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

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.

THE CELOTEX COMPANY • CHICAGO
THE MONTH IN BUILDING

REMODELED OFFICE BUILDING
1902 Allentown, Pa., building refurbished inside and out and doubled in size without disturbing the occupants.

TWO MODERN HOUSES
Architect John E. Dinwiddle’s latest contributions to the California crop of modern houses.

A. R. P.
Series of ideas, methods and equipment for apartments.

NORFOLK, VA.
Twenty-five thousand new houses leave Hampton Roads’ war housing problem more badly tangled than ever . . . “chicanery, confusion and ineptitude” prove the need for strong local authorities with over-all power from houses to hospitals.

MASS PRODUCTION AIRPLANE PLANT
Huge new factory built around and over an existing plant without interrupting production . . . two-level plan provides employe toilets near the machines suitable for use as air-raid shelters.

FREIDERICA HOTEL
Modern architecture in the midwest with emphasis on orientation, outlook and daytime livability.

OFFICE BUILDING

REMODELED THEATER
Renaissance of a legitimate theater as studio’s “show window.”

CHURCH OF SS. PETER AND PAUL
Pierre, S. D., gets a new church that is functional inside as well as out, designed by Barry Byrne.

WAR HOUSING
Outstanding public war housing projects from various parts of the country illustrating various approaches to Building’s most pressing problem.

BUILDING REPORTER

FORUM OF EVENTS

BOOKS

LETTERS
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.


(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**

Going a long way toward simplifying attic modernization is Masonite* Cell-U-Blanket,* one of today's most efficient insulations and one that can be installed to roof rafters — from the inside — without danger of shrinkage, sagging or settling. The blanket comes in rolls. It is merely cut to size and stapled or nailed to the rafters, affording complete sidewall and ceiling insulation.

- **Provides positive vapor barrier**

The asphalt-impregnated coverings of Masonite Cell-U-Blanket are wind-proof and moisture-resistant. This insulation provides a positive vapor barrier, effects the fuel economy so vital to our war effort.

- **Presdwoods* for finishing**

Masonite Presdwood Products are also being used for finishing the attic with smooth, durable hardboard walls and ceiling.

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

MASONITE CORPORATION, Dept. AF-6, 111 West Washington Street, Chicago, Ill.

Please send me FREE sample and further details about Masonite Cell-U-Blanket Insulation.

Name ____________________________ Address ____________________________

City ____________________________ State ____________________________

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

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)
Formica is a modern surfacing material, produced by chemical research to provide a combination of qualities that would meet and conquer conditions that have been fatal to most of the older materials.

A few of these hazards are illustrated, but there are others—such as alcohol, cosmetics, wet umbrellas, ink—all equally harmless to Formica.

This exceptionally sturdy finish comes in a wide range of deep beautiful colors, and patterns. Genuine wood veneers of fine woods, like mahogany, sapeli, avodire, and many others are introduced and in Formica “Realwood” attain the same indifference to abuse. Inlays of one color over another make a wide range of designs possible.

That’s why Formica has been so widely used for tough jobs by leading designers of ships, trains, hotels, libraries, public buildings, restaurants, soda fountains.

Color charts and installation details on request.
The bookcase divides into two vertical sections.

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.

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.

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

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.

With essential structures ranging from factories to hospitals to garages to munitions plants, a variety of heating needs are encountered. Often there is an unusual combination of requirements that only Radiant Heating can completely meet. Pre-determining such applications, as well as designing the actual system, is greatly simplified by using the Byers "Experience Pool."

Even before the Johnson Wax building raised a tidal wave of interest in Radiant Heating, we had begun an intensive study of the subject, which has continued uninterruptedly. This is reinforced by a large volume of engineering data on water analysis, corrosion data, and performance records on all kinds of materials, which the Byers Engineering Service Department has accumulated over a period of years. Altogether this constitutes the largest and most complete "Experience Pool" on Radiant Heating and related corrosion problems that is available anywhere. It is at your service, at all times.

This "Experience Pool" is of particular value to overworked architects and engineers who cannot take time for their customary personal investigation of new problems and new applications. There is no red tape in using it; just write the details of your problem, and recommendations—based on records of actual past performance in similar applications—will be sent you.

If you would like the complete story on Radiant Heating—send for the 44-page technical bulletin, "Byers Wrought Iron in Radiant Heating Installations."


BYERS WROUGHT IRON
FOR EXTRA SERVICE IN CORROSIVE APPLICATIONS
CORROSION COSTS YOU MORE THAN WROUGHT IRON
THIS BLUEPRINT
FOR EFFICIENT, SPEEDY
SIDEWALL CONSTRUCTION

- Architects the country over are turning to Red Cedar Shingles as the answer to the perplexing problem of providing attractive sidewalls for multi-unit projects which must be built speedily, efficiently and economically. Red Cedar Shingles lend themselves to all styles of architecture—their random widths and pleasing variations of texture make them especially suited for housing projects where freedom from monotony is desired. They are non-critical and are readily available in all localities.

FREE BLUEPRINTS—A series of architectural blueprints on the application of Red Cedar Shingles for roofs, double and single-coursed sidewalls is available to architects.

RED CEDAR SHINGLE BUREAU
Seattle, Washington . . . . . . . . . . . . . . Vancouver, B. C.

MAIL THIS COUPON

Red Cedar SHINGLES
DAHLSTROM craftsmanship in metal, so well exemplified in hundreds of installations throughout the country, is now being utilized to build vitally essential equipment* for the Navy and Maritime Commission... for the Army and other government services.

For the present we can accept orders only for those projects which carry a high priority. Fortunately, however, there are no priorities on creative effort and mutual cooperation. We fully appreciate the part which the Architectural profession, and our many friends in the building industry, have played in the growth of our business. We need their goodwill, and we certainly want to hold it.

Working against the day when Peace comes again, we are glad to offer Design and Technical assistance to Architects planning either new construction or modernization. In the opinion of expert forecasters, the modernization of existing structures will be greatly stimulated after the war. Rest assured, whatever help we can give you now, is yours for the asking.

*A set of 64 DAHLSTROM Standard Color Cards. They are produced in our own finishing department under conditions identical to actual production. They include plain enamel, metallic enamel, stippled and grained finishes. Useful in any Architect's office. Send for your set.

DAHLSTROM METALLIC DOOR COMPANY. JAMESTOWN, N. Y.
BRANCHES IN NEW YORK, PHILADELPHIA AND CHICAGO
Representatives in Principal Cities

JUNE 1942
Note that the underside of a Featherweight Precast Concrete Roof Deck needs no painting or other treatment. It provides a smooth, finished ceiling effect, which is attractive in itself.

**Featherweight PRECAST CONCRETE ROOF DECK**

Hidden Values Provide Lasting Economy

- What happens to a roof deck down under the weatherproof covering, depends entirely upon how well that roof deck can resist the effects of fire, moisture, heat, cold, smoke, soot, cinders and other destructive elements.
- Wood and other impermanent materials are subject to rot, rust and disintegration—require continual repairs and painting to keep them in service. Such a roof deck deteriorates each year until it finally goes out entirely and then has to be replaced.
- On the other hand, when you select a Featherweight Precast Concrete Roof Deck, you know that nothing will happen down under, to impair that roof deck. You will always be assured of permanent, fireproof, economical roof service, with no expense at any time for repairs or replacements.
- Of timely importance, you will have efficient protection against costly interruptions and delays to production. Catalog on request.

Made, Laid and Guaranteed by

**FEDERAL-AMERICAN CEMENT TILE CO.**

608 South Dearborn Street, Chicago

For Over 35 Years Sales Offices in Principal Cities
Plants near Chicago—New York—Pittsburgh—Birmingham
FLOODS OF DAYLIGHT NOW
Perfectly Diffused to prevent Eye-Fatigue...
Sun Heat Absorbed to prevent Physical Fatigue

CASE HISTORY No. 6

Sweet Kleen Laundry, Buffalo, N. Y.
"We have floods of daylight now, but the incoming light is perfectly diffused, providing a soft, well-balanced distribution of light. The heat-absorbing properties of Aklo reduce sunray heat so well that temperatures inside are far more easily controlled.
"Your product has done much to add to employee efficiency and comfort in this modern plant, and we want you to know that we are well pleased with the results."

AKLO GLASS Speaks for itself in this modern Buffalo laundry

Scores of installations, in all types of industrial buildings, prove that when Frosted AKLO Glass goes in, eyestraining glare and fattiguing sun heat are kept out.

This modern industrial glass admits a flood of soft, diffused daylight over working areas. It scientifically breaks up the light rays, prevents direct glare, reduces indirect glare to a minimum. Errors and accidents due to eyestrain are avoided. Bothersome, costly shades are eliminated.

AKLO Glass, manufactured by the Blue Ridge Glass Corporation, Kingsport, Tenn., and sold by Libbey-Owens-Ford Glass Company, Toledo, Ohio, through leading glass distributors, provides greater working comfort, too, by excluding 97.5% of the sun’s infrared rays. Thus interiors are kept much cooler in summer. Employees feel better and work better.

AKLO Glass is available in hammered and ribbed patterns, both wired and unwired. For full information and catalog, write Blue Ridge Sales Division, Dept. 1268, Libbey-Owens-Ford Glass Company, Toledo, Ohio.

BLUE RIDGE AKLO GLASS
Heat-Absorbing • Glare-Reducing • Figured and Wire Glass
MORE GUNS FASTER!

THE TECO CONNECTOR SYSTEM
OF WOOD CONSTRUCTION
Releases Steel in Enormous Quantities for War Needs!

The challenge of a war of productive skills has been met by America with the kind of resourcefulness shown in the adoption of the Teco Connector System of Wood Construction. America is engineering with wood on a tremendous scale.

Enormous quantities of steel are being released for the manufacture of armaments by the use of the Teco Connector in wood construction... in building lofty and graceful wood towers, big and small factories, bridges, dry docks, hangars, army chapels, pre-fabricated homes and commercial structures of all types. One pound of Teco Connectors releases 11½ to 12 pounds of steel, and 200 of them release enough steel to make approximately 50 heavy machine guns.

The architect, engineer and contractor are provided with a greatly expanded opportunity for service during the war emergency and in the future by the Teco Connector System of Wood Construction. The utilization of 80% to 100% of the strength of wood at joints is made possible by the Teco Connector. It distributes the bearing area over the entire width of the board... giving stronger, more rigid joints with less material.

You need working data now on the Teco Connector System of Wood Construction. An ordinary carpenter can use Teco Connectors, and any competent engineer can design for their use. Only commonly available sizes of lumber are required.

Weyerhaeuser Sales Company
MANUFACTURER OF 4-SQUARE LUMBER
FIRST NATIONAL BANK BUILDING • ST. PAUL, MINN.

TECO Timber Connectors Save!

SAVE STEEL... One pound of Teco Connectors replaces 11½-12 pounds of steel.
SAVE LUMBER... 80% to 100% of the working strength of lumber is utilized instead of from 40% to 60%.
SAVE MONEY... Save up to 33 1/3% in cost as compared to steel, up to 45% as compared to traditional wood truss construction.
SAVE TIME... Trusses can be speedily fabricated on the job out of standard lengths and dimensions of lumber.
YOUR SELECTION OF DURABLE METALS

made thousands of homes more livable, more economical

You specified

ANAconda BRASS PIPE
OR COPPER TUBES

RESULT: Owners were saved the inconvenience and expense of pipe repairs and replacements caused by rust. And at the same time they have piping that will deliver a full, rust-free flow of water.

You specified

EVERDUR’ METAL HOT WATER STORAGE TANKS

RESULT: Owners will never experience the unpleasantness of hot water discolored with tank-generated rust. And they have strong, welded, non-rust tanks to give unexcelled service year after year.

You specified

ANAconda COPPER FLASHINGS AND VALLEYS

RESULT: There can be none of the water damage to a home’s interior that rusted metal work so often causes. And, with copper gutters and leaders, the owners have lasting, economical rain disposal systems.

NON-FERROUS product developments which promote efficiency and reduce upkeep will always be the fruit of Anaconda research—a research that is today carrying on with redoubled effort for war purposes...and looking also toward peace, when Anaconda Copper and Brass...in old and new forms of usefulness...will be ready for a booming building industry.

THE AMERICAN BRASS COMPANY
General Offices: Waterbury, Conn.
Subsidiary of Anaconda Copper Mining Company
In Canada: Anaconda American Brass Ltd., New Toronto, Ont.
IN THE NATURE OF MATERIALS, by Henry-Russell Hitchcock. Duell, Sloan & Pearce. 136 pp., illustrated. 9½ x 8¼. $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 1897 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.

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-BOOHTS**
   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.

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
“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!"

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%).
- Durability and safety
- Ease of maintenance
- Maximum light output
- Flicker correction (on two-lamp circuits).
- Correct ventilation
- 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.

Mail coupon for FREE booklet

Fleur-O-Lier Manufacturers, 2198 East Blvd., Cleveland, O.

Please send me FREE new booklet "50 Standards for Satisfaction," together with list of Fleur-O-Lier manufacturers.

Name

Address

City

State

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

16 THE ARCHITECTURAL FORUM
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-quietening, 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.

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)
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 marbleized 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 beautiful, 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.

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-6079, designed by Willis Irvin, Architect. Note the careful detailing, the distinguished simplicity. This is low-cost woodwork, thanks to Curtis' standardization.
- Entrance C-1765, 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 study 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 a 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.

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-50, Clinton, Iowa
I want to know more about the new, low-cost Curtis Woodwork designs. Please mail me complete information.
Name: ____________________________
Address: __________________________
City: ____________________________ State: ____________

Curtis Woodwork is sold by reliable dealers everywhere.

JUNE 1942
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.
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.

Careful analysis of users’ experience has established that Johnson’s Wax-Fortified Mill White (1) loses practically none of its light reflective values after months of ordinary exposure; (2) requires less frequent cleaning or repainting; (3) cleans easily when cleaning eventually becomes desirable; (4) cuts maintenance costs substantially.

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
The 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 Convector heaters 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.
Copper: - T O P S F O R P L U M B I N G P I P I N G

... Y E T M O R E V I T A L S T I L L T O

"K e e p ' E m F l y i n g !"

- 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.

WINNERS OF NAVY "E" AWARD

JUNE 1942
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.

SPENCER HEATER
Division — The Aviation Corporation
Williamsport, Pa.
To withstand rough treatment, the ventilators of Mesker Projected Windows are balanced on exclusive Angle Side Arms. More rigid; heavier than flat Side Arms in common use; balanced...they provide permanent, perfectly-smooth operation of Vents...permanent weather-tightness. With maximum rigidity in TWO directions...

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.
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 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 camouflage 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 linear 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 linear feet and 500 sq. yds., respectively would be required. Balancing the possible disadvantage of not having a ground floor entrance for each apartment the 'group 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. MICHEMER
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.
ETANSTILLE, INDIANA, APRIL 12, 1942

Still Another STRONG-BILT Project...

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.

Speed and Economy with Crackproof STRONG-BILT PANELS

★ Dry-built with insulation value. Applied any month of the year.
★ 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.

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.
TURN YOUR THOUGHTS TO LIGHT, and you will find the answer to many of your planning and production problems — particularly if you specify the lighting fixtures designed to give you all that fluorescent has to offer.

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!

DAY-BRITE LIGHTING, INC., 5458 Bulwer Ave. • St. Louis, Mo.

CALL YOUR DAY-BRITE REPRESENTATIVE
You'll be agreeably surprised to learn how effectively your Day-Brite Engineering Representative will help you. Call him — whatever your lighting requirements may be, Day-Brite can meet them adequately, quickly. Not with generalized suggestions — but with specific recommendations based on a detailed analysis of your individual requirements. Where necessary, a complete layout and blue-print service is available. This service is gratis, in the interest of Light for Victory.

The COMPLETE LINE OF FLUORESCENT LIGHTING FIXTURES Nationally distributed through all leading electrical supply houses
"...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 WINDOW UNIT
CASEMENT WINDOW UNIT
COMPLETE BASEMENT WINDOW UNIT
HORIZONTAL GLIDING WINDOW UNIT
VICTORY DOUBLE-HUNG WINDOW UNIT

ONLY 13 OUNCES OF METAL!
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.
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 downright 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 twofold 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.

Where Results Count—Count on Sonneborn

L. SONNEBORN SONS, Inc.
88 LEXINGTON AVENUE, NEW YORK, N. Y.
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.

ALCOA ALUMINUM
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-siphonage. 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.

SLOAN VALVE COMPANY
4300 WEST LAKE STREET - CHICAGO
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 pour point and film strength of oils.

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.

KOPPERS
THE INDUSTRY THAT SERVES ALL INDUSTRY

BUY UNITED STATES WAR BONDS AND STAMPS
"HERE'S WHY WE USE THE FLOATING WALL SYSTEM FOR DEFENSE HOUSING CONSTRUCTION..."

"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, insulation, sheathing and sound control materials.

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 father 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.
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 push 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 pipeline-holds likely to occur 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.)

Closer teamwork 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...
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), Fouilhoux 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 Fouilhoux, 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."

**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 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 Fouilhoux's wartime running mate, thus bolsters local hopes that Washington may be induced to look more kindly on the metropolitan area.

**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 top 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 teeming 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 nineteen-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 new-comers 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

---

**THE FORUM'S**

**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 teeming 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 nineteen-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 new-comers 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

---

**THE FORUM'S**

**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 teeming 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 nineteen-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 new-comers 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
changed from renters to being home owners. (Since the BLS census was made, the Government has put the brakes on this trend by giving greater impetus to the construction of rental housing through its control of critical materials.)

Approximately half the single-family houses had cost their owners $6,000 or more; 36 per cent ranged between $5,000 and $6,000 in selling price, but those over $6,000 were three times as numerous as those under $5,000. Prices asked for those still on the market were even higher than for those sold.

By contrast, family incomes were moderate. Fifty-six per cent of the house-holders and their spouses together earned less than $2,500 a year. In order to be homeowners three-fourths of the families had committed themselves to purchases at least double their annual earnings.

PLANT CONTRACTION
When other Government officials whooped for more war factories, Commerce Secretary Jesse Jones displayed small zeal in plunking out his agencies' cash for such construction. Now the situation is reversed. While Jones demanded Congress grant his RFC an extra $5 billions in borrowing power, the WPB high command, intent on speeding immediate war production at the expense of long range plans, began stripping down its program of factory construction.

Early newspaper reports created an erroneous impression that WPB's new policy meant an abrupt stoppage of most industrial work. Actually only plans for plants that cannot be started and completed within the next year are to be abandoned. Most of these are marginal, and probably would never have been built anyway. Plants already under way are not affected. Going ahead is a Chrysler giant, reported large enough to swallow Willow Run, still leave room for a dozen ball fields within its walls.

Furthermore, the industrial acceleration means an expansion in housing demand—more dormitories and other temporary construction in areas like Detroit and Pittsburgh where more existing factories must now be converted to war work.

WARTIME CODES (cont'd)
Latest step toward a unified national building code—and handsomely wide in stride—is a new model for dwelling construction just released by the National Bureau of Standards as a companion document to its emergency plumbing standards. At the Washington conference of Governors, NHA Administrator Blandford gave it his warm blessing and urged its adoption by the different States as a meritorious wartime example to be followed pronto by their respective municipalities.

Preparation of the code was sponsored by ex-Housing Coordinator Palmer's division (now absorbed into NHA) and carried out by a group of Federal construction experts acting as a sub-committee of the Central Housing Committee. This committee had three objectives: 1) to establish minimum construction requirements acceptable to all Federal housing agencies; 2) to provide a model for localities wishing to adopt new codes or revamp their old ones; 3) to devise regulations that would not only permit economical and efficient dwelling construction but also be sufficiently flexible to allow adjustments caused by varying shortages of materials.

Novel features: Allowance for higher working stresses for materials than permitted by local codes, provided safety is provable. Also, a special type of permit for dwellings not meeting fully the code requirements. This permit would authorize the building inspector to require the building's removal after the emergency passes—a virtual death sentence to the prolonged existence of any war-spawned tempo-uglies.

Recommended requirements over only building of 2½ million new homes this year have been little little wartime residential construction will extend above this limit. Throughout the emphasis is on flexibility: requirements are expressed in terms of performance rather than in terms of specific materials. New products or substitutes meeting specified performances are not taboo merely because they are not mentioned by name.

Emergency plumbing. Although the Government's earlier standards for plumbing save 125 to 200 lbs. of critical metal over what is ordinarily required in single-family house construction, WPB officials complain that so far they have been adopted by only 98 out of the nation's 1,600 different local building codes. Result: compulsory waste of metal by local private builders in most areas.

PRIORITIES TANGLE
Month ago came news to soothe the Building's harassed nerves—under Engineer William V. Kahler's command, a Construction Bureau consolidating various WPB branches relating to Building was to be set up. (May issue, p. 2.) This month comes less soothing news—as set up, the Bureau shows insufficient consolidation. It absorbs Sullivan Jones' Housing Priorities Branch, but fails to include such vital supply links as the Lumber Branch and the Plumbing & Heating Branch. Like the Power Branch, these all can issue frequent or shaw orders independently, thus hamper seriously the war housing program.

Bright spot is that the new Bureau can relate housing to the construction of war plants, which in the past have been programmed with scant regard to the problem of housing their workers. Also, the Bureau can recommend imitative orders.

Whole WPB is due for an overhauling. There are too many separate divisions and sections setting up priority controls. Not only do they conflict with each other, but it is impossible for any of them to view broad industrial problems as a whole. Consequently some plants and localities have more than they need while others have barely enough to keep going. To work out a more efficient scheme of organization, Dr. Luther Gulick has been sent in as troubleshooter. He is the same planning expert who ran interference for Lieut. Gen. Brehon Somervell in revamping the Army's Service of Supply and who proposed that the President acquire six aids with "a passion for anonymity".

LUMBER FREEZE
The Army's shot-gun methods of obtaining needed supplies for construction of cantonments resulted in war housing projects sloping to a complete standstill in at least fifteen cities before the WPB edictly froze the lumber was hastily amended and work resumed. Original order, issued May 13 at the Army's insistence, stopped, for a period of 60 days, all sales and deliveries by large producers of softwood construction lumber, except to meet the needs of the Army, Navy and Maritime Commissary. Exempted by Blandford's timely intervention in behalf of war housing, were stocks in the yards of wholesalers and retailers. But, this appeasement was not enough. One week later the order had to be thawed still more to permit authorized housing projects to buy their lumber direct from the mills.

Lumber supplies are unevenly distributed throughout the country. In active areas like Washington and Detroit and Baltimore there is not enough to last anywhere near 60 days. Theoretically, surpluses can be shipped in from other communities, but assuming transportation difficulties, the following (Continued on page 42)
REMODELED OFFICE BUILDING

BEFORE

TURNER CONSTRUCTION CO.
GENERAL CONTRACTORS

ELEVATOR LOBBY
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.
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 Orsonio Maldarelli 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


FLOOR COVERINGS: Linoleum. Armstrong Cork Co. and Chas. P. Cochrane.


HARDWARE: Superb Bronze Co. and Reading Hardware Co.


2 HOUSES IN SAN FRANCISCO, CALIF.
JOHN EKIN DINWIDDIE, ARCHITECT
ALBERT HENRY HILL AND PHILLIP E. JOSEPH, ASSOCIATES

1. HILLSIDE HOUSE
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).
JOHN EKIN DINWIDDIE, ARCHITECT, A. H. HILL AND P. E. JOSEPH, ASSOCIATES

VIEW 2

VIEW 1

VIEW 3

VIEW

METAL TIE FOR OUTSIDE
ROOSTED TIE
SKIMMERS
SHAPER

VIEW

BUILDING PAPER
HIGH FLASHINGS

VIEW

FLASH INS

VIEW

WEST WALL OF LIV-RM

JUNE 1942
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


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 Cabet, Inc.


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—Hoyle Heater Co.
PHILLIP JOSEPH, ARCHITECT
OFFICE OF JOHN EKIN DINWIDDIE, ARCHITECT, ALBERT H. HILL, ASSOCIATE

2. HOUSE IN SAN FRANCISCO, CALIF.

HENRY SANDERS, JR. & EDWARD WILLIAMS, LANDSCAPE ARCHITECTS

Photos, Roger Sturtevant

JUNE 1942
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.
CONSTRUCTION OUTLINE


ROOF: Tar and gravel. Deck—duck boards.

INSULATION: Roof—rockwool.

FIREPLACE: Damper—Richardson Mfg. 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.


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.

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 blackouts 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.
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.

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, reinforced 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
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.
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
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 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

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 Gygax 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 supermarket. 6. a typical Levitt house, and 7. a forest of chimneys awaiting houses in the Levitt project.
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 23, 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.
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 four 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 buried 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 their proper parts.

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.
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.
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.
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**
CONSTRUCTION OUTLINE

STRUCTURE: Exterior walls—brick and tile; hollow metal partitions, Niedringhaus, Inc.
Ceilings—plaster and Acousti-Celotex, Celotex Corp.
ROOF: Bonded tar and gravel, Koppers Co.
ELEVATORS: Otis Elevator Co.
FLOOR COVERINGS: Linoleum, carpet, asphalt tile.
WALL COVERINGS: Flexwood, U. S. Plywood Co.

HARDWARE AND DOOR CLOSERS—Allrich-Prouty Co., Reading Hardware Co. and Bommer-Spring Hinge Co.


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 setback 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.
DINING ROOM

TYPICAL HALL

JUNE 1942
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


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

INSULATION: Roof—Celotex, Celotex Corp.


WALL COVERINGS: Penthouse—paper and matting.


HARDWARE: Yale & Towne Mfg. Co.

PAINTS: Stebbins & Roberts, Inc.


FIXTURES: Moe Bros.


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.
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.
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.
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.
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.
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.
CONSTRUCTION OUTLINE


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


STAIR AND ELEVATORS: Stairs—Sexauer & Lemke Co. and Gorham Co. Elevators—Ottis Elevator Co.


Carpets—Cochrane Co., Mohawk Carpet Mills.


SPECIAL EQUIPMENT: Cutler Maji Chute Co., Jarvis Engineering Co., Mackin Vene-
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.
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 sidewalk 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.
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.
REMODELED THEATER

LOS ANGELES, CALIF.

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.
OFFICES OF WM. L. PEREIRA, ARCHITECTS

CONSTRUCTION OUTLINE


SHEET METAL WORK: Columbia Steel Corp.

SOUND INSULATION: Western Silicair Products, Inc.

WINDOWS AND SHOWCASES: Glass—Mississippi Glass Co.


WALL COVERINGS: U. S. Plywood Corp.

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

PAINTS: U. S. Gypsum Co.

HEATING AND AIR CONDITIONING:


MILK BAR

Fred R. Dagрюich

MEZZANINE

JUNE 1942
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.
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.


**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.
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 reenforced 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 $3,369 per dwelling unit, shelter rent averages $18.69 per family per month.
CONSTRUCTION OUTLINE


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

HARDWARE: Schlage Lock Co.

KITCHEN EQUIPMENT: Ranges—gas, Welbilt Stove Co.

BATHROOM EQUIPMENT: American Radiator—Standard Sanitary Corp.


JUNE 1942
LLOYD WRIGHT, GEORGE J. ADAMS,
EUGENE WESTON, JR., RALPH C. FLEWELLING,
AND LEWIS EUGENE WILSON, ARCHITECTS

CONSTRUCTION OUTLINE


STAIRS: Reinforced concrete.

FLOOR COVERINGS: Concrete.

HARDWARE: Sargent & Co.

KITCHEN EQUIPMENT: Range—gas, Welbilt Stove Co. Refrigerator—Frigidaire Corp.

BATHROOM EQUIPMENT: American Radiator—Standard Sanitary Corp.

HEATING: Gas fired space heaters.
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 $37\frac{3}{4}$-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.

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

COMMUNITY HOUSE
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 having 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 $3,150 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 bathrooms—linoleum.
WOODWORK: Ponderosa pine.
HEATING: Warm air system with evaporative coolers.
HENRY F. LUDORF, ARCHITECT
M. SHAPIRO & SON CONSTRUCTION CO., CONTRACTORS
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.


KITCHEN EQUIPMENT: Range—gas. Re­frigerator—electric and ice boxes.

BATHROOM EQUIPMENT: Briggs Mfg. Co.

HEATING: Individual forced warm air.
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.
BATHROOM EQUIPMENT: Crane Co.
500 PERMANENT UNITS

NEW HAVEN, CONN.

DOUGLAS ORR &
R. W. FOOTE, ARCHITECTS

ALBERT MAYER,
CONSULTANT

HUBBERD, RICKERD &
BLAKELY, ENGINEERS

NEW HAVEN HOUSING AUTHORITY

JO RAY & CARL STELLING, LANDSCAPE ARCHITECTS

JUNE 1942
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.
CONSTRUCTION OUTLINE


ROOF: Built-up roofing, Barrett Co.

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


PAINTS: Pittsburgh Plate Glass Co.


HARDWARE: Sargent & Co.


BATHROOM EQUIPMENT: Crane Co.


PLUMBING: Pipes—cast and galvanized iron


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!

Rö-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.

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, Illinois, U. S. A.

There's a Ro-Way for every Door way!
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. Send for folder on Marlite for War Construction.

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

Marlite Wainscoting Used in Corridors
Marlite Wainscoting in Army Camp Latrines


---

**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 Elliott, Edward Shephard Hewitt, William F. Lamb, Harrie T. Lindeberg, John Gaw Meem, William Graves Perry, William Platt, James Kellum Smith, Clarence C. Zantzinger.

The American Academy of Arts and Letters has inducted five new members this year, among them Henry Shreiley, 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
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 tremendous 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
Military Radio Equipment
Bomb Fuses
Navy Ship Turbines and Gears
Torpedo Tubes
Armor-piercing Shot

For the General Welfare

Electric Stairways
Circuit Breakers
Precipitrons
Electric Refrigerators
Lighting Equipment for Air Bases
Portable X-ray Units

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—in which you can use Armstrong's Linoleum to lift a modest-priced house right out of the ordinary class... and give it that extra "something" that makes people buy.

This modern flooring is long-wearing, it never requires expensive refinishing, and it's available in a wide range of patterns and colors. So whether you're engaged in remodeling or new construction, you'll find it pays to include Armstrong's Linoleum in your plans.

For complete information, see Street's or write to Armstrong Cork Company, Floor Division, 1263 State Street, Lancaster, Pennsylvania.

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 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!

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.

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

38 T H E A R C H I T E C T U R A L F O R U M
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 27/5; Steel and Tubes 23/5; Berger 9/1 and 21/2; Truscon 15/18.

REPUBLIC STEEL CORPORATION
General Offices: Cleveland, Ohio
Berger Manufacturing Division • Culvert Division
Niles Steel Products Division • Steel and Tubes Division
Union Drawn Steel Division • Truscon Steel Company

An alloy of refined open-hearth iron, copper and molybdenum—that grows old slowly
There's a NEW obligation, now...when homes are painted!

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

BOOKS
(Continued from page 39)

HOW TO READ ELECTRICAL BLUEPRINTS, 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 11½. $5.00. 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., 7¼ x 9¼. 106d. 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., 1025 Park Avenue, New York, N. Y.

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

FLEXGLASS — the Glass that Bends.
Genuine glass rectangles mounted on flexible fabric backing. Readily cemented to flat or curved surfaces. Mirrors, dewdrops, opals and metalics ... in many different colors.
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 pro-
ducers. If they now have to buy through
wholesalers or retailers, they will have to
pay higher prices.

COPPER SQUEEZE
Headache to Government officials and pri-
ivate 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 cop-
ner 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
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.

WPP 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
buring most of its purchases of the metal.
The supply of galvanized steel, on the other
hand, is nearly as scant as copper. Be-
sides, 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 WPP'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.

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

(Continued on page 44)
NEW 10-STORY HOME
OF NEW ENGLAND MUTUAL
LIFE INSURANCE CO. GETS

Cram and Ferguson, Architects
Turner Construction Co., Builders
Buerkel and Co., Inc., Consulting Engineers

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.

450 TONS OF COOLING DAILY
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*. 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.

WEST DODD

Shoulders
Arms

WEST DODD LIGHTNING CONDUCTOR CORP.

*The exclusive West Dodd mono-
arp, solderless, bonding clamp.
Note how boss provides greater
number of threads so screw slip
page is practically eliminated.

Quick to install. More per-
mumant. Forms better electrical
bond. Made of copper-bronze,
heated when necessary to pre-
vent electrolytic corrosion. Six-
teen different stock sizes.

"- HELPS GUARD ORDINANCE PLANTS AGAINST LIGHTNING!

Reactions to the Government's rent control program are mixed. Price Boss Leon Henderson reports voluminous correspondence expressing 100 per cent support. Single-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 renters 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 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 26 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)
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.

Non-critical ALBERENE STONE

TOILET AND SHOWER PARTITIONS ARE READILY AVAILABLE

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.

ALBERENE STONE

ALBERENE STONE CORPORATION OF VIRGINIA. 419 FOURTH AVENUE, NEW YORK, N.Y.

Quarries and Mills at Schuyler, Virginia  *  Sales Offices in Principal Cities

JUNE 1942
NOW AVAILABLE
REZNOR
SUSPENDED GAS FIRED UNITHEATERS

A SELF-CONTAINED HEATING PLANT COMPLETE IN ONE PACKAGE

In over 135 Army and Navy establishments and in plants of countless war contractors

From a suspended position, Reznor unit heaters distribute clean, uniform, automatic heat over wide areas. Installations and deliveries save days and often weeks. Reznor gas heating REQUIRES 89% LESS VITAL MATERIALS than any other type of system. Write today for data on a complete range of sizes.

REZNOR MFG. CO. 203 James St., Mercer, Penna.

"GAS HEATERS EXCLUSIVELY SINCE 1888"

MONTH IN BUILDING
(Continued from page 47)

...dwellings 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 greeted 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)
Saving Vital Materials

Helping Speed VICTORY
for America at War!

On many home fronts and on ships that range the seven seas, the CAREY Family of Products is serving America at war—helping industry win the battle of production—contributing to essential civilian requirements.

Some Carey Products are saving vital materials—steel, fuel oil, coal . . . others are providing invaluable fire-and-weather protection . . . speeding erection of buildings . . . increasing efficiency of workers . . . lessening accidents. In hundreds of important government, industrial and private projects, Carey Products are rendering dependable service and effectively reducing overhead costs.

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.

For details, address Dept. 20.

THE PHILIP CAREY MFG. COMPANY

Dependable Products Since 1873

Lockland, Cincinnati, Ohio

In Canada: The Philip Carey Company, Ltd.
Office and Factory: Lennoxville, P. Q.
DIMENSION CONTROL

with Laux REZ

SWELLING and WARPING caused by moisture penetration in doors, sash, cabinets, etc., can be controlled by sealing and priming first with Laux REZ, clear synthetic resin sealer.

This water-repellent toxic . . . applied on the job with brush, spray or saturated cloth . . . is also a perfect base for paint or stain on all woods, including fir plywood. REZ checks grain raise and gives a sealed, even surface for decorating.

Lumber, hardware and paint dealers all supply Laux REZ, the first and still the best synthetic resin sealer. Or write to addresses below for full information.

TANKS FOR DEFENSE — Waste helps the Axis. Dry rot, mould, 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.

I. F. LAUCKS, Inc.
Seattle, 911 Western Ave., Div. A • Los Angeles, 689 E. 60th St., Div. A • Chicago, 6 N. Michigan Ave., Div. A • Portsmouth, Va., Commerce and Broad Sts., Div. A • Vancouver, B.C., Granville Island, Div. A

THREE YARDS OF LIGHT

Industrial lighting isn’t bought, like cloth, by the yard. For a proper lighting installation, two things are important—the equipment itself and the skill and technical know-how necessary to lay it out. The design, manufacture and layout of efficient, economical, long-lived lighting equipment have been Silv-A-King’s special job for 21 years. Whether your light source is fluorescent or incandescent, Silv-A-King equipment and engineering experience will make it work for you. Bright Light Reflector Co., Inc., 1037 Metropolitan Avenue, Brooklyn, N. Y.

Quality and dependability through two decades have linked the Silv-A-King name with such famous names in industry as:
AC SPARK PLUG • SETHLEHEIM STEEL • BUICK • CHEVROLET • GENERAL MOTORS • FISHER BODY • INTERNATIONAL HARVESTER • JONES & LAUGHLIN STEEL • PITTSBURGH PLATE GLASS • RUPPERT BREWERY • WARD BAKING

Write for these Silv-A-King Lighting Guides:
LG1—Fluorescent, or LG2—Incandescent.
War plants have an invisible "protector"

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

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

Anaconda research has developed scores of product improvements and many completely new products that are today meeting these critical demands. Their improved constructions deliver greater capacities with less power loss, their insulations can withstand high heat, corrosion, abrasion. The research that built these wires and cables continues at a fast pace. Now in addition to delving into experiments for improvements in industrial products, Anaconda is devoting much of its research to wiring for residential and commercial building.

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

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

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

ANAconda WIRE & CABLE COMPANY
Subsidiary of Anaconda Copper Mining Company

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

JUNE 1942
TELL AT A GLANCE THE GRADE of DOOR YOU'RE BUYING...

New Wheeler Osgood "Color-Grading" Called "Greatest Time-Saver in the Industry!"

No more need to hunt for grade, style and size marks on the doors you specify! Wheeler Osgood "Color-Grading" ends all that! Now, every Wheeler Osgood door carries a bright paper label, securely attached to the bottom rail, that tells the whole story at a glance—helps show clients the extra advantages of using quality doors!

Specify the Doors that Are Guaranteed!
And the bright blue label on every Wheeler Osgood Deluxe Grade A door also features the famous Wheeler Osgood guarantee! Seeing is believing, when clients spot that guarantee of quality!

SPECIFY FIR DOORS! Wheeler Osgood doors are made from the finest Douglas Fir. Super-strong, uniform, resistant to warping and marring. Rot-proofed by Nature and rare in beauty for all architectural requirements. The handy coupon will bring you free literature by return mail!

TWO NEW LABELS!

DE LUXE GRADE A—Bright blue label bearing the grade, size, style surface and guarantee! Helps customers recognize quality.

MASTER GRADE B—Bright red label, bearing grade, size, style and surface.

IMMEDIATE DELIVERY! Wheeler Osgood "Color-Graded" Grade A and B Douglas Fir house doors, as well as many other designs of doors furnished by this pioneer firm, are built in strict accordance with United States Department of Commerce Standards CG3-38 and CG91-41, and are available for immediate delivery! Specify these better doors today!

Wheeler Osgood Sales Corp., Dept. 10, Tacoma, Wash.
Gentlemen: Please send me free literature on Wheeler Osgood "Color-Graded" Doors.
Name...
Address...
City... State...

Large Scale Ventilation
without prohibitive cost

How to Provide

Swartwout
Multiple Heat Valve
(Industrial Roof Ventilator)
...gives Architects
New Opportunities
to combine pleasing appearance
with modern efficient ventilation

OUTSTANDING ADVANTAGES
1. Inexpensive per square foot of opening compared with other types of gravity roof ventilators.
3. Equally suitable for "spot" ventilation where need is most acute — or for large scale ventilation, such as a ridge opening the length of a building.
4. Easily installed on old or new buildings — no costly alterations required.
5. Square shape and larger horizontal coverage reduces roofing cost on new construction.

Complete installation details gladly supplied by Swartwout. Write for 1942 Catalog File describing Swartwout Line and illustrating installation methods.

The Swartwout Company
18617 EUCLID AVE. CLEVELAND, OHIO
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.

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

When You Specify Wall Fixtures, Specify Zurn Engineered Carriers To Support Them.
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: $5,500,000) 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)
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

SEND FOR YOUR FREE COPIES

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

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. folder: [ ] "Glued, Laminated Wood, Beams, Arches, Roof Trusses"

Name:

Address:

City and State:

JUNE 1942

53
$1,000,000 WAR HOUSING JOB COMPLETED IN 88 DAYS

Read How STREAMLINE FLOORING Made This Possible

C. L. BROWNING, JR.
General Contractor
Winton, Tenn.

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 USRA 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 exactly according to our prearranged shipping schedule.

With best regards,

C. L. Browning,

E. L. BROWNING, JR. Geo. Contractor
Sovombor "7. Wtt E. L. Bruce Company Thomas Stroet Hemphls, Tennessee

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.

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.

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.

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 enamels 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 Hill. 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 million 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. The State has an even more ambitious program of its own. A temporary board of 11 members assumed by fact that the Governor's new commission includes aggressive Park Commissioner Robert Moses, who was in one of his firing 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 $114 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 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 larger 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 to completely transform their outward aspects."
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, 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.

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


JUNE 1942
Dependability
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.


Here's why you'll know more about finishing the plywood you use in post-war housing!

- What finishes stand up best on Douglas Fir Plywood? This Weather-meter 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!

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.

DOUGLAS FIR PLYWOOD

Real Lumber
Made larger, lighter
Split-proof
Stronger

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

Case No. 1400 Siphon Jet Flush Valve Closet Combination with elongated Bowl.

No. 700 WINDSOR Vitreous China Lavatory, Houded Overflow, Anti-Splash Rim.
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.
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 permit 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 Buffalo'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., Acousti Div., 2825 West Roscoe St., Chicago, Ill.

FLOODLIGHT designed for general use inside, outside industrial plants.
Name: Permaflect 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 1/4 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.)
(Continued on page 64)
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.
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. Surrounded 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.

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 1/4", 1 1/2", 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.

Barclay Manufacturing Company, Inc., Dept. AF-4, Bronx, N. Y.

Please send me free samples of Barclay Plastic-Coated Panels, and literature.

Name
Address
City State
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!
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 microphone 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: Audigraph 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 55 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)
For the Defense of Health

THE FOUR-PIECE POTOMAC SET
—for war-worker housing

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 14-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.
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 louver 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

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 trackable 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 420-A.

Ric-wil

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

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.

Hendrick Manufacturing Co.
20 Dundaff Street, Carbondale, Pa.


BLODGETT—Makers of Fine Ovens Since 1848

THE G. S. BLODGETT CO., INC.
53 MAPLE STREET, BURLINGTON, VERMONT

66
THE ARCHITECTURAL FORUM
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 suited 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.

---

**FRANKLIN TERRACE HOUSING PROJECT**

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.
One of the Most Difficult parts of a Building Specification can be written in just 3 WORDS

It takes just three words—Barrett Specification Roof—to solve one of the most important problems of wartime plant construction.

Barrett Specification Roof written in building specifications means that the roof you have specified will be constructed of Barrett Specification pitch and felt, applied by a Barrett Approved Roofer, inspected by Barrett experts, and bonded against repairs and maintenance expense for up to 20 years.

In short, it means that you have provided for your client the maximum of dependable roof protection. It means, too, that you have provided against possible delays in vital production lines due to roof failure.

And that's pretty important today, when speed is all-essential.

THE BARRETT DIVISION
ALLIED CHEMICAL & DYE CORPORATION
40 RECTOR STREET, NEW YORK
2800 SO. SACRAMENTO AVE., CHICAGO, ILL.
BIRMINGHAM, ALA.

BUILT-UP ROOFS . . . SHINGLES . . . ROLL ROOFINGS . . . ROCK WOOL INSULATION . . . WATERPROOFING . . . BLACKOUT PRODUCTS

JUNE 1942
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.

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.

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
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 house that formerly housed but one family. A "white elephant" in anybody's hands!
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.

**NEW PRODUCT LITERATURE**

REDWOOD. Stepping Up Production with Redwood. Bulletin, 8 pp., 8'/x11. 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., 8'/x11. Features the advantages of glued construction and illustrates typical construction systems. A 2-page insert conveniently provides gluing directions for both indoor and exterior projects. Glue Co. of America, 550 Madison Ave., New York, N. Y.

GYPSUM LATH. Approved by the Nation. Booklet, 12 pp., 8'/x11. 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, III.

WALL PANELS. For War-Time Construction. Folder, 4 pp., 8'/x11. Summarizes in timely fashion the advantages of using Marlite panels for both temporary and permanent construction. Attached samples demonstrate the panels' plastic finish. Marlo Wall Products, Inc., Dover, Ohio.

CONCRETE. Pozzolith for More Durable and Economical Concrete. Catalog, 32 pp., 8'/x11. 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., 8'/x11. Explains why a cement base paint is required for these surfaces, tells how it should be applied. Medusa Products Co., 2800 Midland Bldg., Cleveland, Ohio.


WINDOWS. Screen Thread Operator for Opening and Closing Sash. Catalog, 28 pp., 8'/x11. Describes methods for operating inoperative 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, or on, Lord & Burnham Co., 420 Lexington Ave., New York, N. Y.

HARDWARE. Plastic Push and Kick Plates. Leaflet, 8'/x11. 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. /i<)«/« to Make Rooms Color Perfect. Catalog, 24 pp., 8'/x11. 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.

TIME FOR COMPLETION CUT IN HALF

- 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.

- 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.

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


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.

JUNE 1942

ATLAS HIGH-EARLY CEMENT
A UNIVERSAL ATLAS PRODUCT
SAVE TIME 3 WAYS
— with UNION METAL Bridging!

• You can install Union Metal Steel Bridging in ½ to ¾ 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 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 fatigue... 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... 12 1/2 times lighter than sand, with 5 times more insulating value. Non-freezing... crack-resistant... readily nailable.

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, canals, saddles, floors for livestock and poultry. Undamaged by moisture; absolutely fire-proof.

Write for free descriptive literature.

UNIVERSAL ZONOLITE INSULATION COMPANY
Plants in Principal Cities
Dept. 45

3 Sizes meet all needs
for Doors up to 1000 Pounds

3 Sizes meet all needs for Doors up to 1000 Pounds

THE R & G THIN MAN BOWS AGAIN!

R & G registers and grilles play another important wartime 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.

REGISTER & GRILLE MANUFACTURING CO., Inc.
BROOKLYN, N.Y.

STANLEY Track and Hangers

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-Ease" Track Clamps hold sections of track rigid and perfectly aligned. Send for catalog describing the complete line of Stanley Hardware.

THE STANLEY WORKS... NEW BRITAIN, CONN.

STANLEY
TRADE MARK
HARDWARE FOR CAREFREE DOORS
Here's an "Acid" Test of KIMSUL's Efficiency!

☆ 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.

The same features that make KIMSUL do a better job in the tropics and in the sub-arctic also make it the right insulation for homes you build. "Comfort-Condition" your new homes with KIMSUL and give home owners lasting comfort and greater fuel economy!

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

*KIMSUL (trade-mark) means Kimberly-Clark Insulation
Today production must go on! Valuable liquid shortages due to over­sight are inexcusable! LIQUIDOMETER Tank Gauges assure accurate, trouble­free readings or recordings at all times!

100% automatic—these gauges insure accurate readings at all times. No pumps, valves, or auxiliary units required to read them. Models available so that readings can be taken remotely from or directly at the tank. Remote reading types utilize balanced hydraulic transmission system which completely compensates for tempera­ture variations on communicating tubing. Accuracy unaffected by specific gravity of tank liquid. Approved for gauging hazardous liquids by Underwriters' Laboratories and other similar groups.

Write for complete details

THE LIQUIDOMETER CORP.
36-30 SKILLMAN AVE., LONG ISLAND CITY, N.Y.

...Farm Security took 133 of these huts!

This is a temporary hut; 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.

• Our large, completely equipped plant is now available for all types of wood fab­rication. Inquiries are invited.

HOUSTON Ready Mist HOUSE CO.
26 Years Prefabricating Houses

STANDING GUARD
against moisture

Cabot’s Waterproofings—applied outside above grade—seal the pores and stop moisture before it can saturate brick and cement walls, and thence menace building interiors. Low in cost. Easy to apply. Permanent. Prevents efflorescence on bricks. 2 Types—

one for red brick and dark surfaces; one for cement, stucco, stone, yellow brick and light surfaces. FREE—write today for our helpful Waterproofing Booklet.

Samuel Cabot, Inc., 1270 Oliver Building, Boston, Massachusetts.

Cabot’s
Clear Brick Waterproofing
Clear Cement Waterproofing

voluntary pay-roll allotment plan helps workers provide for the future

helps build future buying power

helps defend America today

Let’s do it the American way!

America’s talent for working out emergency problems, democratically, is being tested today. As always, we will work it out, without pressure or coercion . . . in that old American way; each businessman strengthening his own house; not waiting for his neighbor to do it. That custom has, throughout history, enabled America to get things done of its own free will.

FREE - NO OBLIGATION

Treasury Department, Section A,
709 Twelfth St. NW., Washington, D. C.

Please send me the free kit of material being used by companies that have installed the Voluntary Defense Savings Pay-Roll Allotment Plan.

Name__________________________

Position________________________

Company_______________________

Address________________________
Helping to win the battle of war construction . . .

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.

Architectural concrete . . . walls cast integrally with frames, floors and roofs . . . fits into the picture whether the building is primarily for immediate needs, or (like this one) designed for good appearance and economy over a long period of use.

The assistance of our technical staff is available to architects and engineers on all types of war construction. See Sweet's 4/45.

PORTLAND CEMENT ASSOCIATION
Dept. 6-7, 33 W. Grand Ave., Chicago, Ill.

BUY WAR SAVINGS STAMPS AND BONDS
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.

Alberene Stone Corporation of Virginia .......... 45
Allied Chemical & Dye Corporation .......... 69
(Alberene Stone Corporation of Virginia)
Aluminum Company of America .......... 31
American Brass Company, The .......... 13
American Lumber & Treating Co. .......... 38
American Rolling Mill Company, The .......... 49
Anchor Post Fence Company .......... 42
Andersen Corporation .......... 28
Area Company, The .......... 44
Armstrong Cork Company .......... 36
Auer Register Company, The .......... 66
Aviation Corporation, The .......... 22

(Aluminum Company of America)

Barber-Colman Company .......... 64
Barclay Manufacturing Company .......... 62
Barrett Division, The .......... 69
(Allied Chemical & Dye Corporation)
Blodgett, G. S., Co., Inc., The .......... 66
Borden Company, The .......... 53
(Casein Division)
Bright Light Reflector Co., Inc. .......... 48
Bruce Co., E. L. .......... 54
Burgess Battery Company .......... 15
Byers, A. M. Company .......... 7

(Casein Division)

Cabot, Samuel, Inc. .......... 54, 76
Carey, Philip Company, The .......... 47
Carrier Corp. .......... 43
Case, W. A. & Son Mfg. Co. .......... 58
Casein Company of America, The .......... 53
(Division of the Borden Company)
Celanese Corporation, The .......... Cover II
Curtis Companies .......... 17

(Division of the Borden Company)

Dahlem Cosmetics, Inc. .......... 9
Day-Brite Lighting, Inc. .......... 26
Douglas Fir Plywood Association .......... 58

Eagle-Picher Lead Company, The .......... 40

Federal-American Cement Tile Co. .......... 10
Fleur-O-Lier Manufacturers .......... 16
Ford Metal Moulding Company .......... 68
Formica Insulation Co., The .......... 5

General Electric Company .......... 70, 71
Girard & Son .......... 62
Guth, Edwin F. Company, The .......... 42

Hendrick Manufacturing Co. .......... 66
Houston Ready-Cat House Co. .......... 76
ITC Electric Ventilating Co. .......... 52

Johns-Manville .......... 16
Johnson, S. C. & Son, Inc. .......... 19

Kimberly-Clark Corporation .......... 75
Kohler Co. .......... 65
Koppers Company .......... Opp. 32

Lauts, J. F., Company .......... 48, 56
Libbey-Owens-Ford Glass Co. .......... 11, 59
Liqui-detergent Corp., The .......... 76
Louisville Cement Company, Incorporated .......... 57

Marsh Wall Products, Inc. .......... 34
Masonite Corporation .......... 3
Mengel Company, The .......... 68
Moser Bros. .......... 23
Milor Steel Company .......... 80
Milwaukee-Honeywell Regulator Co. .......... 18
Mueller Brass Co. .......... 21

National Gypsum Company .......... Opp. 349
National Lead Company .......... 37

Overhead Door Corporation .......... Cover IV

Ponderosa Pine Woodwork .......... 79
Portland Cement Association .......... 77
Pullman Manufacturing Corp. .......... 62

Reading Hardware Corporation .......... 27
Red Cedar Shingle Bureau .......... 8
Register and Grille Manufacturing Co., Inc. .......... 74
Republic Steel Corporation .......... 39
Remo Manufacturing Co. .......... 46
Richmond Screw Anchor Company, Inc. .......... 61
Rie-Wil Co., The .......... 66
Rise Manufacturing Co. .......... 67
Rubberoid Co., The .......... 67

Sloan Valve Company .......... 32
Somersham Sons Inc., La .......... 30
Spencer Heater .......... 22
(Division—The Aviation Corporation)
Stanley Works, The .......... 74
Swartzwout Co., The .......... 50

Timber Engineering Company .......... 72
Trane Company, The .......... 20
Truscon Steel Company .......... Cover III

United States Plywood Corporation .......... 41
Union Metal Manufacturing Co., The .......... 74
Universal Atlas Cement Co. .......... 33
(United States Steel Corporation Subsidiary)
United States Steel Corporation .......... 73
Universal Zonolite Insulation Co. .......... 74
Upson Company, The .......... 25

Van Range, John, Co., The .......... 46

Weis, Henry Mfg. Co., Inc. .......... 60
West Dudd Lighting Conductor Corp. .......... 44
Westinghouse Electric & Manufacturing Co. .......... 35
Weyerhaeuser Sales Company .......... 12
Wheeler Osgood Sales Corporation, The .......... 50

Zurn, J. A. Mfg. Co. .......... 51
FITTING TODAY'S PICTURE

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.

GREAT FLEXIBILITY OF USE. Shutter or lattice doors of Ponderosa Pine are not only decorative, but provide added circulation. No matter what size or type structure you plan, you will find what you want in Ponderosa Pine Woodwork. Stock doors, frames and windows of almost every style are available—accurately milled, well-fitting and low in cost.

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

JUNE 1942
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 lightweight 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 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.

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
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.
DOORS ARE IMPORTANT!

Dependable door operation is assured for years when you specify the "OVERHEAD DOOR" with the Miracle Wedge. This quality door is expertly built from the finest materials and expertly installed for lasting service. Tracks and hardware of Salt Spray Steel are standard equipment.

Hand-operated doors open smoothly and quickly in any kind of weather. Electrically operated doors may be arranged with any time-saving system of control... push button, tread switch, key switch or pull station.

Sold Installed by a Nation-wide Sales-Installation-Service

NEW CONSTRUCTION OR REPLACEMENT

Many an old building has been brought to greater war productivity through the installation of modern doors. For new structures or old, the "OVERHEAD DOOR" of wood or steel is built in any size to fit any opening.

OVERHEAD DOOR CORPORATION
HARTFORD CITY, INDIANA, U.S.A.

Copyright 1942, Overhead Door Corporation