a town dominated by an airplane factory, for instance, there is at least some hope for a continuation of activity after the war: Navy production, however, holds out no such hope of conversion. Norfolk property owners took a terrific beating after the last war. Employment went down to half, vacancies went up to more than 20 per cent, and a great deal of foolish and greedy speculative building bounced back into the unwilling laps of the banks. The fear of a repetition of these events at the conclusion of the present war is entirely understandable, and quite natural.

Consider also the housing agencies in Washington. National policy has dictated cooperation with local real estate interests whenever possible; but here was a situation too big for any kind of local group. There is also the point that the housing agencies have jobs to do, which do not include planning in its larger aspects. Norfolk, after all, is getting a tremendous number of houses, most of which are being provided by these agencies or as a result of their efforts. But it is not possible to put up 20,000 to 25,000 dwellings in an area of this size without creating many other problems the housing agencies have no power to solve.

Superficially the Navy's actions appear to have been admirable. Officials have been clear in their statements on the urgency of the need, and they have been forthright in their demands. Unfortunately, the statements and the demands came too late. During the years of peace, when the Navy was making its plans to meet any conceivable military emergencies, the secondary effects of putting these plans into operation should have been considered. It should have been reasonably clear that if “Plan B,” for instance, called for so many shipyards in the Norfolk area, the required housing would also have to be built, and at the same time. It is true that the Navy is not in the housing business. But it is equally true that only the Navy was in a position to give out the information that would have made planning for housing possible. Such planning, to be effective, would have included studies of utilities, roads and other facilities, and the community's part in any program would have been clearly defined. But such a program of planning implies a unified, coordinated activity on the part of the Government, in which local authorities, Federal housing agencies, State Highway departments, the Navy and all other groups would play their proper parts. That no such activity exists, that planning is merely a concept and a not very widely accepted one at that, is the reason for the present situation in Norfolk.

WHAT TO DO

In Norfolk as elsewhere war housing must be redefined. The four-walls-and-a-roof concept must be broadened to admit the building of utilities, roads and if necessary reservoirs; reconstruction as well as construction; rationing and rent control as well as operation of newly created projects. Neither the NHA nor any of its sub-agencies presently has the power thus to control the whole housing picture. But, in areas such as Hampton Roads, the Navy has. If the Navy really wants housing, it must invest with its emergency powers a special area office of NHA—a “unified command” charged with the job of coordinating all efforts to accommodate workers in the district, to keep them in the district, and to maintain their efficiency and morale. If the burden of responsibility for the execution of this job seems tremendous, so is the need.

MASS PRODUCTION AIRPLANE PLANT



Photos, Hedrich-Blessing

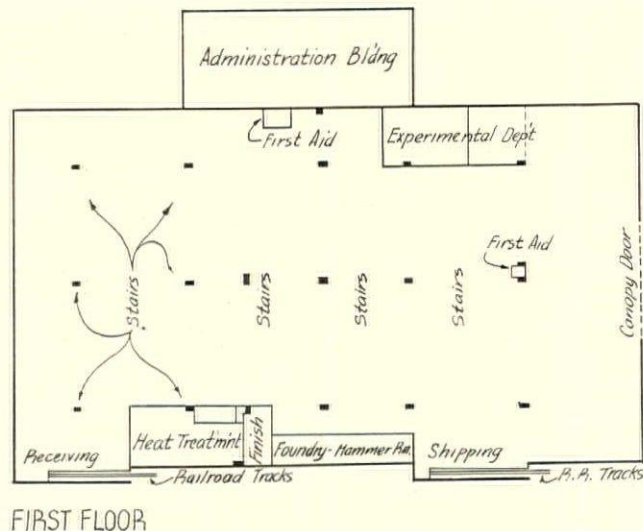
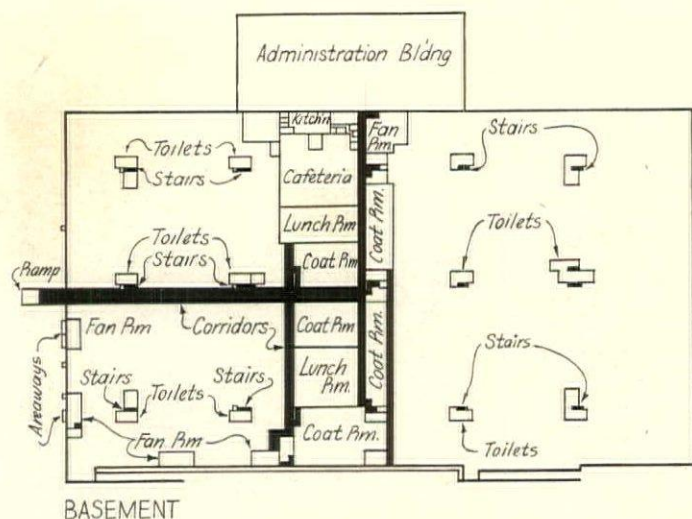
This huge plant for the mass production of trainers and practical planes was built over and around an existing factory without interrupting production. As portions of the new plant—which is several times the size of the original building—were completed, manufacturing operations were transferred to the newly completed areas; ultimately, when all departments had been set up in the new factory, the old structure was quickly dismantled and the new one finished. Completed within a year, the new plant consists of a huge manufacturing building, an engineering building and an administration building—joined together for maximum coordination of operations.

ALBERT KAHN

ASSOCIATED ARCHITECTS AND ENGINEERS, INC.

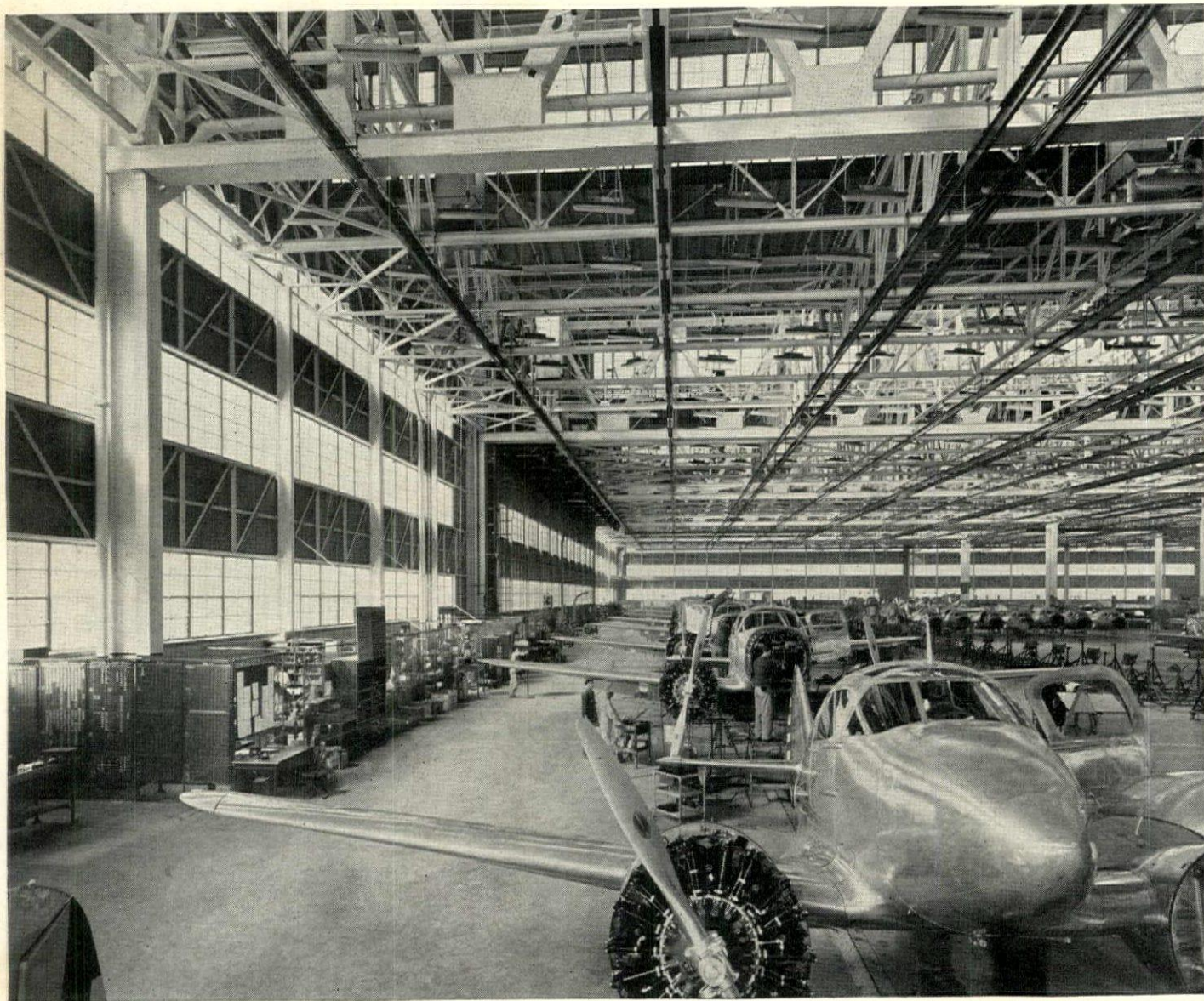
For this and other major contributions to the war effort, Architect Kahn will this month receive a special medal at the American Institute of Architects' annual meeting.

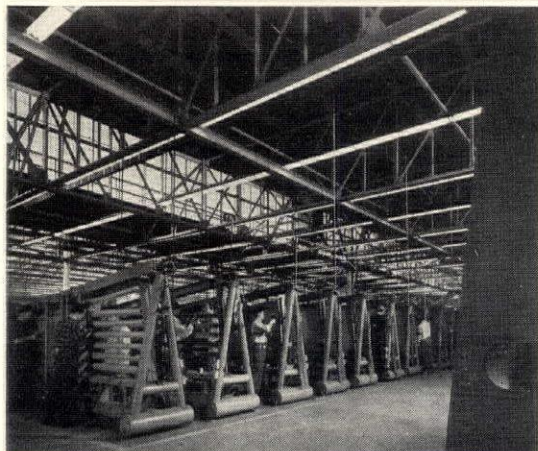
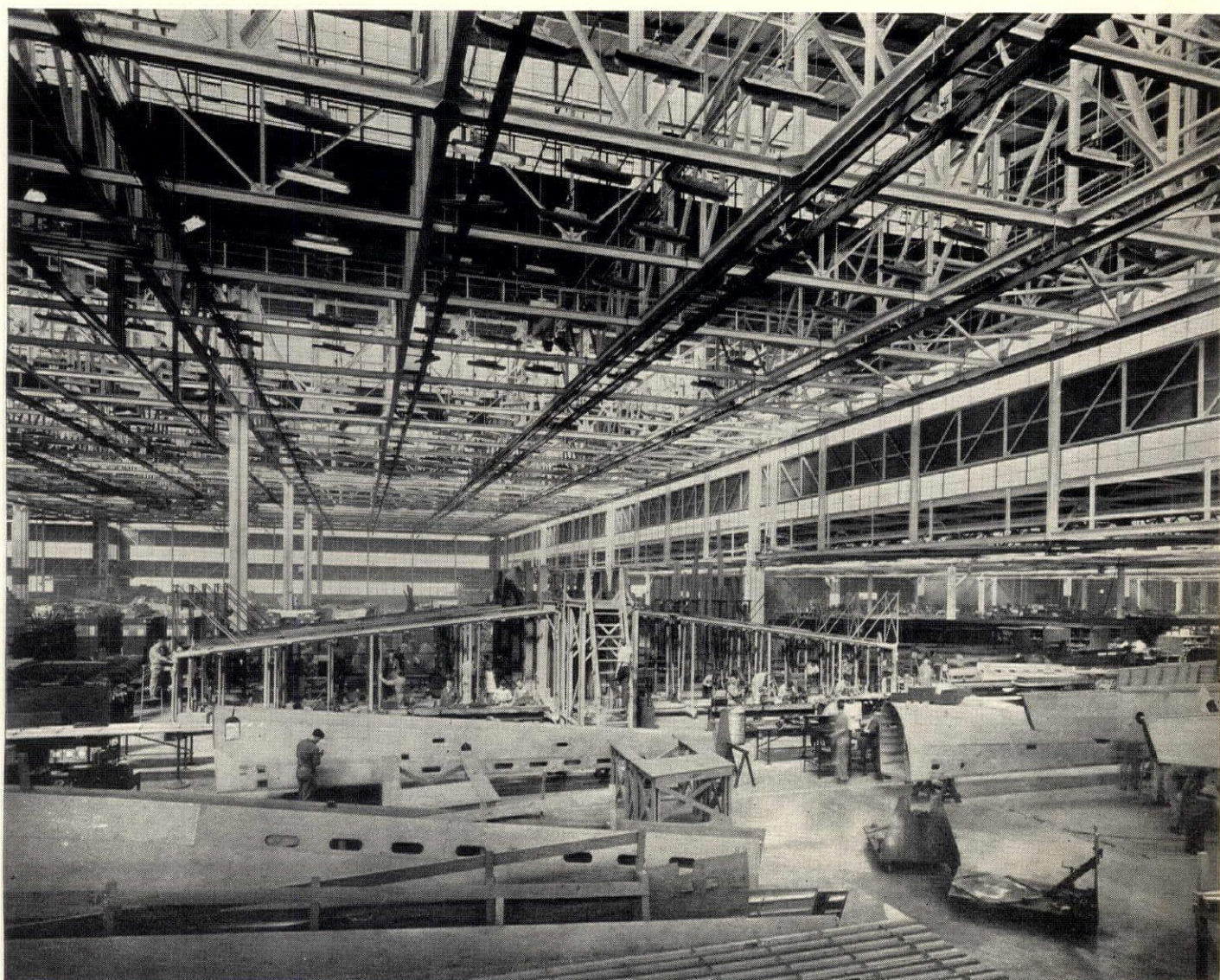
AIRPLANE PLANT



The manufacturing building is built on the two-level principle, with employe circulation, lunch and locker rooms, and toilets beneath the main manufacturing floor. This arrangement keeps pedestrian traffic on the production floor to an absolute minimum, especially at shift-changing time, locates employe toilets close to the machines for maximum convenience and provides ready-made air-raid shelters for the manufacturing personnel. The production floor is divided into three sections, one for manufacturing, one for sub-

assembly and one for final assembly. The low-bay, manufacturing area occupies about two-thirds of the total floor space and is divided into 50 by 100 ft. bays, with 20 ft. headroom. The high-bay area, at one end of the plant, has a 200 ft. section for sub-assembly with 100 by 100 ft. spans and a second section of 200 ft. in which the trusses span the entire width, used for final assembly. Overhead clearance in both sections is 40 ft. from the floor to the bottom chords of the trusses.

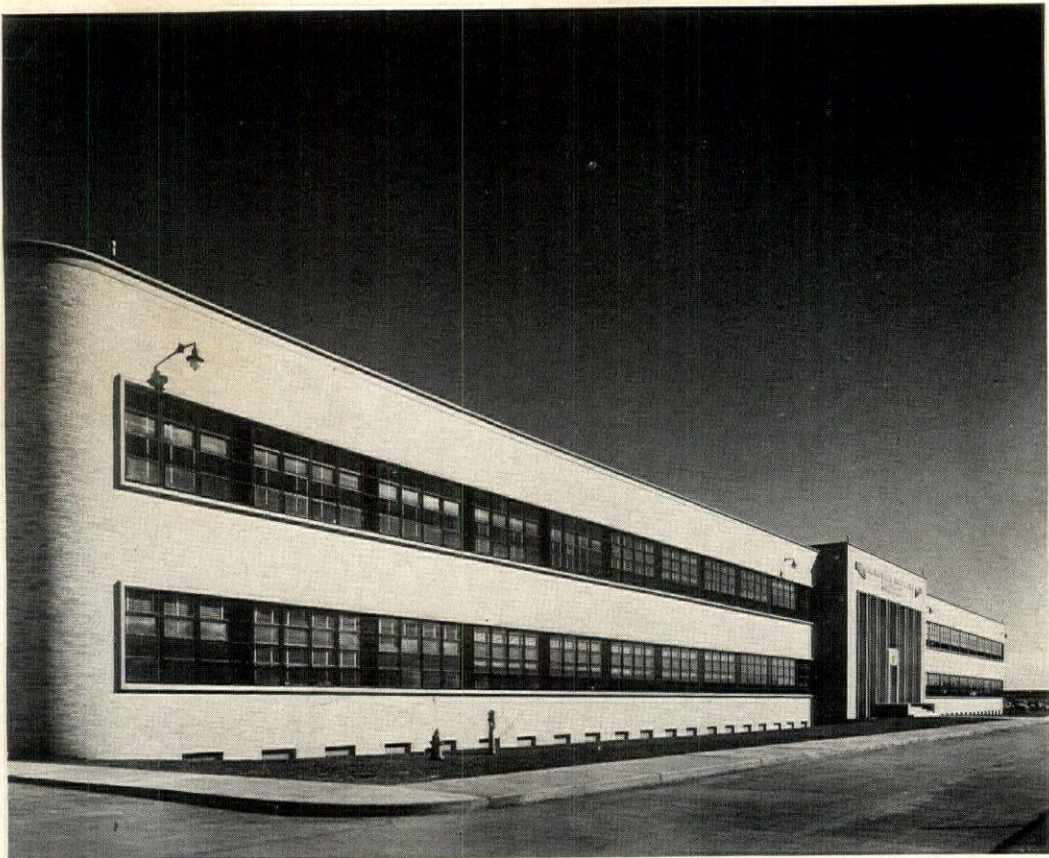




Large pictures, above and on the facing page, show the final assembly department in which the trainers and transport planes take shape. Huge hanger doors, 40 by 200 ft. communicate between this section of the plant and the airport, and spur freight lines run into the building at both receiving and shipping departments. Smaller pictures (left) show portions of manufacturing area.



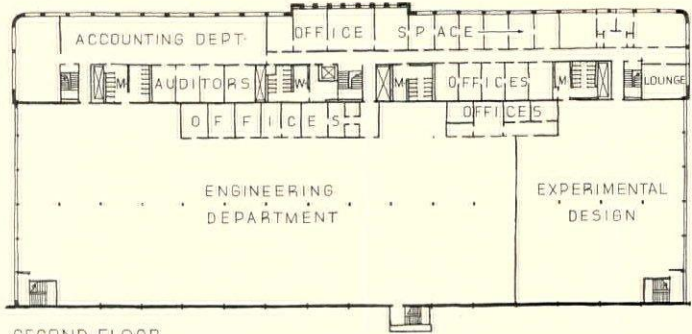
AIRPLANE PLANT



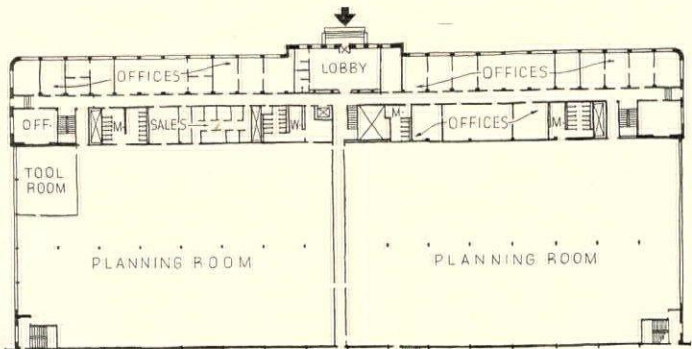
ADMINISTRATION BUILDING

The administration and engineering buildings adjoin one side of the plant in the form of a twin structure divided according to function into smaller executive offices and the huge, open engineering department and planning rooms. This portion of the plant is air conditioned and has recessed fluorescent lighting. Exterior walls are buff brick, continuous sash are steel. The engineering department receives natural light from four sawtooth monitors facing north, and is divided into 25 by 60 ft. bays, with reenforced concrete floors and roof. Offices and engineering rooms have acoustical ceilings.

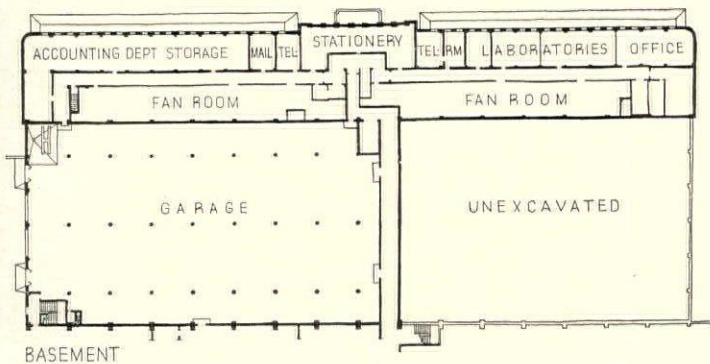
RECEPTION ROOM



SECOND FLOOR



FIRST FLOOR



BASEMENT

DRAFTING ROOM



TYPICAL OFFICE



CONFERENCE ROOM



CONSTRUCTION OUTLINE

FOUNDATION: Reinforced concrete. Waterproofing—Truscon Laboratories.

STRUCTURE: Exterior walls—brick and tile; inside—Ar-ke-tex Ceramic Corp. tile and hollow metal partitions, Niedringhaus, Inc. Ceilings—plaster and Acousti-Celotex, Celotex Corp.

ROOF: Bonded tar and gravel, Koppers Co.

WINDOWS: Sash—Fenestra industrial and casement, Detroit Steel Products Co. Glass—Libbey-Owens-Ford Glass Co. Glass blocks—Pittsburgh-Corning Corp.

ELEVATORS: Otis Elevator Co.

FLOOR COVERINGS: Linoleum, carpet, asphalt tile.

WALL COVERINGS: Flexwood, U. S. Plywood Co.

WOOD AND METAL TRIM: Trim—hollow metal and walnut. Garage doors—Richard-Wilcox Co. Loading doors—Kinnear Mfg. Co. Hangar doors—Truscon Steel Co.

HARDWARE AND DOOR CLOSERS: Allith-Prouty Co., Reading Hardware Co. and Bommer Spring Hinge Co.

ELECTRICAL INSTALLATION: Conduit—Orangeburg Fibre Conduit Co., Triangle Conduit Co. and National Electric Products Co. Underground cable—General Cable Corp. Wire—Hazard Insulating Wire Works and Parante Wire Co. Conduit fittings—Killark Mfg. Co. Outlet boxes—National Electric Products Co. Switches and receptacles—Harvey Hubbell Co. and Russell & Stoll Co. Fixtures—Crouse Hinds Co., General Electric Co., Benjamin Electric Co., Daybrite Mfg. Co., Thompson Electric Co. Safety switches—Cutler Hammer Co., Frank Adam Electric Co., Bull Dog Electric Co., James R. Kearney Co., Ite Circuit Breaker Co., Allis Chalmers Co. Other equipment—General Electric Co., Maloney Electric Co., Jefferson Electric Co., Sorgel Electric Co., Westinghouse Electric & Mfg. Co., Ite Circuit Breaker Co., Frank Adam Electric Co., Bulldog Electric Co.,

Edwards Electric Co., RCA Co., International Time Co.

PLUMBING: Fixtures—American Radiator-Standard Sanitary Corp. Soil pipes—American Cast Iron Pipe Co. and Alabama Pipe Co. Water closet connections—National Lead Co. Hot and cold water pipes—A. M. Byers Co. American Brass Co.

HEATING AND AIR CONDITIONING: Radiators—Trane Co. Thermostats—Minneapolis-Honeywell Regulator Co. Valves—Crane Co. Air conditioning: Blower fans—N. Y. Blower Co. Propeller fans—American Blower Co. Filters—American Air Filter Co. Coils—McQuay Co. and Westinghouse Electric & Mfg. Co. Refrigeration compressors and condensers—Ingersoll-Rand, Westinghouse Electric & Mfg. Co. Grilles—Register & Grille Co. Ceiling outlets—Air Devices, Inc. Automatic control—Johnson Service Co. Motors and starters—Century Electric Co. and Westinghouse Electric & Mfg. Co.

FREIDERICA HOTEL

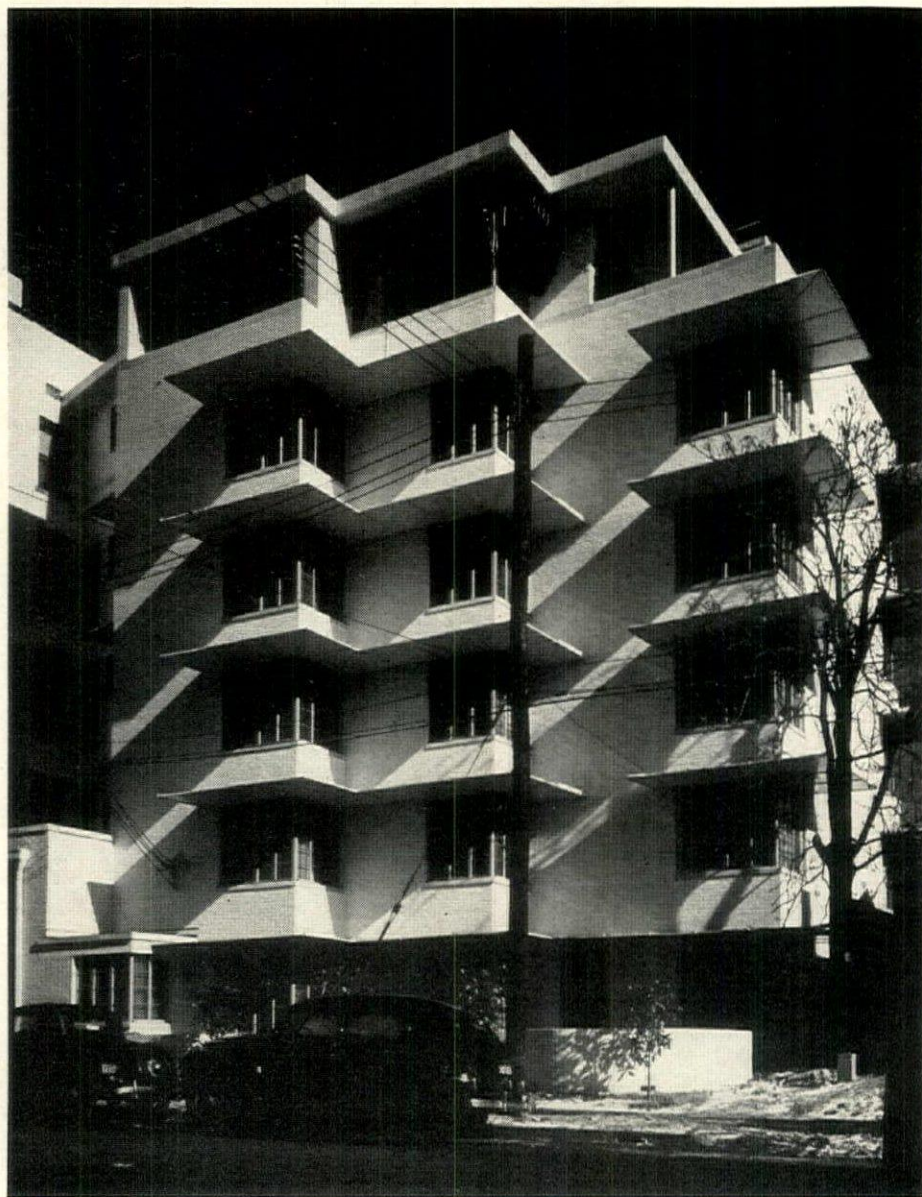
LITTLE ROCK, ARK.

Unusual as an example of hotel design anywhere, this modern building is particularly remarkable in view of its midwest locale. Built in reenforced concrete as an annex to an existing building, it was planned on the set-back principle so as to give all of the rooms southern exposures and corner windows. Projecting hoods shield the windows from the noonday sun, and all of the rooms are air conditioned. The first floor of the annex contains a new dining room (facing page), known as the Magnolia Room, decorated with murals carrying out this theme, and provided with spun glass draperies. Furnishings are of bleached mahogany with woven cane chair backs to further the illusion of a tropical setting, tables have center pedestals carved to simulate giant bamboo. Opening off the Magnolia Room is a sidewalk cafe, shielded from the street by a serpentine brick wall, and shaded by magnolia trees.

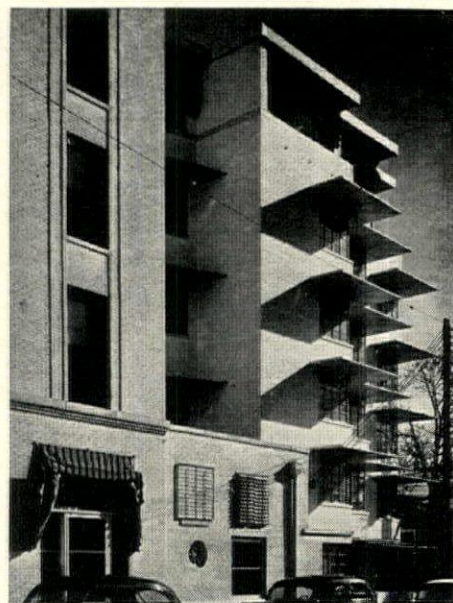


ORIGINAL BUILDING & ANNEX

NEW BUILDING



Photos, Jean St. Thomas



H. RAY BURKS, ARCHITECT, EDWARD D. STONE, CONSULTANT



DAN COOPER, INTERIOR CONSULTANT
R. T. HIGGINS, GENERAL CONTRACTOR

DINING ROOM

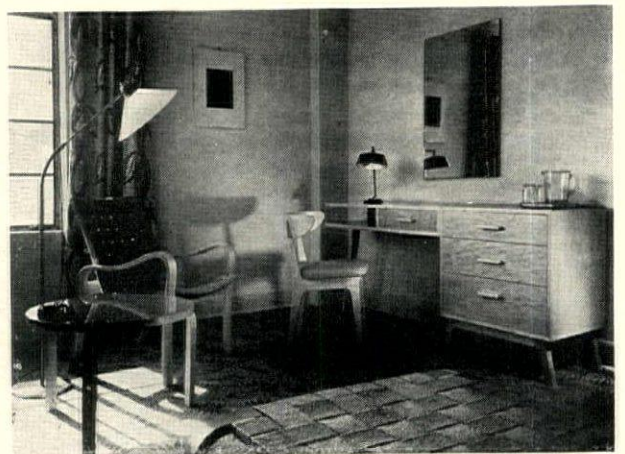
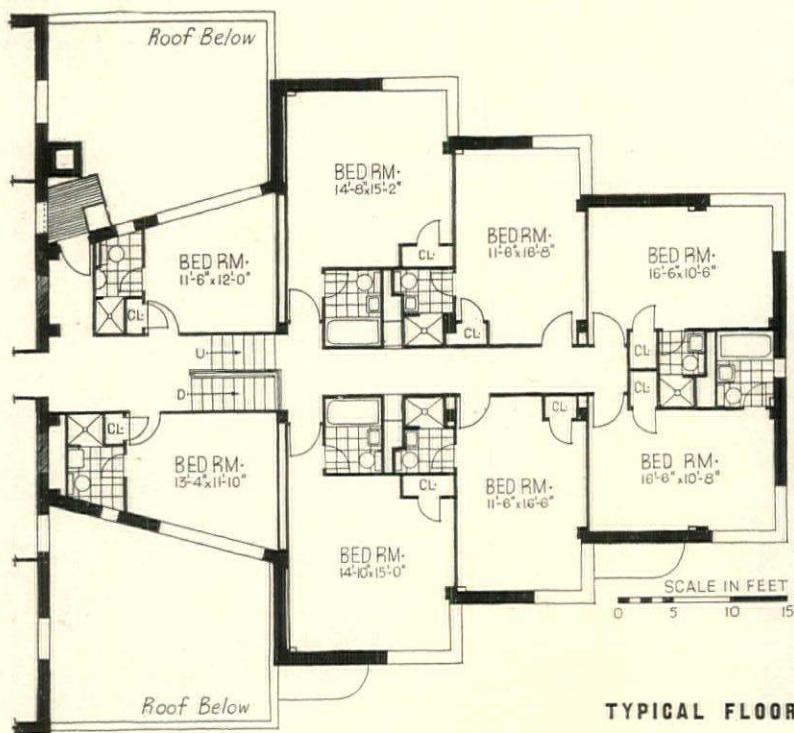


TYPICAL HALL



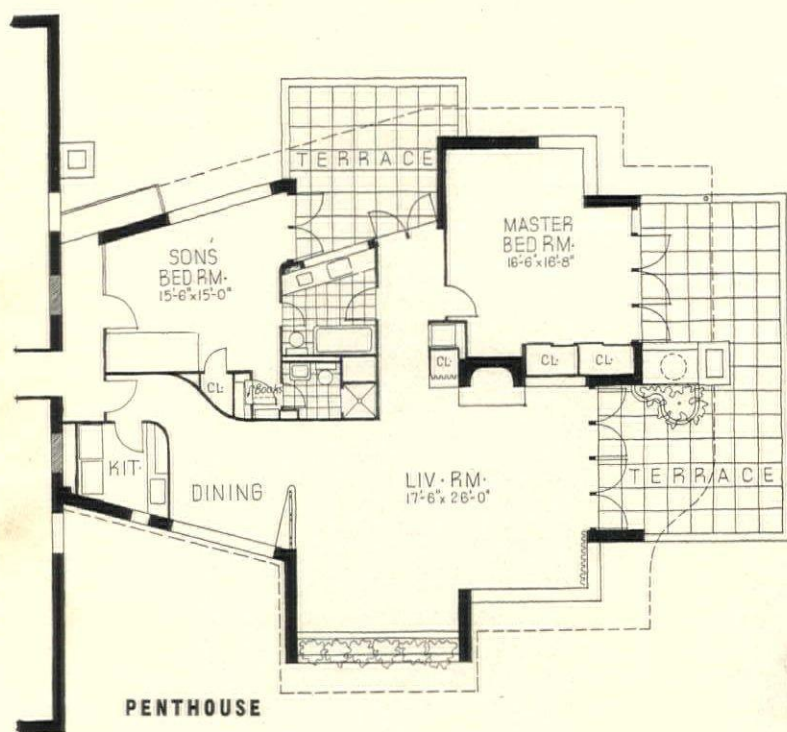


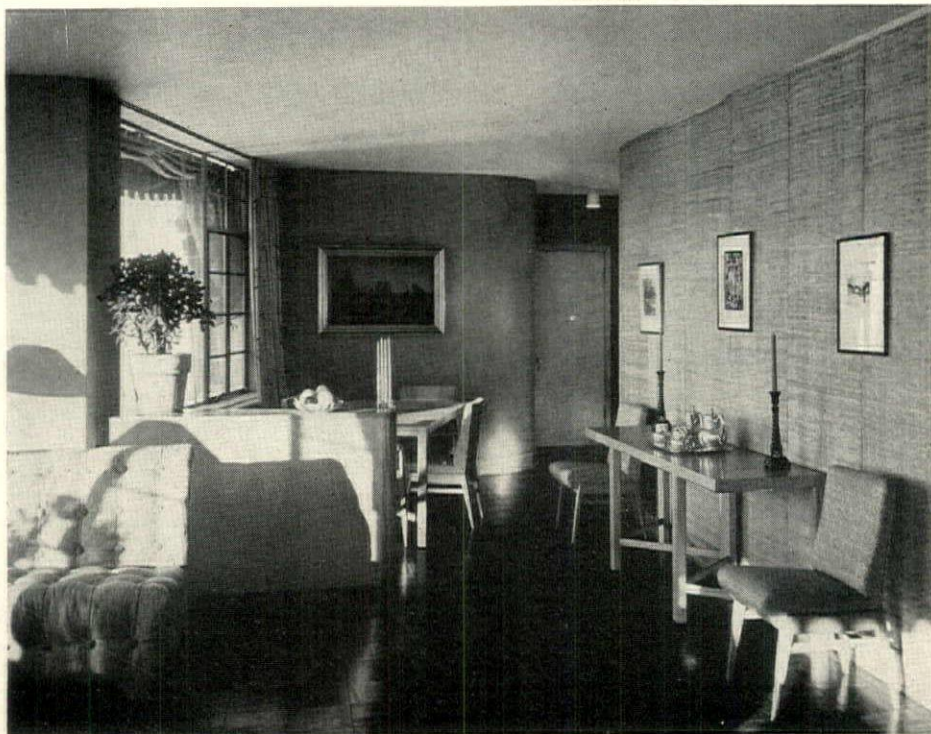
The forty guest rooms in the annex have five different furniture schemes. One such scheme is by Artek-Paskoe using furniture designed by Alvar Aalto and constructed of birch with table tops of cigarette- and alcohol-proof laminated plastic. Rooms are designed to serve as sitting rooms during the daytime, bedrooms at night. Walls are in soft, neutral shades, accented by colorful drapes at the corner windows, which have metal Venetian blinds.



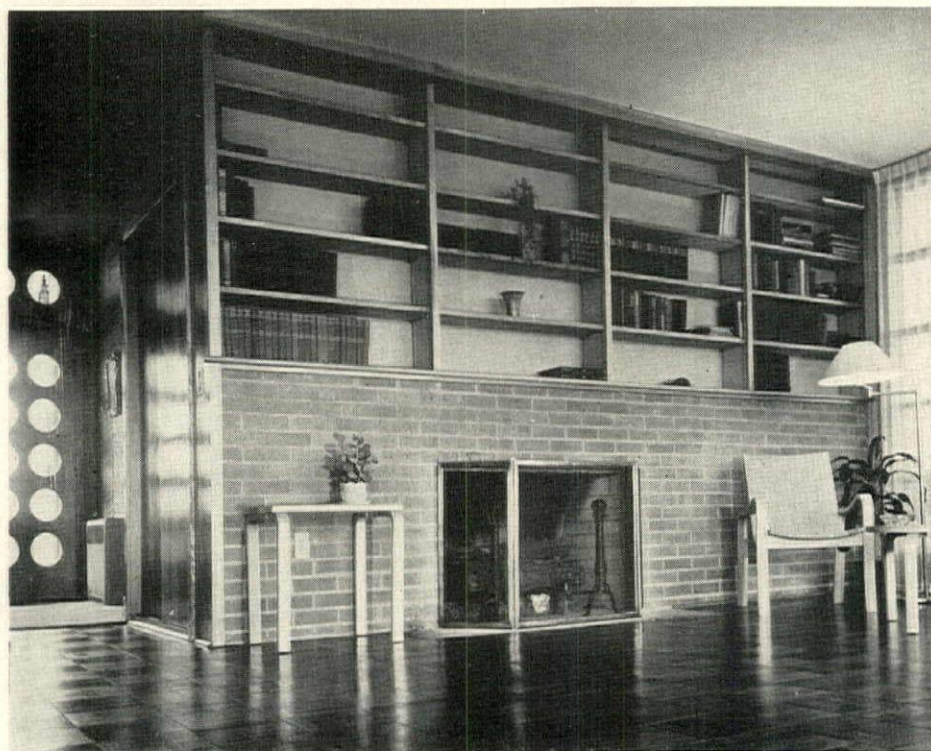
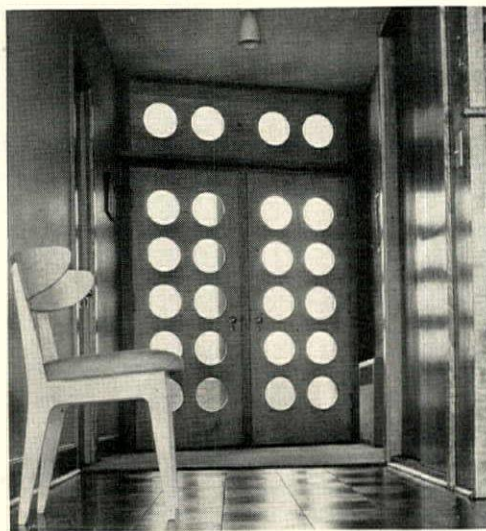


The entire top floor of the annex is occupied by a penthouse suite, which is leased. This apartment contains a large living-dining room, two bedrooms and a kitchen, and has two open-air terraces. Lighting is built-in and indirect, the living room floor is of walnut marquetry, and the curved wall opposite the entrance is covered with Madagascar raffia.





Picture No. 1 at the left shows a view of a private penthouse living-dining room, looking towards the entrance, No. 2 shows a view of a corner of the master bedroom, No. 3 the double doors between the bedroom hall and terrace, and No. 4 the fireplace wall of the living room.



CONSTRUCTION OUTLINE

STRUCTURE: Interior partitions—channel and metal lath. Columns and beams—reinforced concrete; steel for penthouse and roof. Floors—concrete.

ROOF: Tar and gravel, Philip Carey Co. Deck—steel, Wheeling Steel Corp.

INSULATION: Roof—Celotex, Celotex Corp. **WINDOWS:** Sash—metal casement, Hope's Windows, Inc. Glass—double strength, quality A.

WALL COVERINGS: Penthouse—paper and matting.

WOODWORK: Trim and exterior doors—pine. Interior doors—birch.

HARDWARE: Yale & Towne Mfg. Co.

PAINTS: Stebbins & Roberts, Inc.

ELECTRICAL INSTALLATION: Wiring—conduit. Switches—General Electric Co. Fixtures—Moe Bros.

PLUMBING: Fixtures—Crane Co. Cold water pipes—galvanized. Hot water pipes—copper.

HEATING AND AIR CONDITIONING: Two pipe steam system. Air conditioning—Zerh-air cooling units, Hunter Fan & Ventilating Co. Boiler, radiators, grilles, valves and water heater—Crane Co. Pump—Nash Engineering Co.

OFFICE BUILDING, FOR THE NEW ENGLAND MUTUAL LIFE INSURANCE CO.

CRAM & FERGUSON, ARCHITECTS

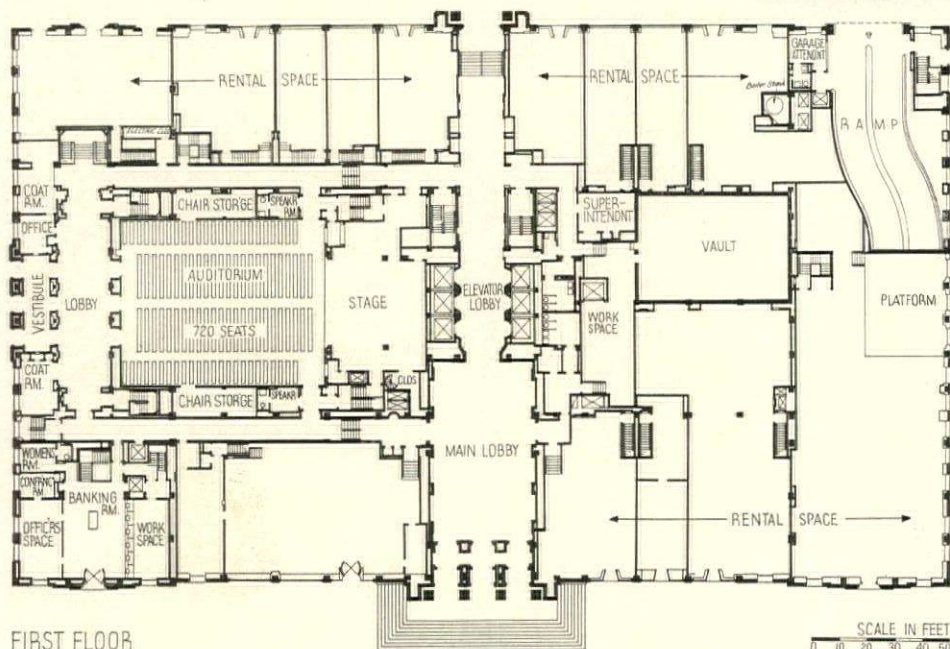
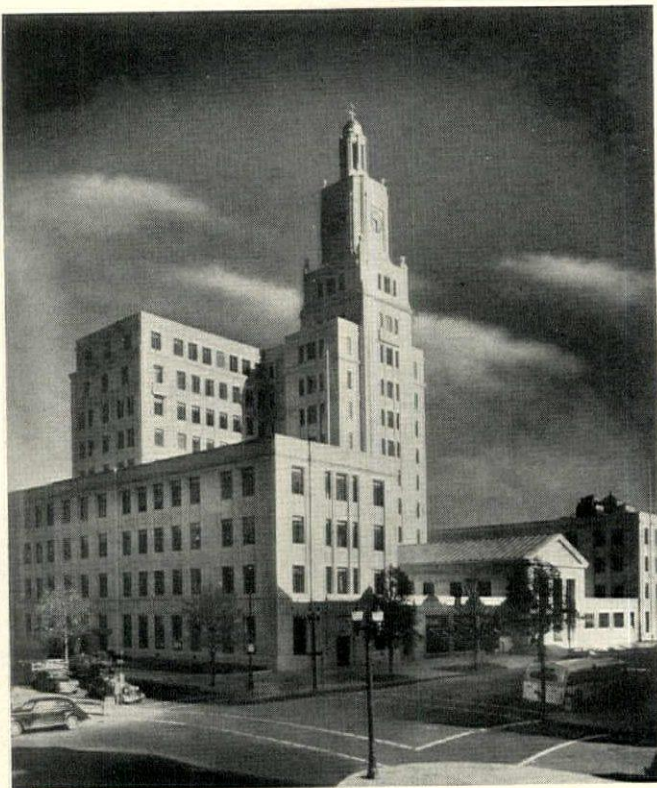
TURNER CONSTRUCTION CO., GENERAL CONTRACTOR

Photos, Paul Davis



OFFICE BUILDING

The insurance company office building forms a type by itself. Reflecting the long-term and stable character of the business, it is generally monumental in appearance, constructed of durable materials and handsomely finished. As in this example, the architectural treatment is usually conservative. The New England Mutual building is located in the center of Boston's hotel district, an area rapidly gaining importance as a shopping district. Covering a city block, the building is arranged with a main central mass going up ten stories to a tower, with four-story wings at each end. There is a parking garage in the basement and a large auditorium on the first floor. Aside from the small amount of rental space at this level, the entire building is used for the company's 1,800 executive and office employees. Provisions for expansion have been made, with foundations and plumbing lines adequate for a ten-story unit across the front and extension of the wings to the same height. The present massing of the building is agreeable and well calculated to give good light to the working spaces, features which will suffer if the proposed expansion is undertaken. Despite the conventional, rather dated appearance, the building is ultra-modern in every important respect. It contains the largest installation of dry walls yet made, is equipped with the last word in lighting fixtures and has very complete acoustical treatment.

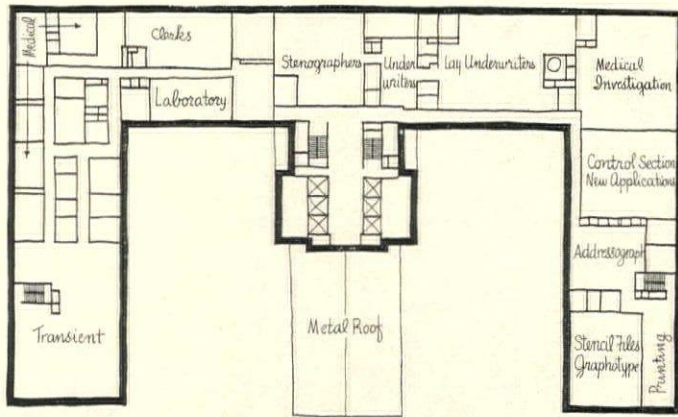


AUDITORIUM

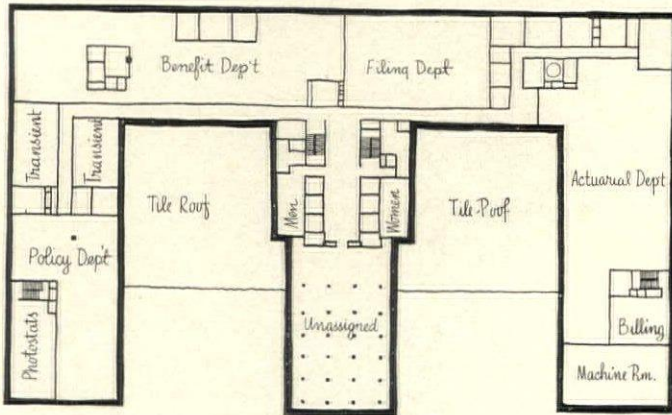


BANK

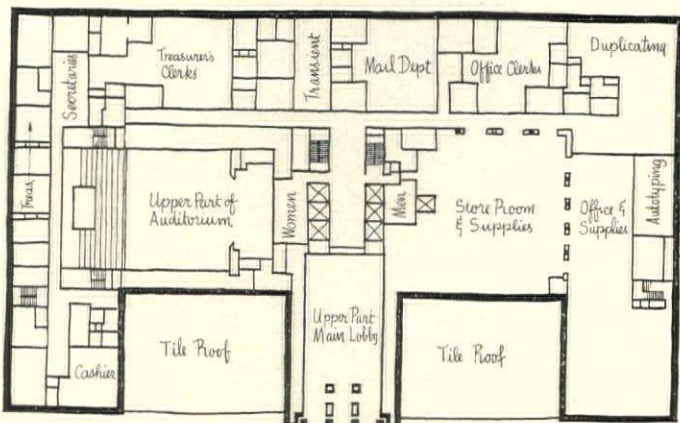




FOURTH FLOOR



THIRD FLOOR

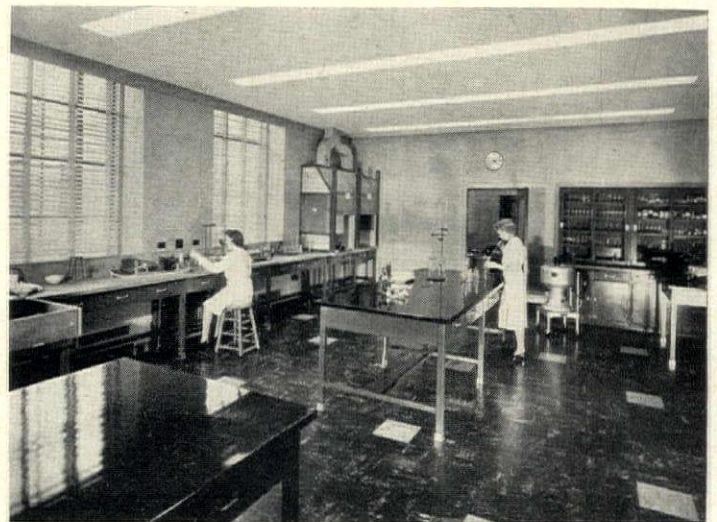


SECOND FLOOR

PRIVATE OFFICE



GENERAL OFFICE



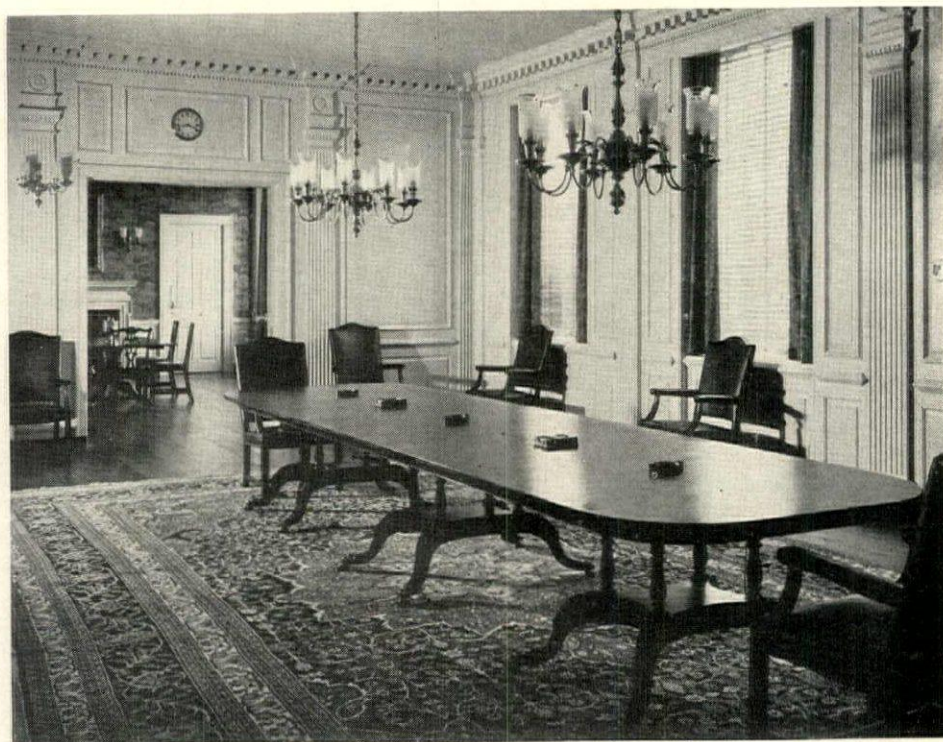
LABORATORY

The illustrations show one of the large general office spaces, a laboratory and two smaller offices. All have common features: the acoustic ceilings, built-in direct lighting units, and dry walls and partitions. An important difference between this building and the standard type of rental office building is shown in the plans, especially in the relationship between the elevator banks and the adjoining floor space.

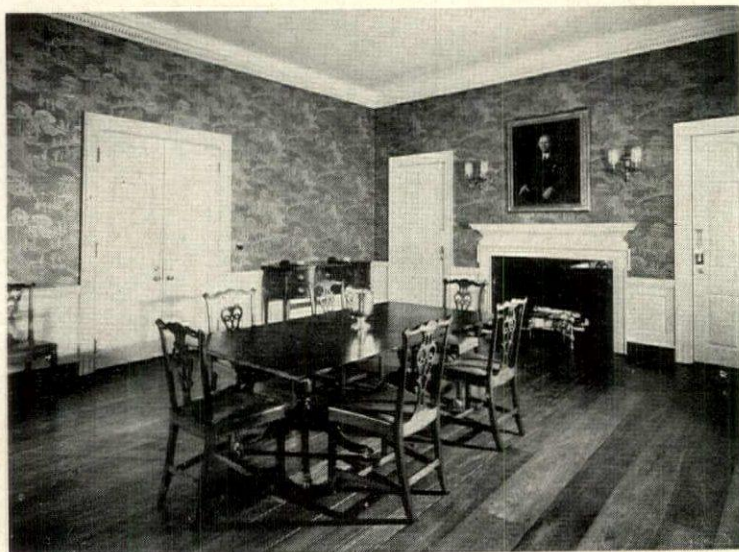
RECEPTION ROOM



OFFICE BUILDING



DIRECTORS' ROOM

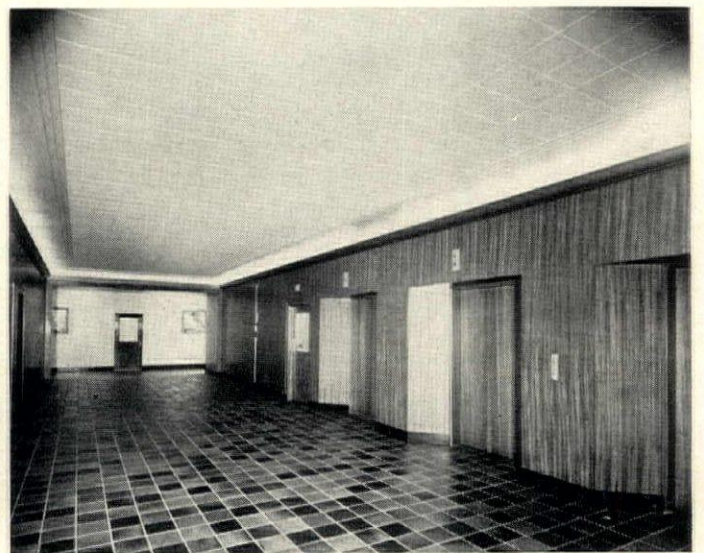


DINING ROOM

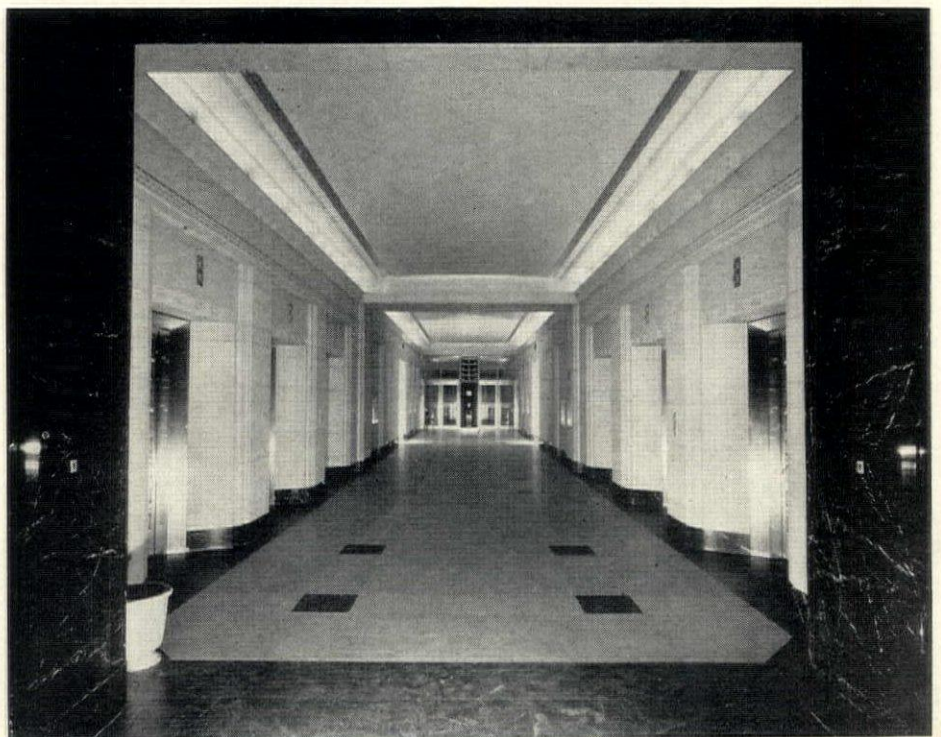
Characteristic of the interior treatment of the building is the extremely wide style variation between one set of rooms and another. These period interiors, for instance, have no apparent design relationship with any of the work spaces or smaller offices. Very reminiscent of the Williamsburg restoration, these rooms succeed admirably in creating the desired impression of a substantial institution. Except in the president's office, where a few concessions to modernity have been made, all furniture and accessories have been chosen to conform to the style of the period.



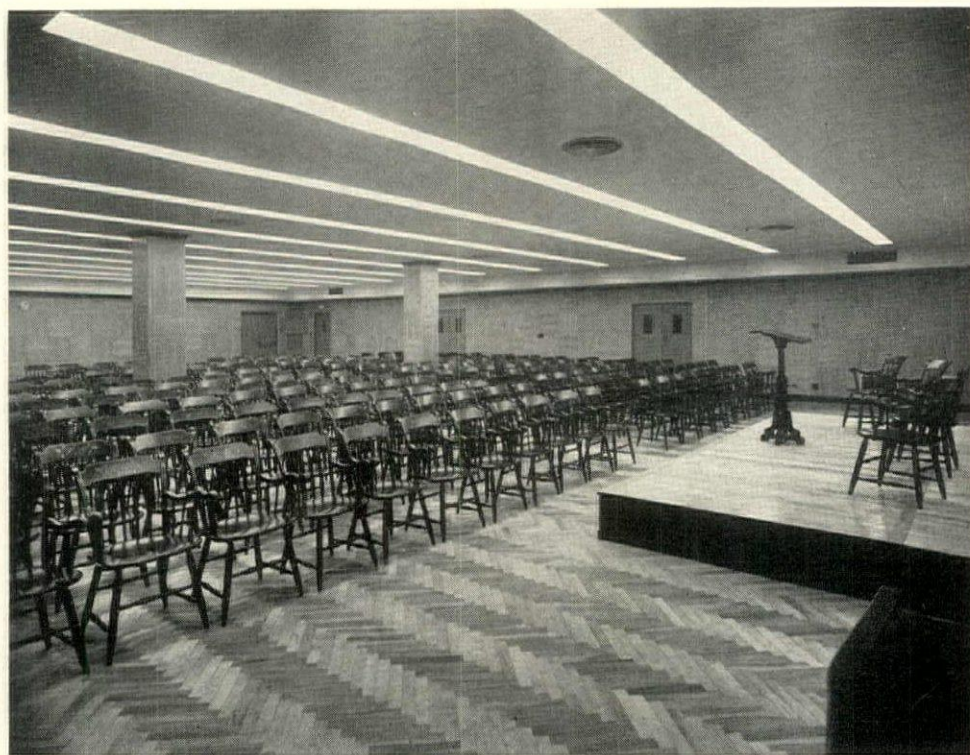
PRESIDENT'S OFFICE



Nowhere in the building are the shifts in style more apparent than in the elevator lobbies on the various floors. Treatments range from direct and simple uses of tile and wood veneer to modernized Classic and Georgian.



OFFICE BUILDING



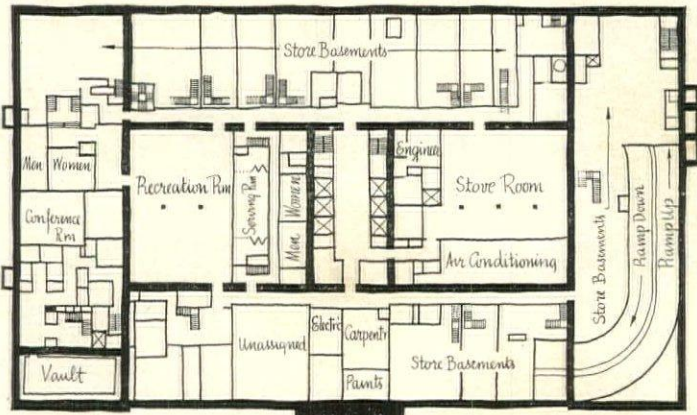
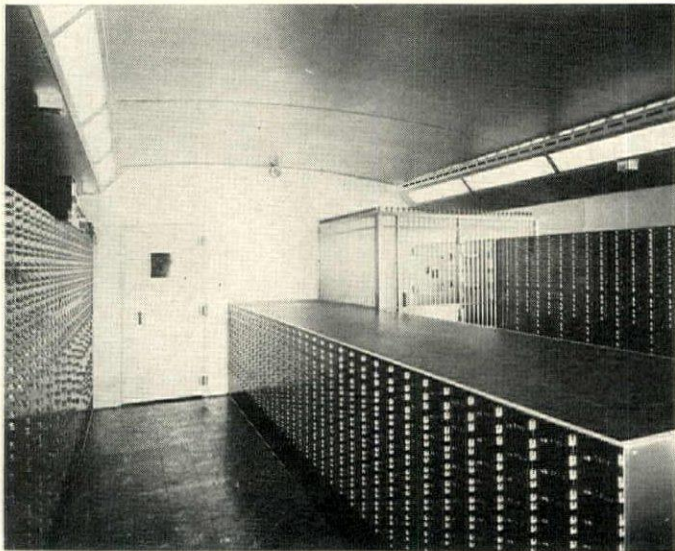
RECREATION ROOM

One of the features of the building is the sub-basement parking space, reached by two broad ramps from the street. As shown in the plan below, there are several areas, separated from each other by masonry walls, which are used for this purpose. Some idea of the size of the garage space may be gained by a comparison of the photograph of the ramp with the skeleton plan at the bottom of the page.

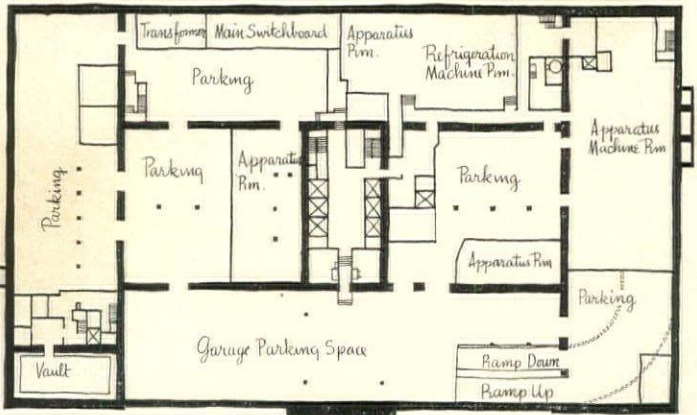


GARAGE RAMP

BANK VAULT



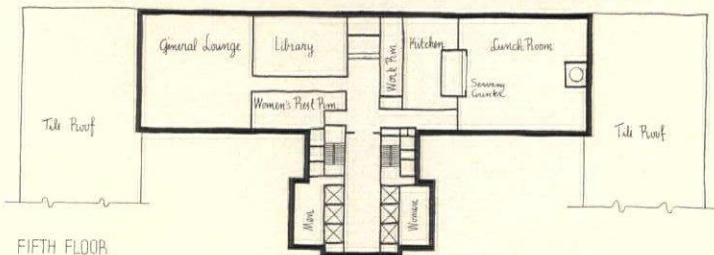
BASEMENT



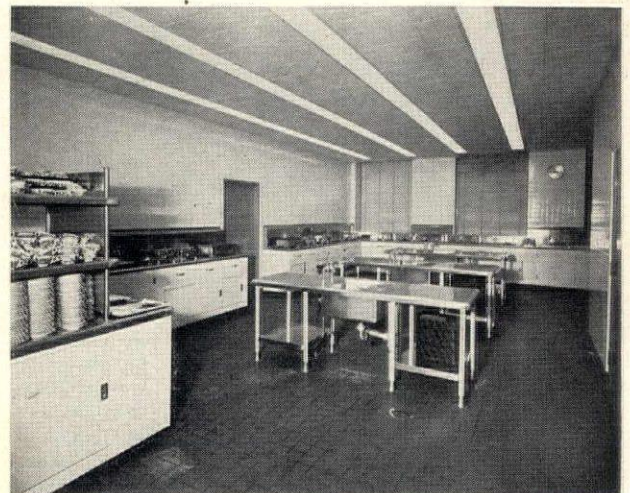
SUB BASEMENT



LUNCH ROOM

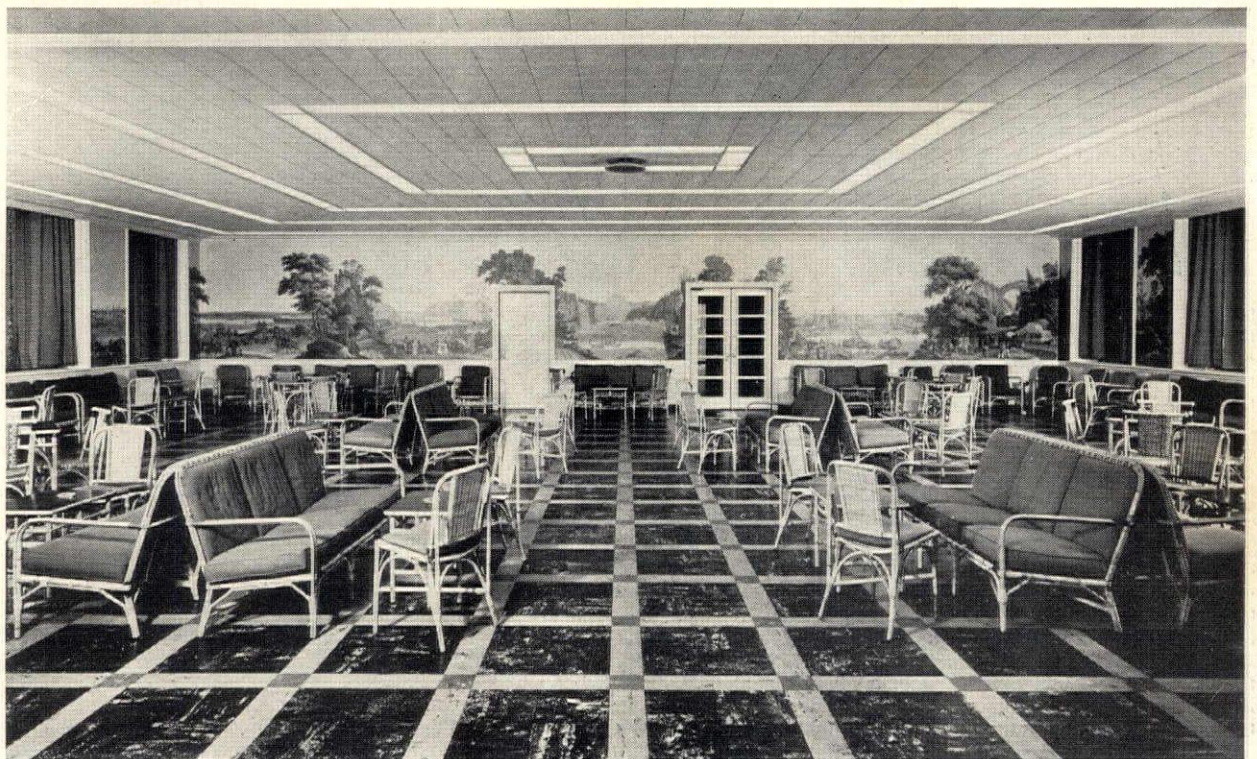


Facilities for the employees are excellent. In addition to the large recreation room illustrated on the facing page, there is an even larger space reserved for the lunch room, library and lounge, which with their services, take up the entire fifth floor. The kitchen, shown at the right, is beautifully equipped.



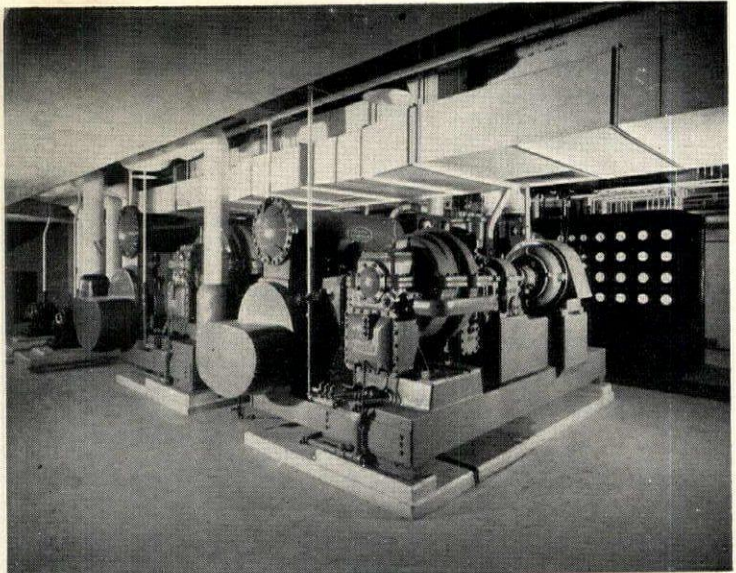
KITCHEN

GENERAL LOUNGE





STAIR DETAILS



CONSTRUCTION OUTLINE

FOUNDATIONS: Concrete. Waterproofing—Western Waterproofing Co. Cement—Copley Cement Co., Penn-Dixie Cement Co., Lawrence Cement Co., Lehigh Cement Co., Universal Atlas Cement Co.

STRUCTURE: Exterior walls—granite, Mt. Waldo Granite Corp., The Clay Craft Co. Interior walls and partitions—Transite, Johns-Manville; Atlantic Brick & Tile Co. Plaster—California Stucco Co., U. S. Gypsum Co. and Brewer & Co., Inc. Toilet partitions—Pittsburgh Plate Glass Co. Columns—Bethlehem Steel Co. and Lally Column Co. Structural steel—Bethlehem Steel Co., Quincy Ornamental Iron Works. Ceilings—Permacoustic, Sanacoustic and Transite, Johns-Manville.

ROOF: Lead coated copper, Cavanaugh & Early and Johns-Manville 20-year insulated asbestos covered with Ludowici-Celadon Co. quarry tile.

SHEET METAL WORK: Flashing—Johns-Manville. Spandrels—Sandell Mfg. Co. Gutters—Cavanaugh & Early. Ducts—Bethlehem Steel Co.

INSULATION: Armstrong Cork Co., Johns-Manville, Walter Ballou & Co. and Keasbey & Mattison Co.

WINDOWS: Sash—General Bronze Corp. Glass—American Window Glass Co., Mississippi Glass Co. and Pittsburgh Plate Glass Co.

STAIRS AND ELEVATORS: Stairs—Sexauer & Lemke Co. and Gorham Co. Elevators—Otis Elevator Co.

FLOOR COVERINGS: Vermont Marble Co., Dennis, Duabon, Ltd., Johns-Manville, DePaoli Mosaic Co., Cambridge Tile Co., American-Franklin-Olean Tile Co., Wood Mosaic Co. and American Tile & Rubber Co.

Carpets—Cochrane Co., Mohawk Carpet Mills.

WALL COVERINGS: Cleveland Quarries Co., Vermont Marble Co., U. S. Plywood Co., Theodore Schwamb Co., Cambridge Tile Co., E. F. Hauserman Co., American-Franklin-Olean Tile Co., Mosaic Tile Co., Mueller Tile Co., Pittsburgh Plate Glass Co. and The Claycraft Co.

FURNISHINGS: Art Metal Construction Co., Doten-Dunton Desk Co., General Fireproofing Co., Heywood-Wakefield Co. Counter tops—Johns-Manville. Other furniture—Irving & Casson and A. H. Davenport Co.

WOOD AND METAL TRIM: Dahlstrom Mfg. Co., Ryan Iron Works, W. S. Tyler Co., Walsh Spencer Co., Superior Door Mfg. Co., General Bronze Corp., Russell & Erwin Mfg. Co., L. C. N. Door Closers, Oscar C. Rixson Co., The Gorham Co., Roddis Door Co., Theodore Schwamb Co., The Stanley Works Co., Von Duprin Co., Richard-Wilcox Corp., Kinneer Mfg. Co., Henry Weiss Mfg. Co., J. Edward Ogden Co., Diebold Safe & Lock Co. and Metal Clad Door Co.

PAINTS: National Lead Co., Glidden Co., Keystone Paint & Varnish Co., John W. Masury & Sons, Benjamin Moore Co., J. D. Harris & Co., Carpenter Morton Co., Pittsburgh Plate Glass Co., W. H. Coe Mfg. Co., Lewis F. Perry's Sons Co., Marietta Paint & Varnish, Berry Brothers and L. R. Van Allen & Co.

ELECTRICAL INSTALLATION: Wiring—Triangle Conduit & Cable Co. Wire—General Cable Corp. Switches—Bryant Electric Mfg. Co. Fixtures—A. L. Smith Iron Co., The Hy-Lite Corp. and Edward F. Caldwell Co. Special Equipment—Walker Bros.,

Penn. Electric Mfg. Co., International Business Machines Corp., Hammond Organ Co., Julian P. Friez & Sons, Boston Lightning Rod Co., North Electric Co.

PLUMBING: Fixtures—Crane Co. Accessories, pipes, etc.—Central Foundry Co., Byers Mfg. Co., Revere Copper & Brass Co., Jones, McDuffee & Stratton Corp., Hodge Boiler Works, Chicago Pump Co., Lexington Electric Products Co., Fairbanks Co., General Electric Co., The Barrett Co., Watson Mfg. Co., Lawson Mfg. Co., Wirt-Knox Mfg. Co., A. B. Stanley Co.

HEATING AND AIR CONDITIONING: Vacuum Steam System, traps and fittings—Warren, Webster Co. Radiators—American Radiator Co., B. F. Sturtevant Co. Grilles—Tuttle & Bailey, The Gorham Co. and General Bronze Corp. Thermostats—Johnson Service Co. Valves—Walworth Mfg. Co. Water heater—Patterson-Kelley Co., Inc. Water tank regulator—Powers Regulator Co. Refrigerating machines—Carrier Corp. Fans and conditioners—B. F. Sturtevant Co. Cooling tower—Marley Co. Pumps—Allis Chalmers Mfg. Co. Coils—Aerofin Co. Filters—American Air Filter Co. Ducts—Bethlehem Steel Co. Carbon monoxide control—Mine Safety Appliance Co. Pipes—National Tube Co., A. M. Byers Co., Walworth Mfg. Co., Taylor Forge & Steel Co.

SPECIAL EQUIPMENT: Cutler Mail Chute Co., Jarvis Engineering Co., Mackin Venetian Blind Co., Toledo Scale Co., York Safe Co., C. M. Wilkinson Co., The Lamson Co., The Babcock Davis Co., Spencer Turbine Co., Youngstown Sheet & Tube Co., Walworth Co., Mueller Co., Wirt & Knox Co.

REMODELED THEATER

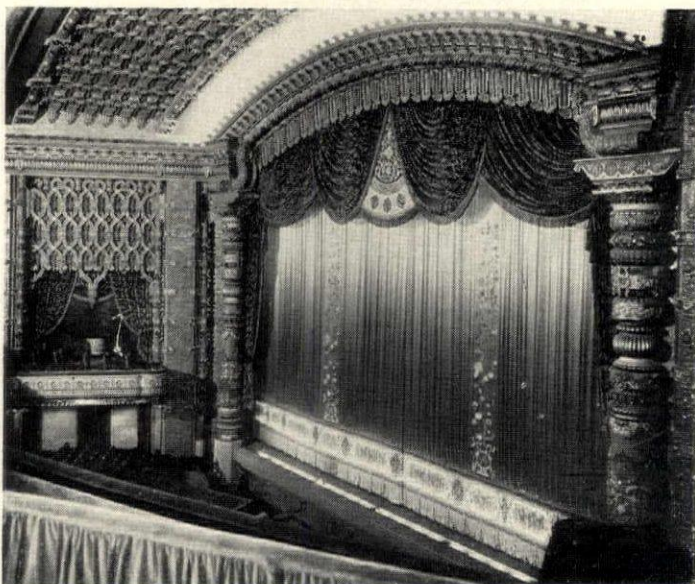
OFFICES OF WM. L. PEREIRA, ARCHITECTS

HAL PEREIRA, DESIGNER



Fred K. Dapprich

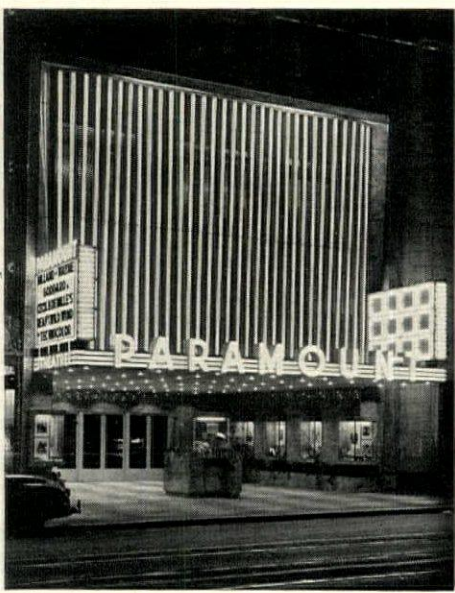
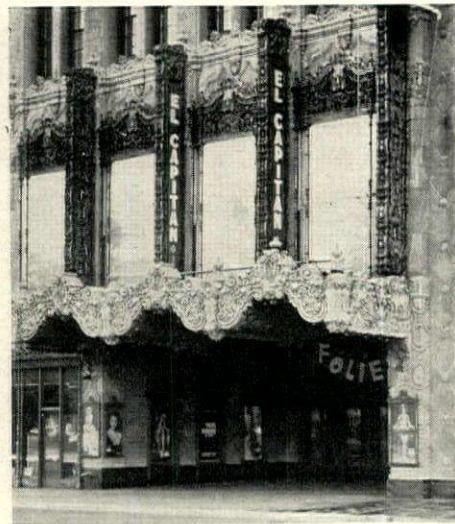
LOS ANGELES, CALIF.



Originally used for legitimate stage productions and decorated in the highly rococo manner of the late Twenties, this modernized motion picture theater was rebuilt and redecorated as a studio "show window," *i.e.*, a setting for the merchandising of new films nearby the producer's studio. Remodeling work included the installation of an entirely new heating and cooling system, re-spacing of the balcony steps—which were too narrow for motion picture requirements—and redecoration of the auditorium with undulating walls designed to improve the acoustics. New seating and new lighting equipment was also installed, and the entrance and entrance lobby rebuilt.



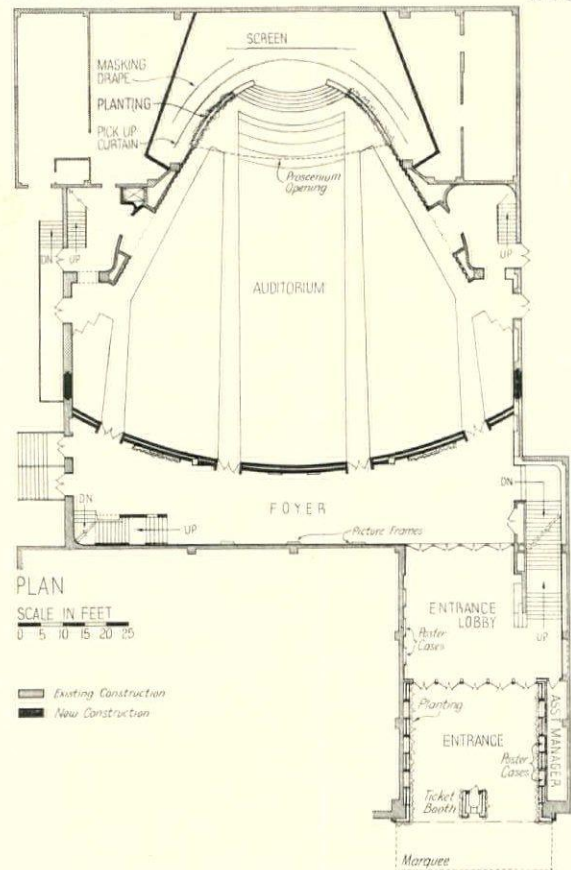
EXTERIOR-DAY



Fred R. Dapprich

NIGHT

Modernization of the exterior of the building was confined to the immediate area around the entrance, and included a new marquee and over-marquee decorated with fluorescent tubing. Entrance doors were recessed to afford generous side-walk display space, and a free-standing ticket booth provided. Because of the special function of the building, the entrance, entrance lobby, foyer and mezzanine are unusually commodious for a theater of this size. Provisions for display of promotional material, scattered throughout these rooms, are especially elaborate, with indirect, built-in lighting and enclosed display cases at various strategic points. Lobby walls were refinished in flush, mahogany veneer, and new suspended ceilings with flush lighting fixtures installed. The auditorium proper was entirely closed off from the foyer by a new, curving wall, and the projection screen placed well back of the line of the proscenium opening to improve the sight lines. New walls were also built closing off the wings of the stage so as to enhance its acoustical properties.



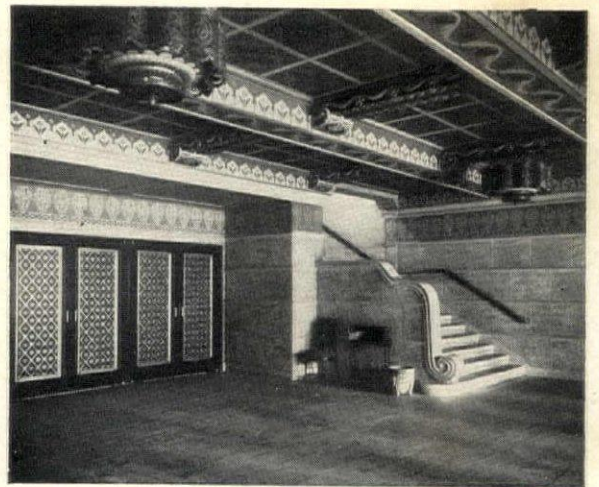


ENTRANCE LOBBY

Fred R. Dayprich



Fred R. Dayprich



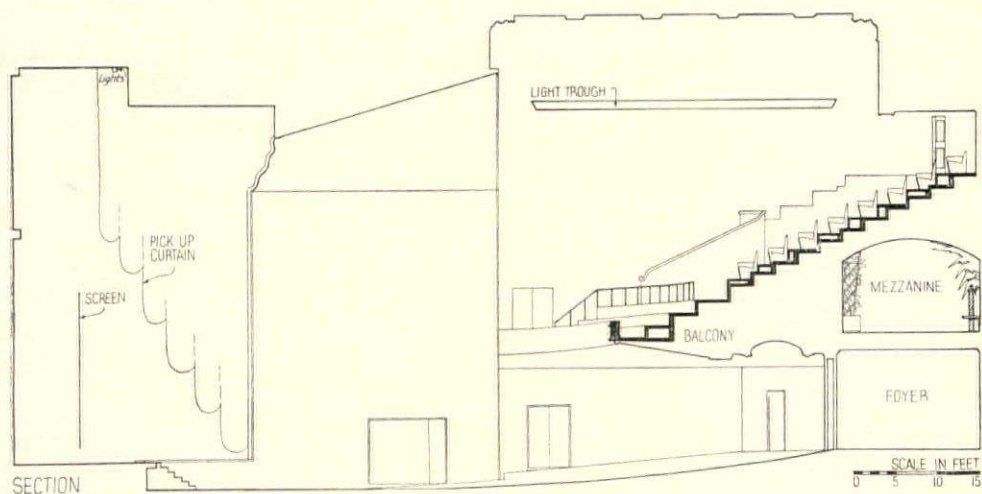
Upper picture shows the new entrance lobby, looking towards the doors leading to the foyer, with the corner of the stairway to the mezzanine at the extreme right. Picture at the left shows a view of the end of the same room, looking towards the display case which screens the stairway, and the picture immediately above a diagonal view of the original entrance lobby, showing the character of the former decorations.



Fred R. Dapprich

FOYER

Picture above shows the foyer behind the auditorium on the ground floor level, and the new curved wall separating this space from the auditorium proper. Entrance doors leading from the lobby are visible at the extreme end of the room. Finished with commendable simplicity in mahogany veneer, this room and the mezzanine above are decorated with living plants in built-in trays. The mezzanine and mezzanine milk bar are shown in the two pictures on the facing page. Smaller pictures show corresponding spaces in the original theater. A section throughout the auditorium, lobby and mezzanine is reproduced below, and a plan of the mezzanine level is shown at the top of the next page.



CONSTRUCTION OUTLINE

STRUCTURE: Exterior—marble, Musto-Keenan Co. Marquee and electrical tubing—Electrical Products Corp.

SHEET METAL WORK: Columbia Steel Corp.

SOUND INSULATION: Western Silicair Products, Inc.

WINDOWS AND SHOWCASES: Glass—Mississippi Glass Co.

FLOOR COVERINGS: Bigelow-Sanford Carpet Co., Armstrong Cork Products Co., Venetian Terrazzo & Mosaic Co.

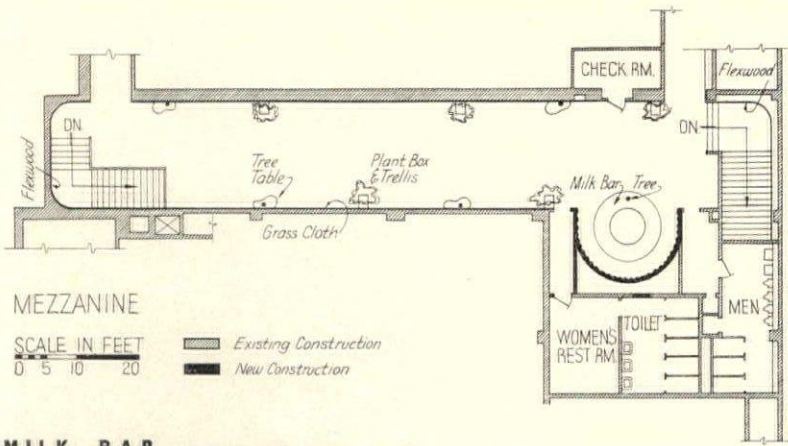
WALL COVERINGS: U. S. Plywood Corp.

FURNISHINGS: Furniture and loges—Barker Bros.

WOODWORK: Doors—Weldtex, U. S. Plywood Corp.

PAINTS: U. S. Gypsum Co.

HEATING AND AIR CONDITIONING: Air Conditioning—Westinghouse Electric & Mfg. Co. Grilles—Anemostat Corp. of America. Thermostats—Johnson Service Co.



MEZZANINE

SCALE IN FEET
0 5 10 20

Existing Construction
New Construction

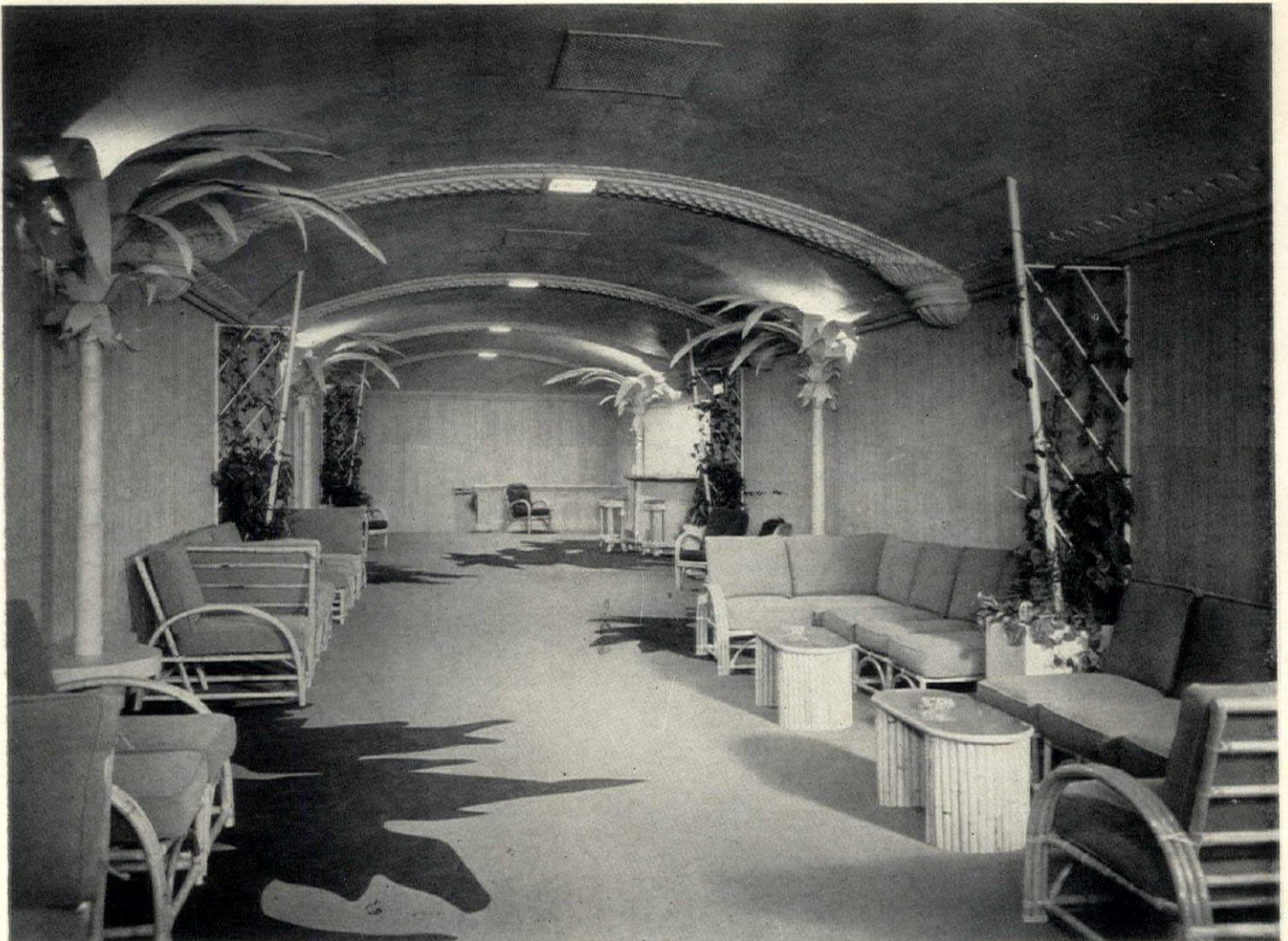
MILK BAR



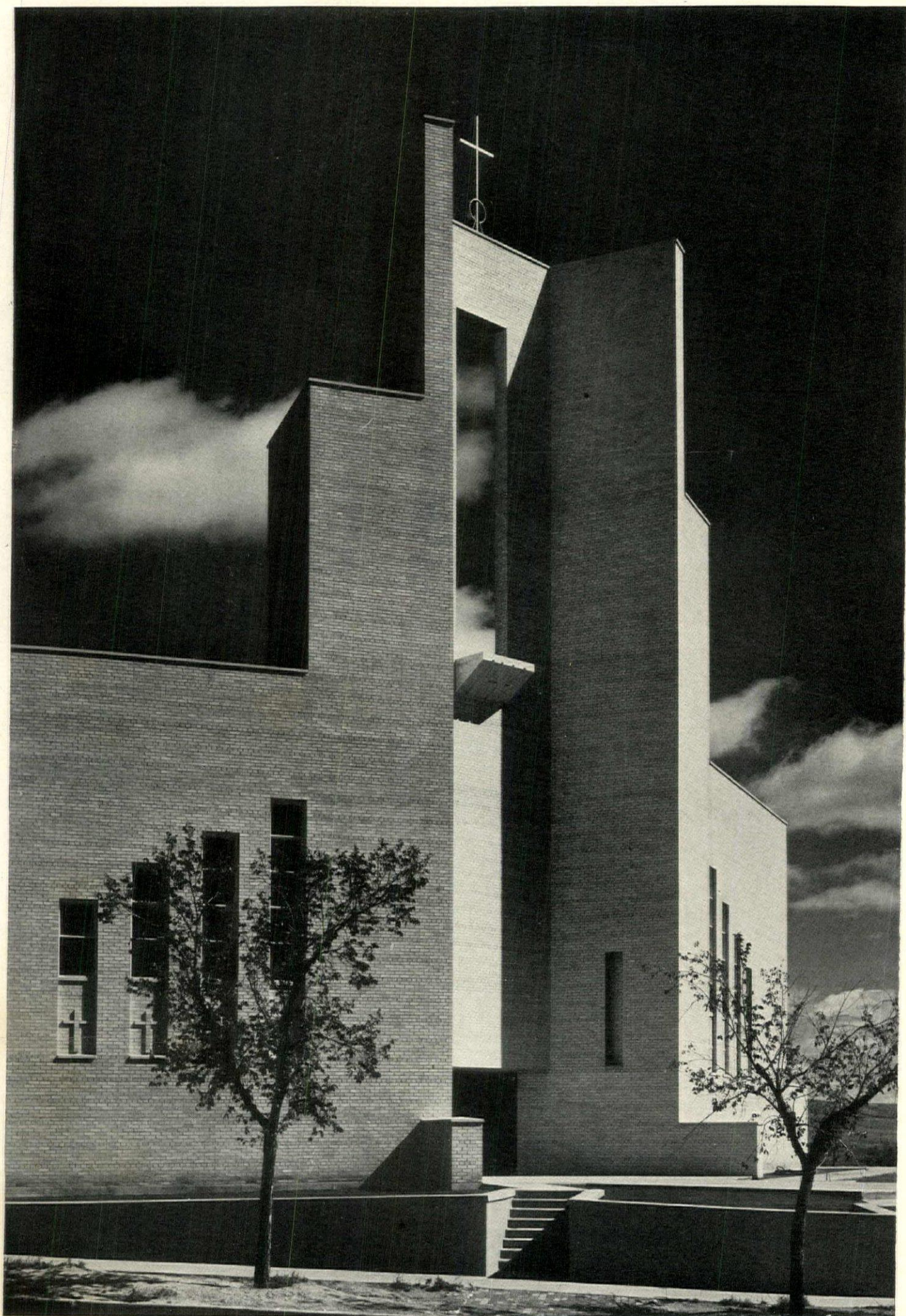
Fred R. Dapprich

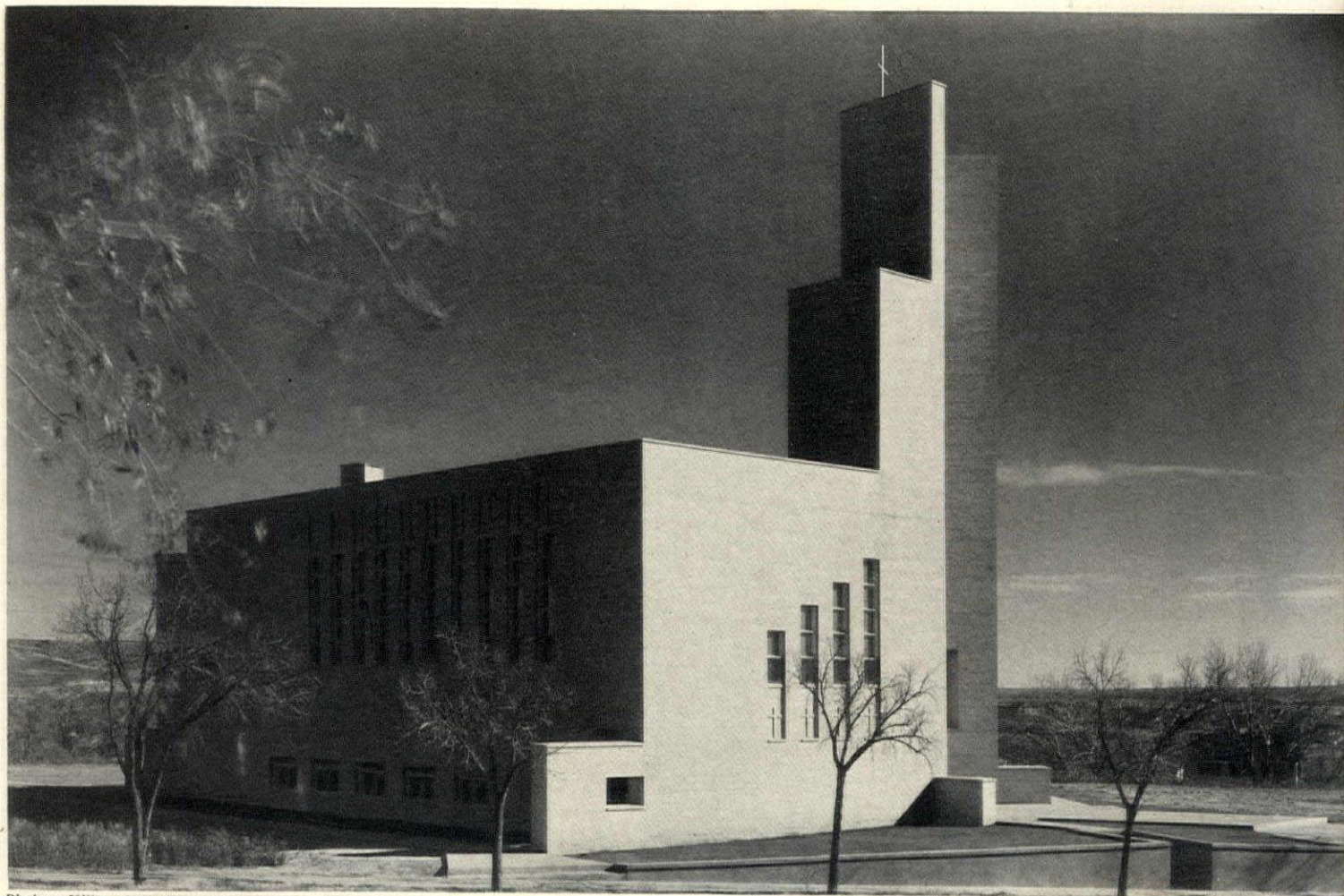


MEZZANINE



CHURCH OF SS. PETER AND PAUL



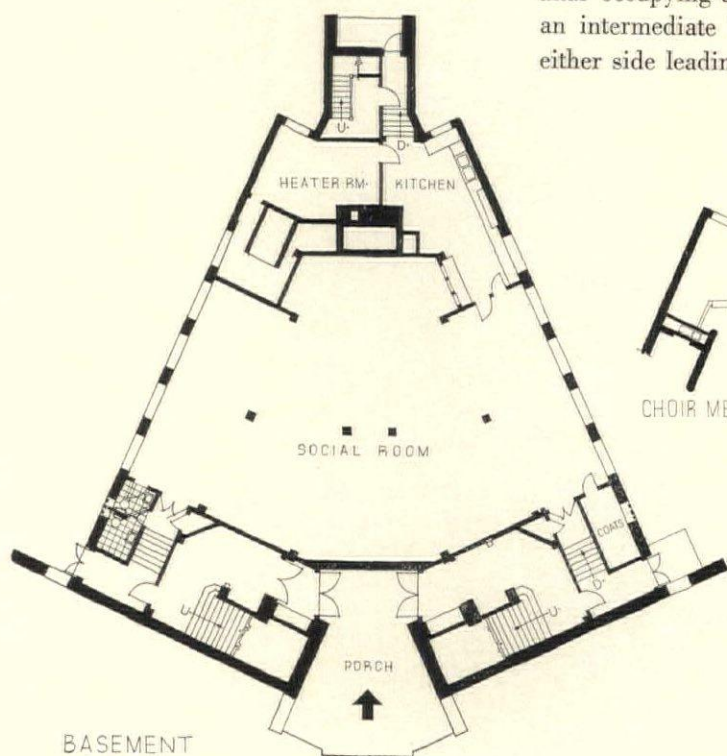


Photos, Miller Studios

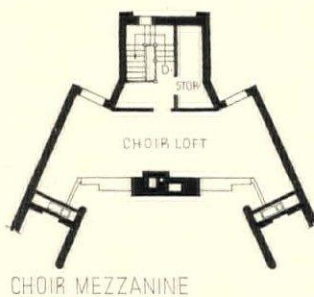
FRED. N. SEVERUD,
CONSULTING ENGINEER

KELLER BROS.,
CONTRACTORS

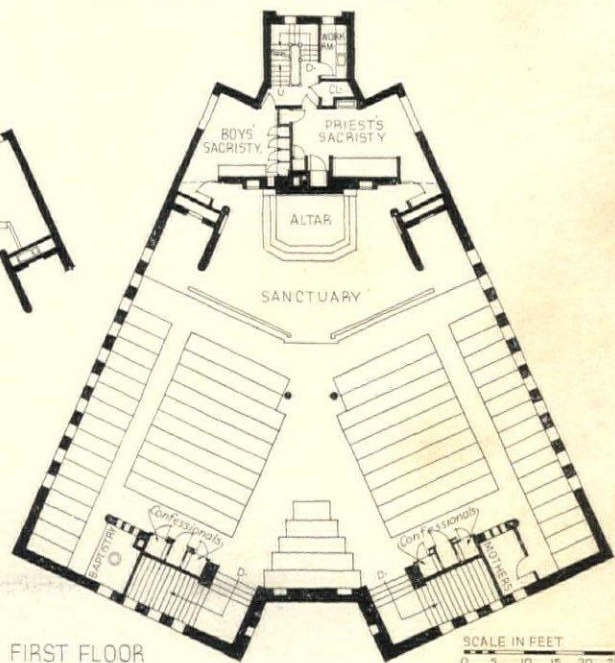
Designed to dominate a hilltop site in the middle of open country, this modern church is functional inside as well as out. Externally, the design was worked out to suggest, in the simplest possible terms, permanence, ruggedness and candor. Internally, the V-shaped plan, with the high altar at the apex of the V, is intended to bring the people and priest into a more intimate relationship without the distraction of irrelevant centers of interest, thus expressing more clearly the structure's basic purpose. The building as a whole is highly compact, with the large social hall beneath the church, the church proper and the choir loft above the sacristies at the back of the altar occupying a simple, wedge-shaped form with very little waste. Entrance is from an intermediate level between the church and social hall, with twin stairways on either side leading up to the church and down to the social room.



BASEMENT

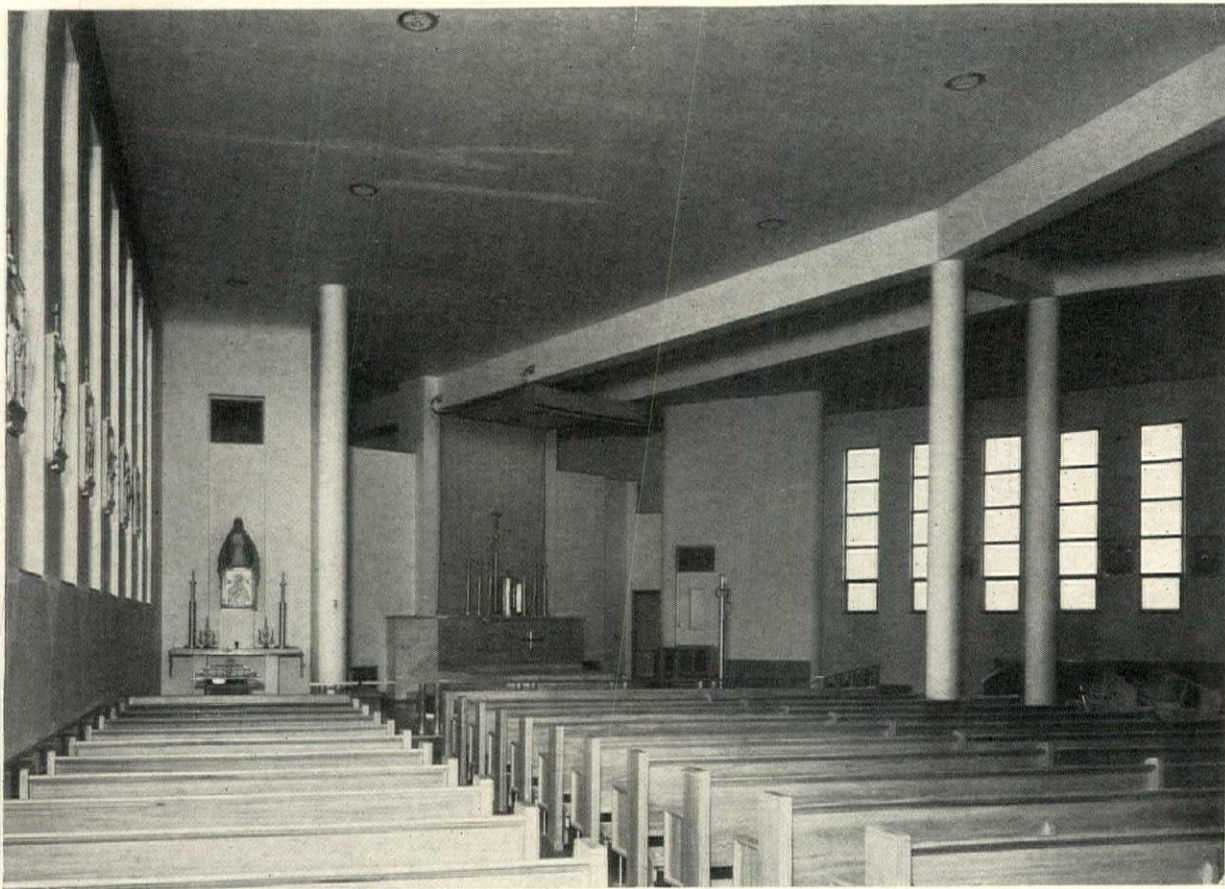


CHOIR MEZZANINE

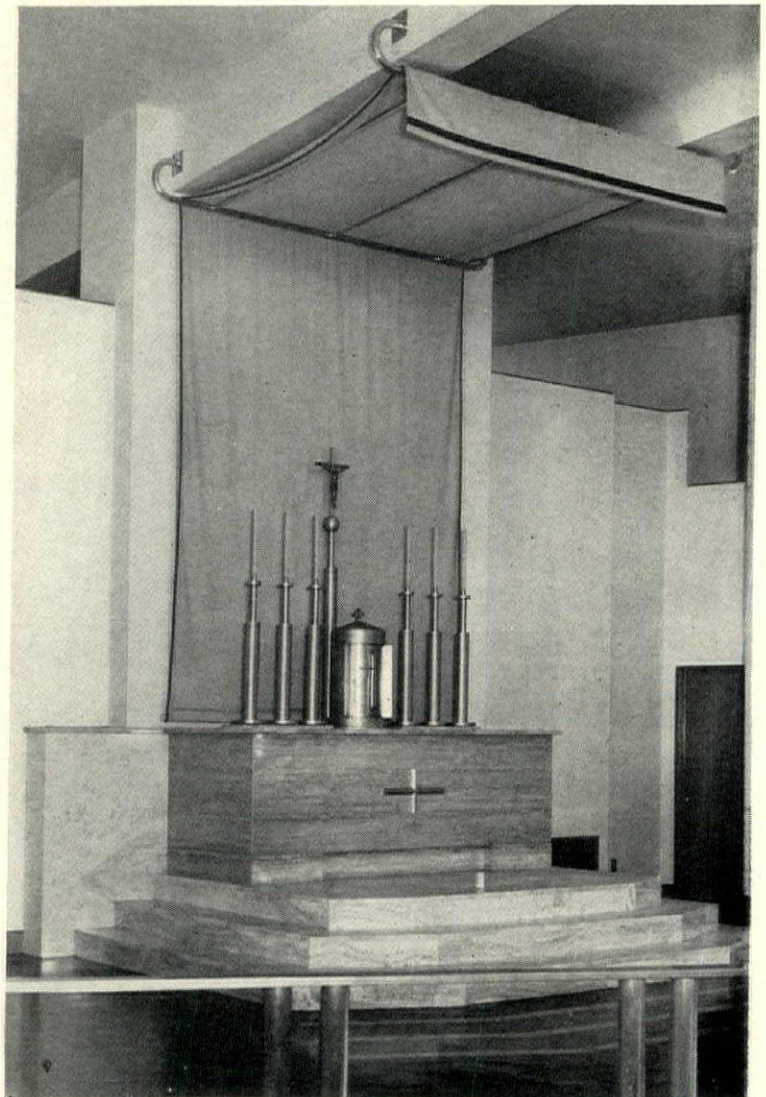
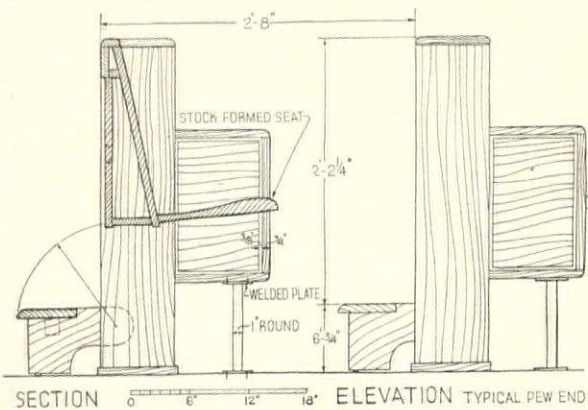


FIRST FLOOR

SCALE IN FEET
0 5 10 15 20 25



Furnishings and appointments are in keeping with the building as a whole. Metal work is brushed aluminum, the high altar rose-colored wood, with a yellow homespun canopy. In contrast to most small churches, the interior is bright and cheerful, easily kept clean and unusually good looking. Photo above shows a general view of the interior, the picture at the right a detail of the altar.



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—face brick, hollow clay tile, Reynolds Metals Co.; fabric lath, U. S. Gypsum Co. plaster; inside—gypsum block and plaster.

ROOF: Specification roofing, Barrett Co.

INSULATION: Celotex Corp. and Reynolds Metals Co.

FLOORS: Wingfoot rubber, Goodyear Tire & Rubber Co.

FURNISHINGS: Pews—Manitowoc Church Furniture Co. Altar—marble, Drake Marble Co. Tabernacle, crucifix, etc., Ferro Studio. Metal work—Crown Iron Works. Fonts and altar canopy—Schumacher & Co. Fabrication—Benedictine Convent.

PAINTS: Pratt & Lambert.

ELECTRICAL INSTALLATION: Switches—Hart & Hegeman. Fixtures—Curtis Lighting Co.

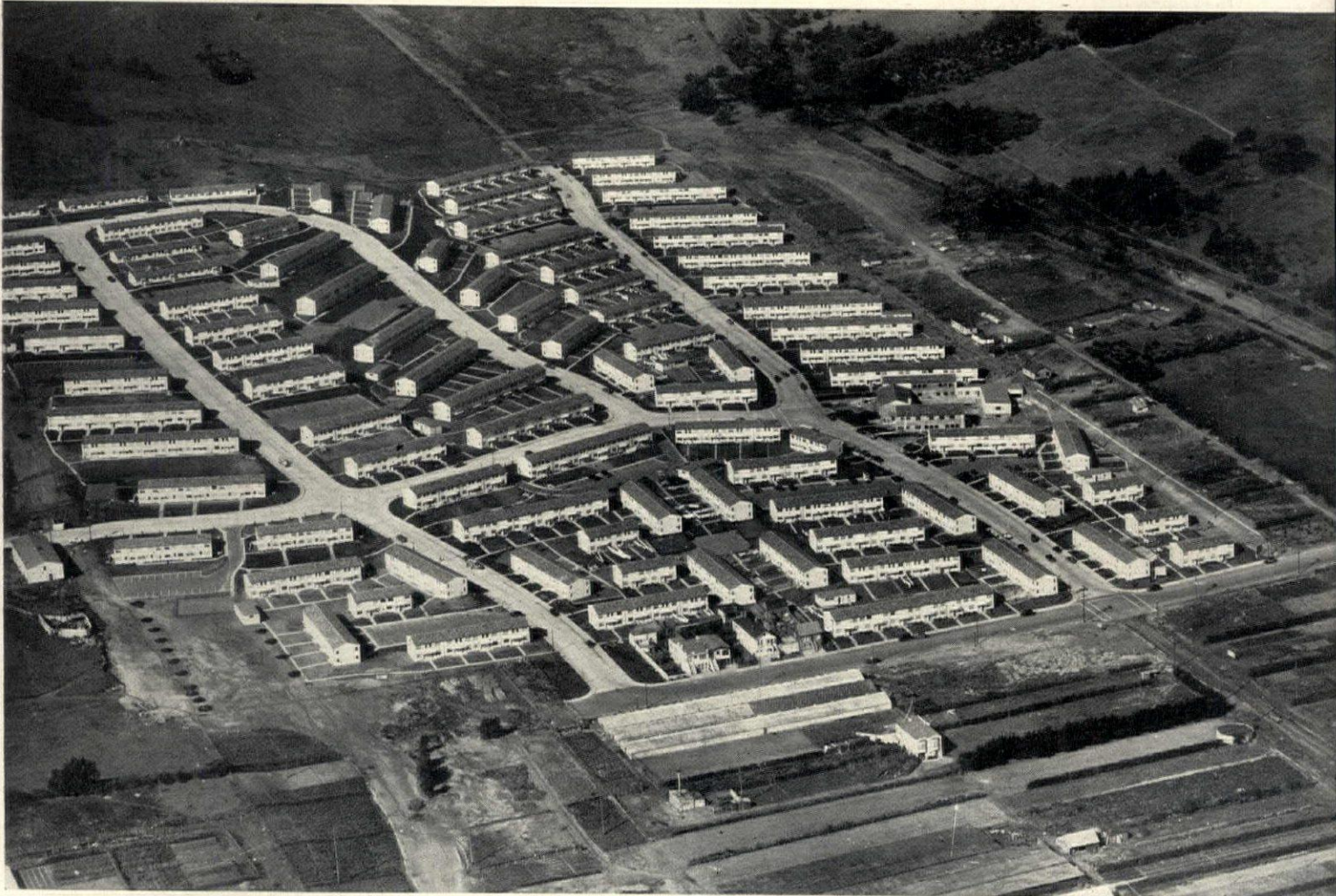
PLUMBING: Fixtures—American Radiator-Standard Sanitary Corp.

HEATING: Warm air. Water heater—Ruud Mfg. Co.

WAR HOUSING

772 PERMANENT UNITS

SAN FRANCISCO, CALIF.

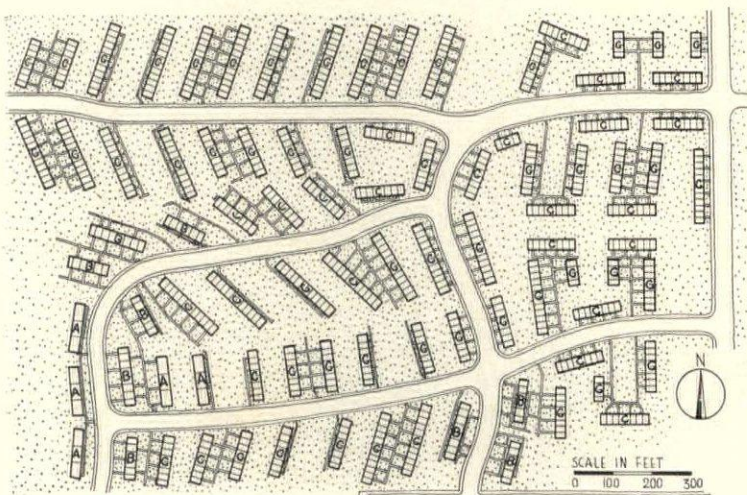


Photos, Gabriel Moulin

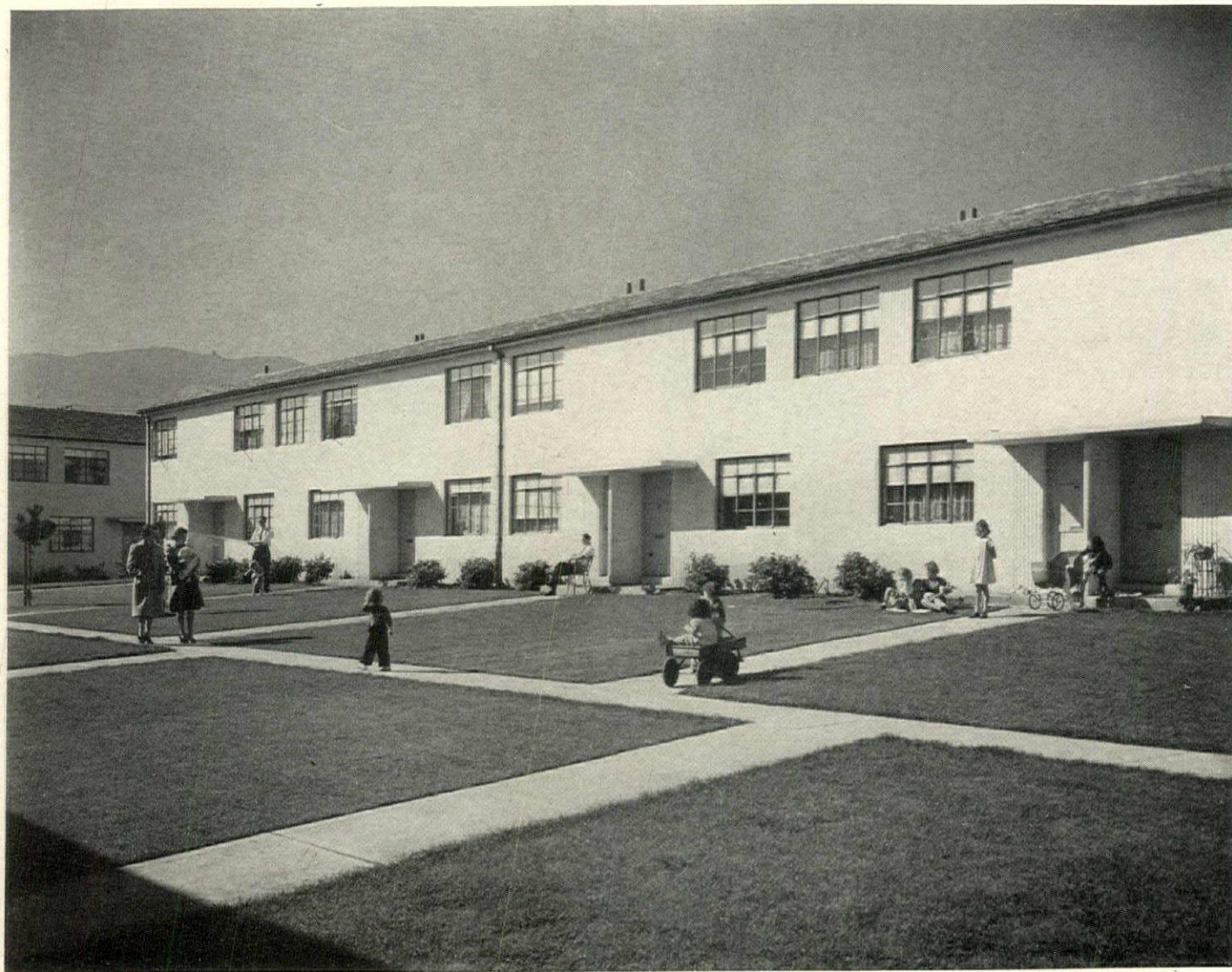
HOUSING AUTHORITY OF THE CITY AND COUNTY OF SAN FRANCISCO

ALBERT F. ROLLER & ROLAND I. STRINGHAM, ARCHITECTS

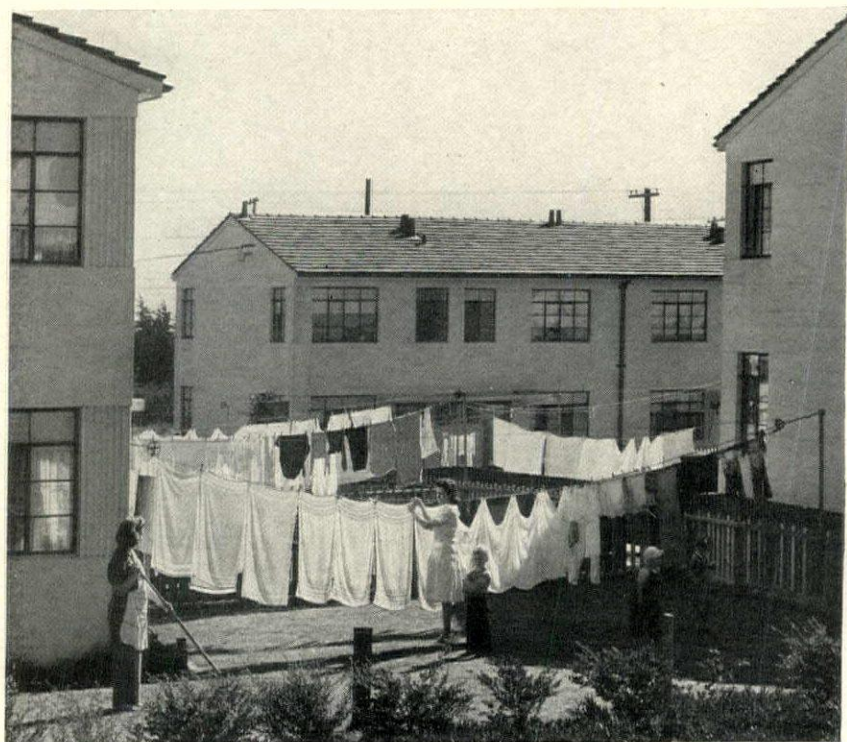
THOMAS D. CHURCH, LANDSCAPE ARCHITECT

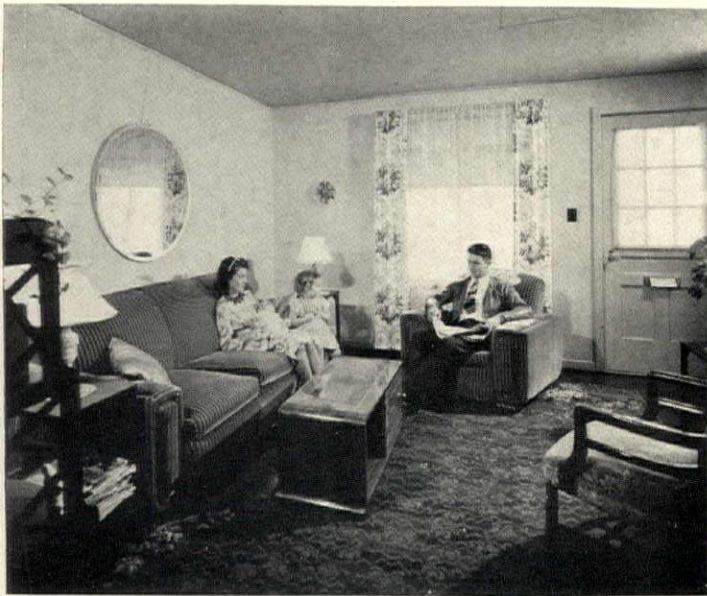


Completed last fall with USHA funds originally intended for non-defense housing, this project is the largest and among the best of its type on the West Coast. The site plan is orderly and efficient, with the units laid out to follow the contours and facing generally east and west. Relatively little street length is required, since the row houses are arranged end to the street rather than facing it, and parking areas for tenants' cars are in some cases used for access. The 49-acre site is developed to a density of 15.7 families per acre. A community building, health center and nursery school were built simultaneously with the houses.

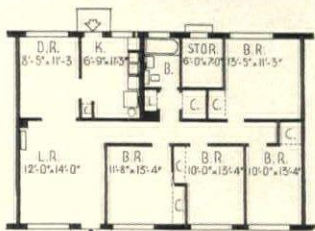


Houses are one- and two-story row units, and two-story flats. The clean white exteriors are a nice expression of the construction, which is reinforced concrete throughout, with tile roofs. Net construction cost was notably low in view of these materials, averaging \$2,294 per dwelling unit. The type "B" plan, used where steep gradients required a story of construction below grade on one side, has an unusual end unit with a living room and kitchen on the upper level and a bedroom and bath sharing the half-floor below with a three-room flat. Total development cost was \$2,987,000, or an average of \$3,869 per dwelling unit, shelter rent averages \$18.69 per family per month.

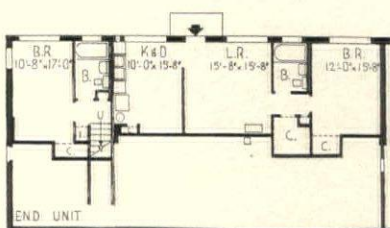




TYPICAL ROOMS

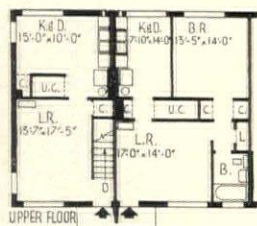


TYPE A

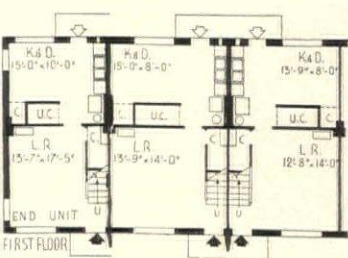


LOWER FLOOR

TYPE B

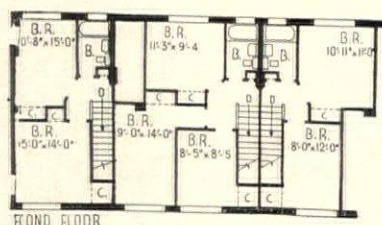


UPPER FLOOR



FIRST FLOOR

TYPE C



SECOND FLOOR



CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—reinforced concrete, furring, gypsum board lath, Sheet-rock, U. S. Gypsum Co. Floors—reinforced concrete.

WINDOWS: Sash—steel, Michel & Pfeffer. Glass—single strength, quality B, Pittsburgh Plate Glass Co.

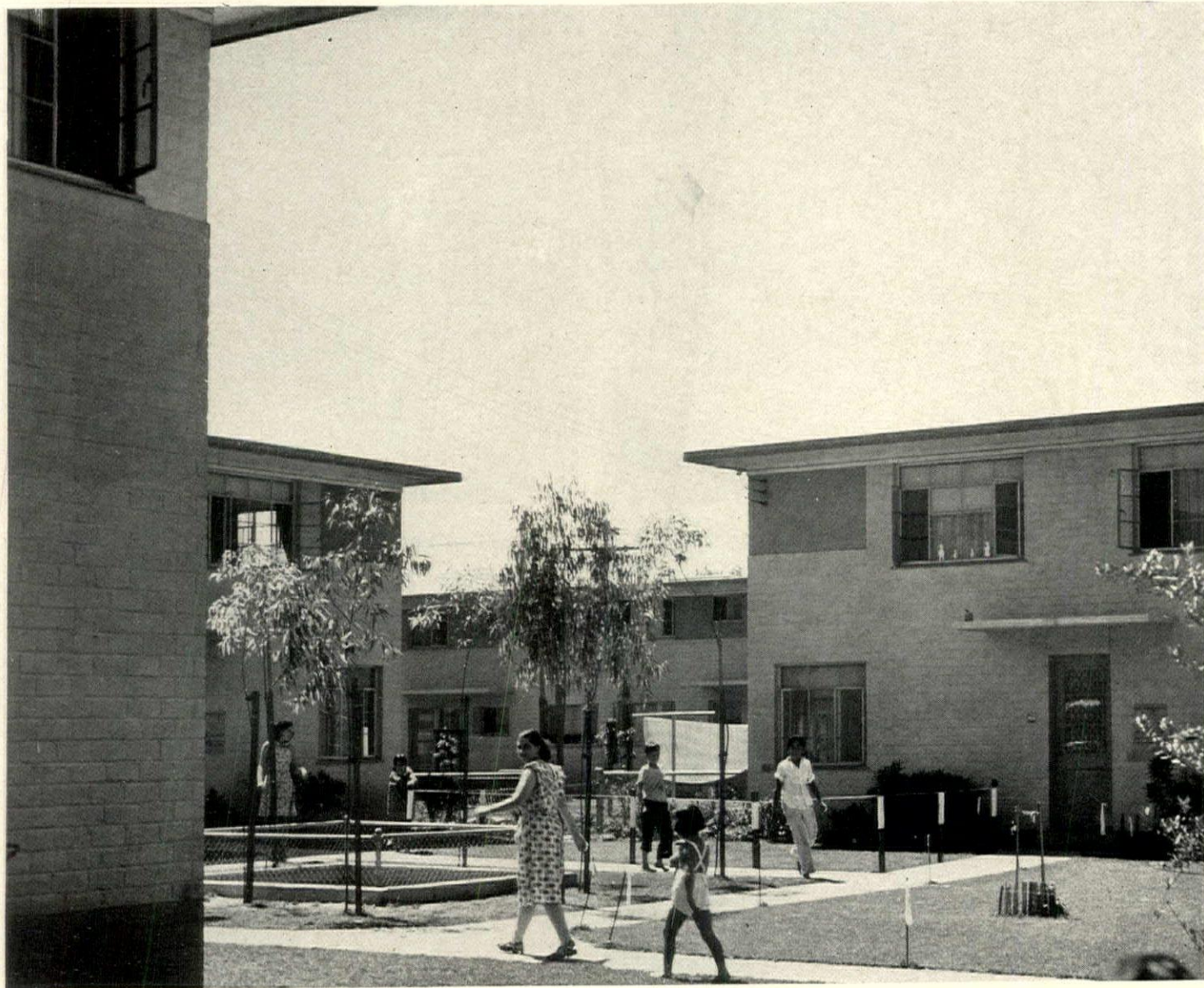
FLOOR COVERINGS: Asphalt tile and linoleum, Armstrong Cork Co.

HARDWARE: Schlage Lock Co.

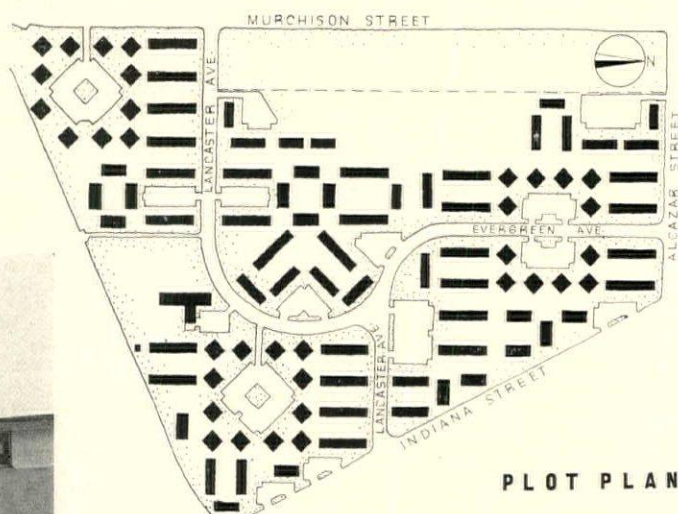
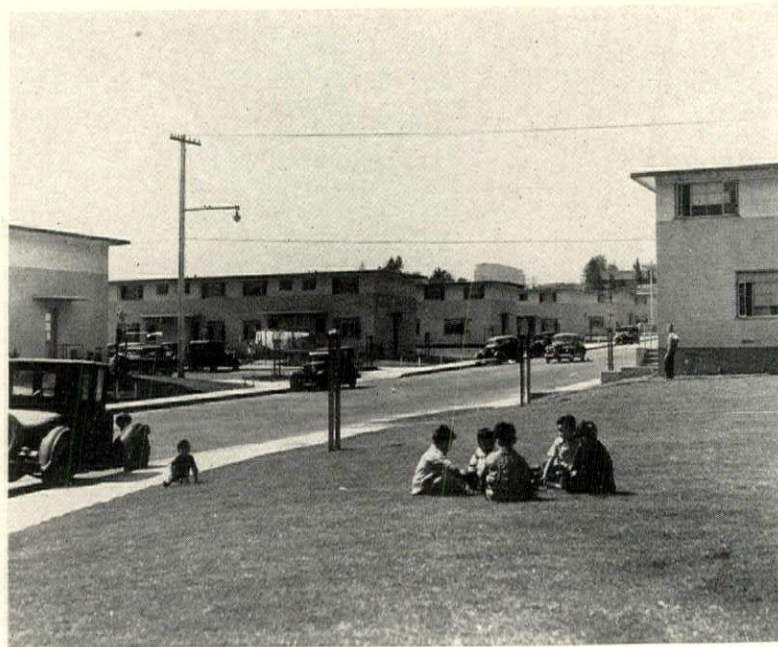
KITCHEN EQUIPMENT: Ranges — gas, Weilbult Stove Co.

BATHROOM EQUIPMENT: American Radiator-Standard Sanitary Corp.

HEATING: Warm air gas-fired heaters, Fraser Co. Water heater—Ruud Mfg. Co.



LLOYD WRIGHT, GEORGE J. ADAMS,
EUGENE WESTON, JR., RALPH C. FLEWELLING,
AND LEWIS EUGENE WILSON, ARCHITECTS



PLOT PLAN

CONSTRUCTION OUTLINE

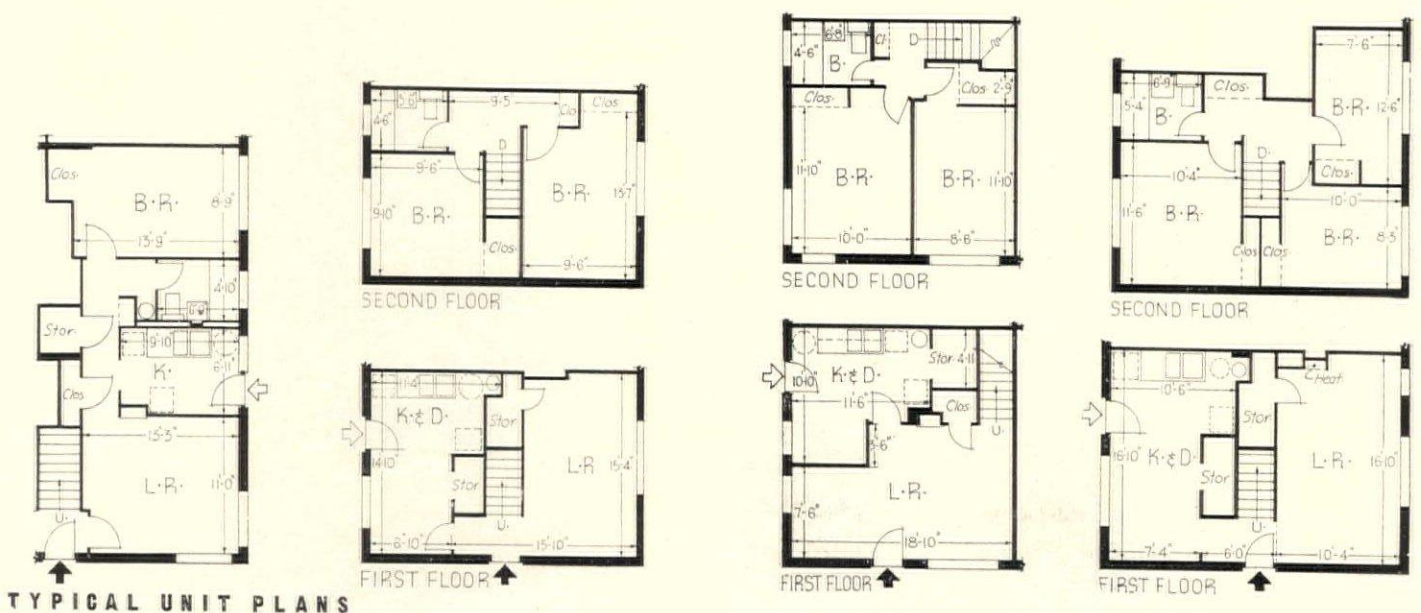
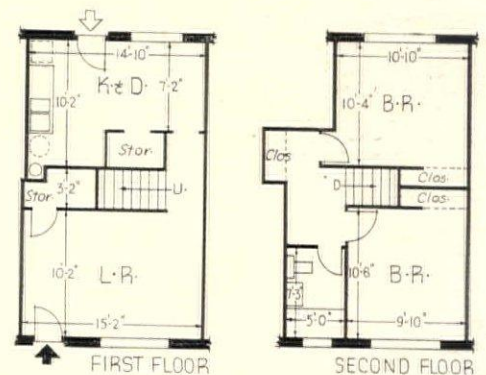
STRUCTURE: Exterior walls—reinforced brick; inside—plaster. Floors—reinforced concrete.
WINDOWS: Sash—steel. Glass—single strength, quality B, Pennvernon, Pittsburgh Plate Glass Co.
STAIRS: Reinforced concrete.
FLOOR COVERINGS: Concrete.
HARDWARE: Sargent & Co.
KITCHEN EQUIPMENT: Range—gas, Well-bilt Stove Co. Refrigerator—Frigidaire Corp.
BATHROOM EQUIPMENT: American Radiator-Standard Sanitary Corp.
HEATING: Gas fired space heaters.

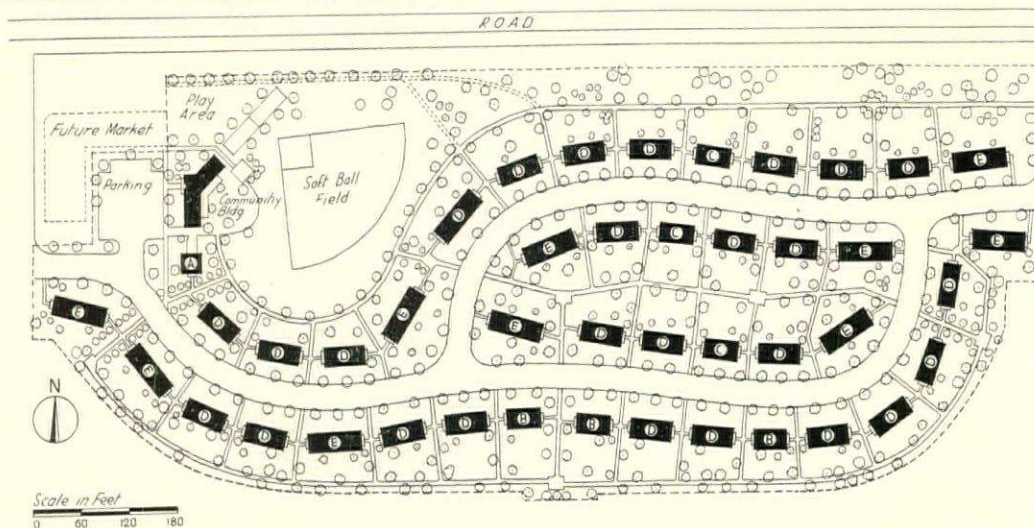
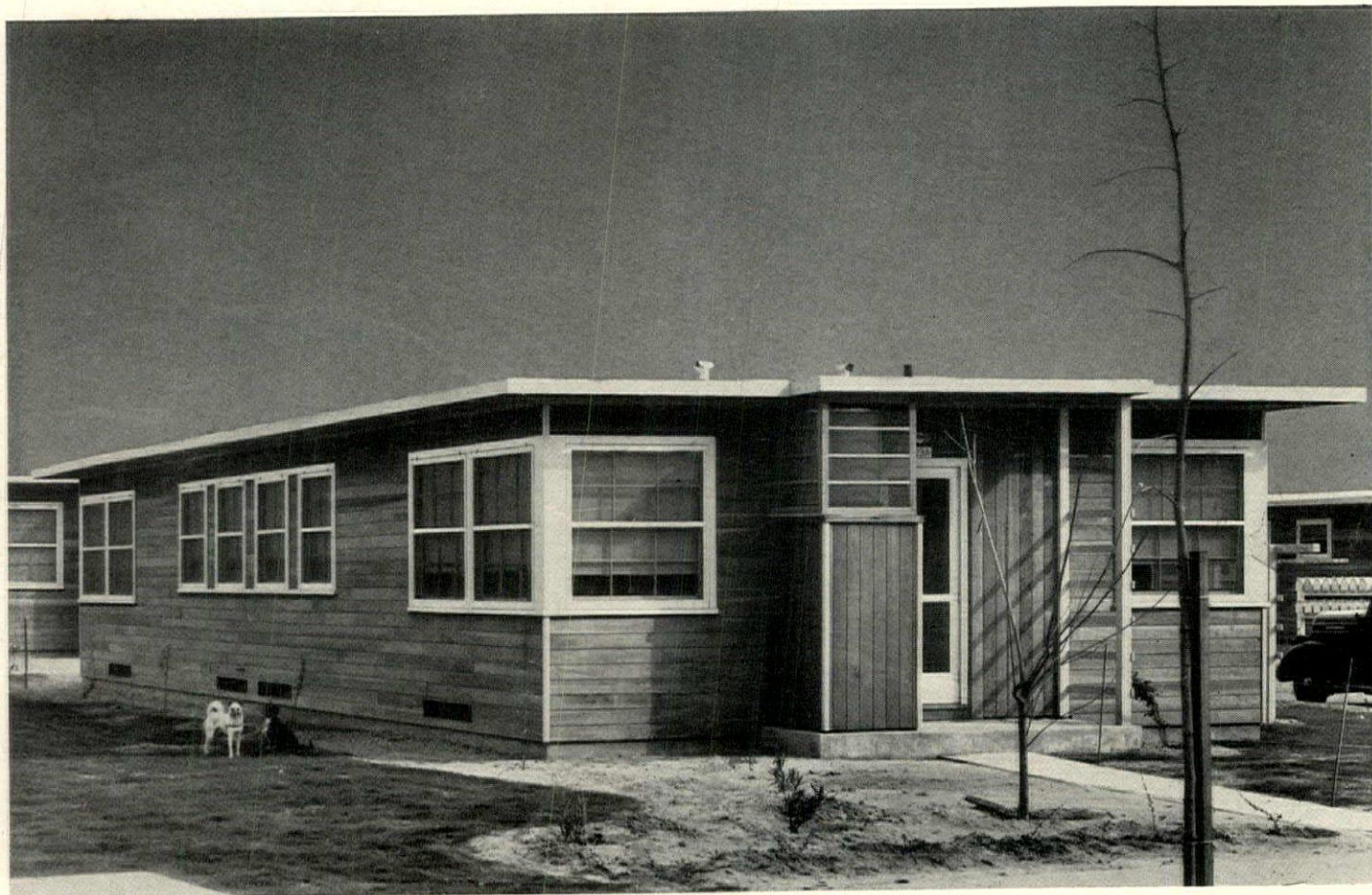


Jackie Greene

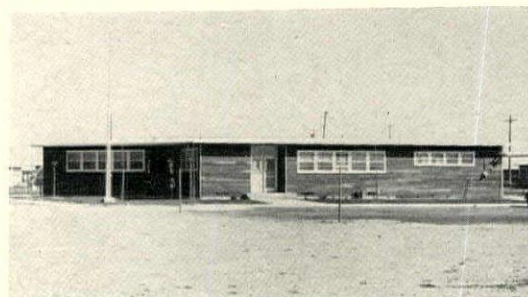
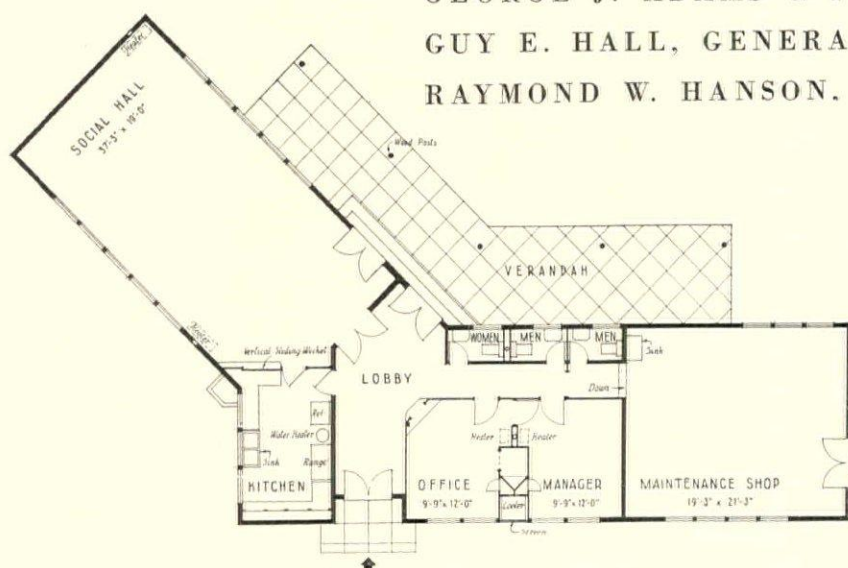
KATHERINE BASHFORD AND FRED BARLOW, JR., LANDSCAPE ARCHITECTS

This combined row-house and apartment development is interesting both for its unit plans, which represent a considerable departure from usual practice, and for its exterior treatment, which achieves an appropriate residential character through the use of generous roof overhangs and panels of contrasting masonry under the eaves. The units, all of which are two stories high, occupy the $37\frac{1}{4}$ -acre site at a density of 16.3 families per acre. Walls are brick, floors concrete slabs. Net construction cost per unit was \$2,192; average shelter rent is \$12.85 per family per month.

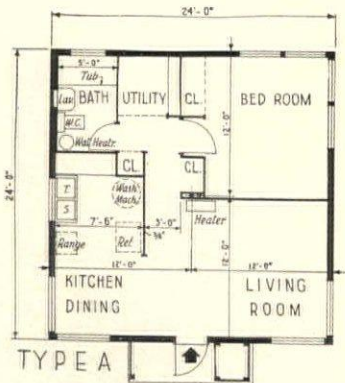




GEORGE J. ADAMS & FRANK WYNKOOP, ARCHITECTS
 GUY E. HALL, GENERAL CONTRACTOR
 RAYMOND W. HANSON, SITE ENGINEER

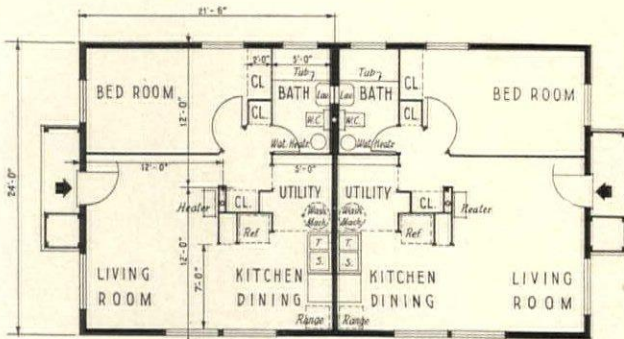
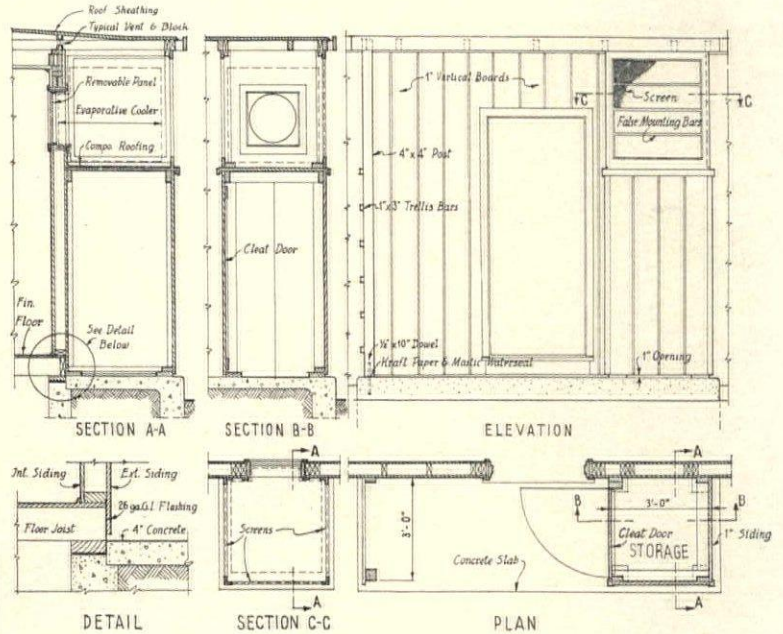


COMMUNITY HOUSE

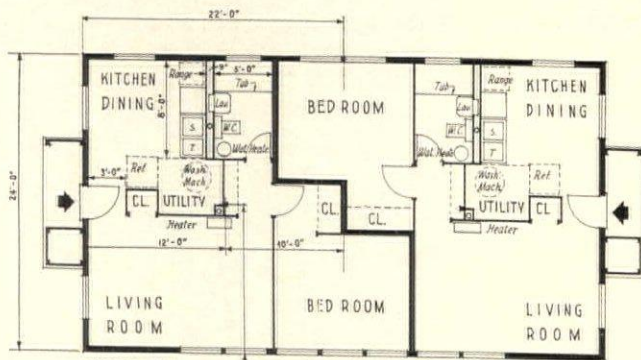


TYPE A

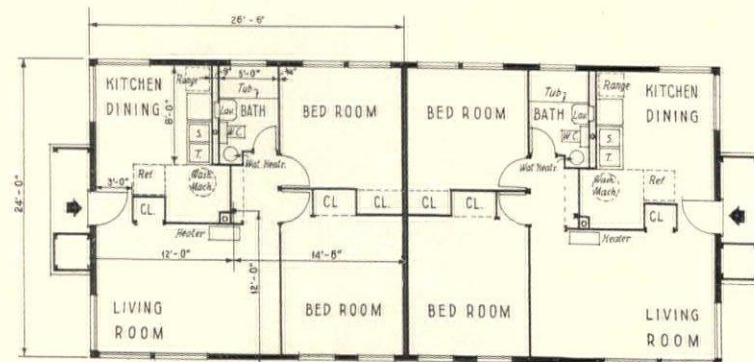
Scale 1/16" = 1'0"



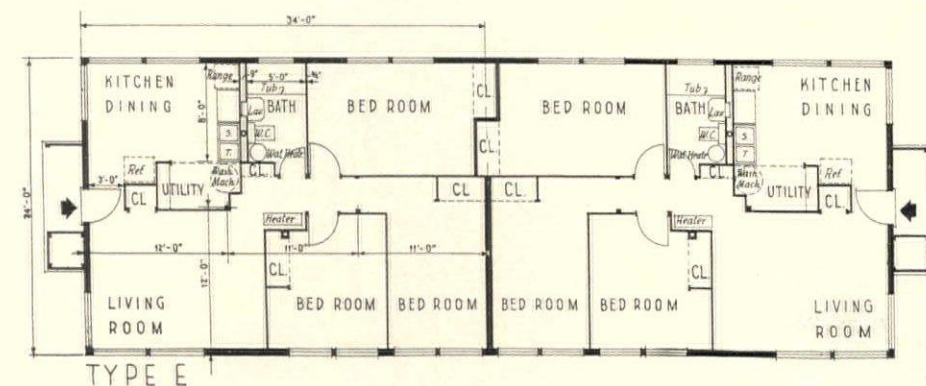
TYPE B



TYPE C



TYPE D

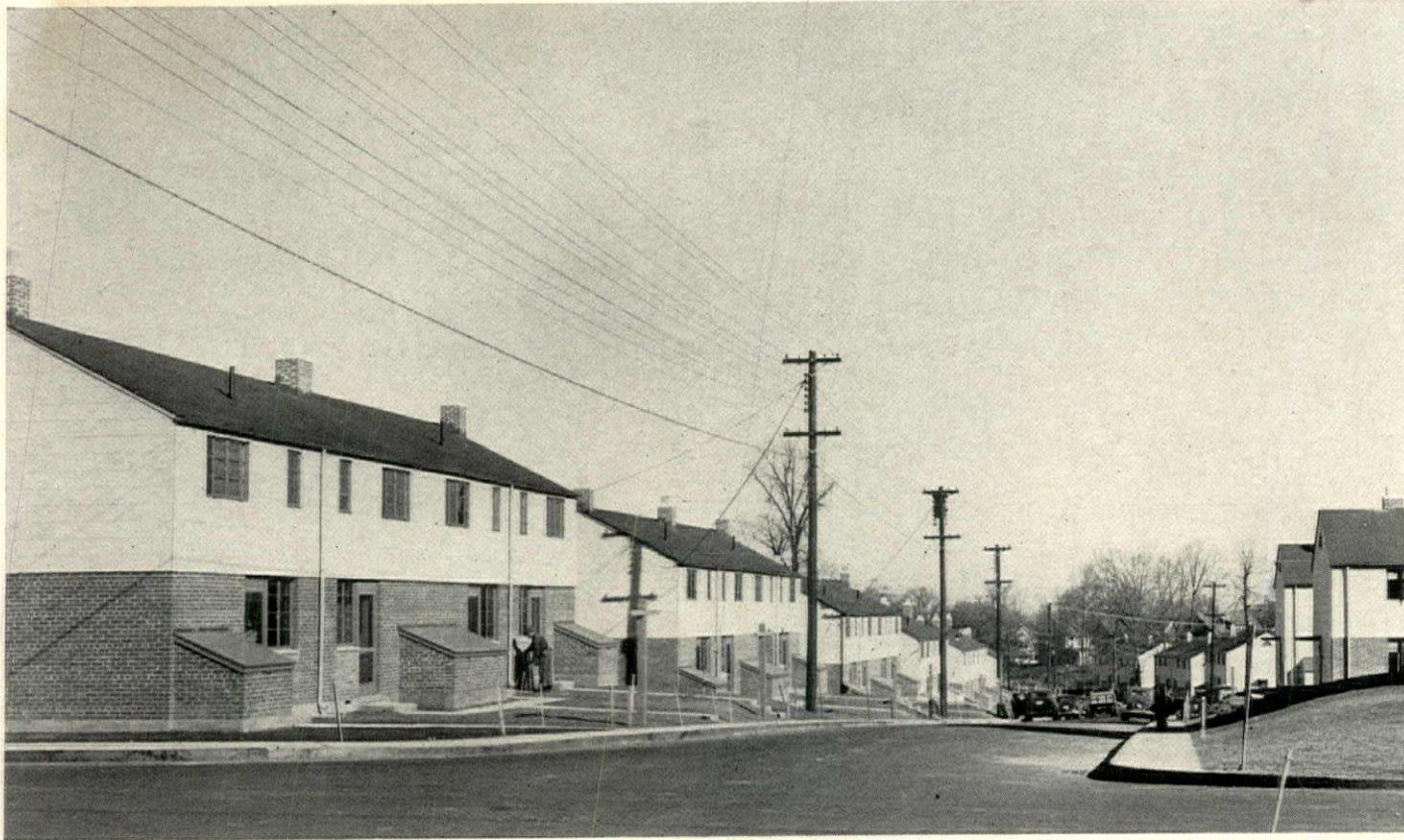


TYPE E

Particularly interesting because of its carefully worked-out unit plans, this 85-family development consists almost entirely of semidetached, one-story units of one, two and three bedrooms each. In all of the plans, the dining-kitchen-utility room section has been planned with an eye to the practical problems of the low-rent tenant, with adequate space for dining, and a utility room for the washing machine, storage, etc., opening off the working end of the kitchen. The need for access to the end of the sink-laundry tub combination, mentioned in "The Public Speaks," (ARCH. FORUM, APRIL '42, p. 217) was evidently anticipated by the architect, who has placed the washing machine in this position in virtually all of the houses. An unusual feature is the evaporative cooler alongside the entrance door, detailed above. The development of the site, while it might be criticized as unnecessarily expensive (all the houses have generous street frontage) is otherwise excellent. Especially commendable is the way the entire development has been grouped into a single, integrated neighborhood unit, without the usual "outcasts" facing the boundary road, and the generous playfield. Note also the excellent community house, a detail plan of which is shown at the bottom of the facing page. Despite these features, the total cost was only slightly above \$4,000 a unit, construction cost \$3,156 per family. Rentals, \$27.50 to \$32.50.

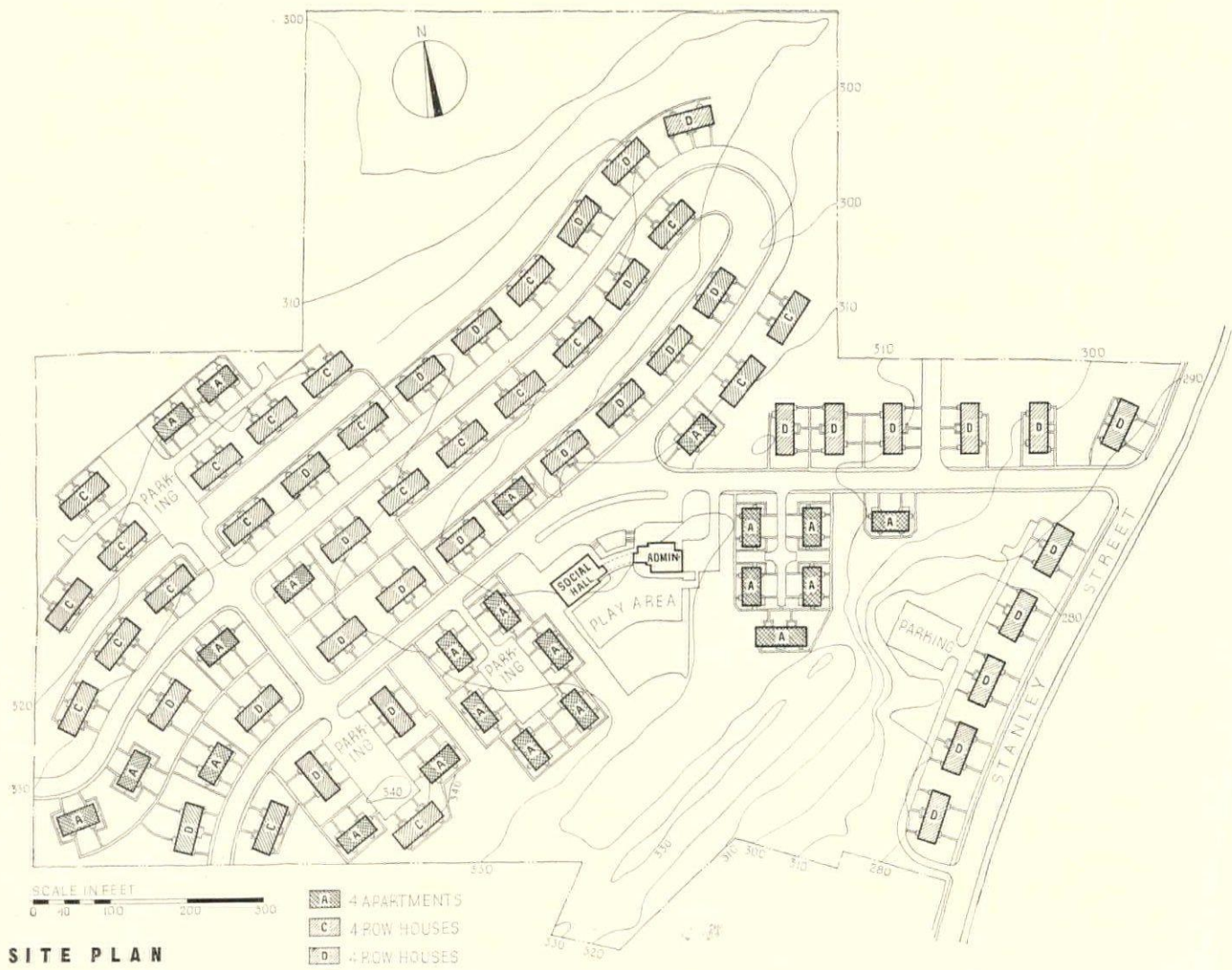
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—redwood; inside—studs and knotty pine.
ROOF: Composition built-up.
INSULATION: Rockwool.
WINDOWS: Sash—sugar pine, double hung.
FLOOR COVERINGS: Kitchen and bath-rooms—linoleum.
WOODWORK: Ponderosa pine.
KITCHEN EQUIPMENT: Ranges—Wedge-wood, James Graham Mfg. Co. Refrigerator—Servel, Inc.
HEATING: Warm air system with evaporative coolers.



Chas. Photos

HENRY F. LUDORF, ARCHITECT
M. SHAPIRO & SON CONSTRUCTION CO., CONTRACTORS



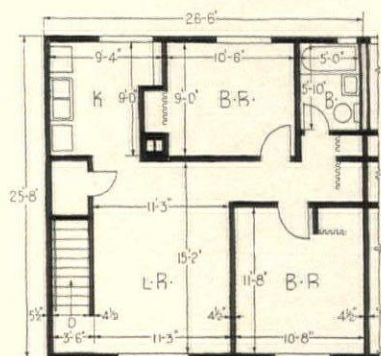
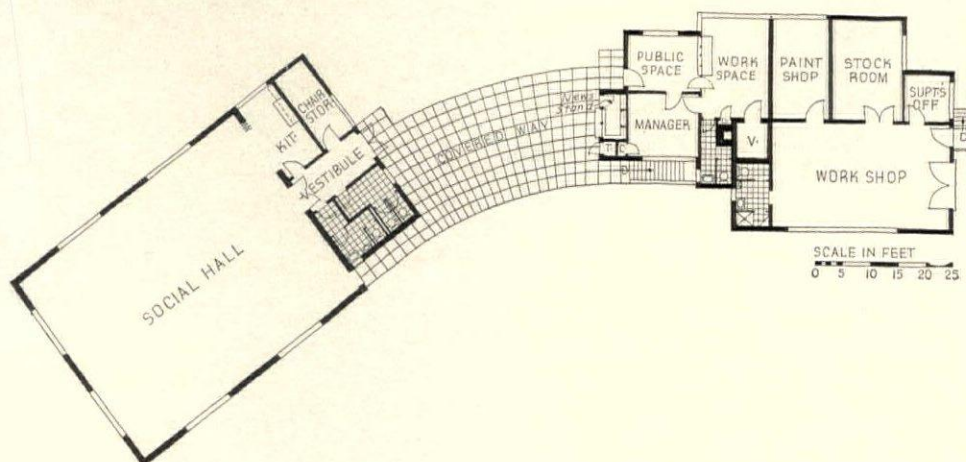
SITE PLAN



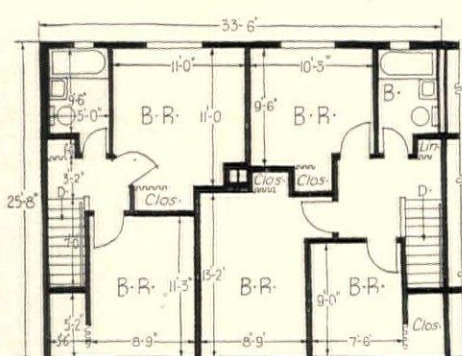
Ledgecrest, one of the first defense projects built in Connecticut, houses 300 families in two-story row houses and flats. Within walking distance of the principal defense industries, the site is hilly and well drained, with a difference in elevation of 60 ft. between its highest and lowest points. This fact dictated the site plan, which is based on a loop road extending from the high, southwest corner of the property downward along a slope towards the northeast corner, and connected to the still lower access street by a steeply sloping entrance roadway. Most of the units, which follow typical USHA plans, "back up" on this loop street, the balance are arranged in small courts, some of which surround parking areas. Construction cost: \$3,079 per unit. Rentals, \$27.50 to \$32.50.

CONSTRUCTION OUTLINE

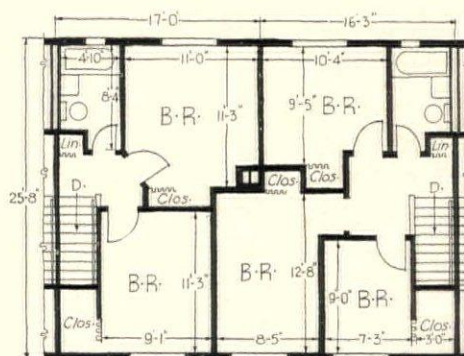
STRUCTURE: Exterior walls—masonry and brick facing, cinder block back-up, furring, gypsum lath and plaster. Second story—wood framing and asbestos shingles.
ROOF: Asphalt shingles. Deck—4-ply built-up.
WINDOWS: Sash—metal casement. Glass—single strength, quality B.
HARDWARE: P. & F. Corbin.
ELECTRICAL INSTALLATION: Wiring system—armored cable, concealed. Switches—tumbler. Fixtures—Pass & Seymour.
KITCHEN EQUIPMENT: Range—gas. Refrigerator—electric and ice boxes.
BATHROOM EQUIPMENT: Briggs Mfg. Co.
HEATING: Individual forced warm air.



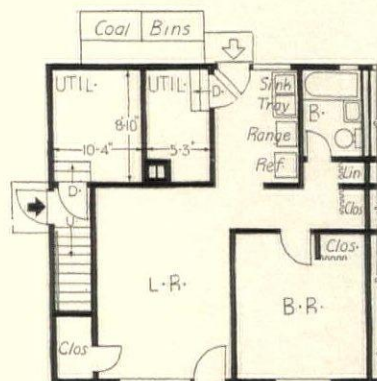
SECOND FLOOR



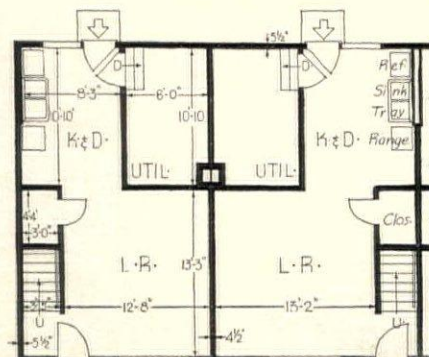
SECOND FLOOR



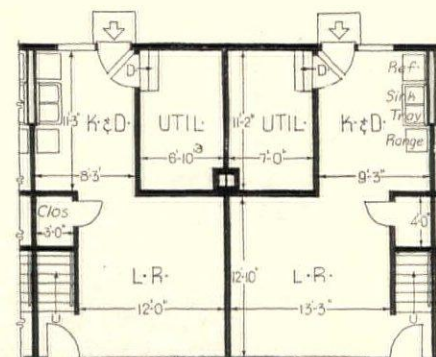
SECOND FLOOR



FIRST FLOOR
TYPE A



FIRST FLOOR
TYPE C

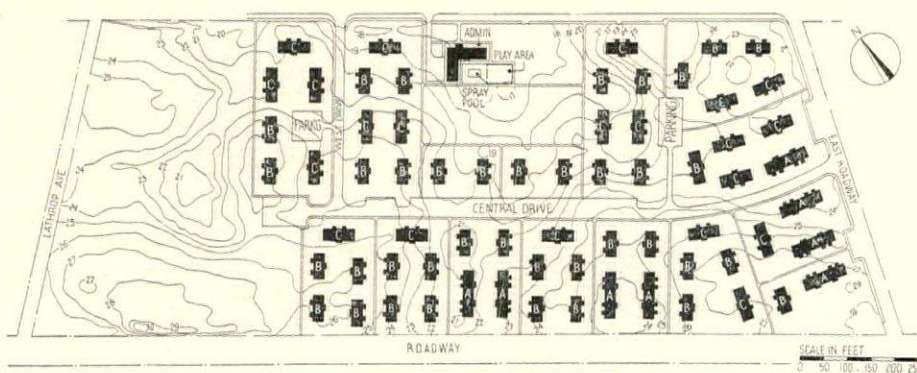


FIRST FLOOR
TYPE D



HOUSING AUTHORITY OF SAVANNAH, GA.

CLETUS W. BERGEN, WALTER P. MARSHALL, ARCHITECTS



Completed in late December, this project houses 150 shipyard workers in one-story houses, predominantly semidetached, with some four-family rows. Units have one, two and three bedrooms, are built on grade with concrete slab floors, and have concrete block walls. Heating is by individual space heaters burning Butane gas; domestic hot water is supplied from a central plant. The project includes an administration building and playground, and other community facilities are available in the neighborhood. Construction cost was about \$2,800 per unit, total cost only \$3,525 per family; rentals: \$27.50 to \$32.50 a month.

CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls, concrete blocks—Cement Products Co.

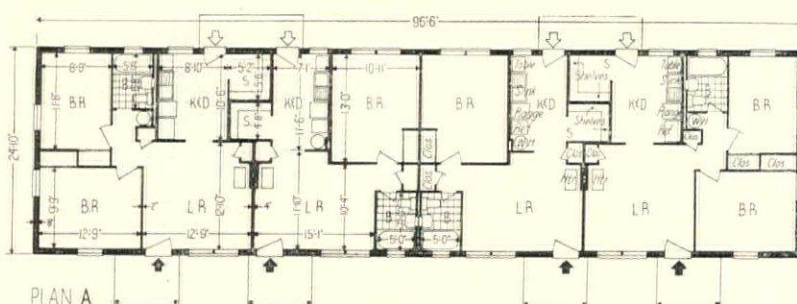
ROOF: Asbestos shingles—Johns-Manville Corp.

HARDWARE: Sargent & Co.; The Stanley Works.

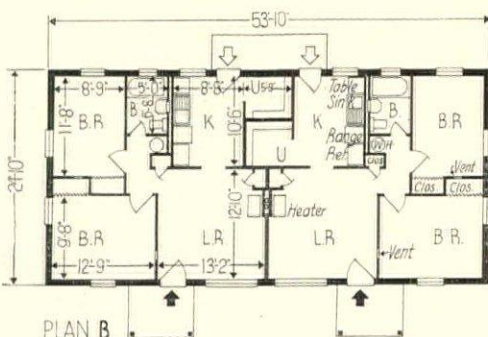
KITCHEN EQUIPMENT: Range—Butane Gas, Crown Stove Works; refrigerator—Nash-Kelvinator Corp.; sink—Crane Co.

BATHROOM EQUIPMENT: Crane Co.

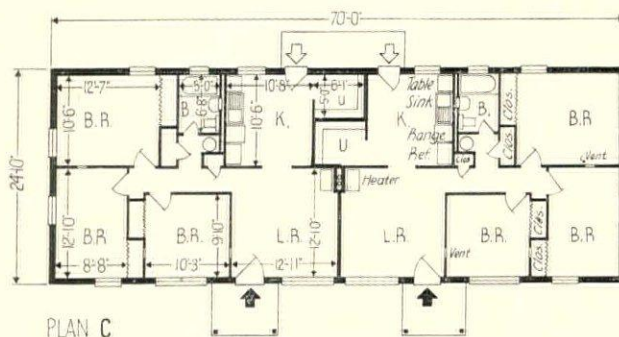
HEATING: Space heaters, water and storage heaters—Butane Gas, Crown Stove Works.



PLAN A



PLAN B

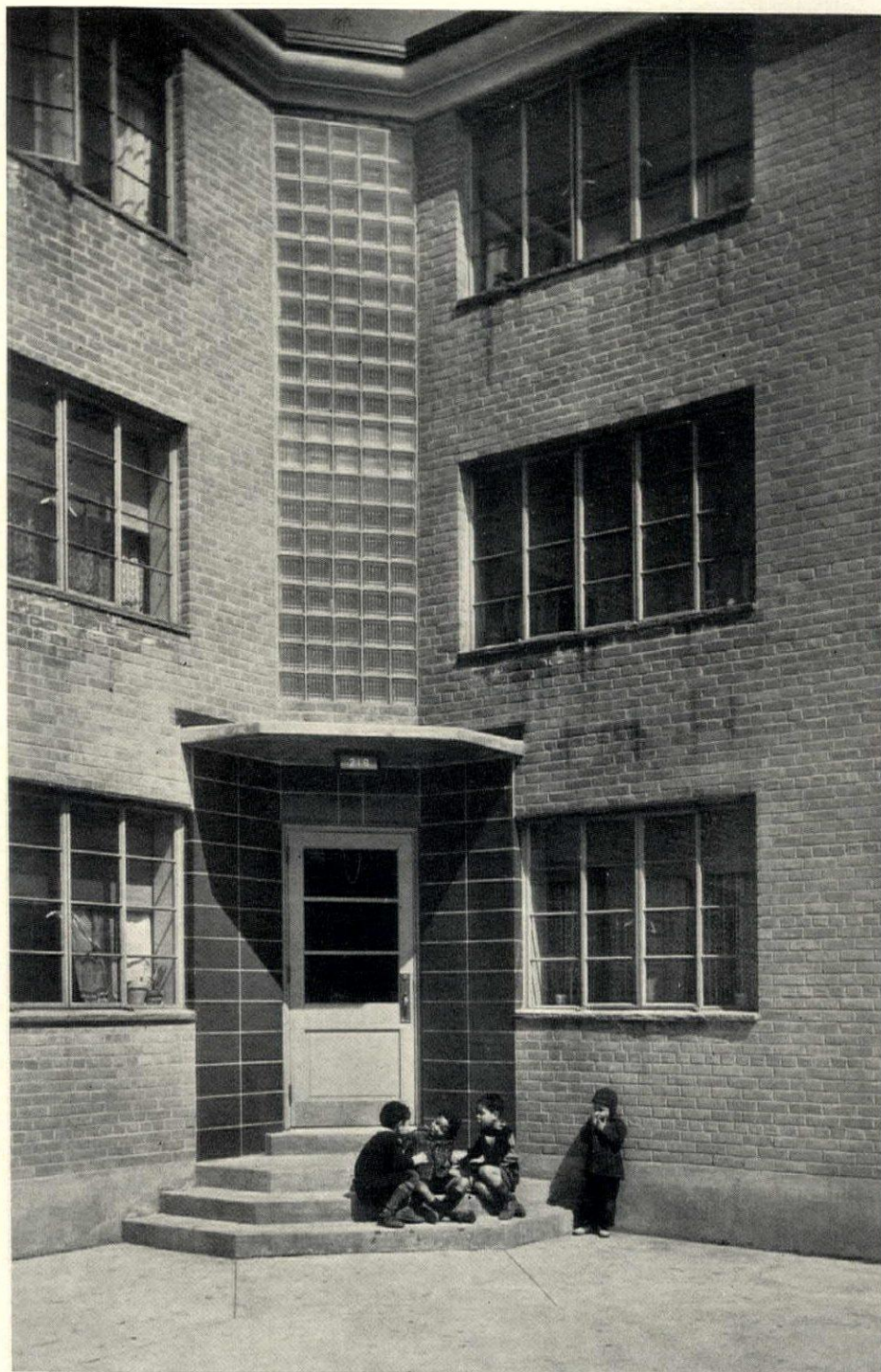


PLAN C

DOUGLAS ORR &
R. W. FOOTE, ARCHITECTS

ALBERT MAYER,
CONSULTANT

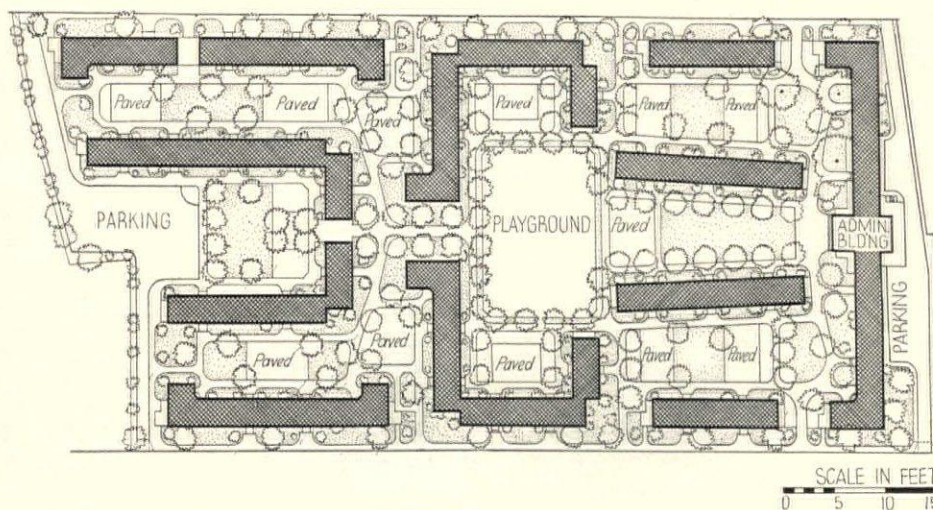
HUBBERD, RICKERD &
BLAKELY, ENGINEERS

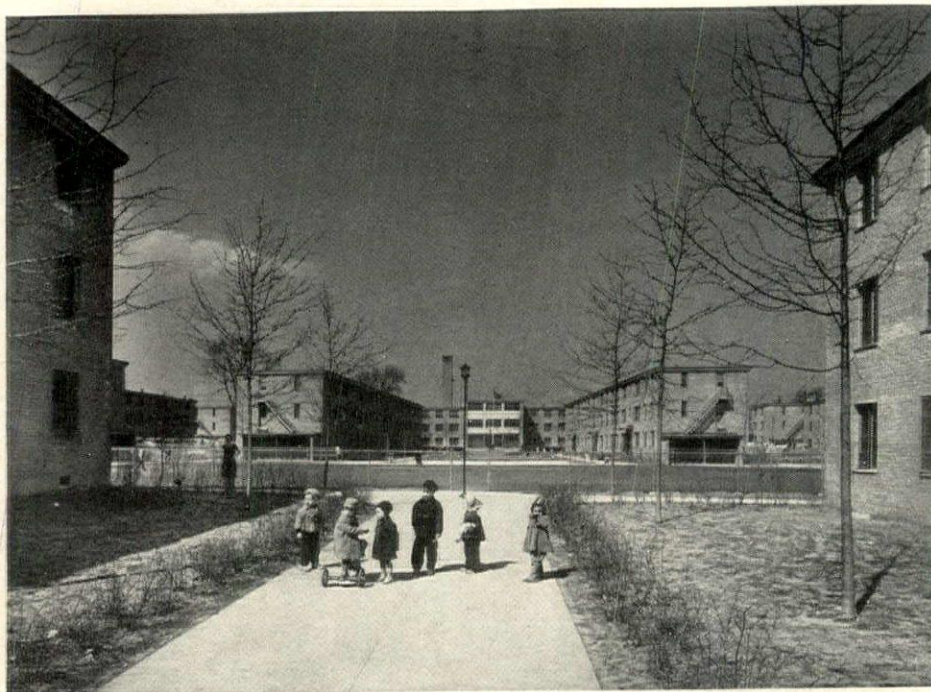


Photos, S. H. Gottscho

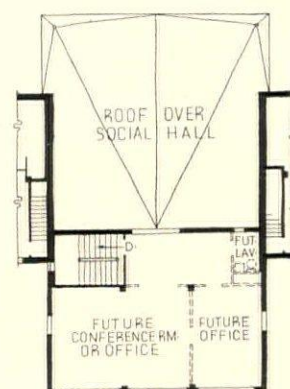
NEW HAVEN HOUSING AUTHORITY

JO RAY & CARL STELLING, LANDSCAPE ARCHITECTS

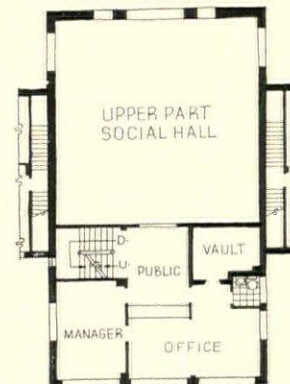




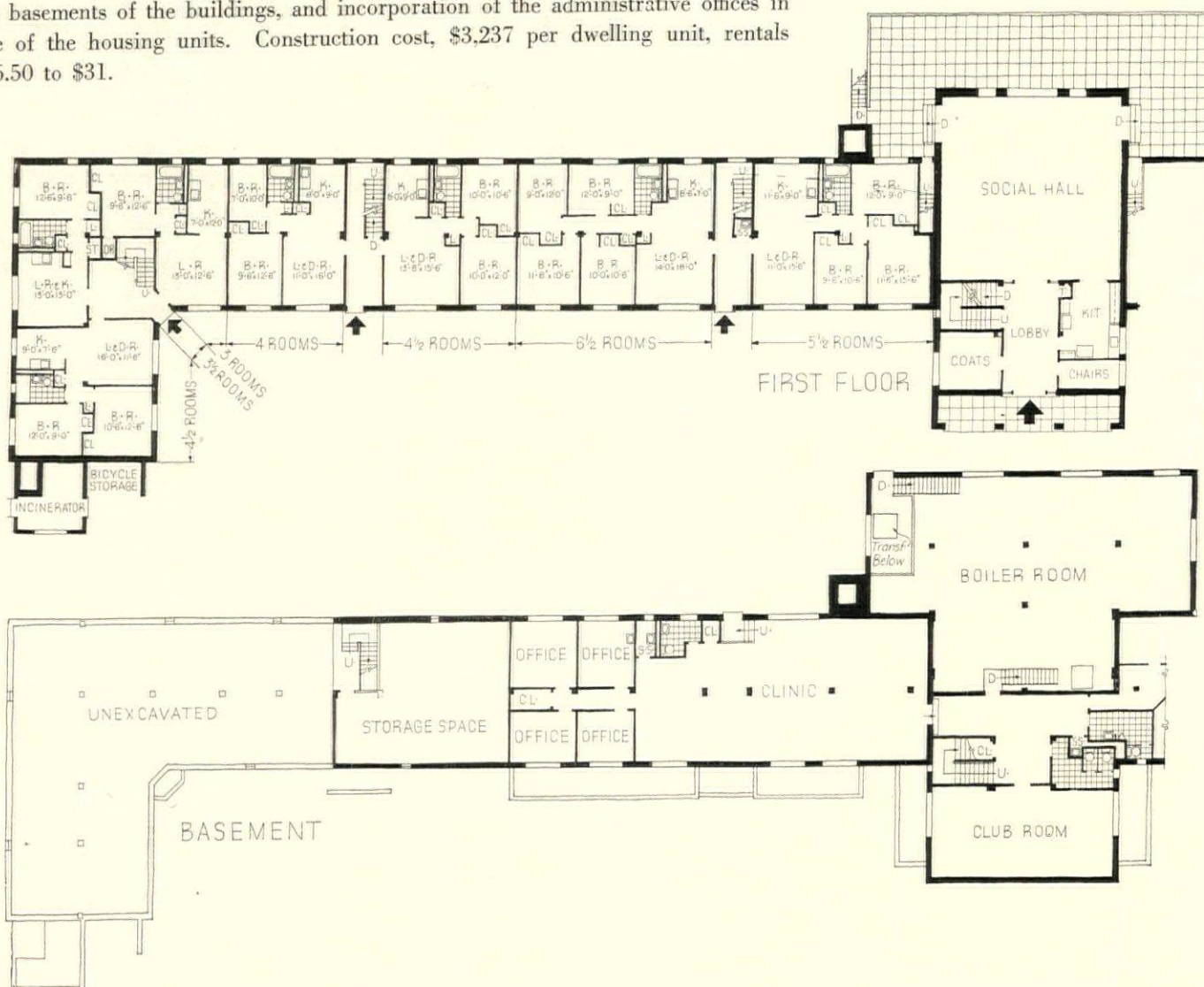
Consisting entirely of two-, three- and four-room flats, this project is almost unique among recent war housing work in the fact that three-story buildings are employed. Since the site is developed to a rather high density, this results in a compact and rather formal grouping of the buildings that is undoubtedly economical in terms of land, dollars and materials, and has enabled the designers to develop an architectural solution that is unusually satisfying. Still another factor contributing to the economy of the development is the location of tenant storage facilities, etc., in the basements of the buildings, and incorporation of the administrative offices in one of the housing units. Construction cost, \$3,237 per dwelling unit, rentals \$16.50 to \$31.

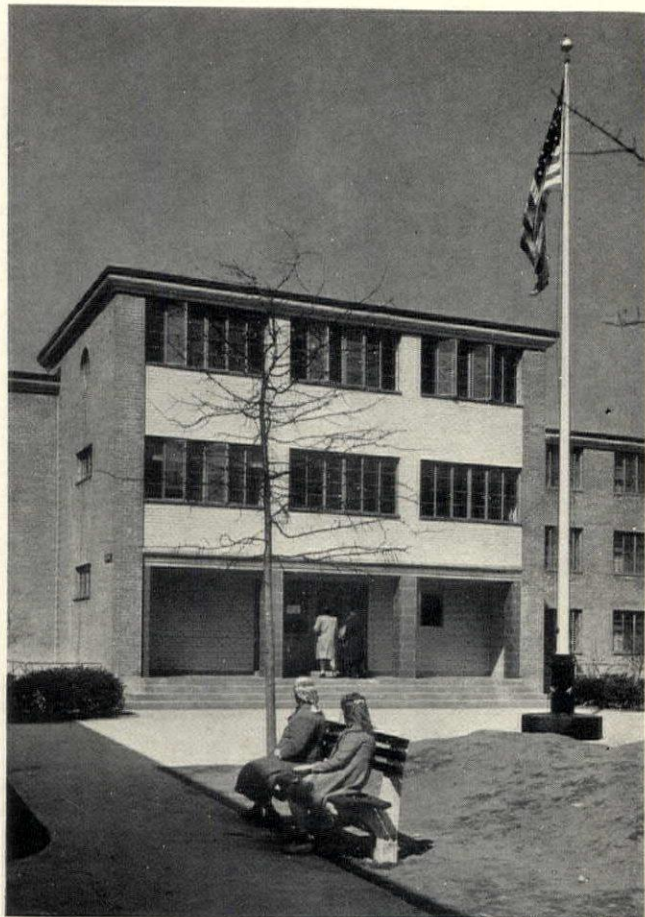


THIRD FLOOR (ADMIN)

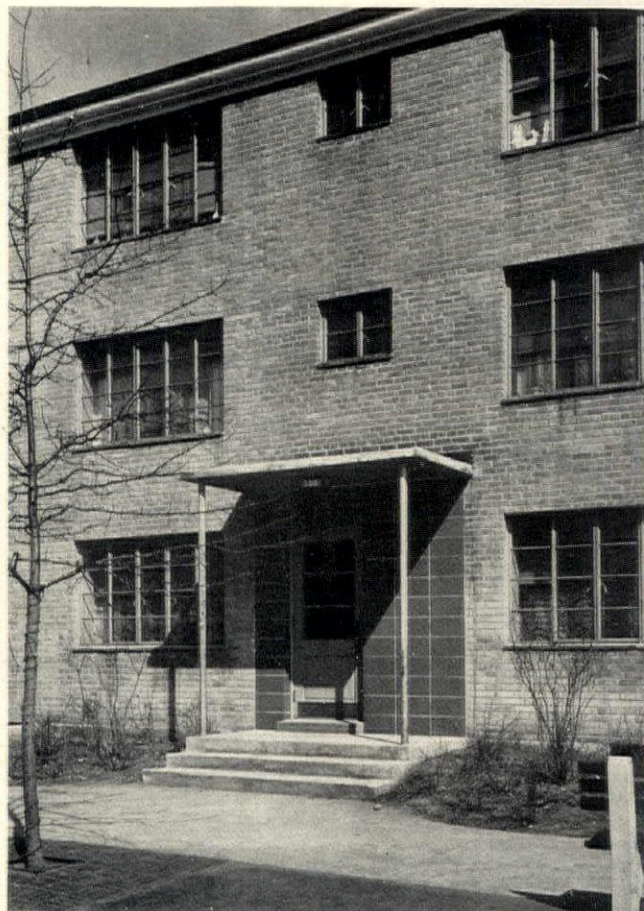


SECOND FLOOR (ADMIN)

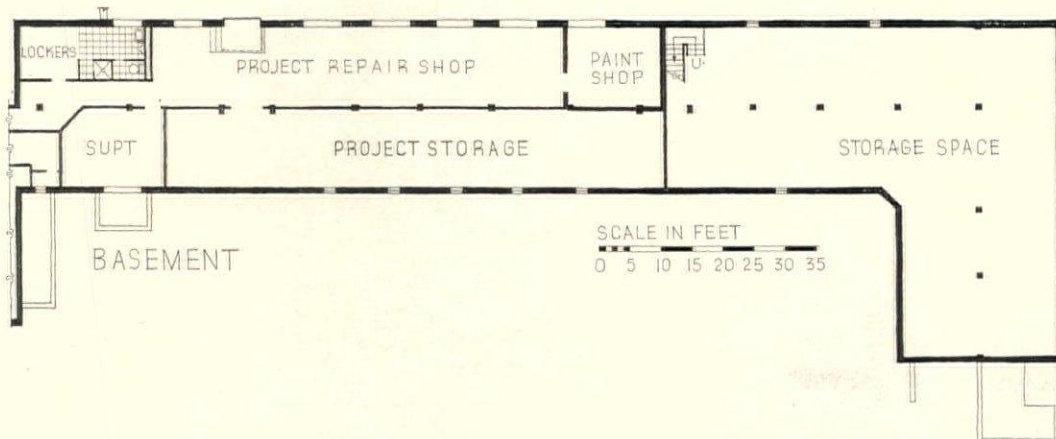
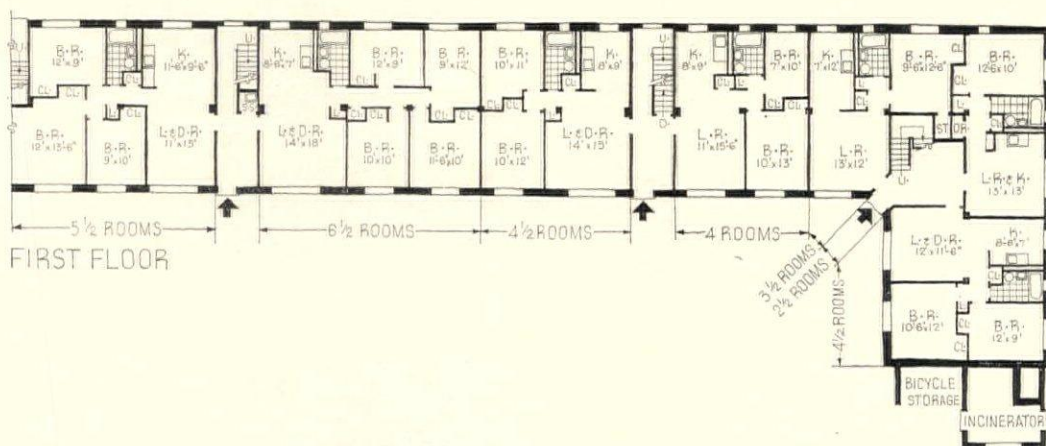




ENTRANCE TO ADMINISTRATION BUILDING



TYPICAL ENTRANCE





CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—face brick, I. L. Stiles & Son; inside—wood furring, gypsum lath, Penn Metal Co. and plaster, National Gypsum Co. Floors—reinforced concrete, asphalt tile, Leitch Mfg. Co.

ROOF: Built-up roofing, Barrett Co.

INSULATION: Assembly rooms—Acousti-Celotex, Celotex Corp.

SHEET METAL WORK: Flashing—rigid fabric, Wasco Flashing Co.

WINDOWS: Sash—steel, Hope's Windows, Inc. Weatherstripping—Chase Brass & Copper Co. Glass—single and double strength, quality B, Pittsburgh Plate Glass Co. Glass blocks—Pittsburgh Corning Corp.

PAINTS: Pittsburgh Plate Glass Co.

WOODWORK: Trim—metal. Doors—Overly Mfg. Co. and Weisberg Baer Co.

HARDWARE: Sargent & Co.

ELECTRICAL INSTALLATION: Wire—Anaconda, American Brass Co. Conduit—Fritz-Moon Tube Co. Switches—Arrow, Hart & Hegeman. Fixtures—Chase Brass & Copper Co.

KITCHEN EQUIPMENT: Range—J. B. Slatery & Bro. Refrigerator—Westinghouse Electric & Mfg. Co. Ventilating fan—Marsh Furniture Co.

BATHROOM EQUIPMENT: Crane Co. Cabinets—G. M. Ketcham Mfg. Co.

PLUMBING: Pipes—cast and galvanized iron.

HEATING: Steam system. Boiler—Pacific Steel Heating Boiler Div., U. S. Radiator Co. Radiators and valves—Crane Co. Regulator—Hoffman Specialty Co. and Minneapolis-Honeywell Regulator Co. Water heaters—American Ashcroft and Quaker City Iron Works. Unit ventilators—Trane Co.



TYPICAL APARTMENT

SOCIAL HALL



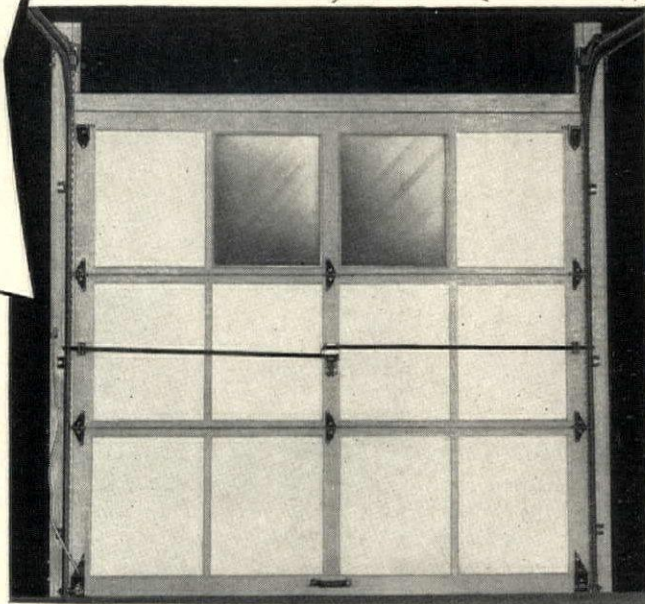
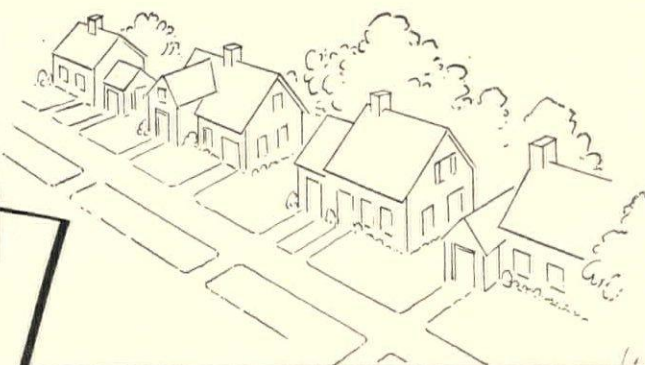
Upper picture shows a view of the interior of one of the courts illustrating the use of third-floor fire escapes and the projecting, one-story wings housing garbage incinerators and bicycle storage units, middle picture the interior of a typical combination living-dining-kitchen. View at the right shows the two-story social hall serving the entire project.



Even a *Low-Cost Home* can
now have a *High Quality*
GARAGE DOOR

This Quiet Operating, Smooth Running
OVERHEAD TYPE DOOR

with Friction-Reducing Track and Full
Ball Bearing Rollers is ideal for today's
LOW COST HOUSING JOBS!



Ro-Way Model "R" Overhead Type Door

Made with 3 or 4 Sections and in Two Sizes 8' x 6' 6" and 8' x 7'

Please do not confuse this Door with tilting type or other one-piece Doors. It's a true Ro-Way Quality Door throughout, has 3 or 4 hinged sections and when opened gives full clearance for drive-in. When closed it locks securely to track at both sides by special device operated from center of door.

Ro-Way makes it possible for you to install this Door at a very low price by producing them in quantities of hundreds at a time and by making every part of the Door, including even the track, rollers and power-springs in Ro-Way's own factory.

Write for Special Ro-Way Model "R" Folder. Also ask for Architects' 72-Page "Time-Saving Specification Book"—with detailed drawings on all Models of Ro-Way Doors for Residential, Commercial and Industrial Uses. Sent Free on receipt of Professional Card or Letterhead.

ROWE MANUFACTURING CO.
947 HOLTON STREET, GALESBURG, ILLINOIS, U. S. A.

In addition to the price advantage, note these features, most of which are not available on any other Door of any type, except the more expensive Ro-Way Models.

- 1 "Friction-Reducing Track"** — Rollers ride well away from the track side walls.
- 2 "Double-Thick-Tread"** — Track Rollers with 7 Ball Bearings to each Roller.
- 3 "Extra Bearing Support"** — for the load — Sheave Wheel to prevent side pull or twist — insures extra life and smoother operation.
- 4 "Rust-Resisting Hardware"** — all Parkerized and Painted after fabrication.

ROWE MANUFACTURING CO.
947 Holton Street, Galesburg, Ill.

Gentlemen: Please send me Folder on the New Model "R" Ro-Way Overhead Type Door and Free copy of Architects' 72-Page "Time-Saving Specification Book" as advertised in Architectural Forum.

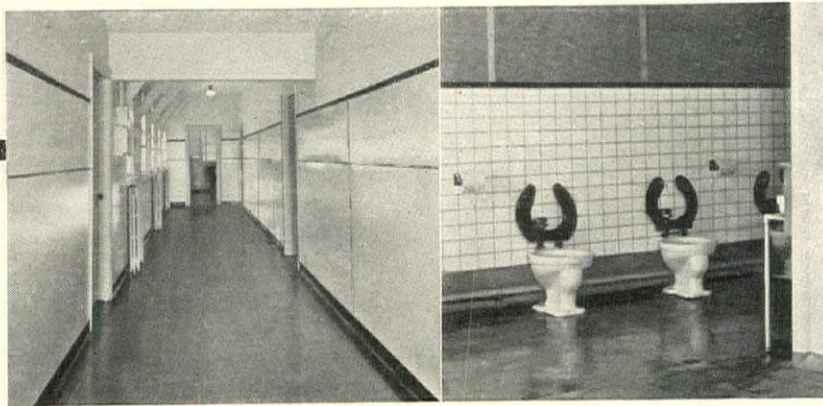
Name
Address
City State

*There's a RoWay
for every Door way!*

Marlite WAR-PANELS

(High heat baked Plastic-Finished Wall Panels)

**Meet Requirements of Fast Installation
...Durability...Low Cost
FOR WAR CONSTRUCTION**



Marlite Wainscoting Used in Corridors

Marlite Wainscoting in Army Camp Latrines

● The need for extreme speed in getting war construction—military, industrial and housing—completed and into use without delay is compelling a ruthless elimination of non-essentials and a reappraisal of available materials promising the quickest solution to building requirements dictated by the emergency. Marlite War-panels are designed expressly to meet wartime needs for speedily installed, low cost, highly sanitary walls. Where facilities are shared by groups of people as in industry, training camps, and in the contemplated multi-family units having common bath and toilet facilities, highly sanitary walls are indispensable. Speed of installation and low cost meet requirements of the emergency. Check these advantages of Marlite War-panels for war construction.

ECONOMY. Low installed cost of Marlite War-Panels makes them extremely practical for all types of war construction—even temporary structures. Eliminates costly renovating.

FAST INSTALLATION. Cut, fitted and installed right over old walls. War-panels of heavier thickness may be applied direct to studding in a few minutes.

SANITATION. High heat baked plastic finish is impervious to dirt, water, soap, acids, alkalis, alcohol and other common deteriorants.

LOW MAINTENANCE. An occasional wiping with a dampened cloth keeps Marlite War-panels clean and sanitary.

IMMEDIATELY AVAILABLE in any quantity you need. Consult our catalog in Sweet's, Section 11, or phone book for nearest Marlite Factory Representative.

Send for folder on Marlite for War Construction.

MARSH WALL PRODUCTS, INC., 61 Main Street, Dover, Ohio



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

**Plastic-finished WALL PANELS
FOR CREATING BEAUTIFUL INTERIORS**

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

FORUM OF EVENTS

(Continued from page 6)

ANNOUNCEMENTS

The Colombian American Cultural Institute announces the arrival in this country of the distinguished Colombian architect, Dr. Alberto Wills, to study "architecture, interior decoration of public buildings, ventilations, furnishings and low-cost housing during the year he will be in New York City." Dr. Wills is an awardee of one of the La Guardia-New York Scholarships. The University of Illinois Department of Architecture announces the award of the Francis J. Plym Fellowship in Architecture for 1941-2 to Ralph E. Myers, second place to Richard E. Drover. The subject of the program was "An Airport for a Middle Western Industrial City of 100,000 Population," the value of the Fellowship \$1,200 to be used toward defraying the expenses for one year of travel and study in the United States.

The National Academy of Design has elected twenty-five associate members for the current year. Twelve of them are architects, the largest number of members added to this section in the history of the Academy. The architects include: Archibald Manning Brown, John Walter Cross, Eric Gugler, Thomas Harlan Ellett, Edward Shephard Hewitt, William F. Lamb, Harrie T. Lindeberg, John Gaw Meem, William Graves Perry, William Platt, James Kellum Smith, Clarence C. Zantinger.

The American Academy of Arts and Letters has inducted five new members this year, among them Henry Shepley, architect, of Boston.

PERSONALS

H. D. Hynds, Inc., engineers and builders, announce the removal of their offices to The New York Central Building, 225 Park Avenue, New York City.

Chester Oakley, architect, has changed his address from 117 West Tupper Street, Buffalo, N. Y. to 280 Summit Avenue, Buffalo, N. Y.

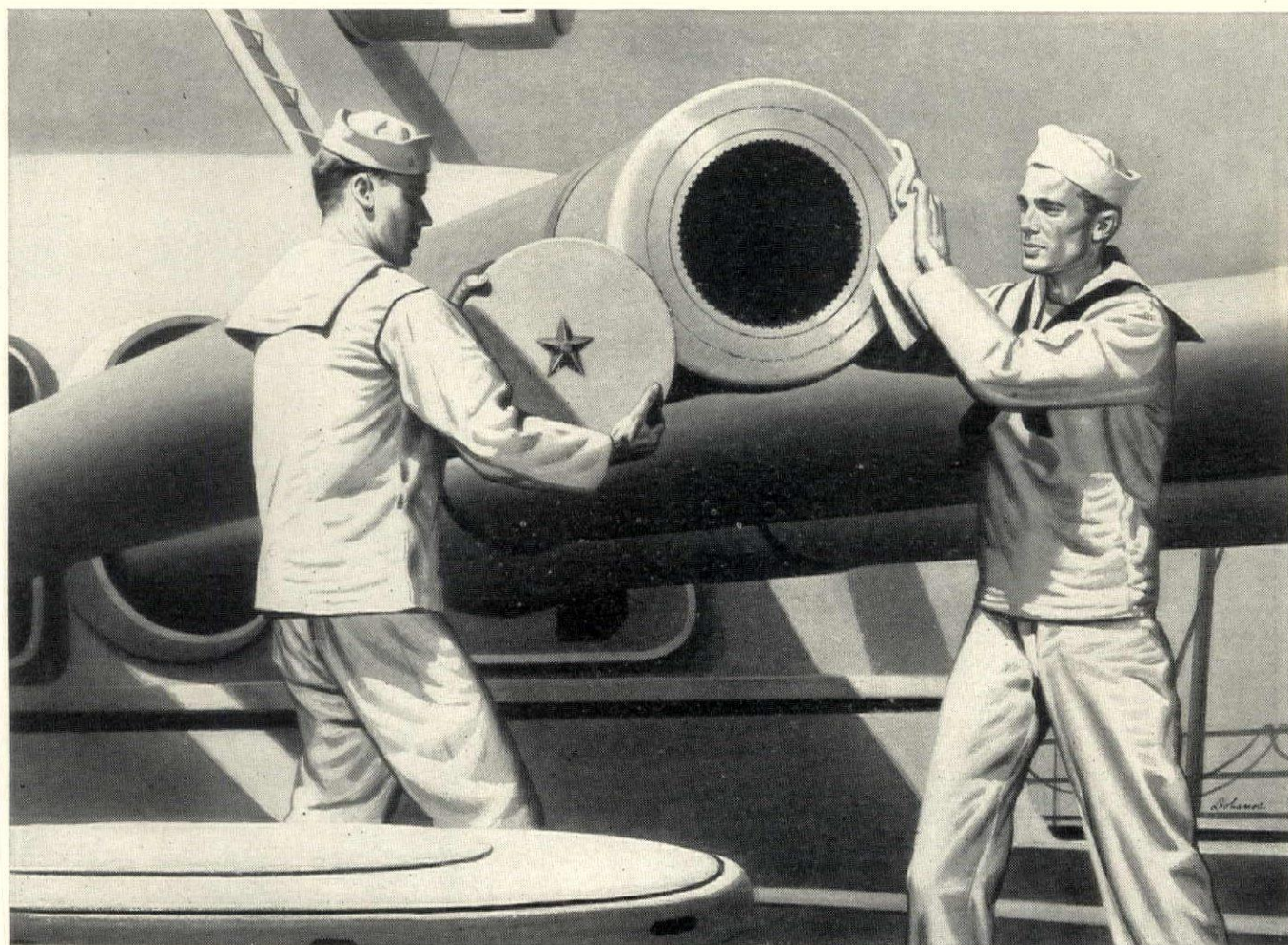
EDUCATIONAL

The School of Design in Chicago will conduct two summer sessions for 1942, one in the School in Chicago, the other on the School Farm in Somonauk, Ill. Both will last from June 22 to August 1, and will offer regular semester work in a condensed form in many subjects: architecture, photography, sculpture, painting, "Principles of Camouflage," etc. A few full and half tuition scholarships are available for this period. Write to L. Moholy-Nagy, Director, School of Design in Chicago, 247 East Ontario Street, Chicago, Ill.

The Massachusetts Institute of Technology (one of the first schools in the country to

(Continued on page 36)

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



Throats to speak our nation's piece

THERE'S A VOICE THAT SPEAKS for the men who stood to their guns at Midway and Wake. It's the don't-tread-on-me roar of an aroused America—given voice by the Navy's big guns!

At cities far from the oceans, in brand-new, Westinghouse-operated factories, will be built much of the Navy's ordnance which will sound our nation's determination to preserve this freedom we have worked so long to build.

Here, in 143 days, plants were built, machines were installed, craftsmen were trained, in an outstanding example of the way Westinghouse "know how" is working three shifts a day for our War Program.

What is this Westinghouse "know how" that brought these plants so rapidly from blueprint to production? It is the hard-earned skill of our craftsmen, trained in the Westinghouse tradition. It is experience and industrial ingenuity. It is the ability to get things done in the best possible way.

The same "know how" that worked for you

Today, the Westinghouse "know how" that once worked for your industry serves the common defense by building parts for tanks and aircraft, binoculars and big guns, and lights for airports.

And this is but a small part of a tre-

mendous effort—as varied as it is huge.

An all-out job for Uncle Sam

Now, many products that once bore the Westinghouse trade-mark must wait. We have a more important job to do . . . the job of speeding the day when our "know how" will once again help you build for a future of peace in a victorious America.

Westinghouse



For the Common Defense

Naval Ordnance
Bomb Fuses
Torpedo Tubes

Military Radio Equipment
Navy Ship Turbines and Gears
Armor-piercing Shot

Lighting Equipment for Air Bases
Army Binoculars
Portable X-ray Units

For the General Welfare

Electric Stairways
Precipitrons

Circuit Breakers
Electric Refrigerators

Wiring Devices
Meters

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

WESTINGHOUSE ELECTRIC & MANUFACTURING COMPANY, PITTSBURGH, PENNA.

See what the right floor will do

... FOR A LOW-COST, 5½' x 8' BATH



THAT'S a small bath you see below. Like many of the bathrooms you are building today, this one was designed—and constructed—on a limited budget. The cabinets at the end of the tub, the lockers, the dresser built around the basin—all were planned to provide the storage space that is so badly needed in a small, low-cost home. Yet, thanks to the Armstrong's Linoleum Floor, this room doesn't seem overcrowded. The Marbelle Pattern inset with horizontal bands seems to push back the walls . . . makes a narrow room like this one actually look larger.

Here is just one way—there are many others

HORIZONTAL STRIPES and polka dots of plain linoleum in a field of Marbelle add color to this low-cost bath. The floor is designed to make the room look larger. Walls are Armstrong's Linowall. Plain linoleum is used on lavatory top and is coved at the baseboard for easy cleaning.



ARMSTRONG'S LINOLEUM

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

FORUM OF EVENTS

(Continued from page 34)

offer graduate work in city and regional planning) will offer a new four-year undergraduate curriculum in city planning for the first time in 1942-3. Under the direction of Professor Frederick J. Adams, "this is the first instance in any country of the offering of a coordinated program of instruction for students wishing to follow . . . the planning profession."

At Mills College, Calif., this summer Miss Catherine Bauer will give a course on "Housing in War and Peace," and Richard Neutra will lecture on "Designed Environment."

The Cranbrook Academy of Art, Bloomfield Hills, Mich., announces a summer session of ten weeks (June 22-August 28) at which Eliel Saarinen will instruct in Principles of Architecture, Carl Milles in Advanced Sculpture, and courses in Drawing and Painting, Modeling.

DIED

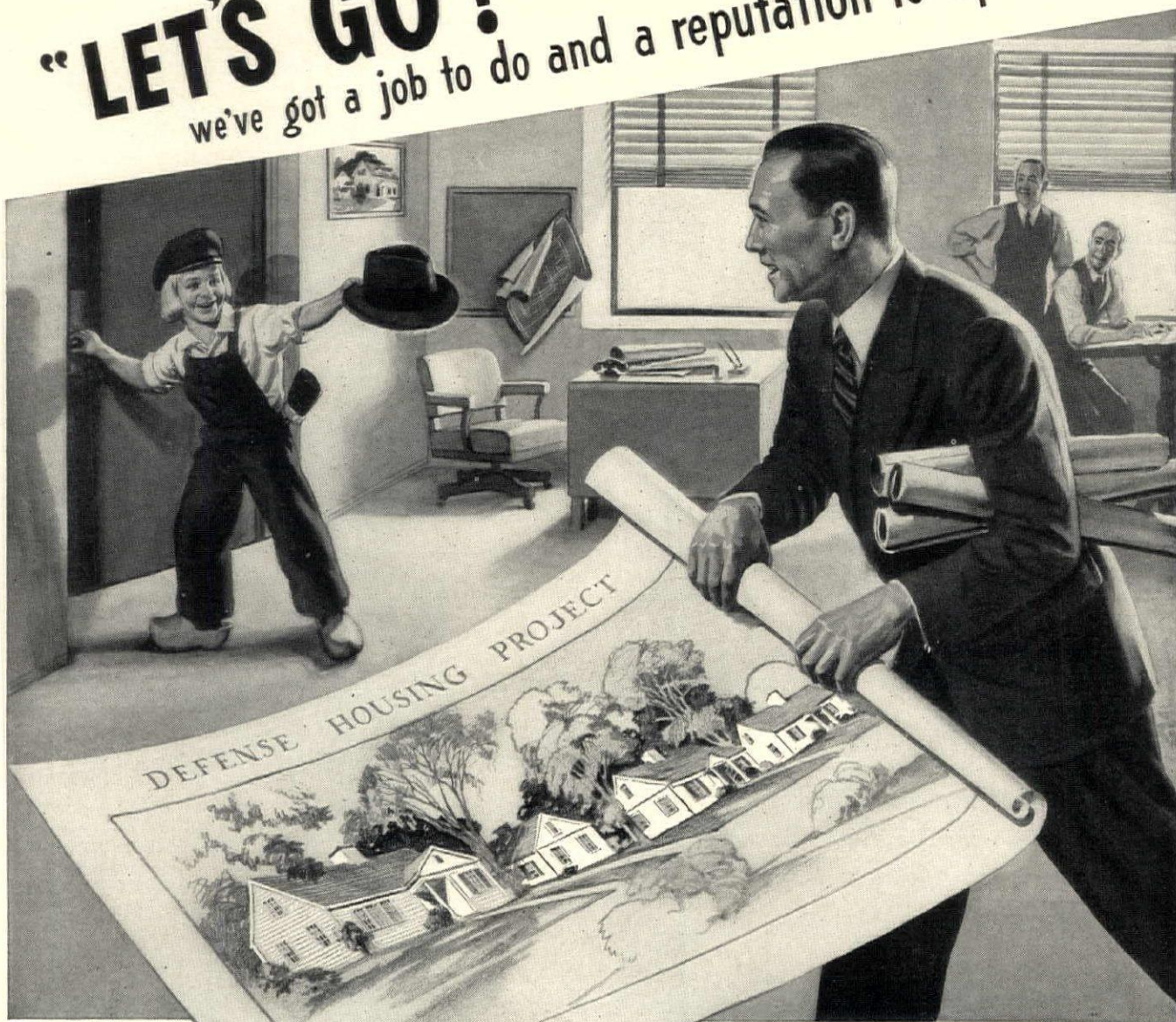
JAMES L. BURLEY, 69, architect, in East Norwalk, Conn. Mr. Burley was born in Belmont County, Ohio, attended the University of West Virginia and Lehigh University. He entered private practice in New York, was active in town planning in Queens, Kings and Nassau counties. As a member of the firm of Theodore Visscher and James Burley, he designed many Norwalk buildings, the new Lehigh University buildings at Bethlehem and many homes in the Fairfield-Southport section of Connecticut.

ARTHUR GARLAND MOULTON, 66, construction expert, in Chicago. Mr. Moulton was born and educated in Chicago and, as a member of the firm of Thompson-Starrett, superintended the buildings of the Grand Coulee Dam in Washington, the Equitable Building in New York and Chicago's Ida B. Wells housing project.

CHARLES F. REIF, 78, architectural designer, in Buffalo. Creator of replica period furniture, Mr. Reif contributed to the furnishings and decorations of the Library of Congress and structures at Yale, Harvard and Princeton Universities. He was associated with his sons in an oil-heating business, Reif-Rexoil, Inc.

WILLIAM WOODARD, 68, engineer, in Forest Hills, Queens. Born in Utica, N. Y., Mr. Woodard received a mechanical engineering degree from Cornell University. During his career he designed the Lima A-1 locomotive, a type now in wide use throughout the country, and made many important innovations in steam-locomotive design. Consulting engineer to the Franklin Railway Supply Company, Inc., and vice-president in charge of design of the Lima Locomotive Works, he was designated a "Modern Pioneer" by the National Association of Manufacturers in 1940.

"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.



NATIONAL LEAD COMPANY
New York, Buffalo, Chicago, Cincinnati, Cleveland, St. Louis, San Francisco, Boston (National Boston-Lead Co.), Pittsburgh (National Lead & Oil Co. of Penna.), Philadelphia (John T. Lewis & Bros. Co.).

SPECIFY DUTCH BOY PURE WHITE LEAD



Cold Storage Plants Offer Hot Tip On Wood Construction

WOLMANIZED LUMBER* adds long life to the other advantages of wood construction; that's the verdict of cold storage and ice plant operators after observing its fine performance for the past fourteen years. They've used hundreds of thousands of feet of Wolmanized Lumber for cold-room floors, framing and linings.

WOOD CONSTRUCTION puts cold storage within reach of many fruit and vegetable growers, by cutting the initial cost of these plants. Wolmanized Lumber assures low upkeep costs, because this wood is able to withstand the high humidities encountered. Its insulating properties give added operating economies.

WOLMANIZED LUMBER is ordinary lumber which has been made resistant to decay and termite attack by vacuum-pressure impregnation with Wolman Salts* preservative. It adds little to the first cost of a structure—is light, strong, resilient. It goes up quickly and easily and is clean, odorless and paintable.

HAVE YOU A PROBLEM which might be solved with Wolmanized Lumber? We'll gladly send you additional data on its use. Write American Lumber & Treating Company, 1647 McCormick Building, Chicago, Illinois.

*Registered Trade Mark

WOLMANIZED LUMBER



BOOKS

(Continued from page 14)

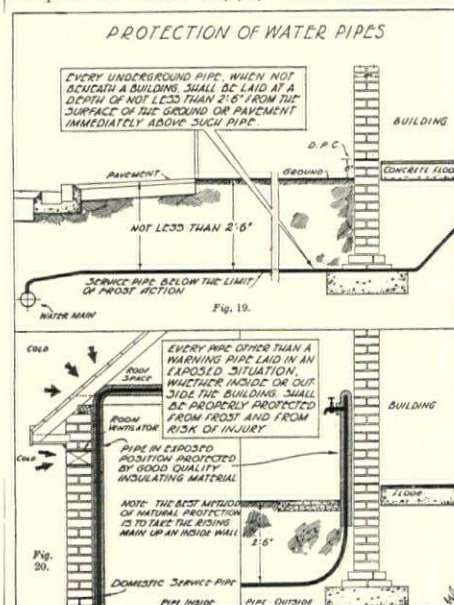
HISTORIC AMERICAN BUILDINGS SURVEY, compiled and edited by Historic American Buildings Survey, National Park Service. U. S. Government Printing Office. 470 pp., 5 3/4 x 9 1/4. \$1.25.

A catalog of the measured drawings and photographs of the survey in the Library of Congress, this invaluable booklet was compiled from the work of selected architects throughout the country, all members of the American Institute of Architects, who selected the structures in their locality which they considered most worthy of recording.

The important buildings in each are listed, together with data about their construction, number of stories, date, type of building, and number of photographs and drawings which exist for each in the Library of Congress' files. The catalog is profusely illustrated with photographs, graphic plans and reproductions of original measured drawings.

MODERN SANITARY ENGINEERING, by G. Eric Mitchell. Chemical Publishing Co., Inc. 169 pp., 5 3/4 x 8 3/4. \$5.

Intended for the use of architects, surveyors, engineers, medical officers, health and sanitation officers, builders and students, this is a practical handbook on such subjects as damp prevention, ventilation and water heating, byelaws with respect to water supply (see cut), drain-



age, sanitary fittings, etc. Illustrated with clear and attractive drawings, this book should be of use to builders and students faced with problems of war housing, as well as persons approaching the subject for the first time. Sanitary laws and requirements are studied simultaneously with technical problems and general principles of construction, making this a useful reference work.



Let's get the facts straight!

Don't let anyone tell you that Toncan Iron Sheets are merely Copper-Bearing Steel Sheets. *There's a world of difference.* And we can tell you the facts without limitations, because we make *both kinds* of sheets.

Toncan Iron is made from *open-hearth iron*—not open-hearth *steel*. It is highly refined iron, containing fewer impurities that invite corrosion. Toncan is an *alloyed iron* with copper and molybdenum added in *correct proportion*. Molybdenum gives it a uniform grain structure and increases the iron's appetite for copper. That's why Toncan Iron has *twice as much copper* as the finest copper-bearing steel or iron sheets.

Toncan Iron Sheets give you *greater rust-resistance* than any ferrous metal in their price range—*uniform* resistance all through the metal. They enable sheet metal work to

stand up longer—reduce irritating and costly repairs. They take all kinds of bends easily—cutting sheet spoilage—speeding construction.

Do your share in *Construction for Victory* by designing more durable structures for war production and home defense. Specify Toncan Iron Sheets for rust- and corrosion-resisting applications.



All the comparative sheet metal data you need is contained in the new booklet "A Few Facts about Toncan Iron for Architects and Engineers." Write for a copy. Also, see Sweet's 13/6. Refer to Sweet's for facts on pipe 27/3; Steel and Tubes 23/5; Berger 9/1 and 21/2; Truscon 15/18.

REPUBLIC STEEL CORPORATION

General Offices: Cleveland, Ohio

Berger Manufacturing Division • Culvert Division
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REPUBLIC Toncan Iron SHEETS

Reg. U. S. Pat. Off.

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



BOOKS

(Continued from page 38)

There's a NEW obligation, now... when homes are painted!



Perkins, Wheeler and Will, Architects

THE obligation used to be moral. Now it's very *realistic* and *vital*. Neither materials nor manpower can be wasted in America's Victory Program.

The paint used on homes must protect for the maximum number of years. That's why the paint made with Eagle White Lead continues to stand in such high favor with architects, builders and maintenance men. This paint wears stubbornly and slowly. . . tough, elastic film does not 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.

THE EAGLE-PICHER LEAD COMPANY
CINCINNATI, OHIO



HOW TO READ ELECTRICAL BLUE-PRINTS, by Gilbert M. Heine and Carl H. Dunlap. American Technical Society. 318 pp., 5½ x 8½. \$3.

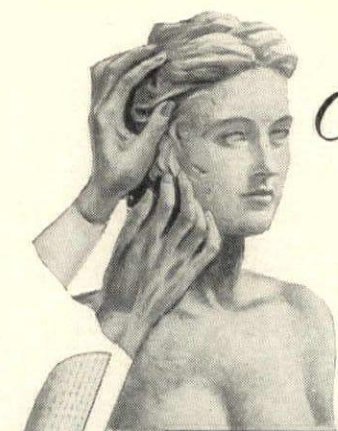
A practical and simplified manual, this book deals completely and graphically with such subjects as how to read architectural blueprints, diagrams for bell and signal wiring, house-wiring blueprints, diagrams of generators and motors, control diagrams, power station blueprints, automobile wiring blueprints and others. Because of the diversified character of the work performed and machinery used in the electrical industry, the volume is divided conveniently into chapters, each of which represents another branch, the symbols and typical blueprints utilized in each, and characteristic problems of the separate division. The book is equipped with nine sample blueprints.

THE AMERICAN SCHOOL AND UNIVERSITY. Fourteenth Annual Edition. American School Publishing Corporation. 491 pp., 8½ x 11¼. \$2.50.

A yearbook devoted to the design, construction, equipment, utilization and maintenance of educational buildings and grounds, the 1942 edition contains valuable material on such currently engrossing subjects as "Large-Scale Housing and its Educational Implications," "The Impact of the War upon School Building Planning," and "Maintaining School-Shop Equipment under the Defense Training Program." The articles on site planning, equipment, design and construction of school buildings are by men active in such work: engineers, instructors, superintendents, principals, architects and business men. A considerable section of the book is devoted, as usual, to lists of the names of presidents of colleges and normal schools, heads of private and parochial schools, and superintendents of schools.

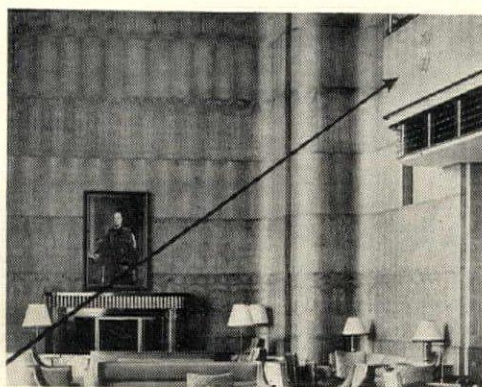
VENETIAN BLINDS. Thomas French & Sons Limited, Manchester 15, England. 295 pp., 7½ x 9¾. 10s6d.

This book is a complete survey of all the information extant on the subject of Venetian blinds: their development, uses, advantages and applications, together with the modern *modus operandi* of manufacture and selling. Copiously illustrated with color plates of buildings, rooms, offices, etc., which have utilized blinds to good advantage, the book shows that England is as acutely aware as the United States of their decorative and ornamental uses. Perhaps the most valuable section of the text is one in which the technical problems of metal construction and operation of the single-pull and compound-lift mechanisms are discussed.

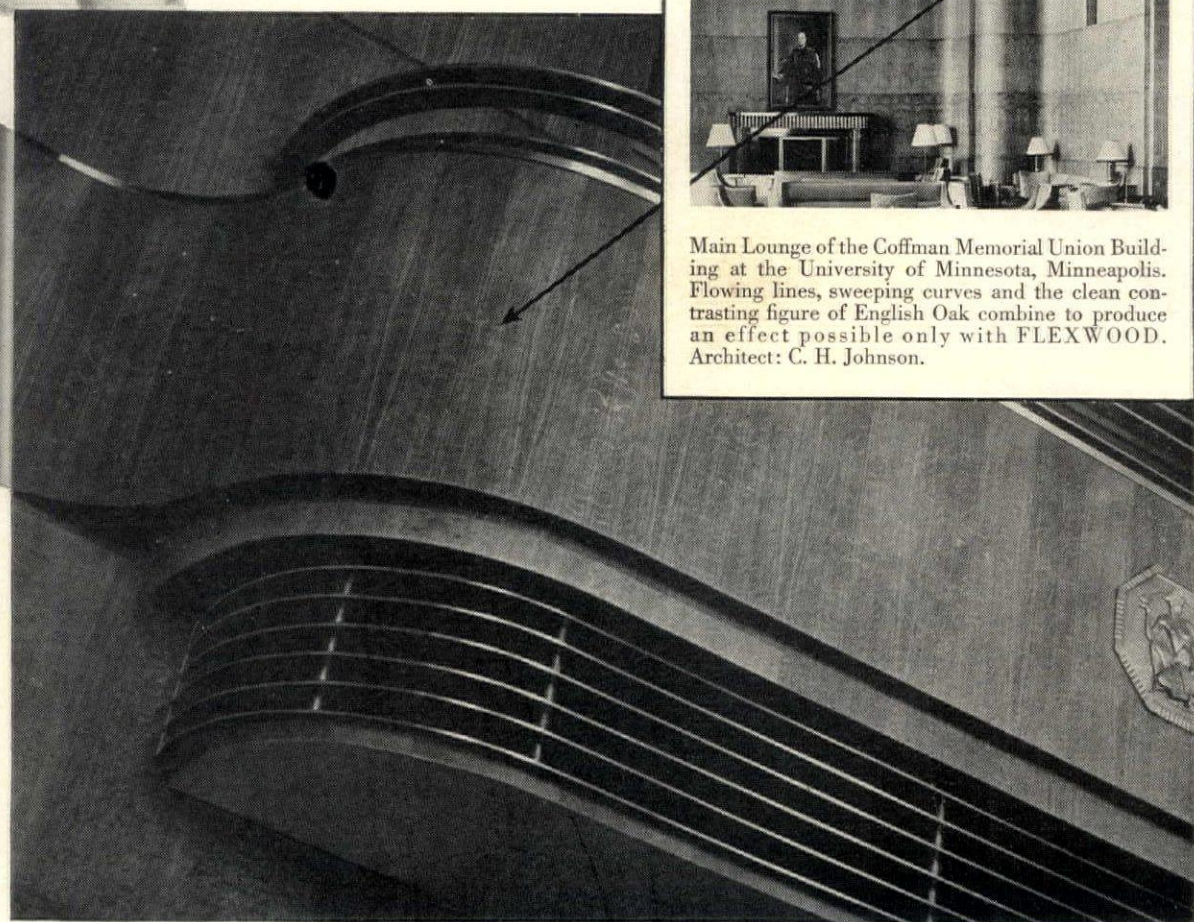


As clay in the hands of a sculptor

Flexwood... a new medium of expression for interior design. Offers all the charm and beauty of genuine wood — without its limitations!



Main Lounge of the Coffman Memorial Union Building at the University of Minnesota, Minneapolis. Flowing lines, sweeping curves and the clean contrasting figure of English Oak combine to produce an effect possible only with FLEXWOOD. Architect: C. H. Johnson.



Here is a way to achieve the clean, flowing lines of modern design, *plus* the charm and traditional appeal of natural wood! Flexwood's scope makes it easy for you to plan new, luxurious interior effects for your clients.

Flexwood is finely cut, fabric-backed veneer—so flexible you can wrap it around a pencil! Made in forty different woods with nature's endless variety of color and figure. Flexwood opens up amazing opportunities for expression in modern or classical design.

It can be applied to wood, stone or metal surfaces—flat or curved. In fact, any surface that is hard and smooth. Flexwood is quick and easy to apply—no structural changes are needed. Its beauty, like wood, mellows with the years.

Write today for the FLEXWOOD folder, and samples of some of the exotic woods in which this decorative material is made. Address: **UNITED STATES PLYWOOD CORP.** 105 Park Avenue, New York, N. Y.

FLEXGLASS—the Glass that Bends. Genuine glass rectangles mounted on flexible fabric backing. Readily cemented to flat or curved surfaces. Mirrors, dewdrops, opals and metallics . . . in many different colors.



Flexwood and Flexglass are manufactured and marketed jointly by The Mengel Company, Louisville, Ky., and United States Plywood Corporation.

Genuine Wood made pliable

How to
Specify

STRONGER

WELDED IRON FENCE



This Type Welded Joint Eliminates Center Supports, Ugly Cross-Bracing

When you specify Iron Picket Fence, include these two important features in specifications. They assure a fence which will last for ages, with little or no maintenance cost.

1. Inseparably Welded Joints between Rails and Pickets.
2. Carrying Rails must be the same thickness as the Pickets.

A fence so built does not need ugly cross braces for gates. Nor does it need center supports for its panels. Each panel so constructed will support a distributed load of one ton without showing permanent set. Anchor-Weld Iron Picket Fences meet these specifications. Mail the Coupon below for Catalog and Sample Anchor-Weld (a nice paper weight). No obligation, of course.

NATION-WIDE SALES AND ERECTING SERVICE



ARCHITECTS *Mail this Now!*

ANCHOR POST FENCE CO.
6635 Eastern Ave., Baltimore, Md.

Please send me () Anchor-Weld Iron Fence Manual. () Anchor-Weld Sample Weld. () Name of nearest Anchor Fence Engineer.

Name

Address

City State

MONTH IN BUILDING

(Continued from page 351)

culties could be overcome, dealers are hardly likely to be persuaded to neglect their own customers and sell to distant markets.

Many large builders are also accustomed to buy their lumber direct from the producers. If they now have to buy through wholesalers or retailers, they will have to pay higher prices.

COPPER SQUEEZE

Headache to Government officials and private builders alike is the paradox of thousands of new houses standing idle while thousands of war workers clamor for roofs—all because of inability to get copper wire for utility and electric power hookups. Reports put the tie-up as high as 3,000 houses in Pittsburgh, 2,000 in Washington, nearly 800 in Baltimore. Workers can, of course, use oil lamps and candles for illumination, but this does not help the private builders out of their plight. Final payments of construction loans cannot be made until the houses are ready for occupancy.

WPB officials blame the wire shortage mostly on hoarding by dealers and utility companies. The dealers are said to be holding millions of feet for higher prices, while the utilities hesitate to release their stocks for fear that replacements cannot be obtained.

Silver and galvanized steel are possible substitutes for copper in wiring. Some silver has been earmarked for electric fuses, but the Government still insists on burying most of its purchases of the metal. The supply of galvanized steel, on the other hand, is nearly as scant as copper. Besides, it is prohibited by many building codes. (Steel's voltage drop is nine times that of copper, may cause appliances near ends of power supply lines to burn out.)

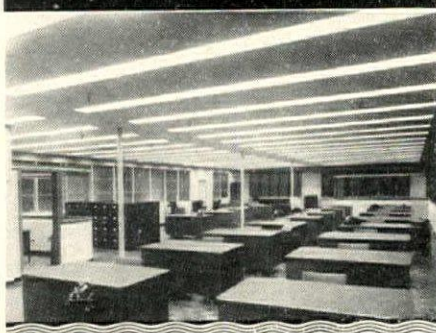
Stock seizures consequently are being noodled. Electric utilities have already submitted reports on their excess supplies of copper wire, transformers and meters to WPB's Power Branch. Materials needed for power line extensions to housing projects must come from these existing stocks. No new purchases can be made on the open market.

GOAL FOR OIL

Next winter will see thousands of heatless homes unless heating changeovers are made this summer. WPB officials grimly warn. A half million oil-burning homeowners on the Atlantic seaboard face the problem of converting their furnaces to coal—not when snow begins to fly but now! For special conversion grates must first be manufactured and then installed in the furnaces. WPB is willing to allocate

(Continued on page 44)

Better Light for More Efficiency for Quicker Victory!



Guth FLUORESCENT LIGHTING

Increases Office Efficiency 15%!

The picture above shows a typical Guth Fluorescent Installation in a typical American office (name on request.) Of their new lighting, the company's president says, "Efficiency of office workers has increased 15%; and we are now receiving applications for work from the very best help in town, the strongest attraction being the comfortable working conditions."

In these days of extra stress, every factor that contributes to greater efficiency and morale is highly important. Write for information about the use of GUTH Fluorescent.

FOR NATIONAL OFFENSE

Guth

is now making Projectiles, Ventilators, and Lighting Equipment, and is also Spinning, Stamping, and Power-Braking Metal. GUTH'S Finishing Department is applying Aluminite*, ALZAK*, and Coloring to Aluminum Metal; and is producing Cadmium, Udylite, and all other Electroplating. Some surplus capacity is still available.

*T. M. Alcoa

40th Anniversary of Guth Lighting Leadership

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

**NEW 10-STORY HOME
OF NEW ENGLAND MUTUAL
LIFE INSURANCE CO. GETS**

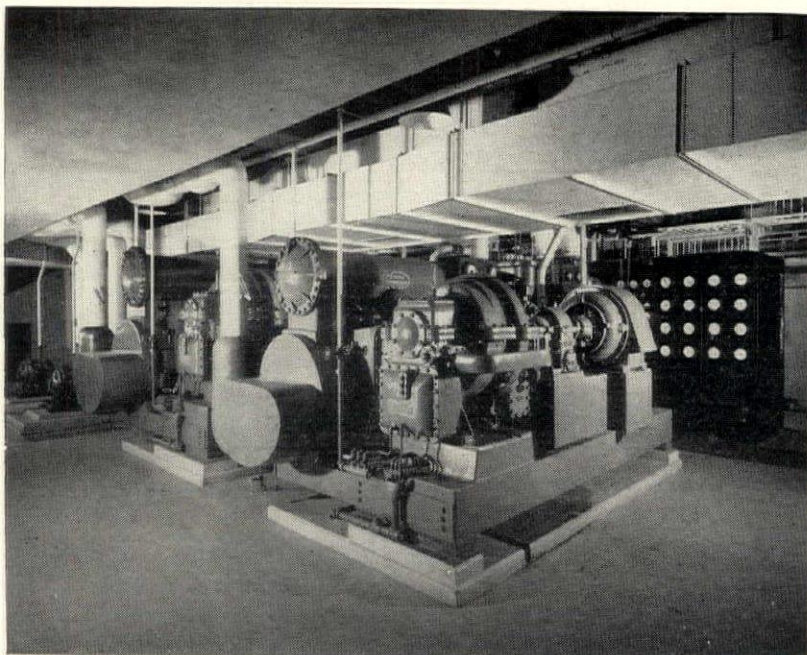
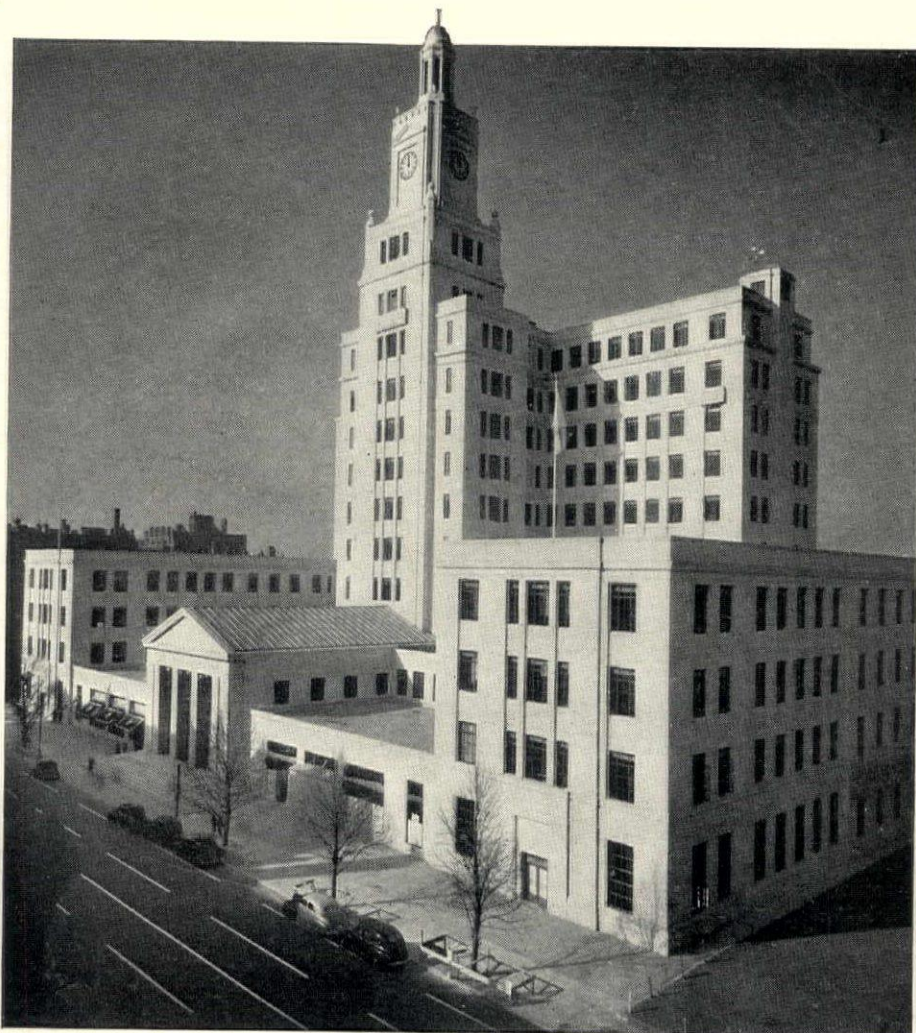
450 TONS

OF COOLING DAILY

Cram and Ferguson, *Architects*
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Buerkel and Co., Inc.,
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REFRIGERATION for the air conditioning system of the great new 10-floor home of the New England Mutual Life Insurance Co. in Boston, Mass., is provided economically and efficiently by two Carrier Centrifugal Refrigeration Machines. Compact in size, this equipment occupies a minimum of space; automatically adjusts itself to fluctuating loads; is quiet in operation with little or no vibration. Using Carrene refrigerant, Carrier Centrifugal Machines are inherently safe. Among the building's unusual features are a large auditorium and recreation room both of which are served with conditioned air.

Architects and consulting engineers are invited to call their nearest Carrier representative or mail coupon for refrigeration and air conditioning data which will prove helpful in selecting proper equipment to meet specific requirements.



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

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Centrifugal
REFRIGERATION

CARRIER CORPORATION, Syracuse, N. Y.
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Desk F29

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THE high-visibility white or aluminum paint usually applied to America's vital storage tanks makes them inviting targets in times like these. That's why industry is turning to Arco INFRAY.* Dark in color, INFRAY* provides a high degree of protective concealment. Based on a new principle of paint formulation, it repels heat rays—holds down evaporation losses. INFRAY* is a timely achievement of Arco Research.

*Patents Applied For

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



MONTH IN BUILDING

(Continued from page 42)

the necessary metal, designs have been developed by the Anthracite Industries Laboratory, companies qualified to make the grates are standing by for orders. But, says WPB's Heating and Plumbing Branch, the homeowners act as if they don't believe a drastic fuel shortage impends.

STOVE SHIFT

First experiment in concentrating civilian production in smaller plants is to be tried out soon by WPB. All big manufacturers of cooking and heating stoves have been ordered to stop production after July 31 and to convert their plants to war work. But the industry's small fry will be permitted to continue making a limited number of simplified lightweight ranges, provided factories are located in areas where there is no labor shortage.

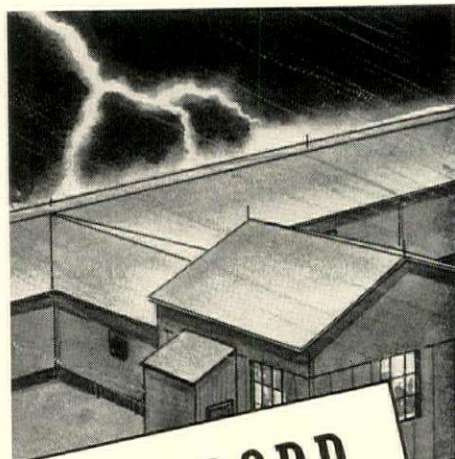
REFRIGERATED RENTS

Reactions to the Government's rent control program are mixed. Price Boss Leon Henderson reports voluminous correspondence expressing 100 per cent support. Singled out and commended by him for its patriotic spirit is a letter from Chicago Real Estate Managers Byron A. Cain & Co., announcing that their rents are being reduced immediately to the March 1 level. This action is voluntary, since OPA cannot order rents reduced in Chicago for nearly two months.

Generally, however, response has been far less hearty. The Government's rent-freeze struck its first serious snag when 700 realtors from all over the country, meeting in Chicago at Henderson's request, adopted a resolution withholding approval unless ceilings are placed also on operating costs, wages and property taxes. Indications are that there will be very little voluntary compliance by the real estate fraternity, and OPA will have to bare its fangs to keep landlords in line.

The Emergency Price Control Act has plenty of teeth. If, at the end of 60 days, the 323 U. S. localities designated on April 28 as defense-rental areas have not acted adequately on their own initiative, OPA may step in and order rents pegged to the maximum in effect on a specified date. In exceptional cases landlords may be granted adjustments upward to meet increased costs—provided there has been no attempt to evade the law. Tenants are protected against evictions. Violations of OPA orders may be punished by fines up to \$5,000 or one year's imprisonment, or both. In addition, landlords who persist in collecting excessive rents may be sued for \$50 or triple the amount by which the rent exceeds the established maximum, whichever is larger.

The rent control law applies only to
(Continued on page 46)



WEST DODD
Shoulders
Arms



**—HELPS GUARD
ORDNANCE PLANTS
AGAINST LIGHTNING!**

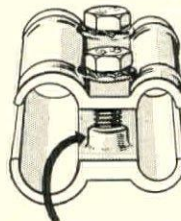
★ West Dodd lightning protection and static control equipment is being widely used in all parts of the country to help safeguard ammunition loading lines, underground ammunition magazines, standard magazines and bag loading buildings.

The chance of lightning halting, or slowing up, vital war production is also eliminated in many industrial plants by West Dodd protection of the power stack.

In the two vital factors of experience and responsibility, West Dodd provides a plus. For West Dodd is a consolidation of the 12 largest manufacturers in the field, including the pioneers of APPROVED lightning protection, with the wealth of their experience in all phases of the work.

West Dodd's materials and methods of installation are fully approved.

Full assistance in planning the installation and estimating costs. Write, or wire, today.



The exclusive West Dodd easy-on, solderless, bonding clamp. Note how boss provides greater number of threads so screw slippage is practically eliminated.

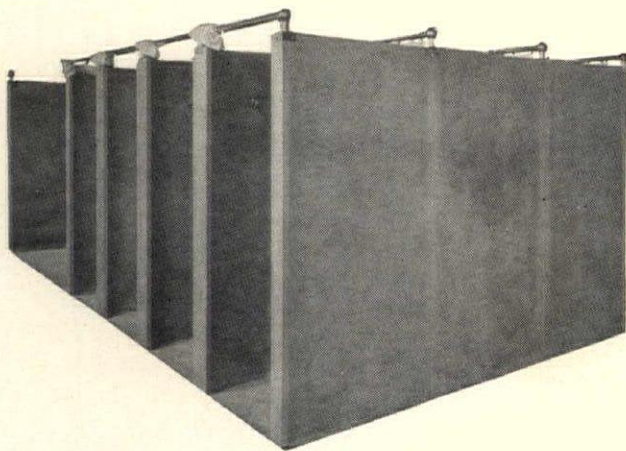
Is quicker to install. More permanent. Forms better electrical bond. Made of copper-bronze, tinned when necessary to prevent electrolytic corrosion. Sixteen different stock sizes.

WEST DODD
LIGHTNING CONDUCTOR CORP.

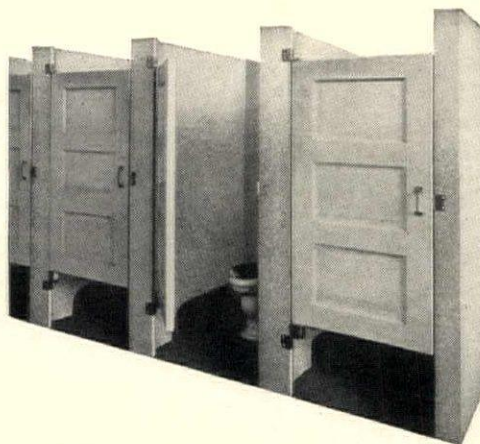
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GOSHEN, INDIANA



Alberene Stone Shower Compartments have water-tight tongue-and-groove joints; are practically one-piece, sanitary structures.



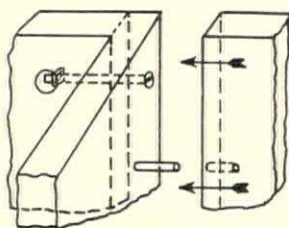
No unsightly metal clips or bracing used in Alberene Stone Toilet Partitions. Stone is non-staining, and not affected by chemicals.

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Sanitary, economical Alberene Stone, quarried and fabricated in Virginia, is not only readily available, but we have ample facilities, so that shipments are being made promptly. Erection is simple and speedy. Brass angles are not required, further conserving vital metal. The natural light, blue-gray color is pleasing and harmonious, and the stone is close-grained and practically

non-absorbent and non-staining. Its ease of cleaning, durability and structural soundness are known and recognized. Alberene is ideal for Receptors because of the foregoing qualities, plus the fact that it is non-slip, and saves labor and material. Complete data and samples on this non-critical stone will be sent to those requesting them on their business letterheads.



Concealed bolts and dowels, at top and bottom of slabs, are used to join partitions and backs of Alberene Stone Compartments.

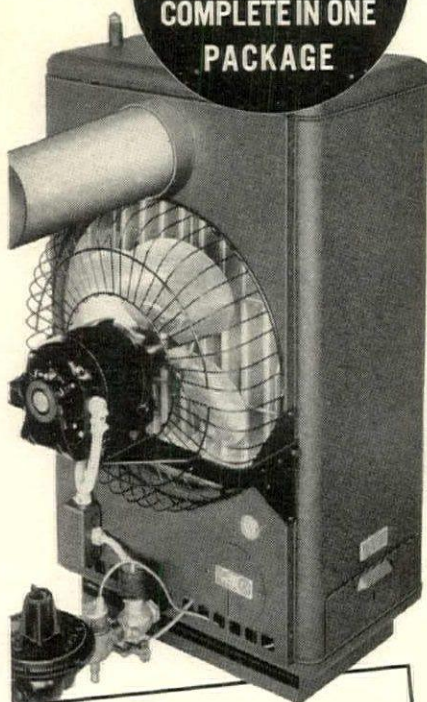
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"GAS HEATERS EXCLUSIVELY SINCE 1888"

MONTH IN BUILDING

(Continued from page 44)

dwelling accommodations in any defense-rental area. It covers everything from a house to a trailer, including even hotel rooms and tourist camps, whether owned by individuals, corporations or the Government. Not included: stores, offices.

Government rents. Henceforth economic values instead of wage scales will be the basis for computing rentals in Federal housing projects. Procedure as outlined to the NAHO convention in Baltimore by FPHA's Asst. Management Commissioner Lee Johnson: In each community the Government will first determine the average monthly operating cost per dwelling unit (including payments in line of taxes and debt service, but excluding utility services to tenants). This will be compared with rents prevailing in the community for similar accommodations. Either the average monthly cost or the prevailing rent, whichever is lower, may be used in determining the specific shelter rents. To these will be added, at cost, the utility services furnished by the housing project.

Lease-free housing. War workers will not be required to sign the customary 1-year contract when they move into the Equitable Life Assurance Society's 1,100-family apartment project now under construction in Brooklyn's Clinton Hill section. Instead, there will be merely an agreement for payment of rent on a month-to-month occupancy. Cited reason: to facilitate the transfer of workers to other war centers. Even though the tenant turnover may be greater than usual, no lengthy vacancies or loss of rental income are anticipated as long as there is a hefty waiting list.

TITLE VI AMENDMENTS

FHA now has authority to insure Title VI mortgages another half billion dollars worth, but the liberalizing bill is somewhat the worse for its passage through Congress. Although greased to pass the Senate as fast as it did the House (see May issue, p. 4), an unexpected delay occurred when spokesmen from both the CIO and AFL appeared before the Senate's Banking & Currency Committee and voiced objections. Result: two amendments—one innocuous, the other crippling—before the bill was sent to the White House for President Roosevelt's signature of approval (affixed May 27).

Occupancy priorities. Labor's main complaint was lack of assurance that war workers would be allowed to buy or rent Title VI houses. (see "Bridgeport Occupancies," p. 350, this issue.) An amendment limiting occupancies exclusively to war workers and their families was proposed.

Instead of bucking this suggestion head-
(Continued on page 52)

When . . . TIME SCHEDULES ARE TIGHT

Even in normal times, most architects appreciate the help of experienced specialists when planning food service departments for hospitals, public institutions and industrial plants. Under present conditions such assistance is indispensable. More than at any time in the past 95 years, the architectural profession is making full and free use of . . .

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Meanwhile, the light of scientific research continues to burn brightly in the Carey research laboratories—checking, testing, improving, pioneering—to the end that the building industry may have more and better materials with which to build post war America.

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Asbestos Duct conserving steel in air conditioning systems (over 2,000,000 lbs. saved in the new War Department Building alone) . . .

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Industrial Flooring increasing efficiency of workmen—cutting floor upkeep—in new metal-working plants, power houses, etc. . . .

Corrugated Asbestos-Cement Siding and Roofing protecting chemical plants, oil refineries, boiler houses, etc., against fire, corrosion, weather and wear . . .

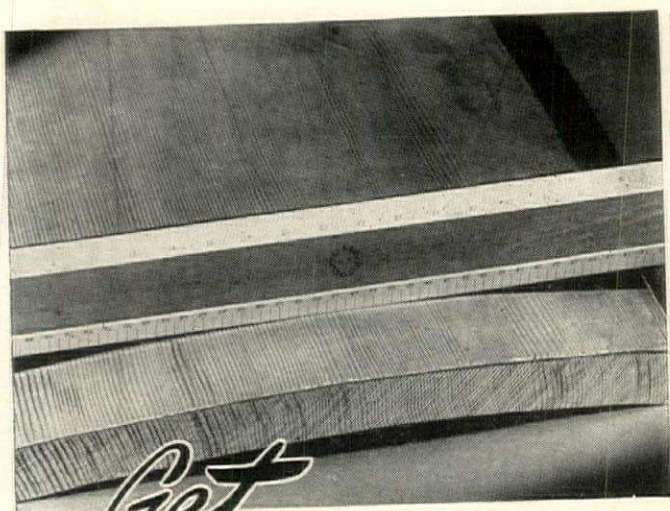
Expansion Joints solving difficult problems in airport runways, pavements, roads, etc. . . .

Other Carey Products include:

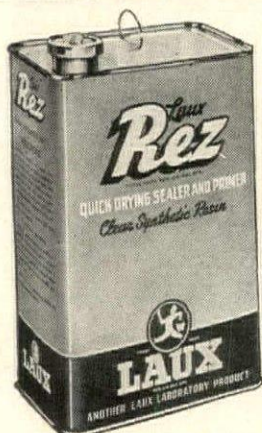
Asbestos-Cement Siding, Shingles and Wall-board . . . Asphalt Roll Roofing and Shingles . . . Hot Water Tank Jackets . . . Boiler and Pipe Coverings . . . Metal Bathroom Cabinets and Accessories . . . Roof Coatings and Cements . . .

Illustrations:

1—Housing Project, Asbestos-Cement Shingles. 2—Tanker, Heat Insulations. 3—Public Building, Asbestos Duct. 4—Oil Refinery, Asbestos-Cement Roofing and Siding. 5—Armory, Rock Wool Insulation. 6—Ordnance Warehouses, Built-Up Roofing. 7—Machine Tool Plant, Built-Up Roofing. 8—Metal Working Plant, Industrial Flooring. 9—Airport Runways, Expansion Joint. 10—Powder Plant, Heat Insulations. 11—Power Plant, Heat Insulations.



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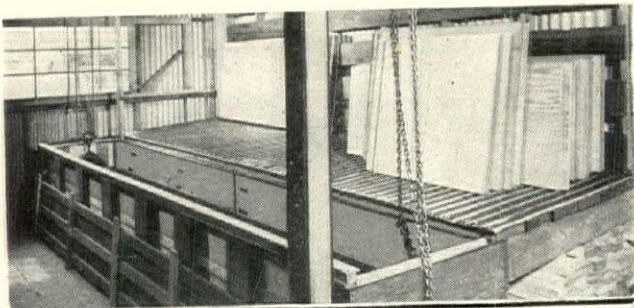
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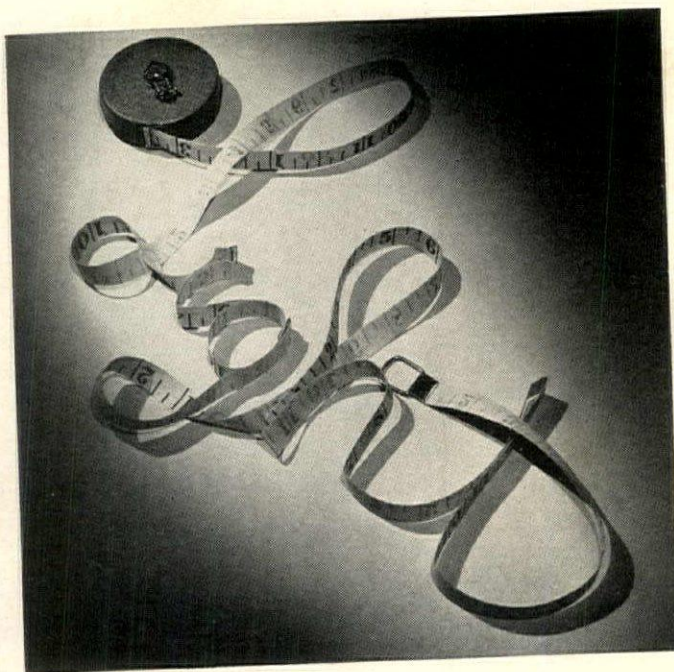
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decay in siding, millwork, flooring, sash, doors are being stopped by
tanks filled with Laucks Industrial Wood Preservatives . . . tanks built
by contractors, dealers, millwork plants. Write today for descriptive
brochure on these industrial water-repellents and toxics.

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of efficient, economical, long-lived lighting
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for 21 years. Whether your light source is
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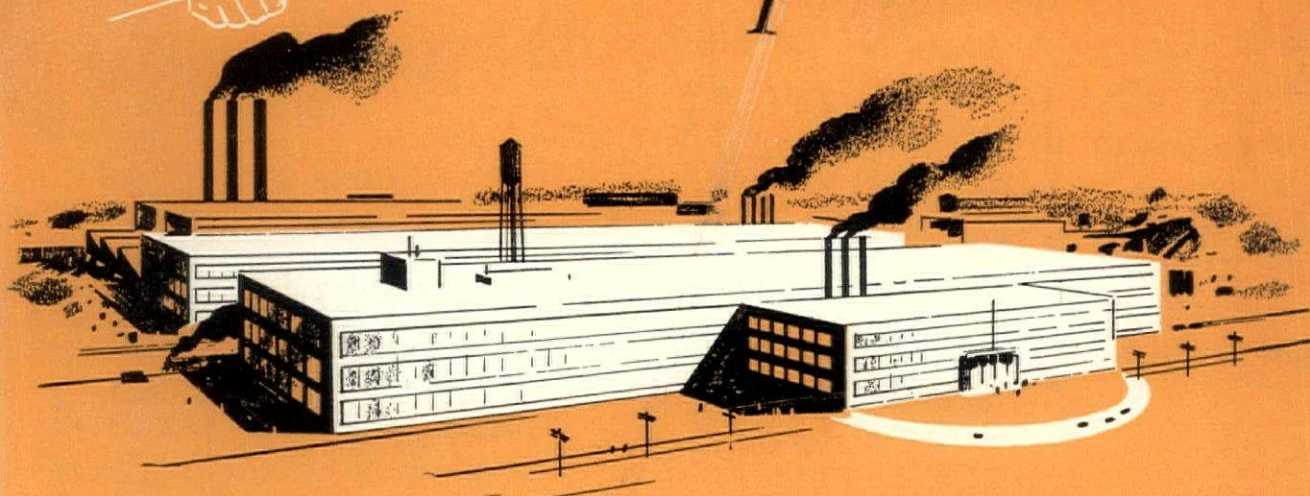
Write for these Silv-A-King Lighting Guides:
LG1—Fluorescent, or LG2—Incandescent.



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

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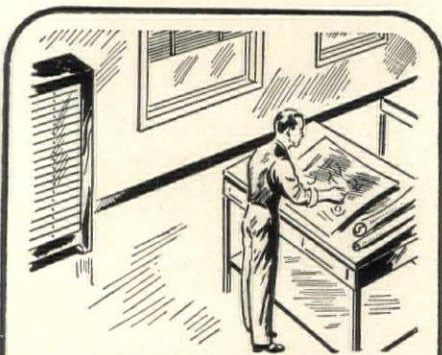
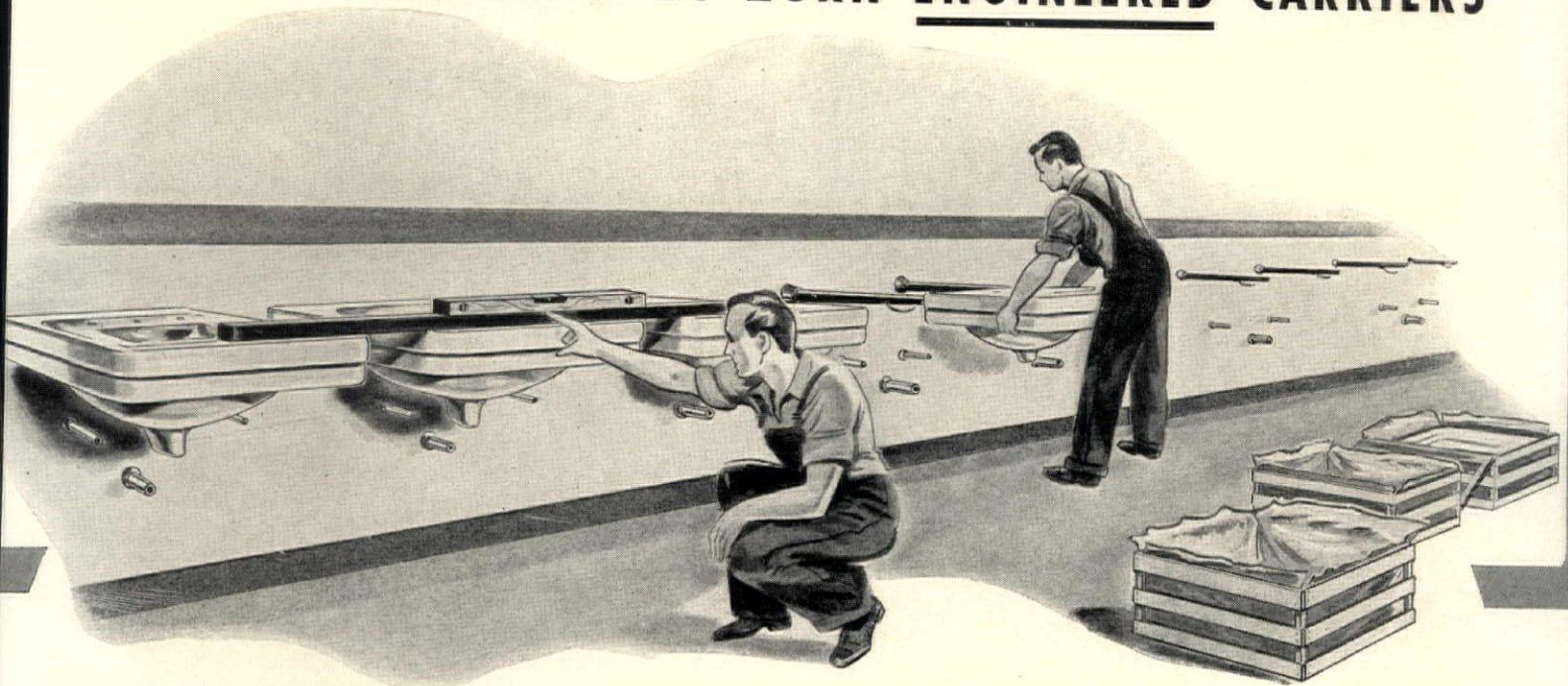
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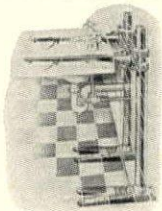
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This phantom view shows how Zurn Engineered Carriers simplify and speed up wall fixture installation.

* Grief-Free INSTALLATION PROTECTS AGAINST WASTE OF TIME AND MATERIALS

● Grief-free installation of wall fixtures and carriers spells speed and freedom from waste of materials—both vital in war construction. On wall fixture jobs today, wasteful, obsolete and haphazard trial-and-error methods of installation, and common contrivances that waste time and labor extravagantly are out, because there's no real reason for putting up with them.

You can make sure that your wall fixture installations will be made *right and fast*—by specifying Zurn Engineered Carriers. This means breaking with the practice of leaving the selection of carriers to the discretion of somebody else.

Grief-free installation of wall fixtures and carriers begins here at the Zurn Factory where each Zurn Engineered Carrier is adjusted for the specific type, model and make of fixture it is to support. This means that minor adjustments on the job, to compensate for structural variations, are made with the utmost economy of time and labor. Each carrier is correct for the type of fixture it is to support . . . no chance for mismatching the two . . . no time-wasting trial-and-error installation and adjustment.

Grief-free installation is but one point in the 4-point protection provided by Zurn Engineered Carriers:—(1) *No damaging strain on the wall*, (2) *Positive horizontal and vertical adjustment*, (3) *Grief-free installation*, (4) *Perfect permanent fixture alignment*.

This 4-point protection provided by Zurn Engineered Carriers alone, warrants their specification along with the fixtures they are to support. The Zurn Carrier Catalog contains complete information on all 25 styles of Zurn Engineered Carriers. Get your copy today.

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P. S. Please attach to your business letterhead

MONTH IN BUILDING

(Continued from page 46)

on NHA Administrator Blandford went into a huddle with the labor representatives and some of his own staff members. Finally agreed to was a compromise which authorizes the National Housing Administrator to adopt such rules and regulations as he may deem necessary to insure that war workers will receive preference in buying or renting the houses. This face-saving amendment does not restrict FHA's program unduly.

Section 608 plucked. The labor boys also took many a poke at what they called the

speculative practices of private builders, specifically urged revamping the section of the bill dealing with large rental projects so as to discourage excessive "write-ups." Amendment sought stated that mortgages should be limited to the cost of physical improvements excluding a number of specified items such as taxes, interest and insurance during construction. This meant a builder could not obtain a loan greater than the estimated cost of his buildings, not counting the land and other development costs. Obviously, the 90 per cent mortgages authorized by the new bill would be ruled out, except in rare cases where land values are exceptionally low.

Properly alarmed by this turn of events, Blandford and his colleagues decided the best strategy was to leave the proposed amendment in the bill as it went to the Senate and then to try to chop it off in conference. This would be a pleasing gesture to labor. Besides, it would eliminate the risk of throwing the issue wide open on the Senate floor.

Final outcome is not as planned, however. The Senate-House conferees have merely reworded the list of specified items that may not be included in the mortgage (maximum: \$5,000,000) to read "off-site public utilities and streets and organization and legal expenses." Upshot: a builder still cannot put his land under the insured mortgage, thus will have a hard time getting a full 90 per cent loan.

Liberalized administration. FHA officials promise they will be more realistic henceforth about price boosts in their valuation and appraisal procedure. Also, they will relax a bit as to neighborhood standards. Large rental projects where the mortgage does not exceed \$200,000 may have a simpler corporate organization instead of the present cumbersome limited dividend setup. And, to speed mortgage processing, insuring offices in the field will be given authority to make commitments without getting preliminary clearance in Washington.

Conversion of applications. Although FHA hit its former \$300 million ceiling on Title VI insurance early in April, it has continued to process new applications. Thus, while awaiting the new authorization which elevates the Title VI ceiling to \$800 millions, a huge backlog of applications has piled up. These are all predicated on the earlier program, cannot have insured mortgages exceeding \$4,000 on single-family houses.

If a builder wants to get a larger loan (new maximum: \$5,400) in order to put up a more expensive house than the one applied for, he must put in a new application. In doing so, he loses his place in line. However, a builder can convert his application if a \$4,000 loan is less than 90 per cent of the selling cost of his house. In many defense areas builders have found they could not build to sell for much less than \$6,000. They could still apply for Title VI insurance, but insurance has been restricted to the \$4,000 top. For such applications now on file, it is obviously to the builder's advantage to ask for more loan insurance and thus decrease the size of his own equity.

POST-WAR POOLS

No longer content to wait until Congress greases the works, New York has undertaken to stock up its own supply of projects to cushion the shock of economic readjustment when war ends. Two happenings serve as blueprints for similar action by other far-seeing States and municipalities:

(Continued on page 56)



HE STANDARDIZES ON ILG BLOWERS

Well known to Ohioans, after more than 25 years of service, E. F. Babbitt, Mechanical Engineer for Columbus' oldest and largest firm of architects (Richards, McCarty & Bulford) regularly specifies ILG Direct-Connected Blowers.



Designers of several Isaly Dairy Co. plants (headquarters, inset above), the architect included ILG Blowers in kitchen to remove cooking fumes, also in basement to exhaust from toilets. Installation shown has operated for over 5 years, either 18 or 24 hours a day, with "minimum of attention". For real service to clients, get ILG's complete story on propeller fans, blowers, and unit heaters, before writing your next "specs".

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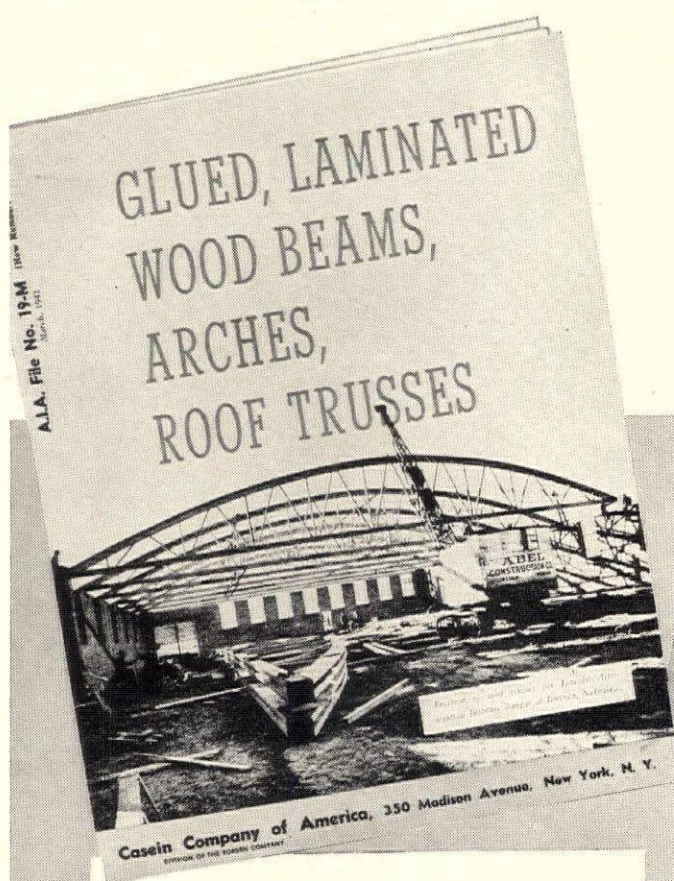


Vitalized Ventilation
AND AIR CONDITIONING

AIR CHANGE . . . NOT JUST AIR MOVEMENT!

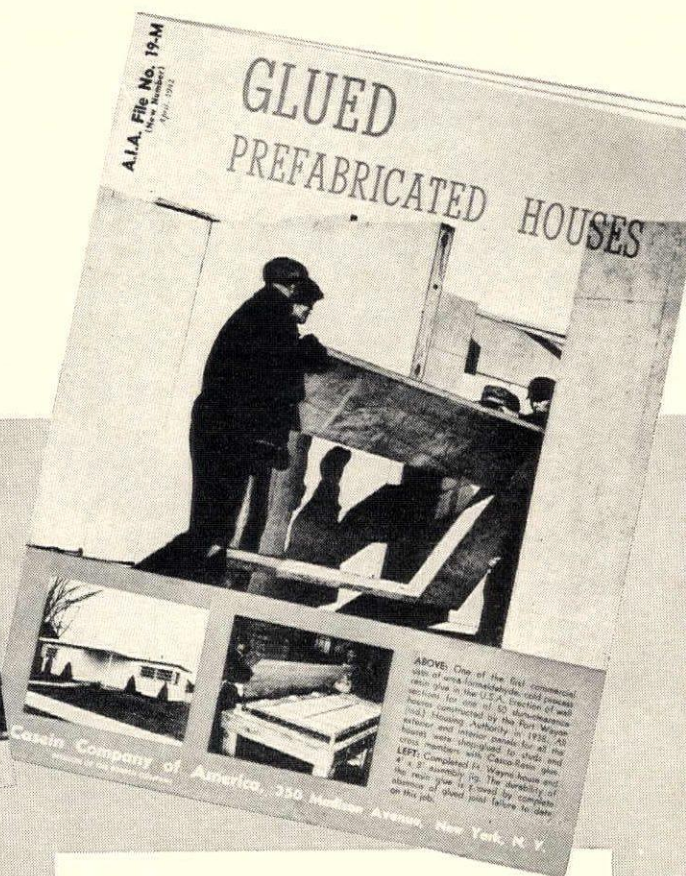
Required Reading

FOR WARTIME BUILDING CONSTRUCTION



This is the booklet that tells how to bust the structural steel bottleneck with durable, low-cost, built-on-the-site wood constructions... Includes:

- Advantages of Laminated Construction
- Specifications for Gluing of Laminated Members
- General Properties of Casein and Resin Glue
- Details of Typical Assembly
- Strength Tests
- Complete Gluing Directions



This is the booklet that tells how to use glue to make prefab panels that are stronger, more than twice as rigid, using fewer or no nails—and how to do it at minimum cost... Includes:

- Where to Use Glue
- Advantages of Glued Construction
- Interior vs. Exterior Glues
- Typical Construction Systems
- Gluing Specifications
- Cost Factors
- Complete Gluing Directions

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CASEIN COMPANY OF AMERICA
DIVISION OF THE BORDEN COMPANY
350 MADISON AVENUE, NEW YORK, N. Y.

CASCO Powdered Casein Glue
CASCAMITE Powdered Resin Glue
Comply with Standard U.S. Army and U.S. Navy Casein Glue and Resin Glue Specifications

CASEIN COMPANY OF AMERICA, 350 Madison Avenue, New York, N. Y.
Please send A.I.A. folders: ☐ "Glued Prefabricated Houses"
☐ "Glued, Laminated Wood, Beams, Arches, Roof Trusses"

Name _____

Address _____

City and State _____

\$1,000,000 WAR HOUSING JOB COMPLETED IN 88 DAYS



Read How
STREAMLINE FLOORING
Made This Possible

C. L. BROWNING, JR.
General Contractor
BUILDERS EXCHANGE BUILDING
San Antonio, Texas

November 7, 1941

E. L. Bruce Company
Thomas Street
Memphis, Tennessee

Gentlemen:

I wish to take this opportunity of expressing my high regard for your Streamline Flooring, which I used on my 400 units USHA Aided Defense Housing Project in Corpus Christi, Texas.

This job, which ran in excess of one million dollars, had a specified contract completion date of eighty-eight calendar days. I feel that perhaps the largest factor enabling me to complete this work on time was the Prefinished Streamline Flooring. I found that it installed rapidly and dispensed with the costly and slow operation of machine sanding on the job and the three coat finish work that was specified.

The Housing Authority is well pleased with the results and I was well pleased with your splendid service in shipping the cars to me exactly according to our pre-arranged shipping schedule.

With best regards, I am

Yours very truly,

C. L. Browning, Jr.
C. L. Browning, Jr.

CLB:fn



Note how Mr. Browning's letter emphasizes that Streamline Flooring enabled him to complete the work on time . . . how it did away with "costly, slow machine sanding on the job, and the three-coat finish specified." Note, too, how he emphasizes the "splendid service in shipping according to schedule." His letter is typical of many received from architects and contractors all over the country. No wonder they consider Bruce Streamline Flooring ideal for war housing. It's the greatest improvement ever made in hardwood flooring!

E. L. BRUCE CO., 1612 Thomas St., Memphis, Tenn.

E. L. BRUCE CO.,
1612 Thomas St., Memphis, Tenn.
Please send me a copy of your new book
—"Low Cost Floors for Defense Housing."

Name.....

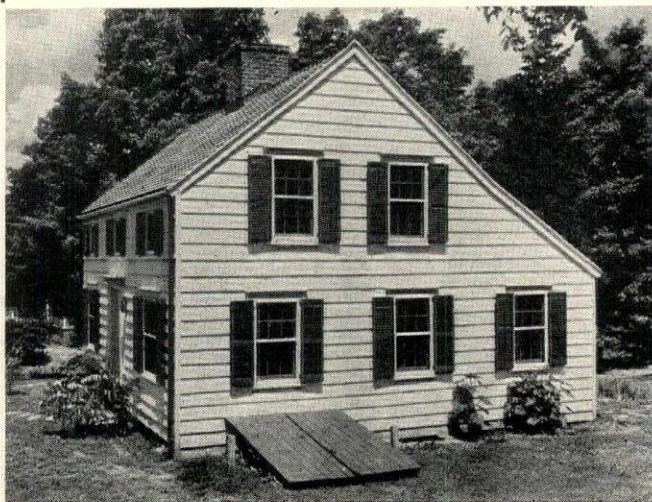
Address.....

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

SEND FOR
FREE
BOOK



When the job must go up **FAST**



"Quilt" insulated house, Wilton, Conn.
Architect: Evans Moore & Woodbridge

You'll appreciate the easy installation of Cabot's "Quilt"

Easy installation is just one of the qualities which make Cabot's "Quilt" the ideal insulation for war housing. It is low in cost. There is no shortage. 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.

Cabot's Shingle Stains

Easy to apply — do not peel or blister even when applied before the house has dried out.

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., 1269 Oliver Building, Boston, Mass.

Cabot's "Quilt"

Heat Insulating

Sound Deadening

This new porcelain enameled roofing lets zinc go to war!

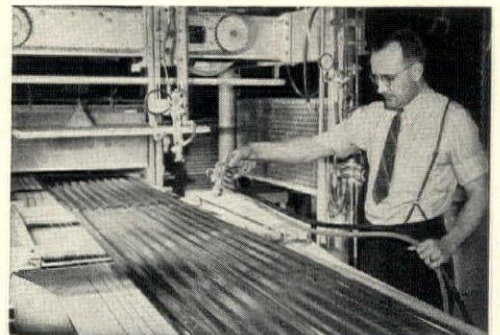
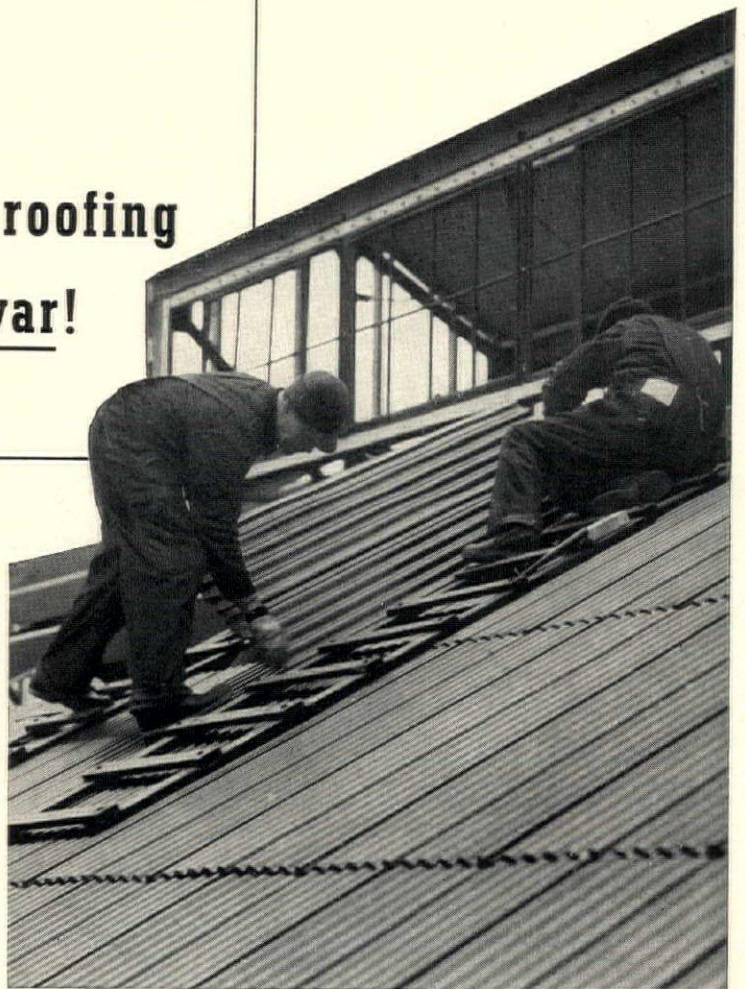
IN AN effort to help conserve precious zinc for vital war uses, several leading porcelain enamellers have developed new types of corrugated roofing and siding sheets.

Coated with glossy porcelain enamel — the same flint-hard mineral finish that has endured for years on store fronts, filling stations and signs—this extra-durable material can be specified with confidence, especially for war buildings in corrosive atmospheres.

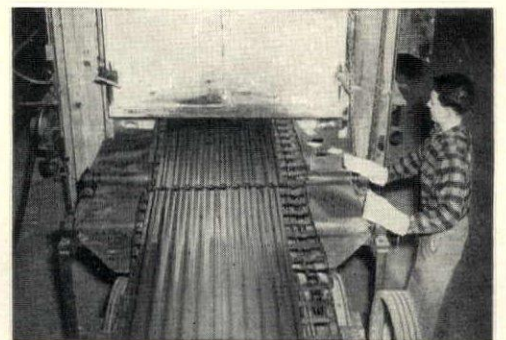
This product has interesting advantages:

- 1** Porcelain enamel is highly resistant to fire and to corrosive conditions. An acid-resisting finish can be applied to increase weather-resistance in corrosive atmospheres.
- 2** Color — the sheet can be white underneath for reflectivity and other colors on top for camouflage. Or both sides can be the same color.
- 3** The initial cost of the installation may be somewhat higher. But with no maintenance over many years — no paint job needed every 2 or 3 years — this porcelain enameled roofing will more than pay for itself.
- 4** The porcelain enamel is fused on ARMCO Ingot Iron at 1650° F., making the iron and glass-like coating virtually one. This metal base was developed by ARMCO years ago and has been more widely used for this exacting purpose than any other metal.

• • •
Would you be interested in having complete information for your files? The American Rolling Mill Company, 1751 Curtis St., Middletown, Ohio.



• Here the ground-coated sheets are given an overspray of acid-resisting porcelain enamel, making the finish virtually permanent, even under severest industrial atmospheric conditions.



• The corrugated sheets come out of the electric furnace where at 1650° F. the flint-hard porcelain enamel is fused to ARMCO Ingot Iron.

MONTH IN BUILDING

(Continued from page 52)

► In Albany Governor Lehman signaled a fast go-ahead on the State's programming by promptly signing the Ives bill. This new law creates a temporary ten-man commission, representing both the legislative and executive branches, with authority to spend \$450,000 out of the State treasury's capital reserve fund for planning post-war public works, including housing. Private architectural and engineering firms may be selected to do this work. Altogether, under other measures already approved by the Governor, a planning fund of nearly a mil-

lion dollars (enough for about \$25 millions of construction) can be tapped. Rapid filling of the State's post-war reservoir is assumed by fact that the Governor's new commission includes aggressive Park Commissioner Robert Moses and Housing Commissioner Edward Weinfeld.

► In New York City, inspired by Mayor La Guardia, the local Planning Commission has an even more ambitious program afoot. No less than \$22 millions are being sought to complete plans and specifications for an estimated \$682 millions worth of needed municipal schools, parks, markets, hospitals, transit systems, docks, roads and sewage disposal plants. To help visualize

this post-war works program, an impressive brochure itemizing the proposed projects has been prepared.

Last month a public hearing was held at City Hall to debate the Planning Commission's request to get its required expenses out of the City's 1942 capital budget appropriations. Critics who came to carp at the program found themselves put unexpectedly on the carpet by Park Commissioner Moses, who was in one of his fire-eating moods. No obstructionist statements went unchallenged. A spokesman for the Commerce and Industry Assn. demanded a postponement with the argument that a \$628 million project was "a matter of sufficient importance to call for a pretty long time for analysis." Retorted Moses: "That's what some organizations say about all plans, isn't it?"

Net result of hearing: a few minor amendments to the Planning Commission's budget request.

Post-war soundings. At a dinner of the United Tenants Leagues of Greater New York, ex-USHA Administrator Nathan Straus proposed a 15-year post-war public housing program to replace 4,500,000 tenements, hovels and rural shacks throughout the U. S. Such a program would represent an investment of approximately \$1¼ billions each year, but the only cost would be the amount of the annual subsidies. Over 60 years this would be less than the cost of the war for the next six months.

Straus, who resigned from the USHA (now FPHA) last January after certain Congressmen threatened to withhold housing funds as long as he headed the agency, lashed lustily at his critics. Challenging the real estate men in particular to back up their charge that USHA housing was limited largely to those who can and should pay economic rents, he offered to turn over \$1,000 to any charity the NAREB may care to designate if it can point to one family among the more than 100,000 now living in homes built by the USHA that can afford to pay the rents charged for decent housing in the same community.

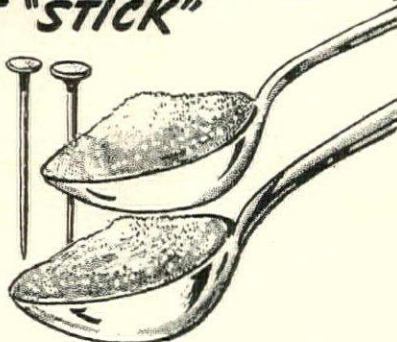
Also last month Fordham's Law Professor Edmond B. Butler became new chairman of the New York City Housing Authority, replacing Gerard Swope who had resigned to do important work in Washington. Chairman Butler takes over a well-defined post-war housing program. In the Authority's larder are plans for 10,300 dwelling units on which work can begin as soon as war ends.

At Harvard's Graduate School of Design, Dean Joseph Hudnut is whipping into shape a 5-year curriculum in regional planning on the theory that the post-war world will witness "a replanning and rebuilding of our cities, and of the regions around them, on a scale so vast and comprehensive as completely to transform their outward aspects."

STRANGE STORIES - THAT "STICK"

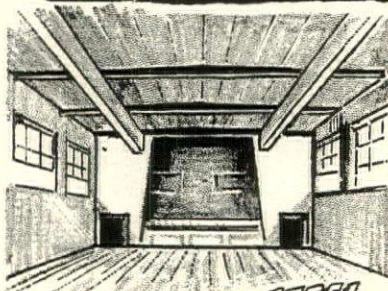
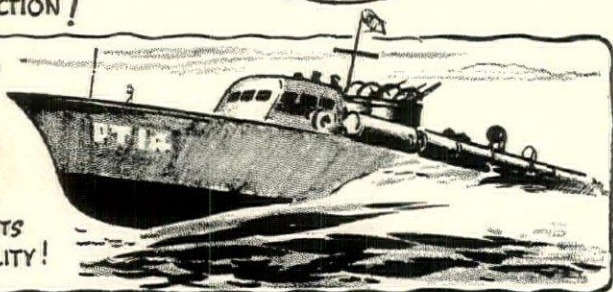
RECIPE FOR BUILDING

2 TABLESPOONS OF LAUCKS GLUE
(1.7 OZS.) DOES THE WORK OF 60 TO
120 NAILS (8.7 OZS.) IN DRI-BILT
CONSTRUCTION!



NAVY RECRUIT

LAUCKS
WATERPROOF GLUE IS
USED IN BUILDING
SPEEDY MOSQUITO
BOATS, BECAUSE OF ITS
STRENGTH AND DURABILITY!



WOOD SAVES STEEL
BEAMS MADE WITH WOOD
AND LAUCKS GLUE RELEASE
10 TONS OF STEEL FOR WAR!
U.S.N. R. RECREATION CENTER—SEATTLE, WASH.

I. F. LAUCKS, Inc.

MANUFACTURING CHEMISTS
"Leadership through Research"

Seattle — 911 Western Ave.
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SPEED! Necessity for speed first turned yesterday's doubts about glue in construction into enthusiastic endorsement. Now American builders and prefabricators know that Laucks Construction Glue methods not only are faster . . . but also are stronger . . . and save precious metal for combat use.

On history's biggest housing projects, wall panels are "glue-welded" to joists and studding in assembly line procedures. Glue-laminated arches and beams replace steel . . . and qualify fully for strength. Wood and Laucks Glue are joining forces in scores of new and vital ways in building construction as well as in wartime industries, in aircraft and boat-building . . . to speed America's production for victory.

SELF-BONDING—Make permanent bonds without heavy weights or clamps.

WATER-RESISTANT—Meet U. S. Army, Navy and Federal aircraft specifications.

STRONGER—"Stronger than nails by test" . . . and easier to get.

Contractors, Builders, Dealers,
Architects—write Laucks
for full information.
See REZ advertisement
on page 48.

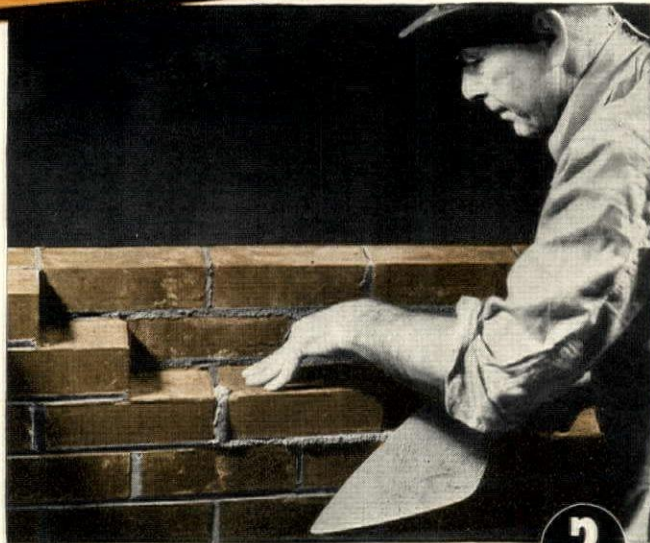


• **LAUCKS CONSTRUCTION GLUES** •

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



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



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

BRIXMENT Makes a More PLASTIC Mortar!

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

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

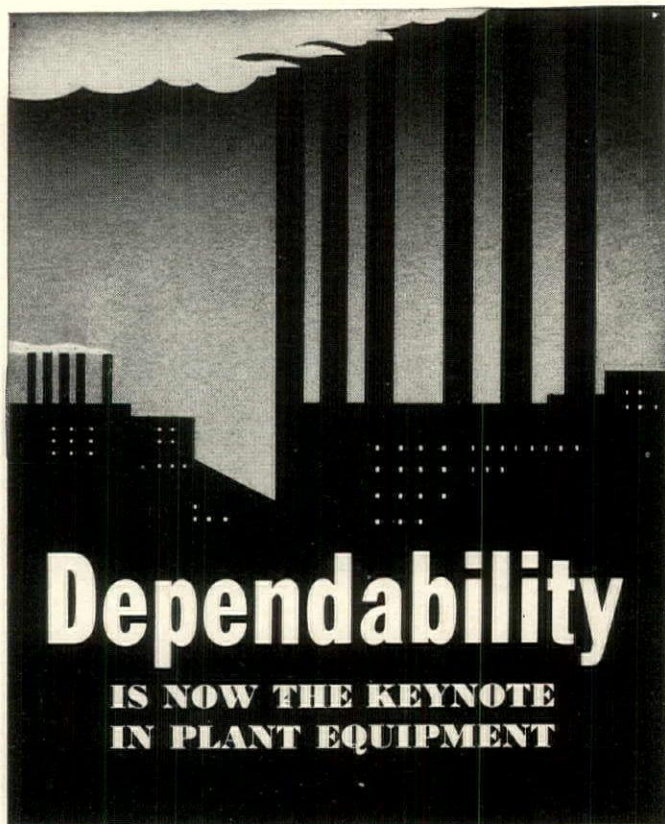
the joints well filled. And because of this unusual plasticity, a bag of Brixment will carry three full cubic feet of sand and still make an ideally workable mortar.



BRIXMENT

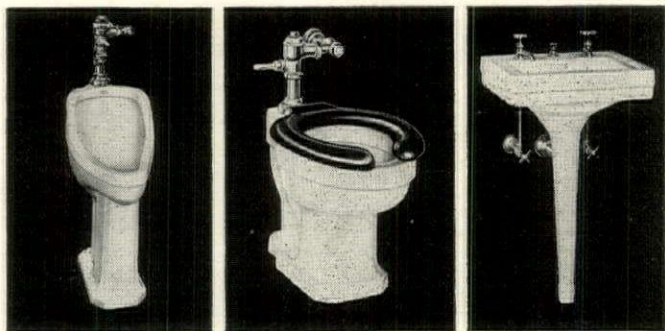
For Mortar and Stucco

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



**IS NOW THE KEYNOTE
IN PLANT EQUIPMENT**

The Case plumbing fixtures now being installed and used in many Army, Navy and industrial projects provide the maximum of dependability—today's basic and primary requirement. Designed specifically for hard use, these fixtures are ideally suited for installation in the world's busiest washrooms. Their mechanical excellence and easy-to-clean surfaces of *vitreous china* are assurances of long wear, with a minimum of maintenance. And Case quality pays a dividend that is mighty important these days—in health protection for the men and women whose effort is vital to Victory... Distributors from coast to coast will gladly cooperate in serving you. W. A. Case & Son Mfg. Co., Buffalo, N.Y., Founded 1853.



No. 2335A CASCO Vitreous China Pedestal Type Urinal is durable and easy to clean.

Case No. 1600 Syphon Jet Flush Valve Closet Combination with elongated Bowl.

No. 700 WINDSOR Vitreous China Lavatory. Hooded Overflow, Anti-Splash Rim.

Case
DISTINCTIVE PLUMBING FIXTURES

**Here's why you'll know
more about Finishing
the Plywood you use in
post-war housing!**



**TO HELP SPEED
VICTORY**
the Douglas Fir
Plywood Industry
is devoting its en-
tire capacity to
war production.
We know this pro-
gram has your
approval.

● What finishes stand up best on Douglas Fir Plywood? This Weather-ometer is helping us answer this question quickly and scientifically since it can duplicate the effects of a full year's exposure to any natural climatic condition in just one month's time or less. The results of each test, each formula change, each new mixing or application technique are carefully recorded, because from this material will come finishing data that will some day benefit every user of Douglas Fir Plywood. . . . And this is only *part* of our extensive research program. We are doing everything possible *today* so that *tomorrow* Douglas Fir Plywood—"the modern miracle in wood"—will be more useful to you than ever before!

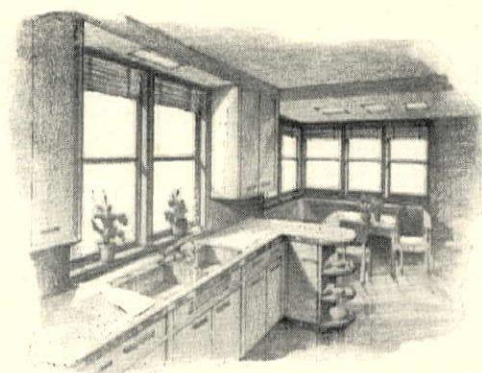
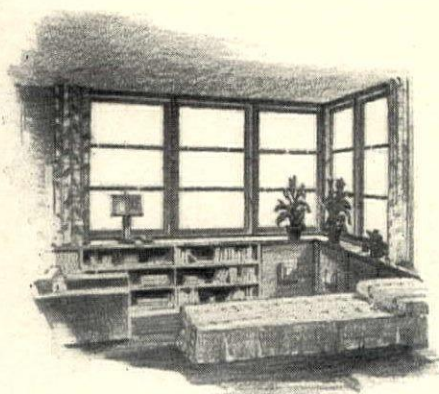
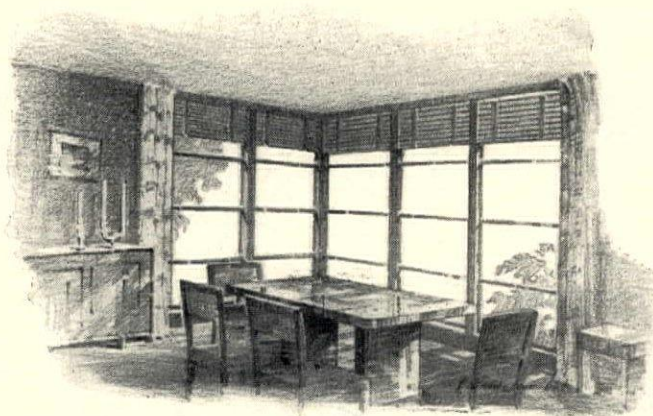
**DOUGLAS FIR
PLYWOOD**

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

The Douglas Fir Plywood Association welcomes inquiries as to the uses and characteristics of Douglas Fir Plywood. However, non-defense inquiries as to the availability or delivery of Douglas Fir Plywood must be directed to your distributor. Douglas Fir Plywood Assn., Tacoma, Wash.

LIGHTEN THE CORNERS

★ BRIGHTEN THE HOME



Mark of the more cheerful home, be it large or small, is the *corner window*. Upstairs and downstairs, in the bedroom, dining room, living room, kitchen or den, the corner window opens any room to lightness and spaciousness that make living more enjoyable.

The fact that glass is thoroughly in keeping with present architectural trends is another important point to keep in

mind. Moreover, the ready availability of practically all types of Libbey-Owens-Ford flat glass is a vital consideration. No priority headaches.

Have you sent for your complimentary copy of "Practical Glass Ideas for Today's Homes"? We will gladly forward this colorful new book to you. Just write Libbey-Owens-Ford Glass Company, 1220 Nicholas Building, Toledo, Ohio.



LIBBEY · OWENS · FORD
Quality *Flat Glass* Products

Building Reporter

(Continued from page 2)

SIDEWALL ASSEMBLY. Faster, cheaper construction made possible by prefabricated red cedar shingle panel.

Name: Weatherseal Shingle Panel.

Purpose: To speed sidewall construction by combining insulating board sheathing, building paper and red cedar shingles in a single prefabricated 2 x 8 ft. unit.

Features: Since gypsum insulation boards lack sufficient nail-holding power to per-



mit direct application of shingles, it has heretofore been necessary to apply wood strips over the board sheathing in order to nail the shingles. With this new prefabrication system (developed by Buf-

falo's Clarence W. Kraus), the need for nailing strips is obviated, however. Fabricating bench is steel-covered; consequently when nails are driven through the shingles and sheathing at a slight angle, they are turned and become self-clinching. Panels are attached directly to studding on the job (see cut) with four nails at each stud bearing. They can be easily trimmed to fit around windows and doors by the carpenter. (Panels will be fabricated by licensees using their own stock materials in accord with specified procedures. Each local fabricator will have his own sales organization.)

Outlet: Central Division Co., 221 North LaSalle St., Chicago, Ill.

ACOUSTIC WALL PANELS convert old-style phone booths into doorless type.

Name: Burgess Acousti-Panels.

Purpose: For modernizing built-in telephone booths in department stores, hotels, other public buildings.

Features: Panels are made of heavy reinforced birch plywood constructed in a unique cellular design, and filled with a thick blanket of sound-absorbing material. Inner side of panel is perforated for absorption of noise. Panels are supplied unfinished so they may be decorated to match their surroundings. Sizes: 76 in. long, 18, 20, 24, 30 and 36 in. wide.

Manufacturer: Burgess Battery Co., Acoustic Div., 2825 West Roscoe St., Chicago, Ill.



FLOODLIGHT designed for general use inside, outside industrial plants.

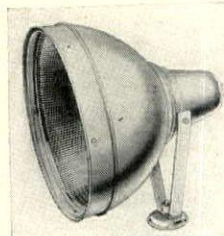
Name: Permaflector Open Floodlight No. 0-500.

Purpose: For interior illumination over production lines, exterior floodlighting of storage yards, loading platforms, building exteriors.

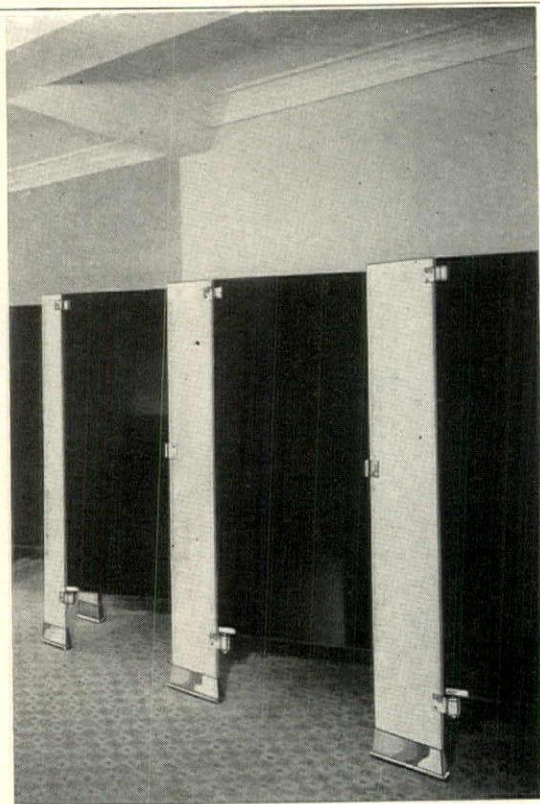
Features: Unit consists of a silver-mirrored glass reflector, an enameled steel housing, a heavy steel base and universal bracket supporting device which permits tilting and rotating. Mogul base lamp holder has a 1/2 in. cap which takes standard fittings and wiring. Accommodated: either a 500-watt or 300-watt incandescent lamp or a 400-watt mercury lamp. (Also available: a larger unit accommodating either a 1,000-watt or 750-watt incandescent lamp.)

Manufacturer: Pittsburgh Reflector Co., Oliver Bldg., Pittsburgh, Pa.

(Continued on page 64)



For Buildings of Today and Tomorrow



● The selection of WeiSteel Flush Doors and Hardware for the new home of the New England Mutual Insurance Co. (Cram and Ferguson, Boston, architects) is one more evidence of the striking manner in which these doors fit into modern building techniques.

This combination of door and hardware—an idea originated by Weis—for marble, glass and similar partitions, simplifies specifications and purchase, simplifies delivery and construction for the contractor, and centers in one manufacturer responsibility for unified

design and installation. Gravity hinge mounting eliminates strain on marble or glass stiles... quiet operation with no slamming... no warping or swelling... no absorption of odors... smooth surface assures utmost sanitation and easy cleaning... color treatment to harmonize with any decorative scheme.

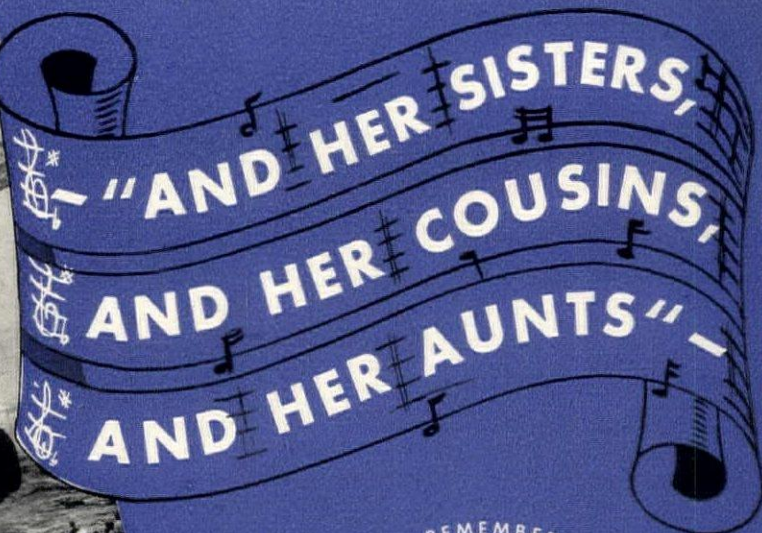
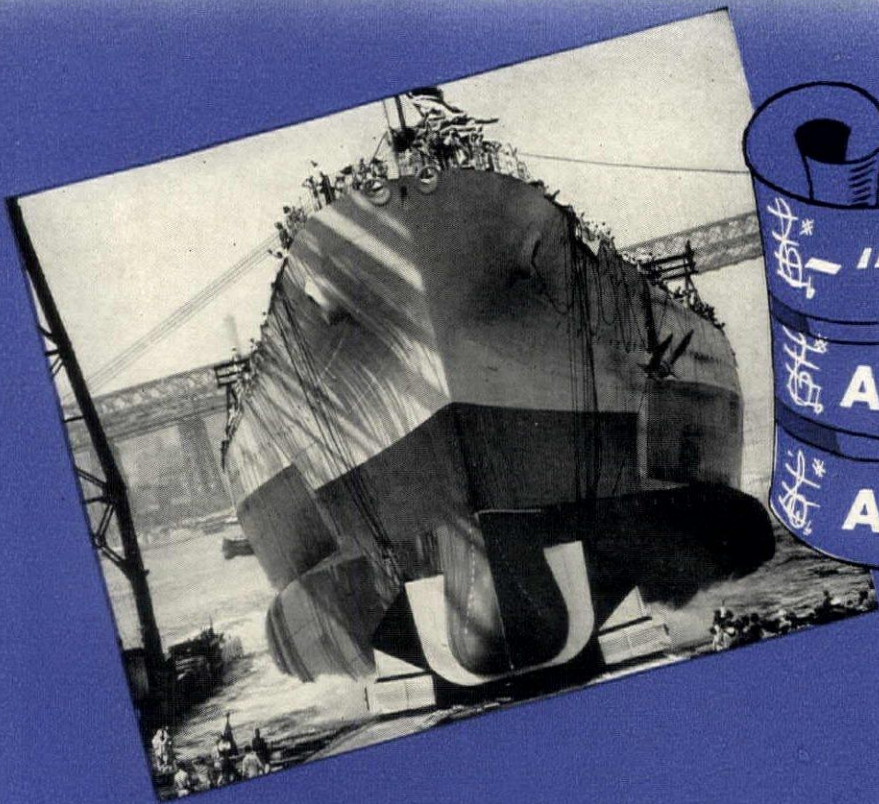
For the buildings of Tomorrow WeiSteel Flush Doors possess the fitness, durability and beauty which are "eternally essential ingredients of Architecture." We will be glad to supply catalog for your files, without obligation to you.

**HENRY WEIS
MANUFACTURING
CO., INC.**

602 OAK STREET
ELKHART, IND.

Established 1876

WEISTEEL
FLUSH DOORS AND HARDWARE



REMEMBER
PEARL HARBOR



Yes, you *can* "count 'em by the dozens," these ships of every size and shape and class, being launched almost daily, to meet the needs of National Victory. But, you can also count, and by far more than dozens, too, the launching of many building projects where steel is being saved for ships, by builders and contractors who are eagerly adopting Richmond's Engineered form-tying methods, in preference to such "make-shift," "home-made", devices as wire, band or rod ties fabricated on the job. And, the quantities of steel thus saved are important. In fact, almost spectacular! For, get this—

RICHMOND MAKES 1 TON OF STEEL DO THE WORK OF 3 TONS

—besides which, the "Richmond Way" is the profit-making way in any sort of concrete form work. *Profit-making* because you do a better, faster, less costly job by using fewer ties; erecting and stripping forms in less time; less ruined lumber. *Again, profit-making* because our free technical and estimating service provides, for your men, working blueprints of your job sections scheduling the quantity, spacing and location of ties needed, thereby eliminating costly hours of work and

worry. *And again, profit-making* because you don't tie up your money in Tylags, Tycones, Flat Washers, Tywrenches, etc. Richmond loans you these working parts! Talk about a complete "package"! That's exactly what you get from Richmond—and only from Richmond. A complete package containing many an extra dollar of profit for you, plus a valuable recognition as aiding our National Victory. Prove all this? Yes, just ask us.

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

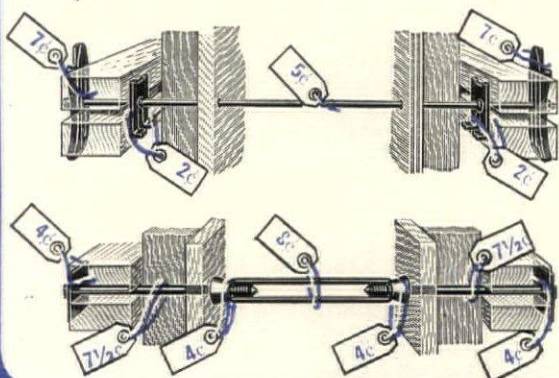
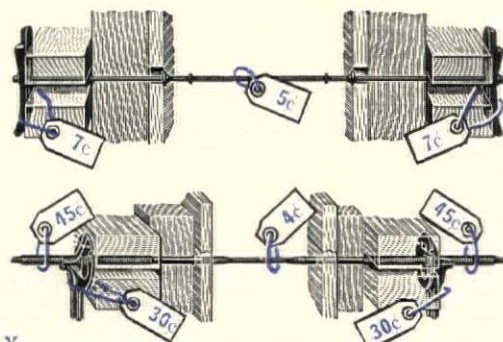


Figure it for yourself!
HERE ARE THE PRICES*



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

RICHMOND

SCREW ANCHOR CO., INC.

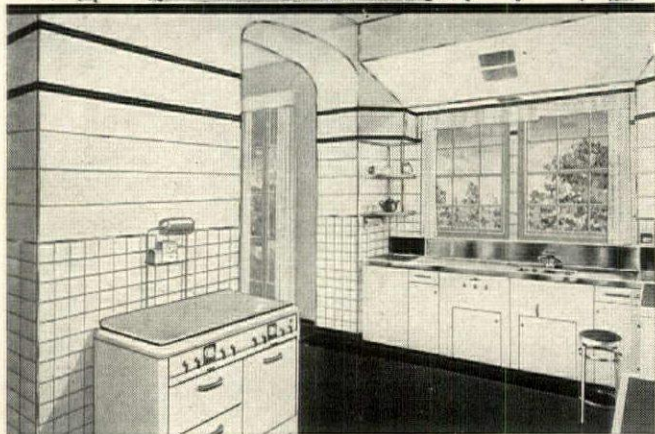
816-838 LIBERTY AVENUE

BROOKLYN, N. Y.



UP IN A HURRY

...ON TO STAY!



These "PANELS of PLASTIC" combine SPEEDY APPLICATION with Top-Notch Quality!



LOW COST! Modern mass-production methods of prefabrication cut the initial cost of Barclay Plastic Coated Panels.



LOW UPKEEP! Barclay Panels never need renovating, won't chip, crack, craze or peel. They clean with ease!

SPEED counts first in war building. Quality, too, is a Government demand. Add low-cost (which everyone wants)—and it's easy to see why walls and ceilings of today are being built with Barclay Plastic Coated Panels!

Made in large sheets, Barclay Panels cover big areas in little time. They apply as quickly and easily as ordinary wallboard. Surfaced with a plastic coating, they strike a new note in sleek, colorful, long-lasting beauty. Entirely prefabricated, they're mass-produced with substantial mass-production savings.

Whether you're an architect, contractor or dealer—you'll find these "panels of plastic" fit right into your own particular picture of war-time specification, use or sales! See our catalog in Sweet's.

BARCLAY
PLASTIC-COATED
PANELS

PROMPT DELIVERIES!

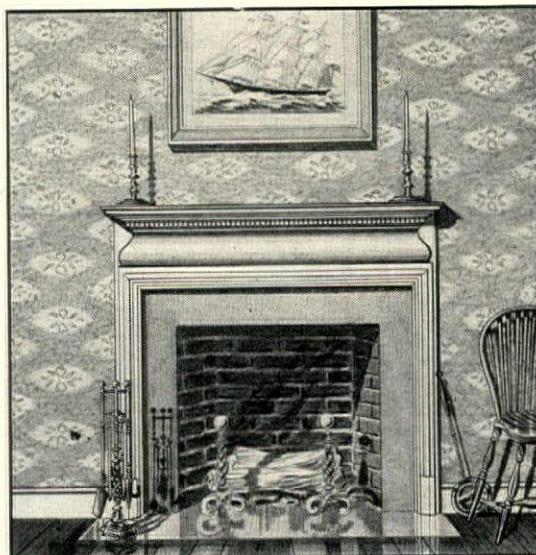
Barclay products are available. All orders—large or small—are being delivered promptly!

Barclay Manufacturing Company, Inc., Dept. AF-6, Bronx, N. Y. Please send me free samples of Barclay Plastic-Coated Panels, and literature.

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Address.....

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



GREGG Mantel No. 85

The slender, sweeping lines and restrained dentil ornamentation of this lovely Georgian Mantel are equally good with elaborate or casual settings. A fine Colonial reproduction, after the designs of Sir Christopher Wren. This is only one of the moderately priced mantels from stock designed to meet today's housing requirements.

WOOD OPENING 3-1x3-10

\$8.09

F. O. B.

Packed in corrugated carton. Wgt. 36 lbs.

Nashua

Sold only through recognized dealers. Send check less 2% to avoid credit delay.

See our new catalog for other profitable specialties

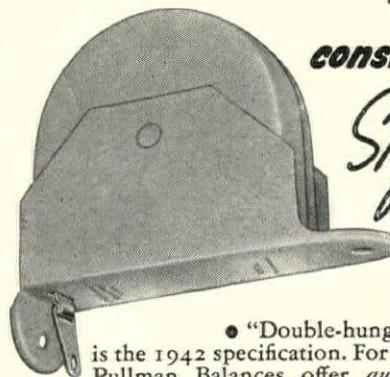
GREGG & SON

Woodwork of Quality since 1719
NASHUA - NEW HAMPSHIRE

For ALL double-hung window

construction...

Specify Pullman Balances



• "Double-hung wood windows" is the 1942 specification. For this construction, Pullman Balances offer *quickest, lowest cost* assembly. Complete range of sizes, in top and side models, accommodate windows 1 3/8", 1 3/4", 2 1/4", or any other thickness, in weights up to 210 pounds. Pullman Balances, made since 1886, are the up-to-the-minute choice for all construction—industrial, residential or military.

WRITE for descriptive literature, specifications and window detail drawings. Pullman Manufacturing Corp., Dept. B-6, 1170 University Ave., Rochester, N. Y.

Specify **PULLMAN**
Sash Balances



ALMOST everybody agrees that flush doors are the most beautiful and desirable kind of doors for *any* kind of building. But if you are under the impression that fine hardwood *flush* doors are too expensive for low-cost housing, you've got a surprise coming to you!

Mengel Flush Doors—made by the world's largest producers of hardwood products—are actually *little if any more expensive than softwood panel doors!* If you include finishing costs, these fine grid-core flush doors actually save you money!

Mengel Flush Doors are resin-bonded in hot-plate presses—are moisture-proof, light, strong and handsome. If your regular source cannot *show* you, *mail the coupon below* for full details!

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

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

Name _____

Address _____

City _____ State _____

Building Reporter

(Continued from page 60)

AIR RAID SIREN permits reassuring voice announcements to be made before and after alarms are sounded.

Name: Electro-Siren.

Purpose: To send out air raid alarms, both inside and outside buildings. Also, to permit public addresses.

Features: This unit uses a vacuum-tube tone generator which can 1) either duplicate the rising and falling tone of a mechanical siren, 2) be set at any pitch



for best audibility over traffic or manufacturing noises, 3) be used to send code messages to air raid officials by dots and dashes. It is so designed that a micro-

phone can be used for voice announcements over the same system, thus avoiding confusion and panic in crowded places. The siren normally operates from any 110-volt source, but in case of current failure can be instantly switched to 6-volt storage battery operation.

Manufacturer: Audiograph Div., John Meck Industries, 1313 West Randolph St., Chicago, Ill.

WALLPAPER. Eighteenth- and nineteenth-century designs revived.

Name: Hobe Erwin's "Editions" in Wallpaper.

Purpose: To provide a modernized line of antique papers.

Features: The revivals are taken mostly from famous old American mansions. Bits of calico, stencils, old hat boxes, trunk linings and pictures serve also as inspiration for Decorator-Stage Designer Erwin. In "editing" the originals, he does not tamper with the spirit of the design but varies the colors and motifs to fit the needs of contemporary decorators. Line includes 53 patterns.

Distributor: F. Schumacher & Co., 60 West 40th St., New York, N. Y.

STOCK WOODWORK designed by well-known architects for low-cost war housing.



Name: Curtis Woodwork.

Purpose: To provide low-cost dwellings with details of architectural merit.

Features: Designs include entrance frames, mantels and china cases, each in a choice of styles. Collaborating architects: Los Angeles' H. Roy Kelley, New York's Cameron Clark, Augusta's Willis Irwin.

Manufacturer: Curtis Companies, Inc., Clinton, Iowa.

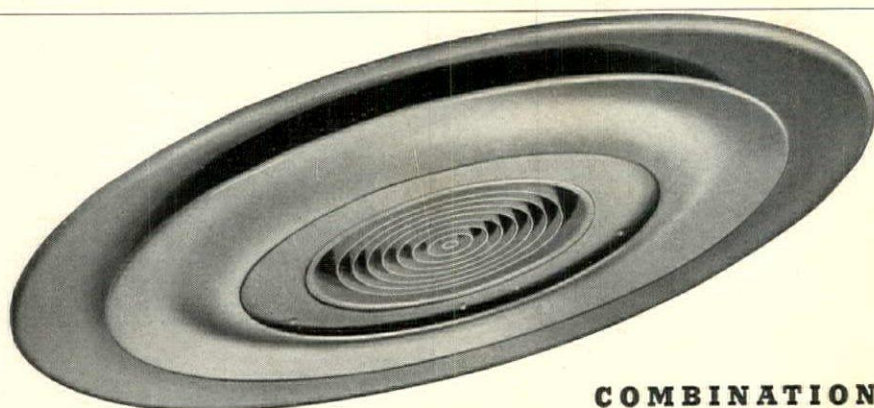
WASHABLE WATER PAINT can be applied over old wallpaper or fresh plaster.

Name: Kem-Tone.

Purpose: To surface interior walls.

Features: Although using water as a thinner, this product is not an ordinary water paint—its vehicle is a water-and-synthetic-resin emulsion instead of a mixture of oxidizing oils and solvents. When applied

(Continued on page 68)



COMBINATION SUPPLY and EXHAUST

Venturi-flo AIR DIFFUSERS

★ CANNOT SHORT-CIRCUIT

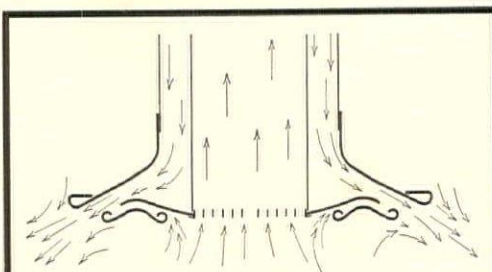
The incoming and outgoing air streams are so nearly at right angles that supply air cannot be sucked into the exhaust.

★ LOW PRESSURE DROP

Exhaustive experiments with full-scale models determined the contours which provide minimum resistance to air flow.

★ GUARANTEED AIR DISTRIBUTION

From comprehensive data, exactly the proper unit for any given conditions can be selected, and results guaranteed.



CROSS-SECTION OF THE UNIT

This drawing shows the construction of the VENTURI-FLO Combination Supply and Exhaust Air Diffuser, and the arrows indicate the paths of air travel. Note particularly how the fresh air is delivered nearly at right angles to the exhaust flow, thus assuring that there will be no "short-circuiting." Uniform, thoroughly-diffused air flow in all directions, together with efficient exhaust pick-up, is provided by this Combination Diffuser.

SEE OUR CATALOG IN SWEET'S



BARBER-COLMAN COMPANY

1242 ROCK ST., ROCKFORD, ILLINOIS



New **POTOMAC** 5-foot cast iron recess wing bath, enameled inside—low sides, wide rim, flat bottom—built-in anti-siphon mixer fitting. **DELTON** 18 x 15-inch enameled cast iron shelf lavatory—1½-gallon basin—two integral soap dishes. **TRYLON** vitreous china close-coupled washdown closet—round front bowl—sanitary TriKo coated seat. **PARKCHESTER** (below) 42 x 22-inch cast iron combination sink—8-inch-deep basin for dishes, 13-inch-deep tub for laundry—mixer fitting, swing spout—acid resisting enamel.



MONTHS AGO, Kohler began to plan strict savings of needed metals to aid the national war economy.

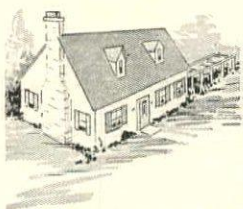
An outstanding example is the new **POTOMAC SET** with lighter built-in wing bath and matching fixtures, all of which save vital metals. The fixtures are full size and embody convenience features and styling unusual

in their low-price range.

The **POTOMAC SET** receives the skill and manufacturing care traditional with Kohler. It suits the price specifications of war-worker housing—and meets the needs for emergency replacements now covered by Preference Rating Order P-84. . . . Kohler Co. *Founded 1873.* Kohler, Wisconsin.

KOHLER OF KOHLER

PLANNED PLUMBING AND HEATING • ELECTRIC PLANTS



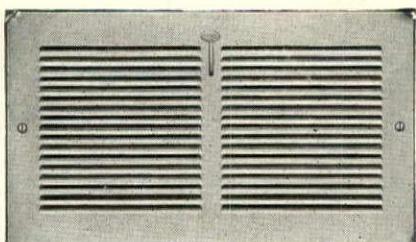
REGISTERS *for* SMALL HOMES

and GROUP HOUSING

With the widespread use of simplified heating systems, often stripped to the bare essentials, small homes and housing projects need the added efficiency of Auer Registers. There are many Auer warm-air models suited to low-cost house requirements, such as the Airo-Flex "7000" Series shown here. This is a single louvre register with downward directional fins, bendable for other angles if desired. If you are equipping small home jobs, it will pay you to know about the Auer line.

Write for Auer Register Book showing all models for warm air and air conditioning. Separate Catalog "G" also available on flat metal grilles.

The Auer Register Co.
Cleveland, Ohio



Airo-Flex 7032 Single Louvre Adjustable Register

AUER REGISTERS & GRILLES · For Air Conditioning and Gravity



OKAY AS
SPECIFIED
—if it's a
BLODGETT

Architects, builders and suppliers, alike, have learned that when Blodgett Baking and Roasting Ovens are specified, the client's approval will be prompt—and enthusiastic. For 94 years, in all types of institutions and under all kinds of service conditions, Blodgett Ovens have fulfilled every food production requirement. Send today for literature and specifications.

THE **G. S. BLODGETT CO., INC.**
53 MAPLE STREET, BURLINGTON, VERMONT
BLODGETT —Makers of Fine Ovens Since 1848

PRE-FABRICATED



RIC-WIL

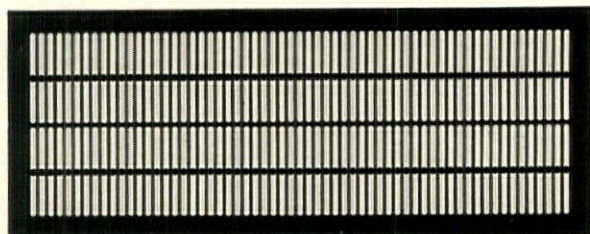
INSULATED PIPE UNITS FOR UNDERGROUND STEAM LINES

A new technique of underground steam conduit construction has been developed by Ric-wil—FACTORY PRE-FABRICATION by mass production methods. Ric-wil produces a complete truckable unit with no "missing links," which eliminates construction delays and turmoil on the job. All parts standardized and precision-made in the shop. Ric-wil has mobilized technical and plant resources in an all-out program to cut field construction to a minimum—to deliver to the trench a pre-engineered, pre-sealed, pre-built, unit system (including steam and return pipes, insulation, and all expansion loops and necessary fittings) ready for installation and welding.

For ACTION—wire us for name of your Ric-wil representative. He is set to give you service on any steam distribution problem for war purposes! Latest bulletins on request. *Engineers only: write on your letterhead for valuable Ric-wil Manual 420A.*

RIC-WIL CONDUIT SYSTEMS
THE RIC-WIL CO., CLEVELAND, O.
Agents in Principal Cities

THE LATEST VARIATION



OF AN OLD FAVORITE

THOSE who like the simple lines of a slotted grille will be interested in this newest Hendrick version of an always popular, standard design. Note the little innovations which lift this slotted grille out of the conventional class.

For further information concerning this and more than a hundred other Hendrick Grille designs, write on your company letterhead for the Hendrick handbook, "Grilles."

Hendrick Manufacturing Co.

20 Dundaff Street, Carbondale, Pa.

Offices and Representatives in principal cities. See 'phone book. Mfrs. of Mitco Open Steel Flooring, Mitco Shur-Site Treads and Mitco Armogrids, Hendrick Perforated Metals and Screens.

Protected with RU-BER-OID

Roofs: Asphalt Shingles and Built-up Roofing

Sidewalls: Eternit Asbestos-Cement Siding

Six blocks long, three city blocks wide, Franklin Terrace stands as a tribute to the U. S. Housing Authority of Erie, Pennsylvania.

And also as a tribute to Ruberoid's reputation for quality. When buildings are planned with architectural care, and products selected with discrimination, RU-BER-OID products are invariably used. It is a comfortable feeling for those who plan housing projects to know that many different roof and sidewall materials may be obtained from *one* reputable firm.

Three RU-BER-OID products were used on the homes in Franklin Terrace.

Built-up Roofing. Ruberoid offered all three major types of built-up roofing: (1) Asbestos, (2) Asphalt and (3) Coal Tar Pitch and Felt, and in a wide variety of weights and finishes. The builders were able

to choose the type and the specification that best fitted this job.

Thick-Butt Asphalt Shingles. The Ruberoid Co. makes many asphalt shingles of different weights, thicknesses and styles. The builders selected Thick-Butt Asphalt Shingles.

***Asbestos-Cement Siding.** The Ruberoid Co. makes a complete line of fireproof, rotproof asbestos-cement sidings in various styles, colors and finishes. The builders chose Ruberoid-Eternit Colonial Asbestos-Cement Siding—a popular RU-BER-OID product.

All of these products are ideal for low-cost housing. Get all the facts about RU-BER-OID Building Products. We invite your inquiry. Address Dept. AF-6, The Ruberoid Co., 500 Fifth Ave., New York, N.Y.

*200,000 sq. ft. of Asbestos-Cement Siding furnished by other companies.

FRANKLIN TERRACE HOUSING PROJECT

Protected with 192,200 sq. ft. RU-BER-OID Coal Tar Pitch and Felt Built-up Roofing; 62,500 sq. ft. RU-BER-OID Thick-Butt 12" Asphalt Strip Shingles; 100,000 sq. ft. Eternit Colonial Asbestos-Cement Siding. Architect: Walter T. Monahan, Erie, Pa. General Contractor: W. T. Trimble & Sons Co., Pittsburgh, Pa. Associate Contractors: Henry Shenk Co., Erie, Pa., and Ferguson & Edmonson Co., Pittsburgh, Pa.



RU-BER-OID

ROOFING AND BUILDING PRODUCTS

Building Reporter

(Continued from page 64)

to a wall, two separate drying processes occur. The first, which takes about an hour, is evaporation of the water, leaving the surface dry. This is followed by "polymerization" of the resin itself, resulting in a tough, waterproof surface that is completely washable. This "curing" action takes at least 48 hours. The paint can be applied directly over any type of surface except calcimine without priming. In most cases one coat is sufficient, even when

using a light pastel shade to cover heavily figured wallpaper or black grease pencil marks.

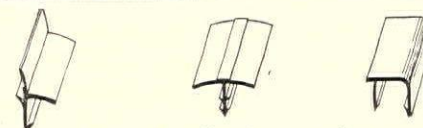
Manufacturer: The Sherwin-Williams Co., 101 Prospect Ave., N. W., Cleveland, Ohio.

PLASTIC SHAPES designed to cover unsightly wallboard seams and joints.

Name: Interlox Plastic Wallboard Shapes.

Purpose: For use with heavy wallboards and insulation materials such as Celotex, particularly in prefabricated and semi-prefabricated house construction.

Features: Made of extruded Tenite (a cellulose acetate butyrate), these strips are so shaped that they become automatically secured when forced into the wallboard



seams. No nails, adhesives or other means of attachment are necessary. Shapes include strips for inside corners, outside corners, flat panels and 130° panels. Being shatterproof, the plastic protects the wallboard joints. It comes in all colors and has a smooth lustrous surface, eliminating any need for paint or lacquer finishes. The strips lend themselves readily to wall and ceiling constructions. At present shapes are available from warehouse stocks in red and white only. Any desired color may be had on order, however.

Distributor: Julius Blum & Co., Inc., 532 West 22nd St., New York, N. Y.

GLAZING COMPOUND. Fast-setting putty developed for prefabrication.

Name: Super-Speed Perma-Glaze.

Purpose: For production-line glazing of doors and window sash.

Features: This putty boasts better adhesion and faster setting. It does not crack. Being primeless, it requires no mixing.

Manufacturer: The Biddle Co., 612 South Main St., St. Louis, Mo.

GLASS COATING provides transparency, prevents shattering as an air raid precaution.

Name: Transparent Glass Coating.

Purpose: To prevent shattering.

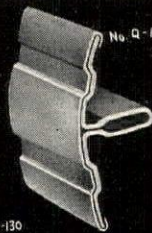
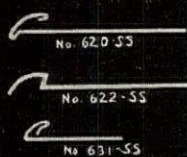
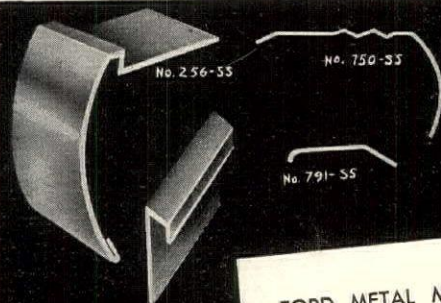
Features: Material comes in liquid form. It can be applied by spraying with an ordinary Flit-gun or by brushing. It dries quickly, forming a strong, tough film with a tensile strength of from 3,000 to 5,000 pounds per square inch. Elongation is over 20 per cent, permitting considerable movement of the glass without rupture of the film. Actual melting point is over 200° C. Only slight discoloration occurs after prolonged exposure. It can be washed whenever necessary.

Manufacturer: Wilbur & Williams Co., Park Square Bldg., Boston, Mass.

(Continued on page 72)

FORD

Stainless Steel Moldings



FORD METAL MOULDING CO.
has adequate stocks of Stainless Steel edgings, overlap and insert nosings, wallboard sections, tee mouldings, channels, coves, angles, snap-on mouldings. Also preformed stainless steel sink rims of channels, straight face nosings, and edgings.

No. L-1

No. T-201

No. N-76

No. T-200

No. N-75

No. O-152

No. N-77

No. T-202

No. N-79

No. S-190

No. K-109

No. J-100

No. Y-5

FORD METAL MOULDING CO.

A Reliable Source of Supply

329 EAST 45th STREET • NEW YORK CITY

52

markings. Cut off fine, and fill exposed joints with lines and honey-comb finish with adjacent surfaces. All exposed edges shall be slightly rounded, and be true to line.

REINFORCEMENT:

(A) Refer to top drawings for all reinforcement, showing and setting diagrams.

(B) Metal reinforcement shall be free from excessive rust, or other coatings that will reduce the bond.

(C) Bending shall be done without heating. Bars shall be free from kinks. Bends not called for by drawings and no bars shall be bent or straightened in a manner that will injure the material.

(D) Lapwire fabric 4 inches on sides and ends. Lap temperature bars 1 foot. All other splices where and permitted shall develop working stress in position and supported in place.

(E) Place reinforcement and supported in place.

ROOFING

2-8 Barrett Specification Roof.

FLOOR CONSTRUCTION ON GROUND:

2-9

(A) Where shown concrete floor construction on ground shall be constructed as follows:

(1) The surface of the ground under slabs shall be thoroughly rolled, tamped and compressed to prevent future settlement, allowed to stand for one week and then level off and tamped to elevations required (see "Excavating, Filling and site Grading")

(2) (or cinders) forming sub-base shall be required and then rolled and tamped in no area shall the thickness be less than the drawings. (or cinders) must be



In short, it means that you have provided for

*Reg. U. S. Pat. Off.

J U N E 1 9 4 2

UNCLE SAM NEEDS THIS

Take a look at remodeled VICTORY HOUSE, Schenectady, N. Y.—the kind of house Uncle Sam wants more of in a hurry for every area that needs war worker housing. Scarcely over a fortnight ago it was a big old dwelling that housed *one* family. Today, after remodeling, *four* families live there—each in their own apartment with ample accommodations and modern conveniences, including electric kitchens!

Financed through the FHA Plan, and remodeled by a local builder, Victory House is already making history as an important solution to housing shortages in vital defense areas.

Houses like this can be "made over" *fast*, they *use less* of the vital materials needed for war production, and they mean profitable business for YOU.

Uncle Sam wants architects, builders and contractors in local defense areas to get busy NOW on these remodeling jobs. For details, get in touch with the nearest FHA office in your locality, or, write to FHA, Washington, D. C.

APPRO

When planning and figuring on remodeling jobs, remember—the war worker tenant needs most the lower operating costs that are possible only with efficient, high grade household equipment.

*Actually
IT CAN COST
LESS TO
LIVE BETTER*

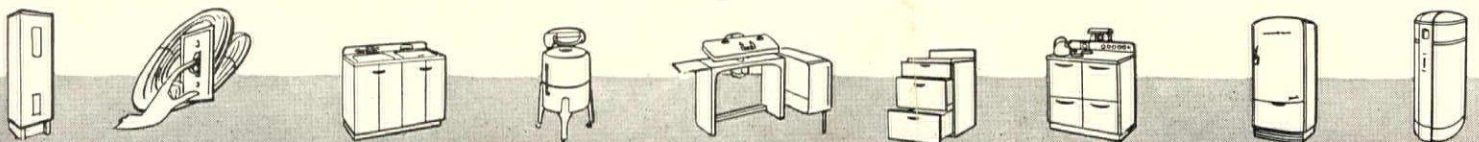


BEFORE Victory House was remodeled, its old-fashioned, "marathon" kitchen looked something like this. It tells its own story of inefficiency, waste space, endless drudgery.



AFTER remodeling, the four new kitchens in Victory House look like this—streamlined, efficient, step-saving, *thrifty*. Units include Refrigerator, Electric Range, Cabinets.

GENERAL ELECTRIC



KIND OF BUSINESS....

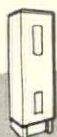
ED



VICTORY HOUSE, 105 Front St., Schenectady, New York, on opening day, January 24, 1942, just after remodeling. The famed M-3 type Tank is the official escort. Men like those who help produce the tanks are tenants of Victory House.



BEFORE remodeling, a down-at-the-heels, 70-year-old building that formerly housed but *one* family. A "white elephant" in anybody's hands!



Building Reporter

(Continued from page 68)

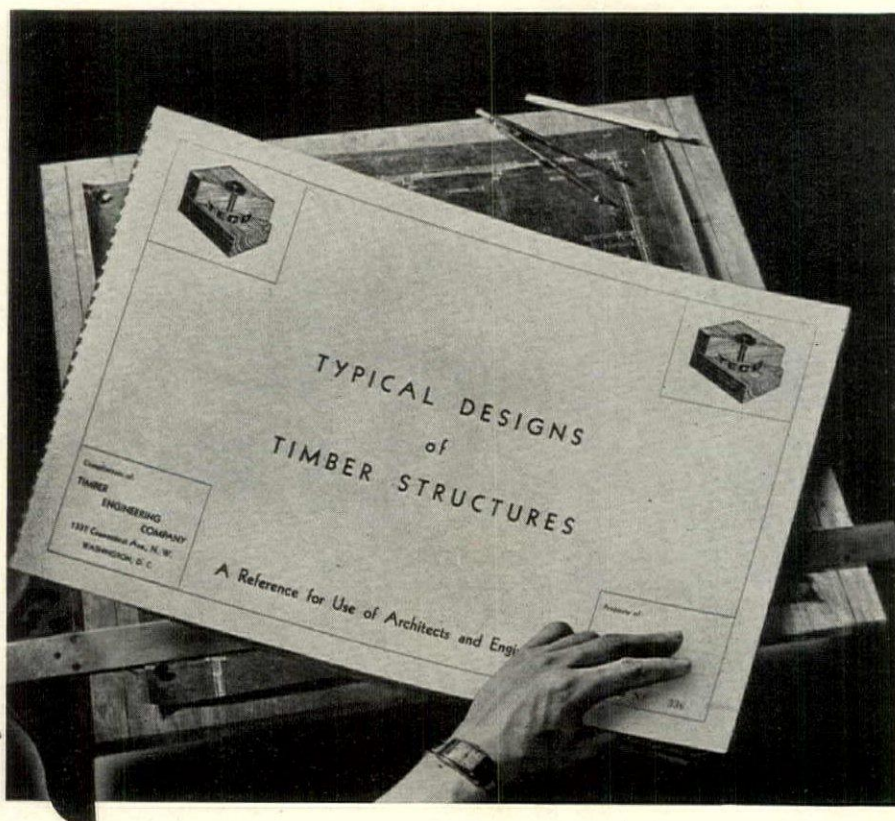
BLACKOUT SHADE pulls down when needed, raises to restore normal use of window when all is clear.

Name: Lite-Tite Instant Blackout Unit.

Purpose: For industrial plants.

Features: Similar to the domestic model, this unit consists of a shade operated by a spring roller and housed in a canopy which is attached to top of window frame. Once installed, the shade can be rolled up

out of the way or instantly pulled down. Complete blackout is provided by the canopy at the top, light traps on each side, and an overhanging apron at the bottom. Even if windows are broken by bomb blasts, the shade is able to keep out wind and rain since the light traps hold it securely at the sides. Shade's construction (tough fibers criss-crossed in a web between layers of asphalt and covered with waterproof kraft paper) also serves to stop the flight of flying glass. Through use of special rollers, shades can be furnished any length up to 18 ft. in width. *Manufacturer:* Blackout Shade Co. of America, Walnut Bldg., Des Moines, Iowa.



FREE—A REFERENCE FOR THE USE OF ARCHITECTS AND ENGINEERS

You draw on the successful experiences of many leading designers of timber structures . . . when you consult this fine reference book.

Detailed framing plans of 45 representative structures are included in *Typical Designs of Timber Structures*, with handy tables for use in timber design.

You will see how capable the TECO System of construction handles short-span as well as longer trusses. If you



TECO Ring Connectors spread the load on a timber joint over practically the entire

NEW PRODUCT LITERATURE

REDWOOD. *Stepping Up Production with Redwood.* Bulletin, 8 pp., 8½x11. Pictures and captions tell how this versatile material is serving the war effort. California Redwood Assn., 405 Montgomery St., San Francisco, Calif.

ADHESIVES. *Glued Prefabricated Houses.* Catalog, 4 pp., 8½x11, features the advantages of glued construction and illustrates typical construction systems. A 2-page insert conveniently provides gluing directions for both interior and exterior panels. Well presented. Casein Co. of America, 350 Madison Ave., New York, N. Y.

GYPSUM LATH. *Approved by the Nation.* Booklet, 12 pp., 8½x11. Three types—plain, perforated, insulating—are described. Also included: working data for the designer and specifier. Well presented. Gypsum Assn., 211 West Wacker Drive, Chicago, Ill.

WALL PANELS. *For War-Time Construction.* Folder, 4 pp., 8½x11, summarizes in timely fashion the advantages of using Marlite panels for both temporary and permanent construction. Attached samples demonstrate the panels' plastic finish. Marsh Wall Products, Inc., Dover, Ohio.

CONCRETE. *Pozzolith for More Durable and Economical Concrete.* Catalog, 32 pp., 8½x11. As a cement dispersing agent which is added to the concrete mix at the mixer, Pozzolith increases the plasticity and reduces the excess water required for placing the concrete. Ample documented with test data and illustrations of typical installations. The Master Builders Co., Cleveland, Ohio.

PORTLAND CEMENT PAINT. *Painting Concrete, Stucco and Masonry.* Booklet, 8 pp., 8½x11, explains why a cement base paint is required for these surfaces, tells how it should be applied. Medusa Products Co., 1000 Midland Bldg., Cleveland, Ohio.

INDUSTRIAL FINISHES. *War Specification Products.* Catalog, 16 pp., 8½x11. A timely reference listing of various approved lacquers, varnishes, enamels, synthetic resins. Jones-Dabney Co., Louisville, Ky.

WINDOWS. *Screw Thread Operator for Opening and Closing Sash.* Catalog, 28 pp., 8½x11, describes methods for operating inaccessible sash, transom sash, vertical and horizontal groups of sash, or a combination of both. Data are pertinent to offices, hospitals, power stations, stores, churches, banks, so on. Lord & Burnham Co., 420 Lexington Ave., New York, N. Y.

HARDWARE. *Plastic Push and Kick Plates.* Leaflet, 8½x11, describes how doors can be protected by Formica plates in black or in color. Prices for various standard items are listed. Formica Insulation Co., 4614 Spring Grove Ave., Cincinnati, Ohio.

LINOLEUM. *How to Make Rooms Color Perfect.* Booklet, 24 pp., 8½x11. Theme: the Nairn plan of room decoration which color-correlates the linoleum with other home accessories, whether they be from the 5-and-10 or from prestige shops. Numerous illustrations in color suggest design ideas for the kitchen, bath and living room. Congoleum-Nairn, Inc., Kearny, N. J.

FLUORESCENT LIGHTING. *New Compco "R-F".* Catalog folder, 4 pp., 8½x11, features a new rectified fluorescent luminaire for industrial use. Fixture requires no lamp starters, is free of "strob" and flicker. Commercial Metal Products Co., 2251 West St. Paul Ave., Chicago, Ill.

FIRE PROTECTION. *Everlasting Valves.* Bulletin, 4 pp., 8½x11. Intended for industrial use, these valves are designed either 1) for emergency shut-off or diversion of the flow of inflammable liquids, or 2) for diversion or concentration of water to sprinkler deluge or water curtain systems. They are weight-operated with pendulum stop. Everlasting Valve Co., 49 Fisk St., Jersey City, N. J.

INDUSTRIAL ROOF VENTILATORS. Indexed file folder contains: 1) *Bulletin No. 214*, 24 pp., 8½x11, illustrating and describing a line of units for industrial and commercial buildings; 2) *Bulletin No. 215*, 16 pp., 8½x11, a guide for estimating requirements and a manual on how to install the ventilators. Detail drawings convenient for tracing appear on inside of file folder. The Swartwout Co., 18511 Euclid Ave., Cleveland, Ohio.

AIR CONDITIONERS. *Bulletin G-2*, 24 pp., 8½x11, describes the capillary cell and its application in air conditioning equipment as a direct heat transfer surface between water and air. Standard cells measure 20 in. square in face area and 8 in. in depth, are filled with glass filaments arranged essentially parallel to the flow of liquid and air, thus offering low resistance to air flow. Air & Refrigeration Corp., 475 Fifth Ave., New York, N. Y.

FOR ALL-OUT SPEED in Construction!

**PICTURE CENSORED
FOR THE DURATION**

FOUNDATIONS FOR 4½-TON LATHES READY IN 19 HOURS

• Foundations for 4½-ton lathes making 300- to 400-lb. bomb casings were needed quickly. The contractor reported that placement of Atlas High-Early concrete was completed at 12:00 noon. At 7:00 the next morning, the lathes were in place on the foundations and working.



• The construction superintendent reported that Atlas High-Early, in addition to cutting time for completion approximately 50%, permitted earlier stripping of forms, saving 50% in form lumber costs.

SAVED 33% CONCRETING TIME



• In this 300-ft. x 600-ft. building, the contractor stated that Atlas High-Early cement cut concreting time 33% and saved 68% in rental cost of metal-pan forms.

Typical examples of "Full-Speed-Ahead" building with Atlas High-Early cement. Now is the time to put this easily available material to work.

WHAT is your speed problem in construction? A war emergency building? An addition to a munitions plant? A military road? An airport runway? A naval base? A cantonment?

You will find an answer in Atlas High-Early cement for any type of construction work. Its rule is "Speed" — in building, converting, or repairing — in summer or winter. On typical jobs it has saved from one week to more than two months. And, while speeding up schedules, it often saves money on forms, curing, and protection.

Read what happened on the jobs illustrated here. On your next "Rush" contract, use Atlas High-Early and see what it will do for you. In actual application it is similar to normal portland cement and just as easy to handle. Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York City.

OFFICES: New York, Chicago, Philadelphia, Boston, Albany, Pittsburgh, Cleveland, Minneapolis, Duluth, Kansas City, St. Louis, Des Moines, Birmingham, Waco.



• When munitions work called for a new 80-ft. x 300-ft. building, the company got it fast with Atlas High-Early cement. Twenty-four hours after concrete was placed the floor was in use.

ATLAS HIGH-EARLY CEMENT
A UNIVERSAL ATLAS PRODUCT





SAVE TIME 3 WAYS —with UNION METAL Bridging!

- You can install Union Metal Steel Bridging in $\frac{1}{2}$ to $\frac{3}{4}$ the time it takes for wood bridging because (1) your entire supply for an average house comes in one easy-to-carry carton; (2) you can speedily install Union Metal Bridging with ordinary roofing nails; (3) you lose no time in the replacement of splits.

You get a better, all-around job with Union Metal Bridging, too... for these flanged steel strips decrease deflection and vibration, make possible firm, solid, squeakless floors. Lengths to fit all regular joist sizes and spacings.

Write for FREE folder BR-900

THE UNION METAL
MANUFACTURING CO., Canton, Ohio



INSULATION *Simplified* WITH 3 FORMS OF **ZONOLITE**

1. HOME INSULATION

Zonolite Granular Fill is naturally permanent. 100% mineral: fire-proof, rot-proof, vermin-proof, moisture-resistant. Fast, easy installation... packs as it pours... no nailing... no cutting... no fitting... no waste. Extremely high thermal efficiency. Valuable on attic floors as protective barrier to downward spread of fire bombs.

2. INSULATING PLASTER

Zonolite All-Purpose Plaster Aggregate is clean and easy to mix and apply... 12½ times lighter than sand, with 5 times more insulating value. Non-freezing... crack-resistant... readily available.

3. INSULATING CONCRETE

When used with portland cement, Zonolite Concrete Aggregate combines permanence, extreme light weight—and *insulation*! Ideal for roof and floor fill; roof decks, cants, saddles, floors for livestock and poultry. Undamaged by moisture; absolutely fire-proof.



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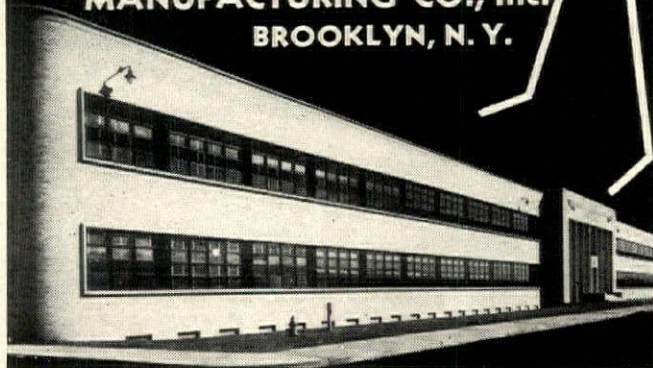
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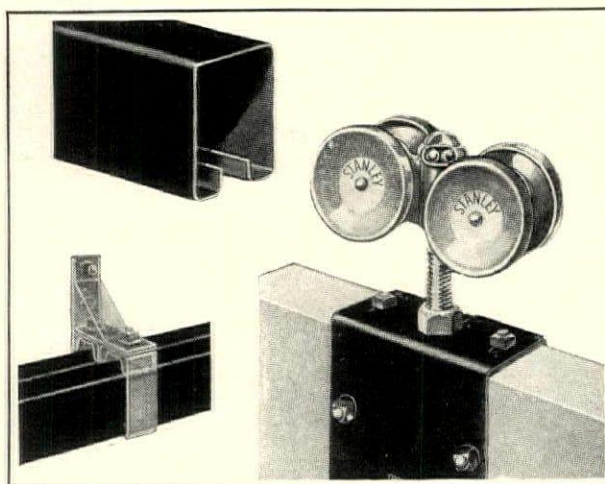
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R & G registers and grilles play another important war-time role! Our products were chosen for installation in this huge midwestern aircraft engine plant by Natkin & Co., heating contractors. Completed ahead of schedule under the direction of Albert Kahn, Inc., Architects.

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3 Sizes meet all needs for Doors up to 1000 Pounds

Only three sizes, X, Y, and W, of Stanley No. 2641 Track and No. 2650 Hangers, handle all common sliding doors weighing up to 350, 700 and 1000 pounds, respectively. X track is 16 gauge, Y is 14 gauge and W is 13 gauge.

Stanley Hangers have accurate two-way adjusting nut and ball bearing swivels. Stanley "Hold-Fast" Track Clamps hold sections of track rigid and perfectly aligned. Send for catalog describing the complete line of Stanley Hardware.

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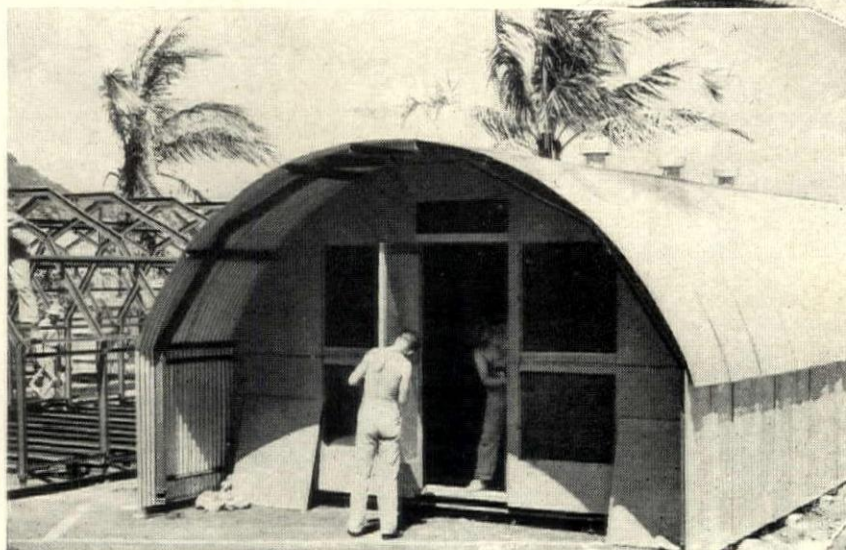
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HARDWARE FOR CAREFREE DOORS

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Keeps Our Boys Cooler in Panama... Warmer in Iceland



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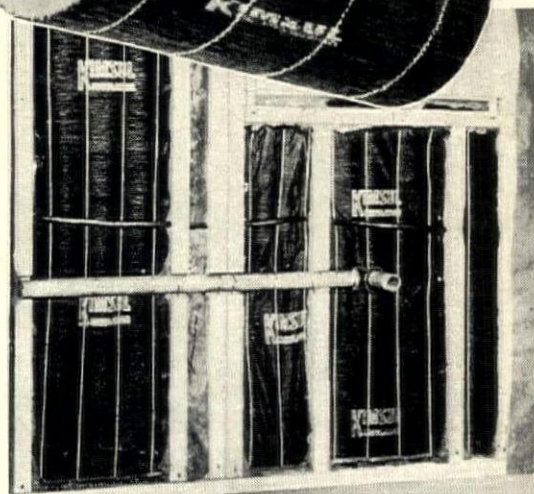
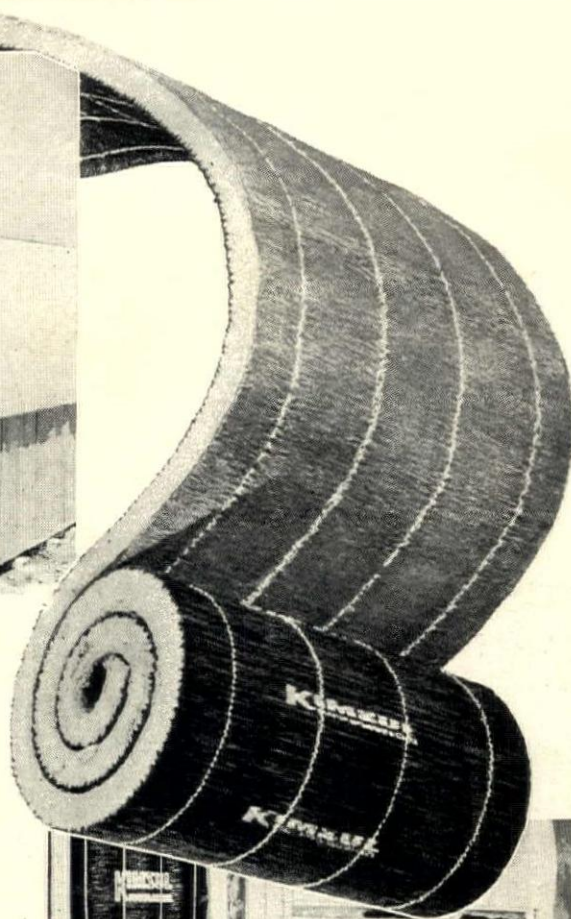
☆ Quonset pre-fabricated huts like this provide comfortable housing for the U. S. Marines down in Panama . . . for soldiers up in Iceland. "Comfort-Conditioned" with KIMSUL* Insulation, these huts protect against tropical heat and sub-arctic cold, because KIMSUL is one of the most effective barriers of heat and cold known to science. Here's a stiff test for any insulation . . . but with its conductivity of only .27 Btu/hr./sq. ft./deg.F./in. (Peebles) KIMSUL does the job!

The Quonset huts were insulated with KIMSUL not only because of its thermal efficiency, but for these equally vital reasons: KIMSUL was found to be the easiest and most economical insulation to transport to far-off destinations because of its extremely light weight . . . because, unlike any other insulation, KIMSUL blanket comes *compressed to less than one-fifth its installed footage*. Important, too, were these facts: KIMSUL blanket insulation is flexible . . . it conforms snugly to both curves and angles. Asphalt-impregnated, it resists moisture and time. And once properly installed, KIMSUL won't sag, sift or settle.

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Interesting illustrated book, "A NEW AND IMPROVED KIMSUL INSULATION" gives all the facts. Send for it now!

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



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KIMBERLY-CLARK CORPORATION
(Building Insulation Division), Neenah, Wisconsin

AP-642

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- ☐ Send copy of FREE book, "A NEW AND IMPROVED KIMSUL INSULATION".

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THAT'S WHY WE CHECK WITH
LIQUIDOMETER TANK GAUGES
"They're Always Dependable"

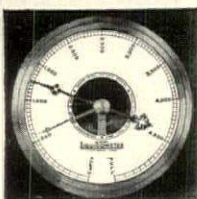
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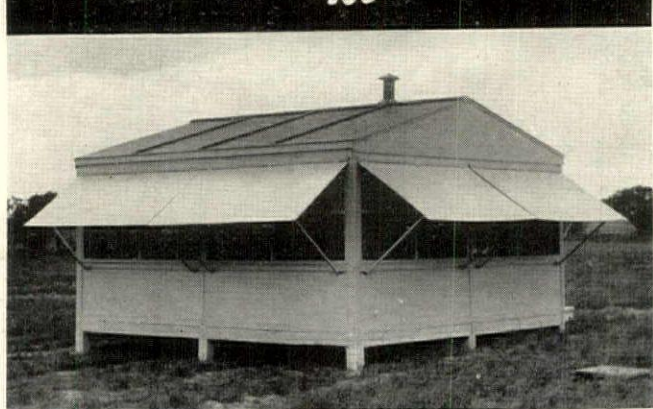
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Models available to automatically control pumps, motors, signals or other devices for maintaining minimum or maximum liquid levels.

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This is a temporary hutlet; 135 of them were put up quickly at Texarkana, Texas, for the Farm Security's Defense Relocation Corporation and 200 others for Defense Plant Corporation at Freeport, Texas.

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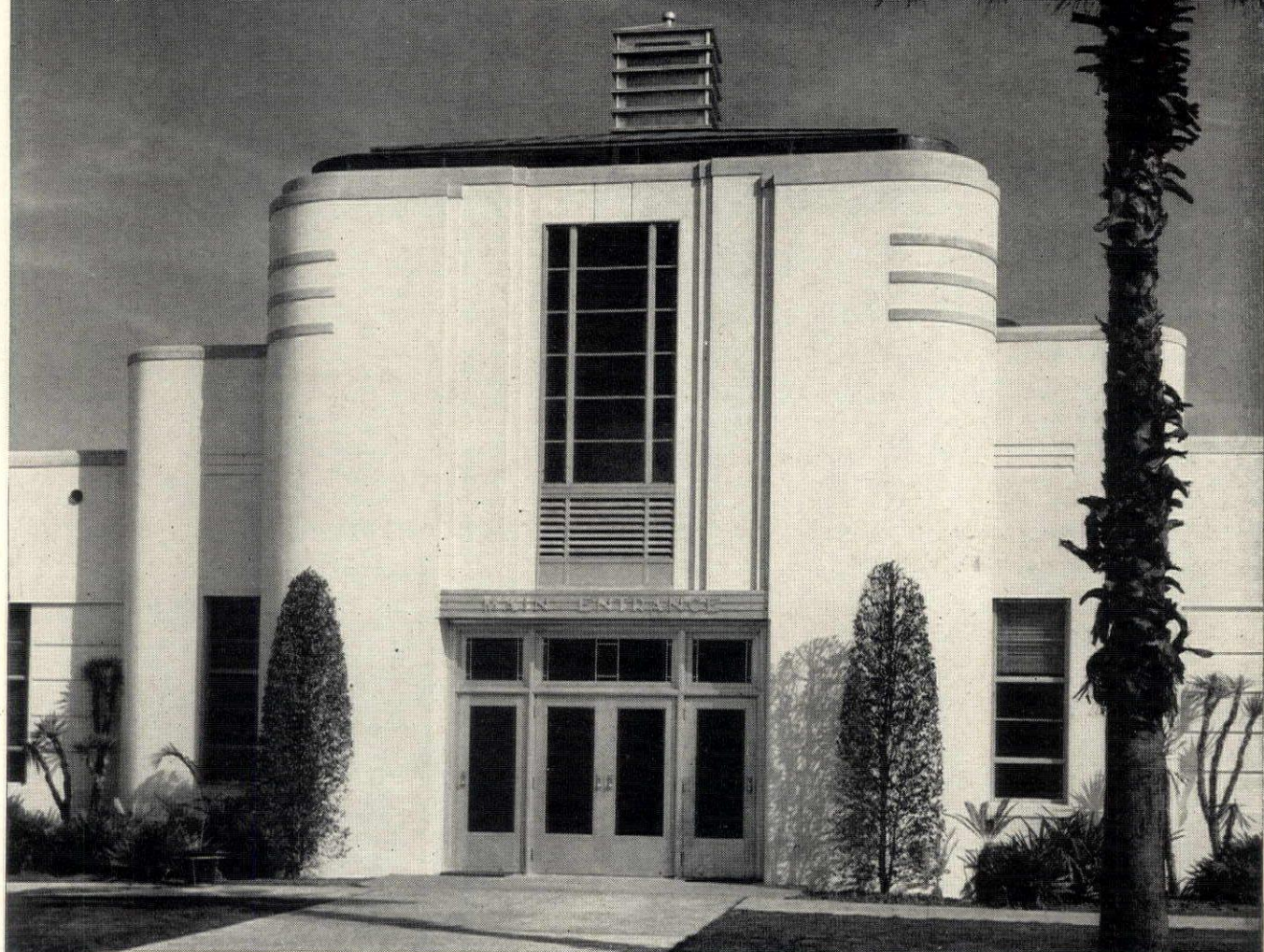
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To create rugged, fire-resistant buildings in minimum construction time . . . to assure immediate and long-term economy . . . to reduce the requirements for critical materials, transportation and equipment—these are concrete's accomplishments in the war program.

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A national organization to improve and extend the uses of concrete
. . . through scientific research and engineering field work

BUY WAR SAVINGS STAMPS AND BONDS

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 only to those manufacturers whose reputation merits confidence. This THE FORUM does.

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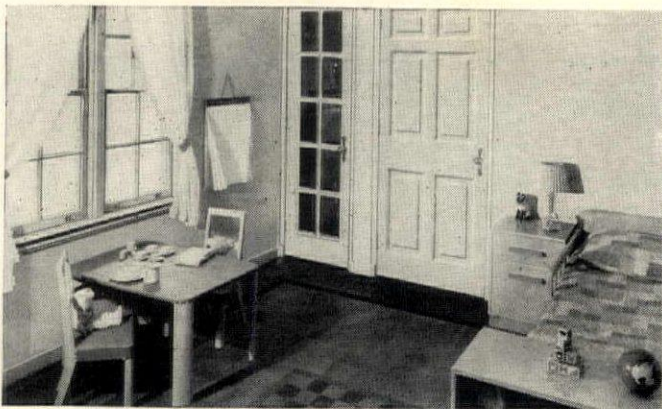
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...MEETING TODAY'S

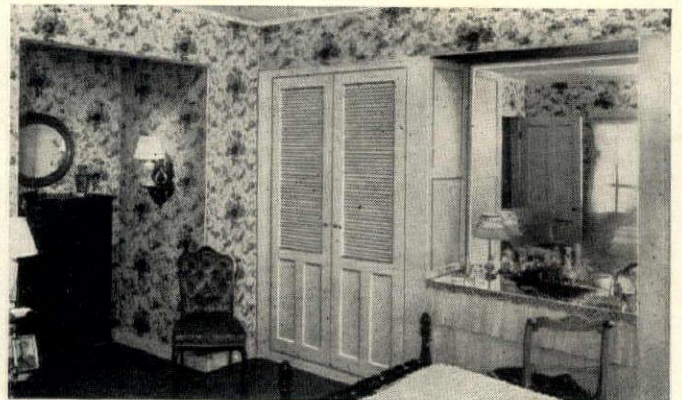
"musts"



More speed in building. Use of non-critical materials. Flexibility in planning for a variety of new needs. Economy. Those are the "musts" of today's building. And those, too, are the conditions which stock doors, frames and windows of Ponderosa Pine meet so ably and so well!



BETTER DEFENSE HOUSING—FASTER! There's no restriction on beautiful, practical interiors like this! Stock doors, frames and windows of Ponderosa Pine aren't critical materials. They're available! The wide line of designs, sizes and shapes make it easy for you to get what you want—on schedule time.



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ADAPTED TO PRESENT NEEDS. The spirit of this simple interior is well expressed with Ponderosa Pine stock items. Ponderosa Pine doors, windows and frames assure better, more economical building both for defense housing and remodeling. Close grained, non-splitting and non-splintering ends and edges—easy finish—satin-smooth surface after sanding—light weight—ease of working—insulation value—are only a few of Ponderosa Pine advantages.



And now

there's a new "Open House"—another edition of the Ponderosa Pine door and window idea book which last year capitalized on fast-growing public demand for more functional designing. This new edition is full of practical ideas for planning that meets today's restrictions in both new construction and remodeling.

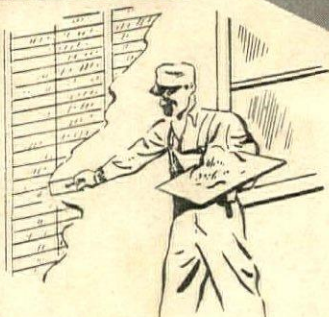
100,000 copies of "Open House" are being read today. Write for *your* copy. PONDEROSA PINE WOODWORK, Dept. XAF-6, 111 West Washington St., Chicago, Illinois.

Ponderosa Pine

WOODWORK

Looking ahead...

Here is a preview of a post-war development in house construction

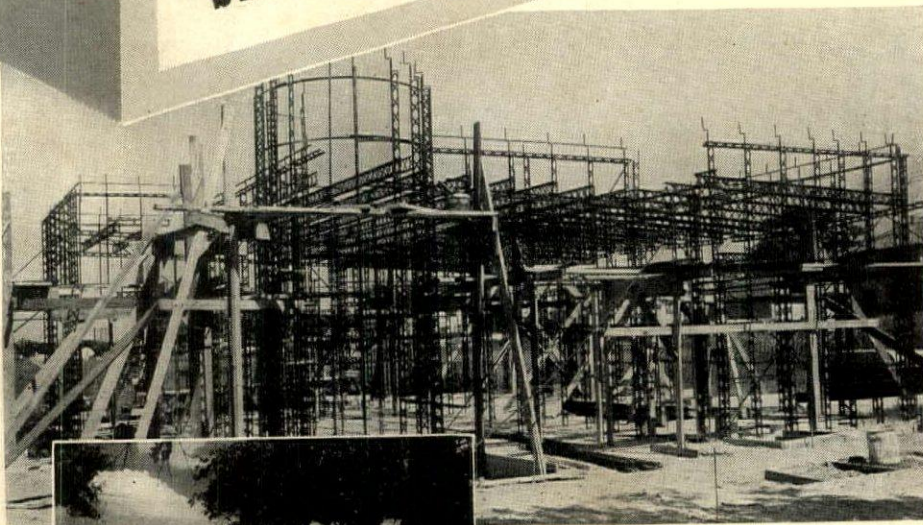


Tomorrow, when Uncle Sam no longer needs all our steel to win the war, we may have complete houses framed with a light-weight material—which heretofore has not been done.

Such is the somewhat startling innovation suggested by this successful, satisfactory structure in a Texas city — “framed” with the Milcor Steel Stud, which you perhaps never thought of as a framing material.

The speed of erection is almost incredible. The structure is lighter, stronger, less costly—and far more safe against fire hazards.

Please don't write for blueprints—we haven't any. But remember that

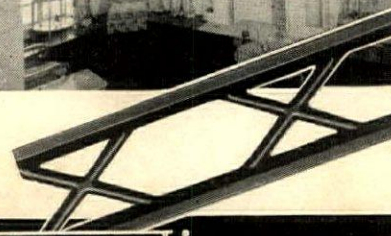
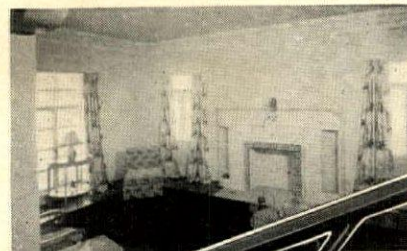


Milcor engineers are working on blueprints for the America of tomorrow — looking with an open mind at new ideas such as this one, checking, testing — to the end that you may find steel ever more useful in the buildings of that day.

As in the past, the building industry looks to Milcor for the improvements which lead the march of progress. The management of this company is determined that you

shall not be disappointed. So — don't look merely for “business as usual” — when Victory is won — but also for the new and unusual which building needs to strengthen its appeal to the public, and to improve the efficiency and economy of its structures.

F-239



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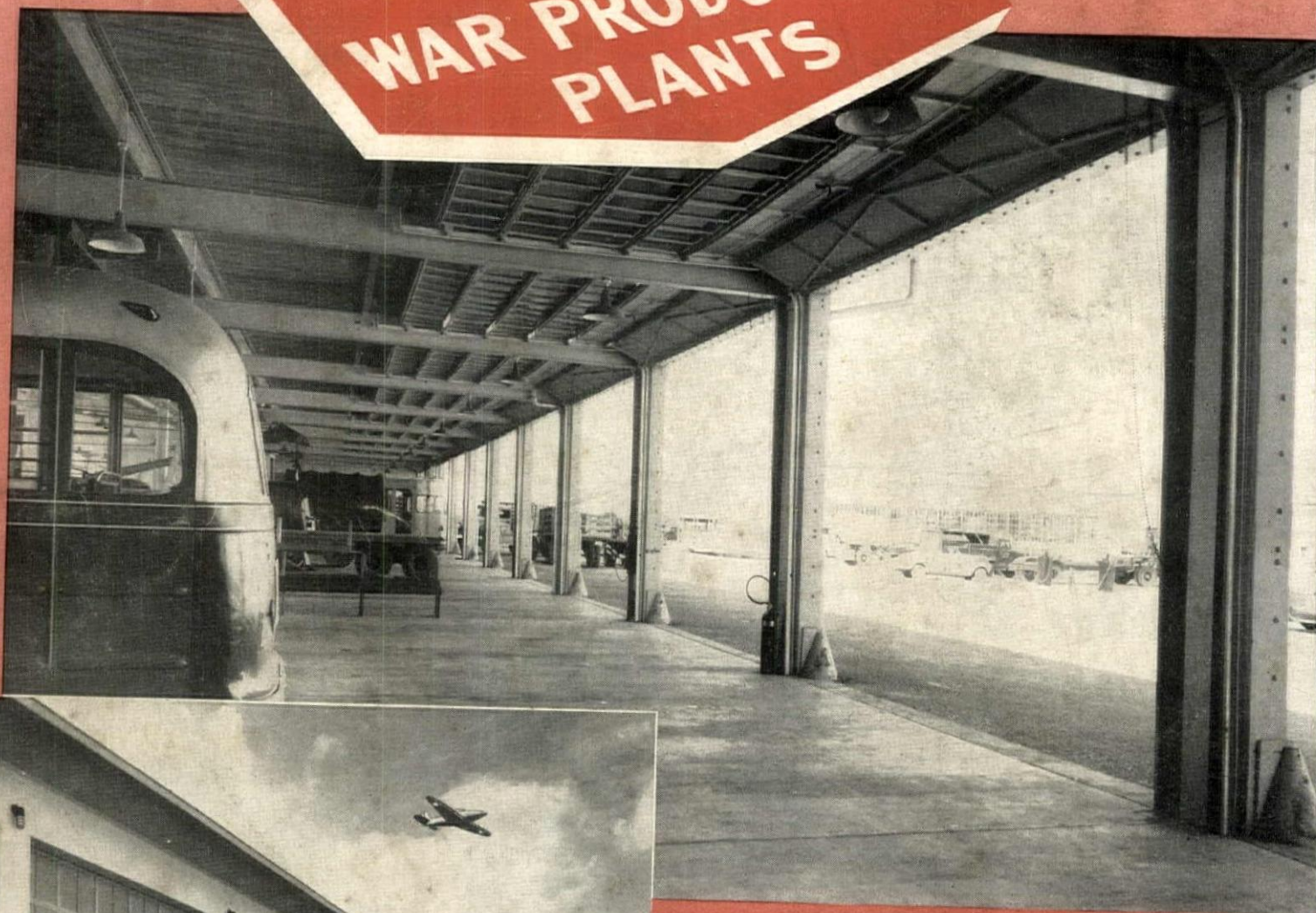
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Mighty muscles of metal! Truscon Open Truss Steel Joists offer, in addition to adequately proved strength, the lightness of weight necessary in a building world made conscious of the need for conservation of all vital metals. Architects and engineers have learned to depend upon Truscon O-T Joist advantages: Adaptability . . . Rapid Erection . . . Sound- and Fire-proof Construction. Truscon O-T Joists are designed and manufactured in accordance with the specifications of the Steel Joist Institute, and the Simplified Practice Recommendations of the U. S. Department of Commerce.

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**GOVERNMENT
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and
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