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THE ARCHITECTURAL FORUM

JULY 1944

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Since January 1, 1943, TIME, LIFE, FORTUNE and THE ARCHITECTURAL FORUM have been co-operating with the War Production Board on conservation of paper. During the year 1944, these four publications will use 73,000,000 lb. (1,450 freight carloads) less paper than in 1942. In view of the resulting shortage of copies, please share your copy of THE FORUM with friends.

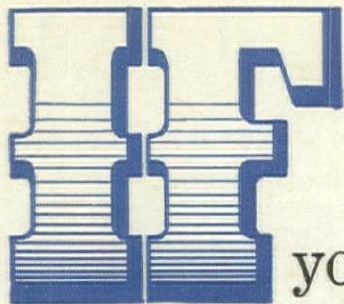
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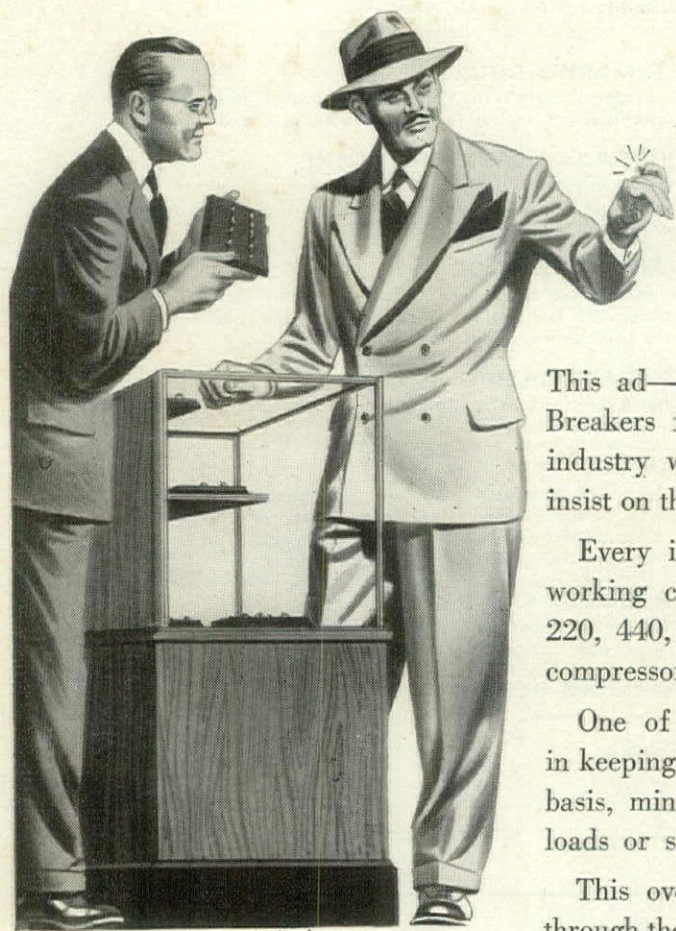
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VOLUME 81, NUMBER ONE

In Military Service:
Robert W. Chastaney, Jr.
William J. Conway
Robert Hanford
Joseph C. Hazen, Jr.
George B. Hotchkiss, Jr.
S. Chapin Lawson
Amnon Rubinstein
C. Elmo Smith
A. Banks Wanamaker



you're not interested in bargains . . .
or don't care to get "more for less"



don't read this ad

This ad—second in a series on "De-ion" (fuseless) Circuit Breakers for 1944—is addressed to those men in American industry who are genuinely interested in bargains . . . who insist on the best . . . who demand more for less.

Every industry, large or small, has a great portion of working capital invested in electrical equipment served by 220, 440, or 550-volt circuits. This includes motors, welders, compressors, machine tools.

One of the main keys to industrial profit, therefore, lies in keeping this equipment working on a continuous production basis, minimizing extended shutdowns or damage from overloads or short circuits.

This overload and short circuit protection can be secured through the use of a wide variety of devices. And—that's where the "bargain"—or how to get "more for less" comes in. For most of these devices—while affording adequate protection—certainly aren't designed for the man who wants the best. None are they bargains.

They do the job—there's no doubt about that. But how do they do it? Are they efficient? How much do they cost? Are they real bargains? Do they give you "more for less"?

These are questions to which every seeker of real value should demand definite answers.

J-605



Westinghouse
PLANTS IN 25 CITIES . . . OFFICES EVERYWHERE

There's only one modern method
of **PROTECTING ELECTRICAL EQUIPMENT . . .**




THE "DE-ION"


(*fuseless*) **CIRCUIT BREAKER FOR 1944!**

THIS BREAKER IS THE REAL BARGAIN AMONG PROTECTIVE DEVICES, IN THAT IT GIVES YOU "MORE FOR LESS".


here's how...



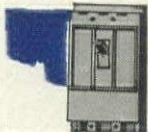
1. **More positive "plus" protection . . .** the same protection that safeguards vital equipment on our modern battleships when failure may mean defeat.




2. **More output per machine . . .** does not interrupt production on harmless momentary overloads; thus preventing many work stoppages or delays.



3. **More safety . . .** working parts are completely enclosed and sealed. These breakers are the safest protective devices ever built. They are absolutely tamperproof (cannot be bridged or blocked by pennies, nails or other foreign articles).



4. **More productive machine-hours . . .** assures faster resumption of interrupted service after causes of overloads or short circuits are removed. There is nothing to replace or repair—to restore service, simply throw the handle. This feature alone saves American industry more than one million man-hours yearly.



5. **Less cost . . .** the lifetime cost of the "De-ion" (fuseless) Circuit Breaker of 1944 is less than that of any other protective device. Ask your Westinghouse representative for facts and figures. Westinghouse Electric & Manufacturing Co., Dept. 7-N, East Pittsburgh, Pa.

"DE-ION" (*fuseless*) CIRCUIT BREAKERS



FORUM OF EVENTS

DESIGNED FOR USE: an exhibition which retraces fifteen years in the progress of industrial design.

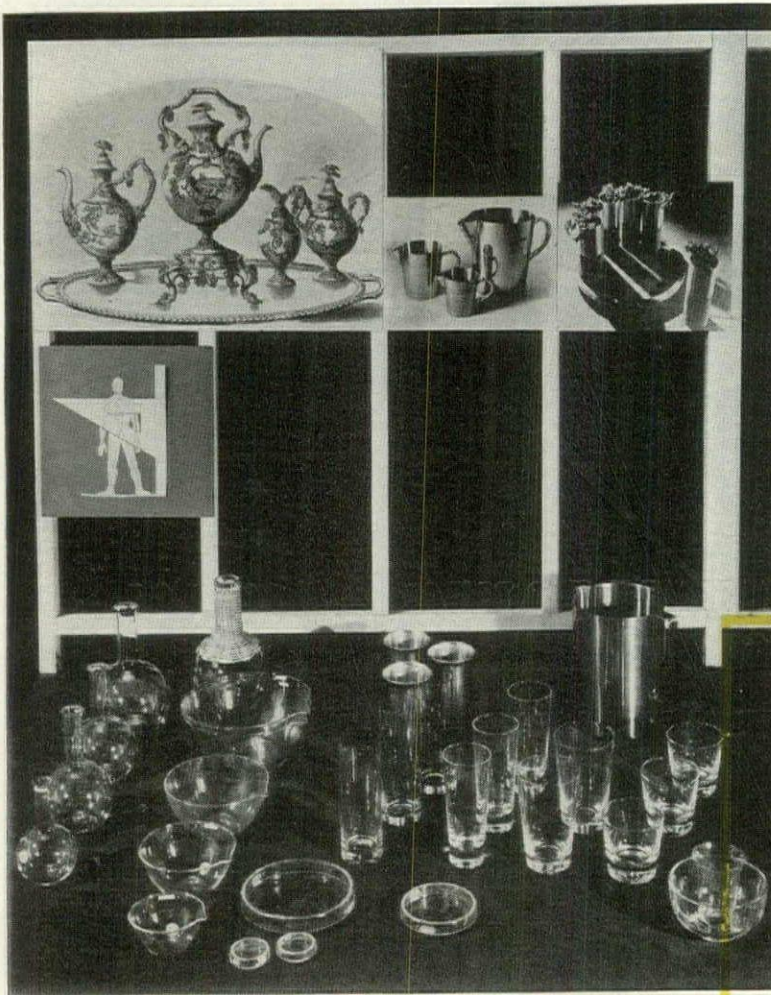
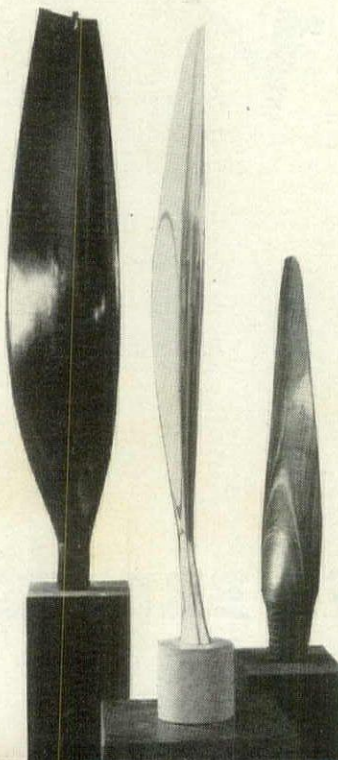


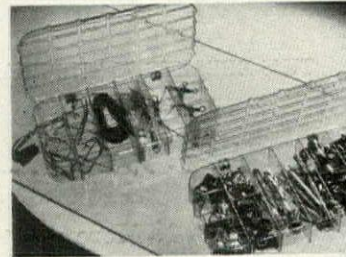
Photo... courtesy Museum of Modern Art

Tableware exhibit includes boiling flasks and evaporators by Corning, flat glass dishes by Petri, drinking glasses and tomato juice set by Fostoria, Kensington ware metal julip tumblers, Carlton ware stainless steel pitcher.

Two industrial blades, one for cooling and the other for an airplane propeller, manufactured by the St. Regis Paper Co., Panelyte Division, exhibited with Brancusi's prophetic bronze, "Bird in Space".



Inflated chair utilizes a flexible plastic stronger than rubber. Developed by William Miller of the Gallowhur Chemical Co.



Farenheiter cools a quart bottle in ten minutes. Transparent plastic kits make ideal containers for small miscellaneous objects. Table model radio is reminiscent of designers' persistent urge to insure stationary objects against the ravages of high velocity.



Celebrating a youthful but important birthday, the Museum of Modern Art recently staged its fifteenth anniversary exhibition entitled Art in Progress—the largest yet presented. The show is a retrospective summary of the last decade in art: painting, sculpture, architecture, photography, the theater etc. The industrial design department's exhibition, staged by Serge Chermayeff, was one of the most important. It featured mainly the development of utilitarian objects: the evolution of the telephone and the typewriter; the remarkable transformation of casserole to pressure cooker. Against the background of nation-wide, postwar-miracle publicity recently designed objects seemed almost too familiar, but were well selected to emphasize the theme: their rapid improvement over predecessors of a few years ago. Most sensational was the deflatable plastic chair which, except for four legs, bore no visible marks of heritage.



**A BETTER
TERRAZZO STRIP!**

FORMICA LAMINATED PLASTIC

The war has focused attention on a better, more attractive, and less expensive divider strip for terrazzo floors—namely Formica laminated plastic.

These strips are 1/16 or 1/8 of an inch in thickness and 72 inches long. They provide black or grey dividing lines between the terrazzo blocks—an effect which most architects find to be more desirable in appearance than the standard yellow lines due to the use of metal.

From a standpoint of service and durability these strips perform their function perfectly. And they reduce measurably the material cost for a terrazzo floor. They are available through all leading terrazzo houses.

"The Formica Story" is a moving picture in color showing the qualities of Formica, how it is made and how it is used. Available for meetings of building groups.

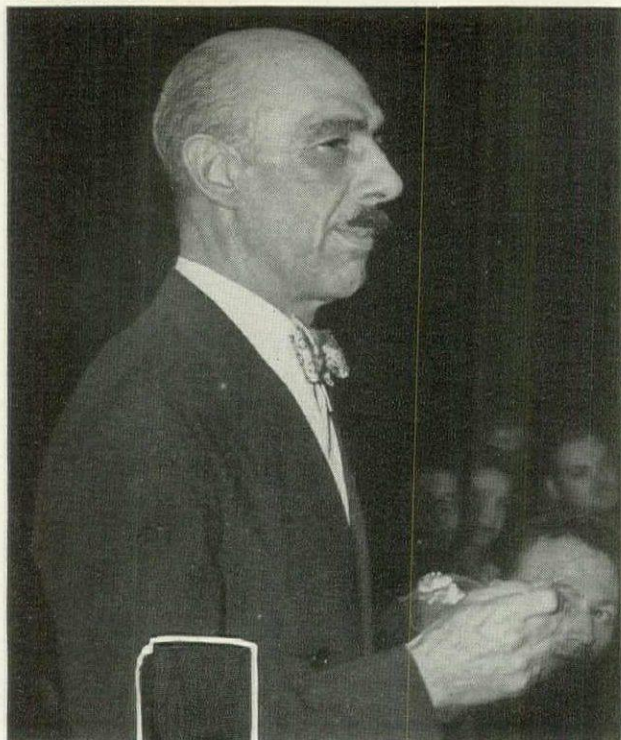


FORMICA

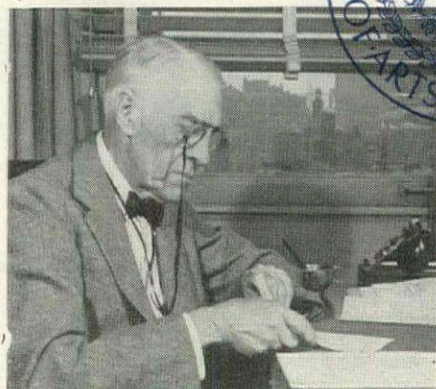
THE FORMICA INSULATION COMPANY • 4620 SPRING GROVE AVE. • CINCINNATI 23, O.

FORUM OF EVENTS

Myron Ehrenberg



Myron Ehrenberg



Louis Ayres

At the annual ceremony of the National Institute of Arts and Letters, Henry Canby, Secretary, inducted three New York architects (right), as new members. Simultaneously, an art exhibition including their work was opened at the academy. (Continued on page 148)

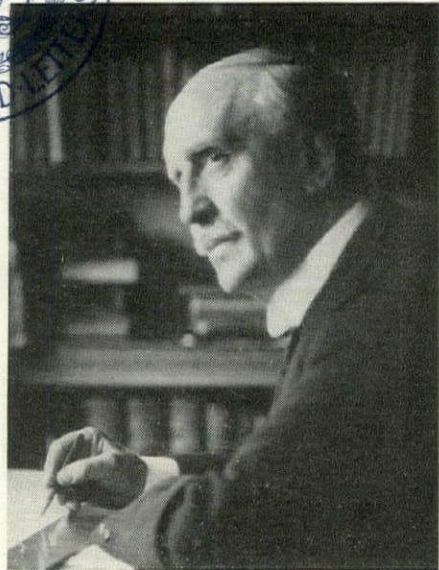
DISTINCTIONS

Edgar Williams is the recent recipient of the Order of Vasa, awarded for merit by the Swedish government. This decoration corresponds to the Order of the British Empire and was bestowed in recognition of Mr. Williams's understanding and appreciation of Swedish architecture.

Gach Bros.



Benjamin Wister Morris
Henry Havelock Pierce



Charles D. Maginnis

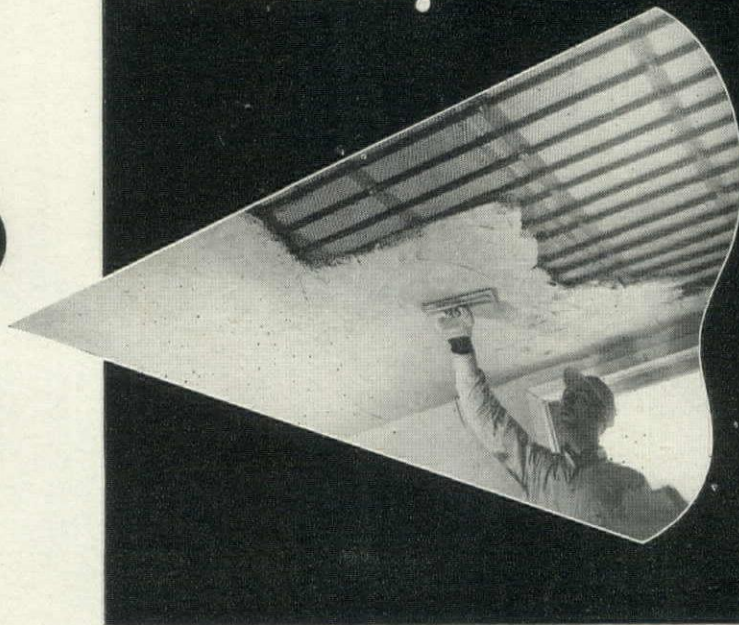
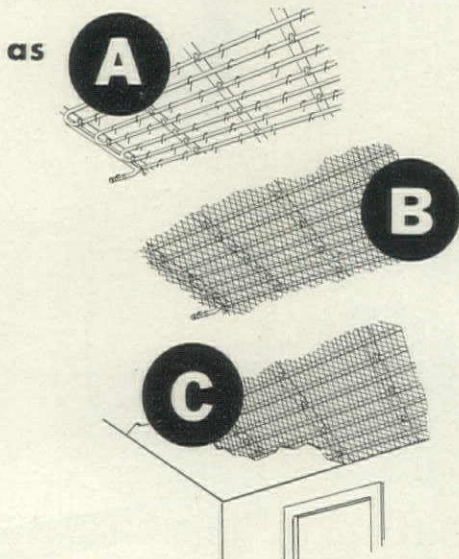


POSTWAR DESIGN OF THE MONTH

This factory employe's sunlamp room, decorated in three, carefully selected shades of blue paint, is the handiwork of Faber Birren, industrial color consultant and expert in the art of "Colordination". Blue was chosen for its cool effect and as psychological relief to employes during treatment. Mr. Birren states that each of his color jobs takes into consideration numerous technical aspects. Apparently not considered was the fact that the occupants of this room wear dark glasses, or perhaps Mr. Birren had the foresight to specify yellow filters.

Can you install **BYERS RADIANT HEATING** *in multi-story* *structures?*

Why, it's as simple



You are undoubtedly giving a lot of thought to what kind of homes America will build or buy after the war is over, and perhaps have wondered how Byers Radiant Heating would fit into the final picture. That is a question that can be answered now. One story or two, with or without basement, Byers Radiant Heating can be easily and economically installed, with full assurance of user-satisfaction.

In one-story, basementless houses, Radiant Heating is practically a "must," as in addition to its simplicity and economy it has proven completely successful in eliminating cold floors—in the past the big handicap of this type of construction. These advantages are duplicated when the system is installed in multi-story buildings.

In two story houses, the general practice is to install one set of coils in or under the first floor, and a second set in the second-story ceiling. As the illustrations indicate, this involves no unusual or unfamiliar practice. The coils are fastened to the ceiling joists with ordinary saddle clips, and wire lath attached with "hairpin" ties looped over the pipe. Plaster is applied in the usual manner, taking care to trowel it well around the pipe. In the particular job pictured, two coats of plaster were used. As good practice dictates in any case, insulation is applied above, to influence the heat flow and conserve fuel.

Whether—in your post-war building—local conditions, cost considerations or individual preference

suggests basementless construction, or whether small lot sizes or a leaning toward tradition require a 2-story structure, you'll find answers to any questions on methods and results among the hundreds of radiant heating installations already installed and operating. You'll also find plenty of evidence as to why wrought iron is the logical coil material. Wrought iron can be readily formed and welded. It has excellent heat emission. It expands and contracts at practically identical rates with concrete and plaster, minimizing any danger of cracking or loss of bond. And its corrosion resistance has been demonstrated over periods of years in hundreds of applications.

If by any chance you do not have our bulletin, "Byers Wrought Iron for Radiant Heating Installations," please write for a copy. And feel free to call on our Engineering Service Department for answers to any specific questions you may have.

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

BYERS WROUGHT IRON

FOR EXTRA SERVICE

IN CORROSIVE APPLICATIONS

CORROSION COSTS YOU MORE THAN WROUGHT IRON



"Standard" Plumbing Fixtures and AMERICAN Heating Equipment currently available only under government regulations.

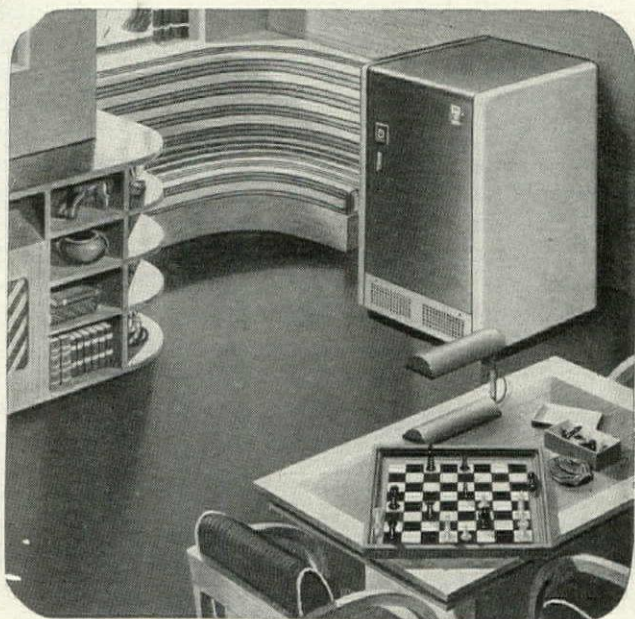
"Standard" DUO USE BATH

The "Standard" Duo-Use Bathroom plan points the way to more useful—more practical and more attractive bathrooms in the future. It gives the bathroom a wider horizon—making possible a bath and powder room in one. The door between the compartments provides privacy for each.

Both compartments can be in use at the same time. If there is an entrance from the hall, the doors to one bedroom and the bath section can be closed, making it a powder room.

Space permitting, the walls can be utilized for toilet and dress accessories cabinets. More versatile decorative schemes are also possible.

AMERICAN RADIATOR & Standard Sanitary
New York CORPORATION Pittsburgh



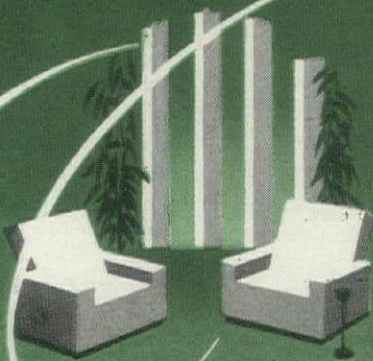
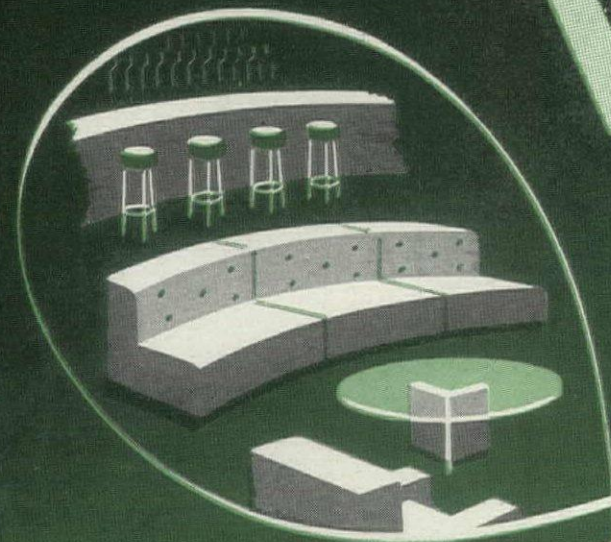
Research and Design: Much thought is being given to Research and Design, to the end that post-war AMERICAN Heating Equipment and "Standard" Plumbing Fixtures will represent every known advance.



INTERIOR OF

VELON*

a new high in eye appeal
a new low in maintenance cost!



Imagine cocktail rooms, lobbies, terraces, upholstered and decorated in a material *practical in every bright or delicate color!* A material available in a wide variety of weaves and patterns for built-in seating, chairs, draperies, screening, paneling.

Imagine a material so indestructible that, in three years of actual use it *shows no sign of wear!* No fraying, no tears. No spots or stains. No fading or discoloring. Non-inflammable and highly resistant to acids and greases, alkalis and solvents.

Best of all, this material absorbs no dirt, no moisture—can be *wiped* clean and colorful as new in a few seconds.

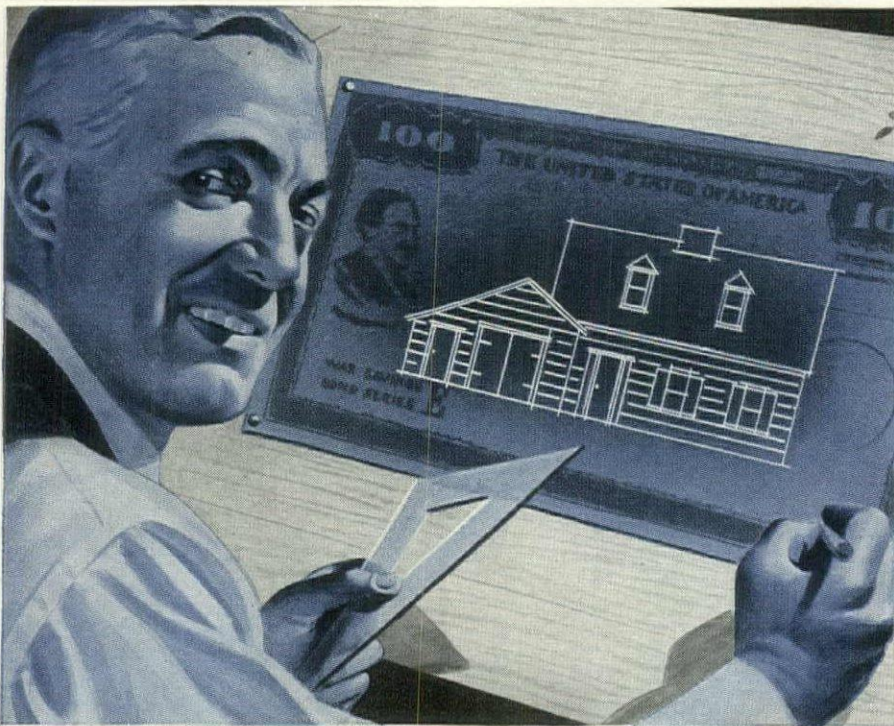
This wonderful material is Firestone's *Velon*. All production now goes to war—but watch for Velon's release! You'll want to be among the first to adapt this brilliant answer to decorating and maintenance problems—"Interior of Velon!"

P.S.—For *completely* modern seats, make the cushioning FOAMEX.

ANOTHER CONTRIBUTION TO A
BETTER WAY OF LIFE by

Firestone

*Trademark • pronounced VEL-LON



Blueprint for a dream

IT ISN'T WRONG to day-dream a little bit . . . to lean back for a moment and picture your life as you hope it will be. For, out of the dreams of a war-torn world will come the practical plans for a welcome peace.

The bonds you are patriotically buying now—these are the practical means that will lead to the fulfillment of some of those dreams—the house you've always cherished...warm, friendly, gracious, for all the years to come. But it will take more than dreams and more than money to make it a reality.



It will take the vision and intelligence of an architect to turn that glowing daydream into a sensible home. His training and experience help you to avoid the heartbreak of a misbuilt house. His counsel is your best guarantee for lasting beauty of design, fair resale value, low maintenance cost.

Imagine building a school or a skyscraper without an Architect-Engineer! The same expert help will make your house attractive and livable. Why not protect your investment with an architect.

Plan your house now!
START RIGHT—
WITH AN
ARCHITECT.

EDWARDS

SINCE 1872
ELECTRICAL SIGNALING

Bells • Chimes • Telephones • Alarms
for Homes, Offices, Schools, Hospitals

FREE...GET THIS NEW ILLUSTRATED BOOK!

EDWARDS AND CO., BOX 390, NORWALK, CONN.

Please send copy of book "How to Plan Your New Home."

Name _____

Street _____

City _____ State _____

(Save Postage—Paste Coupon on Penny Post Card)



SUCCESS REPORT

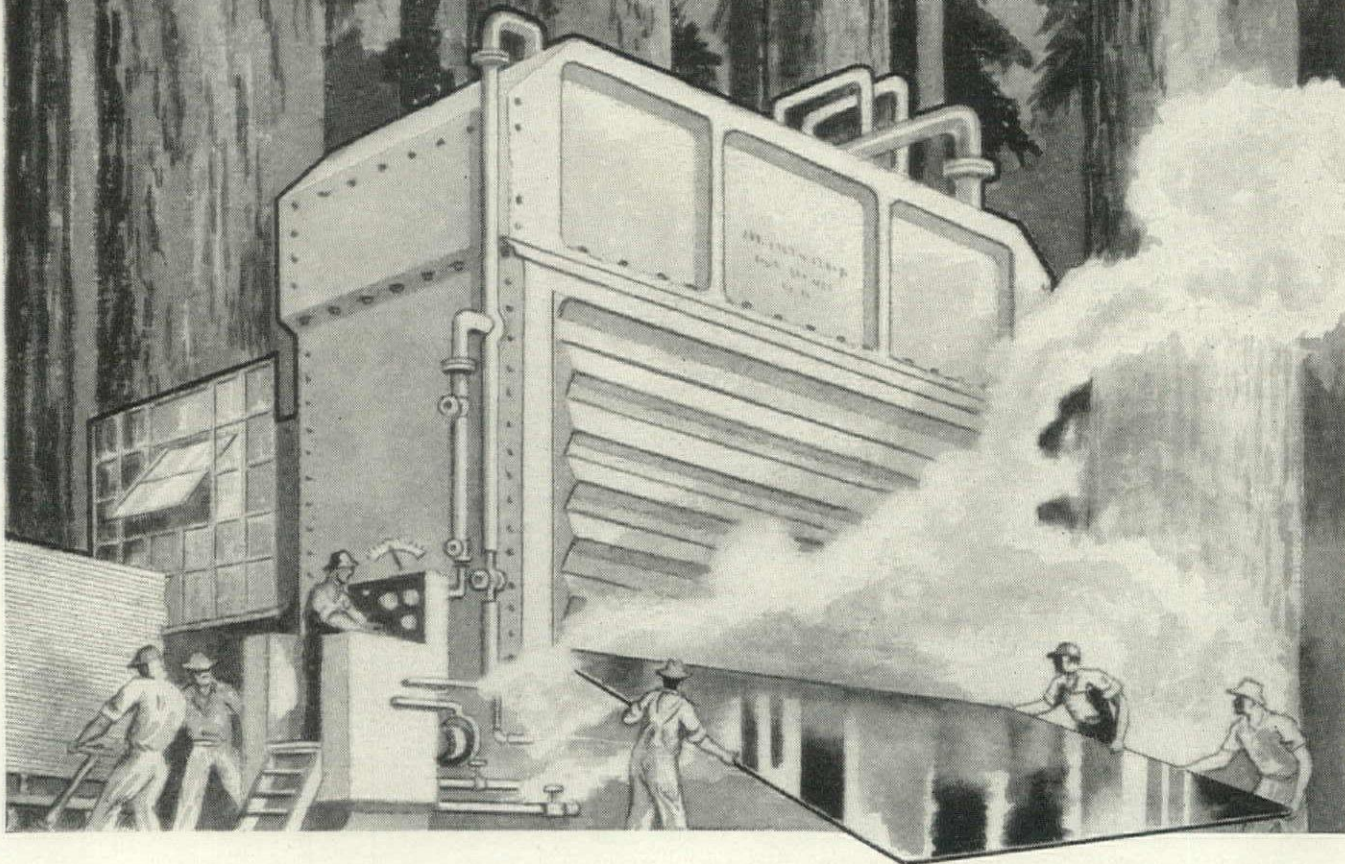
● Here is No. 4 in a series of advertisements now appearing in "Time" and "American Home." Over 25,000 prospective home builders have already answered these advertisements—proof that the architect has a definite place in postwar home building plans . . . that this campaign is awakening wide interest, and is building business for you.

● Architects who have not seen the booklet, "How To Plan Your Home," which these advertisements offer to the public, are urged to write for copies. Limited quantities are available, imprinted with your name, for distribution to prospective clients. These booklets furnish a dignified method of keeping in touch with home planners, and act as a constant reminder that your services are available.

From the Douglas Fir Forests and the
Plastics Industry comes a *NEW* tested material

INDERON

THE STABILIZED STRUCTURAL PRODUCT



What is INDERON?

INDERON is a new material, combining the advantages of two other proven materials—fir plywood and plastics. It is composed of three basic ingredients: strong, durable Douglas fir veneers, a plastic-impregnated fibrous film, and an internal adhesive of thermosetting resin. INDERON is neither a plywood nor a plastic. It is, in effect, an alloy which possesses the qualities of a true plastic at a cost comparable to finished plywood. It is manufactured in modern West Coast plywood plants, where Douglas fir veneers, phenolic adhesives and resin-impregnated paper are chemically united

in high-heat, high-pressure presses.

What are the advantages of INDERON?

Because INDERON combines the best qualities of both plastic and plywood, it is available in larger sheets and can be produced cheaper than an ordinary plastic. Yet it is permanently insoluble and affords a marked resistance to chemical or mechanical destructive elements. In strength value it compares favorably with aluminum. It is dimensionally stable, inexpensive, easy to work, and requires no surface protection. In peacetime application it will be

available in permanent colors, designs and patterns—all of which will be an integral part of the product itself!

How can you plan to use INDERON?

At present, INDERON is available only for Army-Navy uses. When it is no longer so urgently needed for war, INDERON will serve a wide range of uses in many industries. For example: INDERON is ideal for marine application. It will resist salt water, terrific strains, impact blows, abrasion, corrosive and toxic fumes. In the building field, INDERON will serve as roof, walls,

floors and built-ins for tomorrow's homes. Furniture will be made both strong and beautiful with this new structural product. It will be applied to special packaging, to prefabrication, to many another field. Learn more about INDERON—

Write NOW!

Buffelen Lumber & Mfg. Co.
Tacoma 1, Washington
Washington Veneer Co.
Olympia, Washington
manufacturers

INDERON

THE *Stabilized* STRUCTURAL PRODUCT

PRODUCTS AND PRACTICE

A REVIEW OF NEW LAMPS—Wartime developments point the way to increased beauty and efficiency in lighting for postwar factories, stores and homes.

To light up the postwar world in a truly impressive manner, electrical firms have a vast array of new and improved lamps ready to go on the market. The pressure of war is behind this accelerated development, and is changing the whole lighting picture. Architects will no longer be tied to a few lamp possibilities—they will be able to choose from numberless variations the lighting system which most effectively solves their problem. Designers and builders who are cannily looking toward the future should investigate now the many lamps to come.

New lighting developments, like former lamps, can be divided into two general categories: the filament (or incandescent) type and the gaseous (or electric discharge) type. Incandescent lamps are distinguished by a tungsten filament which is heated to incandescence by a flow of electricity. The electric discharge lamps are equipped with two electrodes, separated from each other with no apparent connection. When sufficient voltage is impressed on these electrodes, a flow of current is driven between them. Traveling through the gas inside the lamp, this current produces a glowing arc. Lamps of this type can be made in long, pencil-thin shapes such as familiar fluorescent lamps, or bent like the old neon signs, now called cold cathode fluorescent. The electric discharge type has produced the most exciting new developments.

ELECTRIC DISCHARGE LAMPS

A 275 w. sun lamp which can be screwed into an ordinary lighting socket is one of the most important new inventions. It is equipped with its own built-in reflector. Used over the bathtub or over the bathroom mirror, this lamp will provide madame housewife with a tan while she bathes or dresses. It can be specially installed in the ceiling, but should not be used for ordinary lighting since it can produce a bad case of sunburn. This bulb is really a combination of the tungsten and discharge types—a mercury vapor lamp containing an internal tungsten filament ballast which operates at incandescence. This filament radiates infrared heat in combination with the mercury vapor's ultraviolet tanning rays to produce a warm, golden light closely approximating natural sunshine. This lamp is

already available in limited quantities and will become more common after the war. It will have a life of 400 applications.

Germicidal lamps make another phenomenally successful use of ultraviolet. Of the three general classes of radiant energy in sunlight, infrared rays are the longest, visible or light rays shorter, and ultraviolet the shortest. The ultraviolet we get from the sun is known as "near" ultraviolet which means that it is nearest to visible light. "Far" ultraviolet rays, the shortest, do not get through the atmosphere surrounding the earth. It is this "far" ultraviolet which is used in germicidal lamps, for research has proven that it is the most potent germ killer.

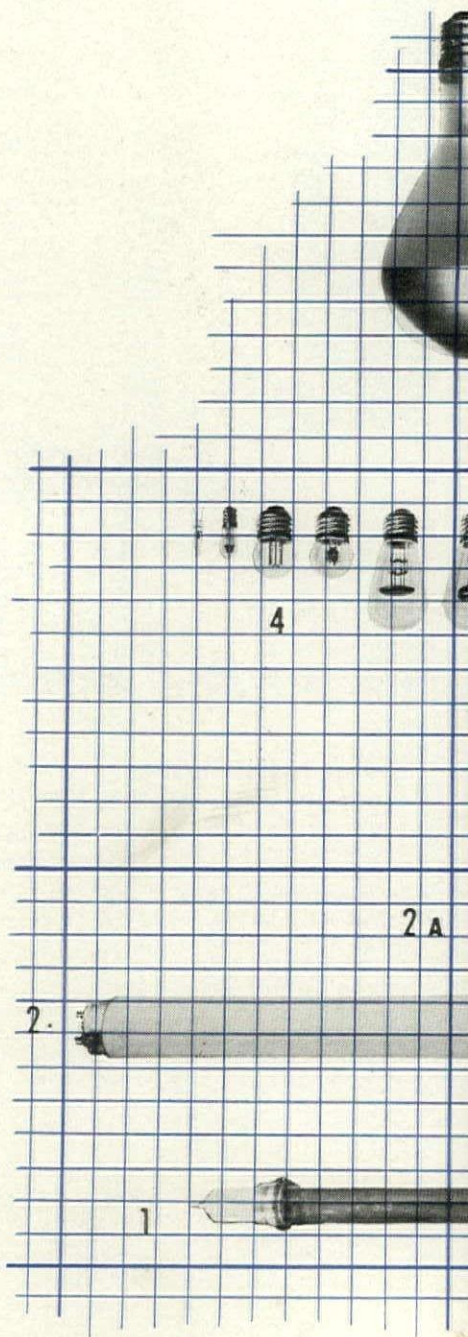
The germicidal lamps are discharge lamps operating at such low temperatures that they are cool to the touch. A tube of ultraviolet transmitting glass contains electrodes, one sealed in each end, a small quantity of mercury, and inert, low pressure gasses. Through a current limiting transformer, the lamp is connected to an A.C. supply circuit which limits watt consumption to 12 w. in a 10 in. unit. Only a few degrees Fahrenheit rise in temperature ensues when the lamp is in operation. This feature is particularly important in air conditioning and cold storage boxes where heat loss is a problem.

The packing industry now uses these lamps in their storage vaults to keep meat fresh and cut down mold formation. Dairies also use them to irradiate milk and to sterilize milk cans. Cosmetic, cheese and beer manufacturers employ the lamps to prevent mold. There are myriad other uses for the germicidal lamps. Hospitals employ them to guard children's nurseries, isolation wards and operating rooms. Sometimes the lamps are installed in air conditioning systems to reduce the bacteria count in the air entering a room. Restaurants and drugstores use them to help sterilize eating utensils, drinking glasses, etc. After the war much greater use will undoubtedly be made of these lamps in offices and homes. A 30 w. unit installed in the center of a ceiling to irradiate the upper air will produce satisfactory sanitary ventilation for a 4,000 cu. ft. volume. Above eye-level installation is important because a prolonged direct

view of the lamp is harmful to the eyes. However, hospital wards often install the lamps under beds, and this idea can be utilized in the home. Complete units of this type and many other fixtures can already be purchased.

ACTIVATORS AND INDICATORS

Black light, another type in the electric discharge field of lighting, is actually neither black nor light. Ultraviolet radiations in the wave length region of 3,600 A. are too high a frequency for the human eye to see, but they



1. New 3,000 w. mercury vapor lamp for industrial lighting.
2. -2D Standard fluorescent lamps ranging from the large 60 in. 100 w. size for commercial application to the tiny 6 in. 4 w. size for special purposes.
3. The 3-lite lamp for reading and study which allows the user to select as much or as little light as he finds necessary.
4. Neon glow lamps for indicating purposes.
5. Infrared drying lamps for speed process drying and quick surface heating. Most popular is the 250 w. R-40 lamp with

built-in reflector, second from left.

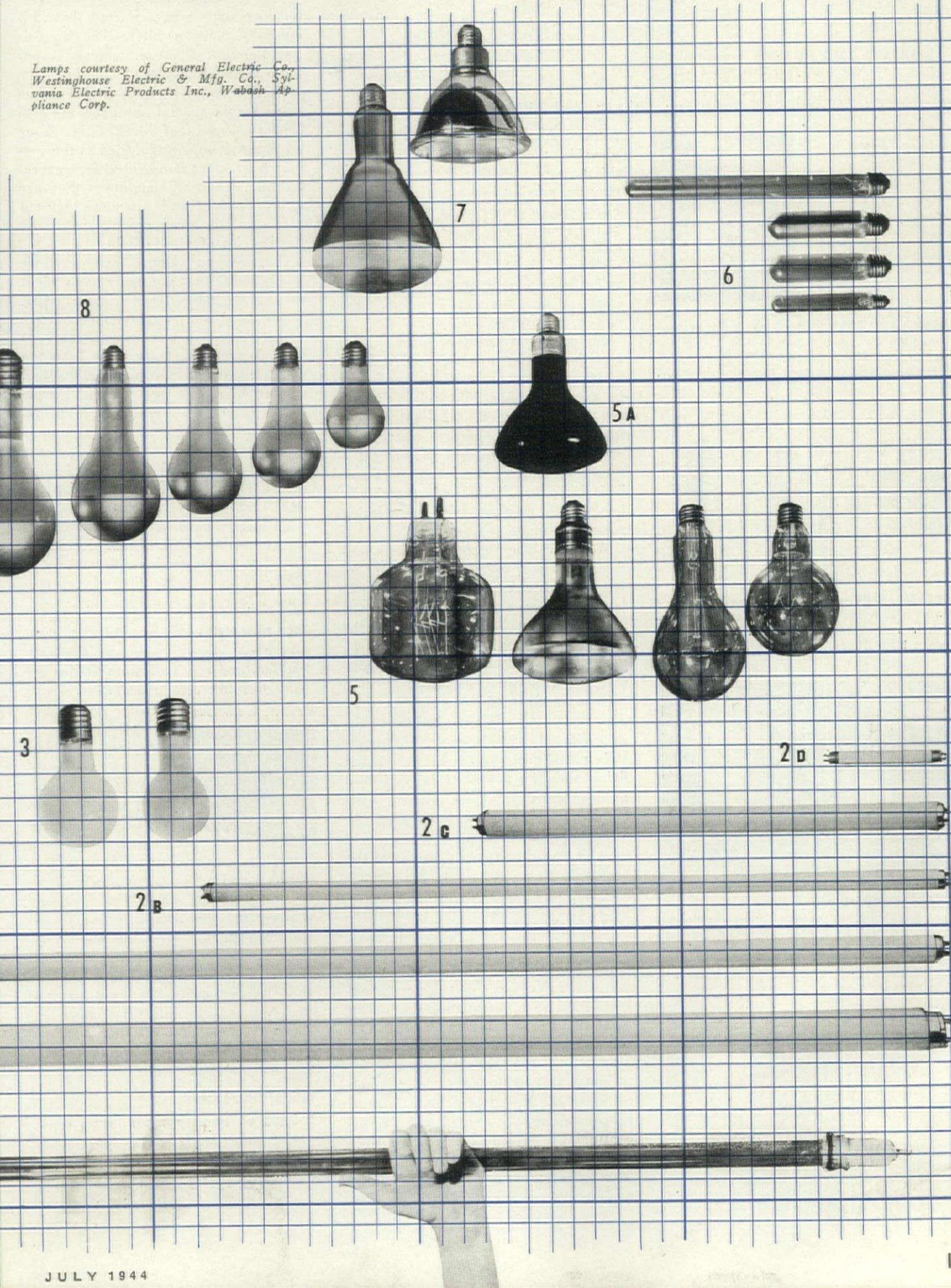
5A. Infrared lamp of ruby glass to reduce glare. It requires a separate reflector.

6. Tubular incandescent showcase lamps. Second from top has built-in reflector.

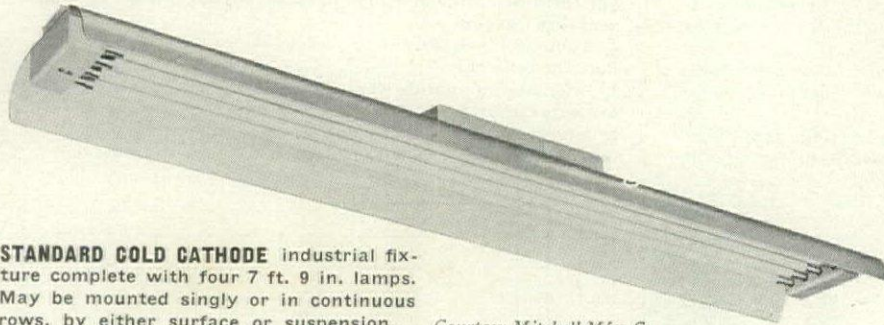
7. Intensifying spotlight for use on 30-100 ft. mountings, and the projector spot for outdoor applications.

8. Silvered bowl incandescent lamps, a simple means for achieving indirect lighting without the use of special fixtures.

Lamps courtesy of General Electric Co., Westinghouse Electric & Mfg. Co., Sylvania Electric Products Inc., Wabash Appliance Corp.

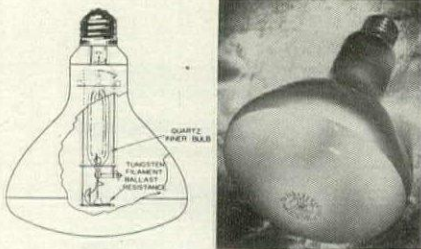


PRODUCTS AND PRACTICE



STANDARD COLD CATHODE industrial fixture complete with four 7 ft. 9 in. lamps. May be mounted singly or in continuous rows, by either surface or suspension.

Courtesy Mitchell Mfg. Co.



SUN LAMP BULB with screw base recommended for general use in the home is a self-ballasting mercury vapor type equipped with its own built-in reflector.

activate fluorescent coatings which then glow in the dark. Lamps providing this type of radiation are not new, but they are coming into more general use. Formerly they were used only as a gag in the theater to activate costumes covered with fluorescent powders. The costumes glowed in different colors when performers danced on a darkened stage. During the war, however, many new uses have been found.

Simplest and cheapest lamp of this type is the 2½ w. Argon glow lamp which requires no auxiliaries and may be used on either AC or DC current. As the output of visible light is very low, the lamp is efficient either with or without a filter, but in general a filter will improve the results obtained. This lamp has been used successfully in showcase displays, but is now losing something of its popularity.

A newer black light lamp has been developed for use on submarine instruments, tank and airplane dashboards, to activate fluorescent numerals and indicators. This eliminates the glare of ordinary light which would be detected by the enemy and might distract the crew when in action.

This small lamp, the RP-12, produces quite an amount of visible light in addition to the ultraviolet radiations. It is particularly successful in combat flying since its filter can be varied to produce either all black light or half-and-half black and visible light. At night the pilot will prefer total darkness, at dawn or dusk he will need the visible light to help him read the instruments. This type may remain on plane dashboards and may be used for automobiles and buses after the war.

Where a more powerful source of black light is needed, mercury vapor lamps are effective. They have already been tried with outstanding success in theaters and will become more widespread after the war. Carpets are given a fluorescent treatment making it easier to find a seat in the dark. Murals and ceilings of the lobby and theater proper can also be treated with fluorescent paint to provide a decorative effect under black light. Filters and transformers must be used with these large mercury vapor lamps. The most com-

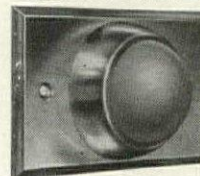
mon size is the 100 w. lamp which is effective within a radius of 40 ft. With the 1,000 w. water-cooled lamp, black light can be controlled and projected much farther because of the intense source. An even larger 3,000 w. size is especially useful where great quantities of diffuse black light are needed for flooding large areas. Except that it is equipped with a filter, this lamp is like the new 3,000 w. mercury vapor lamp used for industrial lighting.

Standard fluorescent lamps, when made with a special phosphor, are also efficient sources of black light. They require the same auxiliaries as the regular fluorescent lamps used for general lighting. Even without filters they are quite effective, but inexpensive blue pot glass, gelatin or lacquers screen out the last bit of visible light.

Incandescent lamps can produce black light and are more convenient to operate than the discharge types. Since they can plug into an ordinary socket without a transformer, they are also cheaper. However, they have the disadvantages of high wattage, heat and shorter life. The new 250 w. Purple X lamp is of the filament type and requires no filter since the bulb is made of red-purple glass. Because it has a higher wattage than the R.P. 12 lamp it is a more powerful source of black light, but it can be burned only 10 minutes at a time—otherwise the glass would overheat and soften. It can be used for demonstrations, floorshows in theaters and nightclubs where prolonged operation is unnecessary.

Neon glow lamps are another important source of specialized light. They are the familiar red indicators frequently seen over fire escape doorways. Since

The H. R. Kirkland Co.



they use such small amounts of wattage—the largest 3 w., the smallest 1/25 w.—they are very economical. All except the smallest, which

needs an adaptor, can be screwed into ordinary light sockets. A new 1/10 w. size in brilliant green has been developed for the army and navy and will be available after the war. It is much brighter than the red and will be used for illuminating house numbers and electric clocks, for night lighting etc. None of the indicating lamps are affected by voltage variations or mechanical shock. Their average useful life is 3,000 hrs.

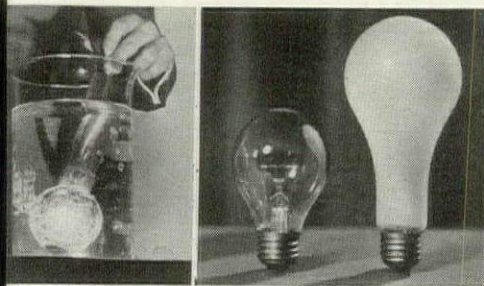
INDUSTRIAL LAMPS

A 3,000 w. mercury vapor lamp (mentioned under **Black light**) reaches a new high in wattage for industrial lighting. Producing 120,000 lumens per outlet,

(Continued on page 170)

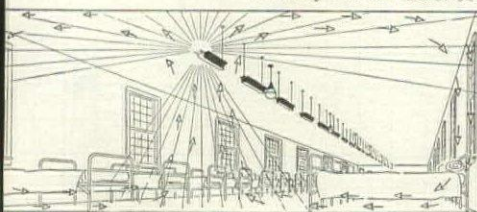


BLACK LIGHT sources include the 2½ w. argon glow lamp and the 100 w. AH4 with their reflectors; the 100 w. BH4 whose dark bulb filters out visible rays.



WATERPROOF LAMP for sea salvage operates at high pressure and only under water. Vibration and rough service lamps for industrial use stand severe shocks.

Courtesy The Art Metal Co.



DISINFECTAIRE suspension units destroy bacteria in upper portion of room, convection currents carry sterile air down, germ-filled air up in constant cycles.

We're selling
THE VALUE OF YOUR SERVICES
to American merchants



— in promoting "Machines For Selling"!

MORE and more store-fronts will come within your range of profitable operation as a result of the vigorous campaign Kawneer is conducting among American merchants. For by featuring the function of the store-front as a "Machine For Selling", Kawneer is emphasizing the value of proper design.

This campaign includes both national advertising and local promotion, reaching and influencing hundreds of thousands of merchants.

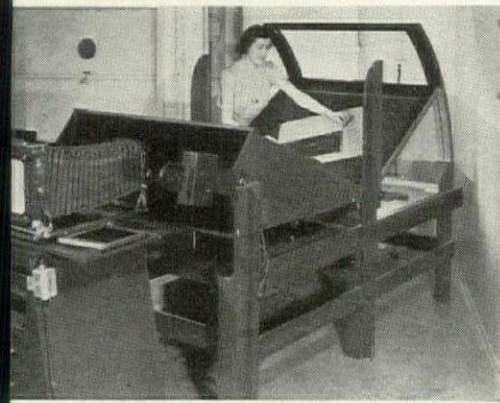
NEW PRODUCTS AND SERVICES GIVE YOU VALUABLE ASSISTANCE!

The Kawneer program will not only bring you more store-front work—it will also make your work easier. For extensive research, conducted with leading authorities on architecture and retail merchandising, provides new products and services to simplify your procedure and help you solve merchandising and other problems of the retail store.

Specially trained Kawneer men will be glad to work with architects who are interested in this important field. Write: *The Kawneer Company, 207 Front St., Niles, Michigan, for more complete data on the Kawneer plan.*

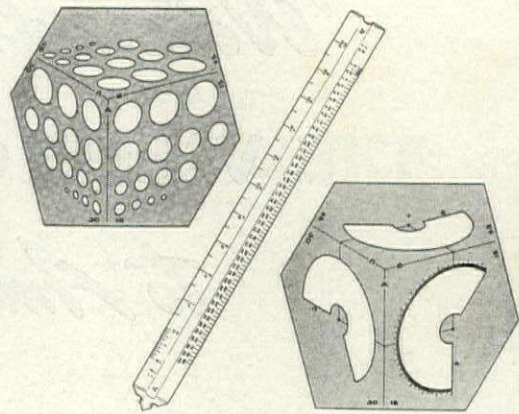
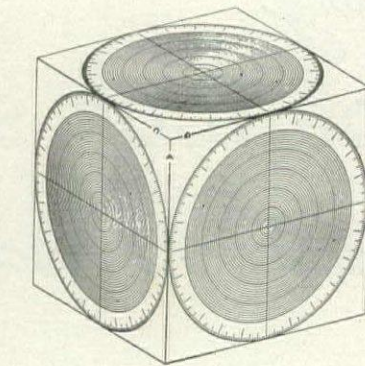
Kawneer
STORE-FRONTS

MACHINES FOR SELLING!

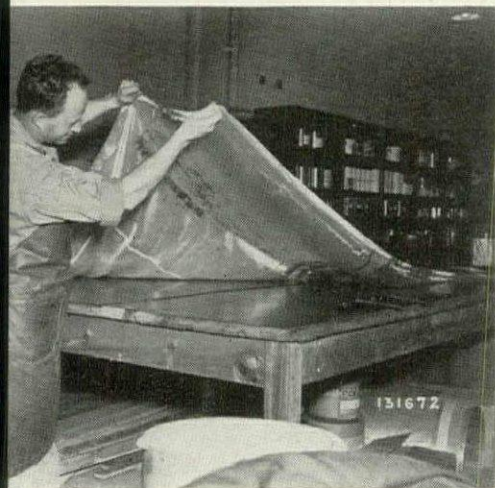


TRIMETRIC DRAWINGS have long been recognized as the ideal form of production illustration, but have not been widely used

A PLASTIC-GLASS COMBINATION from which sections of aircraft can be fabricated

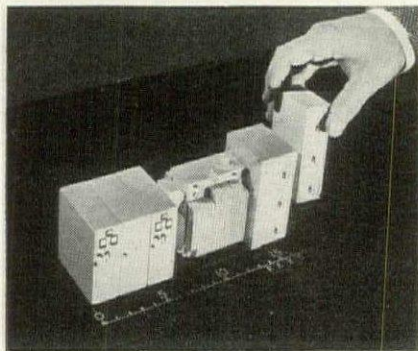


because of preparation difficulties. However, through a series of new developments made by engineers at the Glenn L. Martin Co., they may soon be within the reach of all assembly plants. The new technique utilizes a machine, the Martin Axonograph, which photographically translates a conventional orthographic drawing into a scale representation of one face or dimension of a trimetric projection. The other two faces or dimensions are then filled in by a draftsman using special instruments to produce a scale trimetric drawing in from 1/5th to 1/2 the time formerly required. The new drawing instruments include a trimetric scale, whose three faces are calibrated to correspond with the three axes of the trimetric drawing, replacing the draftsman's regular scale used in conventional drawing. An ellipse template and ellipse underlay together take over the duties of the compass, and a trimetric protractor corresponds to the normal protractor used for determining angles. Assembly plants will find these instruments most helpful.



Courtesy Modern Plastics

is a completely new structural material. This glass-reinforced, low-pressure plastic was developed by the Materiel Command of the USAAF and the Owens-Corning Fiberglas Corp. Made from a combination of glass fibers and special plastic resins, it has great strength combined with very low weight—much below that of aluminum. This new material is actually stronger, weight for weight, than metals. Glass cloth is impregnated to form laminates which are molded at atmospheric pressure and comparatively low temperatures. The molds are made of inexpensive easily fabricated material such as plywood. These new plastic-glass laminates can be drilled, punched, sawed, ground, turned, threaded, milled, planed, and shaped. They lend themselves to slender forms, round contours, sweeping and reversed curves, lightweight construction and general streamlining. Probable future applications include prefabricated kitchen and bath units, furniture and lightweight luggage.



SMALL SCALE MODELS of unit substation equipment to help executives and plant engineers work out power distributing problems have been created by the Allis-Chalmers Co. With sets of these models field engineers can show buyers exactly how the substation will look, what equipment is available, and how alternate plans compare. Costly mistakes and many planning hours are anticipated savings. The scale is 1/2 in. to 1 ft.

NEW PRODUCTS

PLASTIC can be boiled and retain strength and shape.

Name: Cerex.

Features: A new field of industrial and household applications has been opened by this thermoplastic which has ability to withstand sterilization, holding its shape and strength in boiling water. It combines high resistance to heat with resistance to strong, corrosive chemicals, and has excellent electric insulating properties and high rigidity and strength. Even with this high heat resistance there is no necessity for higher injection molding temperatures. It can be readily and

economically molded in standard molding machines. This new plastic has found wide use in war work, particularly Radar, radio and electronic equipment where lightweight substances of suitable electrical and great heat-resistant properties are demanded. Surgical apparatus, aircraft instruments and battery cases are other war applications. Postwar uses are possible wherever high heat resistant qualities are necessary, as in kitchenware, dishes, and surgical instruments.

Manufacturer: Monsanto Chemical Co., St. Louis 4, Mo.

(Continued on page 178)



for Superior
Structural Insulation

specify
COTTON

Modern construction methods require the most efficient materials available to builders—and processed cotton fiber, fully fire-proofed, with its superior insulating qualities, provides more efficiency per cubic foot than any other accepted type of insulation on the market today!

Pioneer in the manufacture of fire-resistant cotton, the Lockport Cotton Batting Company has perfected Lo-“K”, the modern insulation method

that insures unexcelled performance at low cost.

Lo-“K” Cotton Insulation is made under government supervision, in strict accordance with Department of Agriculture specifications, and is highly endorsed for its flame-proof and insulating values. The low thermal conductivity or “k” value of this fine structural insulation guarantees all-weather protection for all types of buildings—residential, commercial, and industrial.

**INSULATION POINT VALUES
FOR MAXIMUM EFFICIENCY**

- Lo-“K” is light in weight, easy to handle
- Lo-“K” cuts labor costs, saves installation time
- Lo-“K” is flame-proof and moisture-resistant
- Lo-“K” is vermin-resistant and sanitary
- Lo-“K” will not cause skin irritation
- Lo-“K” is clean and white, will not cause smudging
- Lo-“K” resists rot and mildew
- Lo-“K” will not sag or settle
- Lo-“K” lasts indefinitely, pays for itself in fuel savings alone

**Lo-“K” IS AVAILABLE
NOW!**

Lo-“K” blanket-type insulation rolls are manufactured in one, two, and three-inch thicknesses in widths to suit standard framework construction. Rolls are available with a tough, waterproofed paper backing, providing an effective moisture barrier. Lo-“K” is stocked by your lumber or building material dealer.



A PRODUCT OF LOCKPORT COTTON BATTING CO.
ESTABLISHED 1870

Free! Factual
Material about
the
**NEW COTTON
INSULATION**

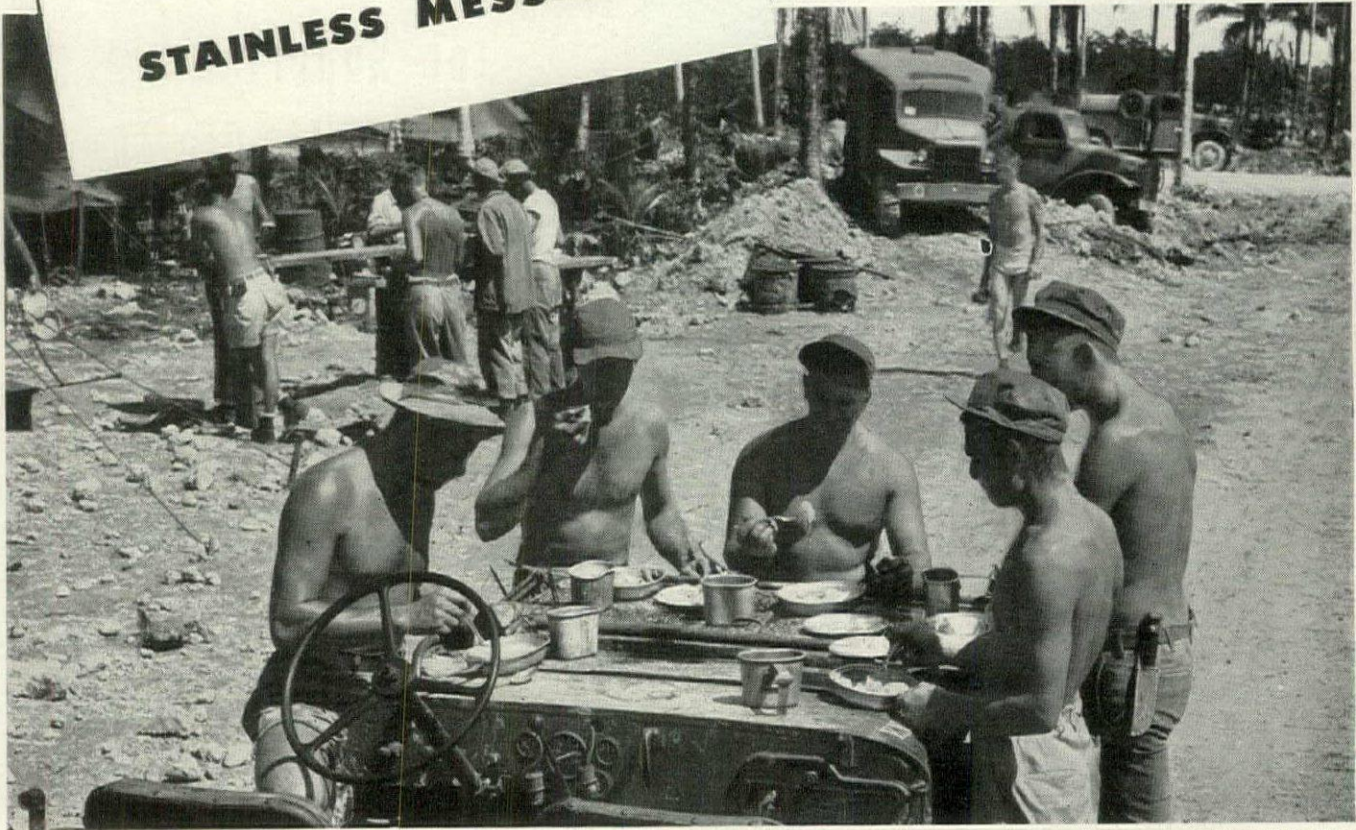
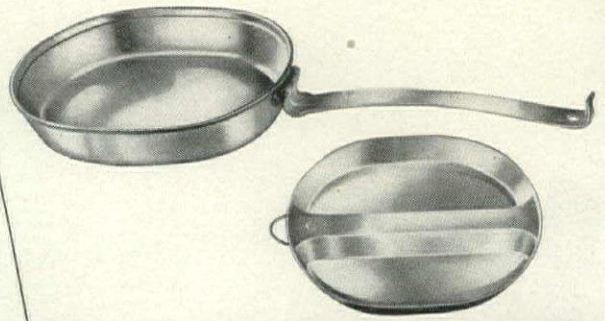
Lo-“K” Cotton Insulation Division—Dept. AF-7
LOCKPORT COTTON BATTING CO., Lockport, New York
Gentlemen: From the standpoint of a
 BUILDER CONTRACTOR ARCHITECT DEALER
I am interested in full information about Lo-“K” Cotton Insulation.

NAME.....

ADDRESS.....

CITY.....ZONE.....STATE.....

**THESE JUNGLE FIGHTERS
LIKE THEIR
STAINLESS MESS-KITS**



Photo, U. S. Army

THE ARMY wants the best for its eating equipment, just as you did for your kitchen equipment in days of peace. ARMCO Stainless Steel is used in these mess kits because it is so easy to keep clean and sterile. Possessing great strength, it can be fabricated into light-weight utensils, so important on a march. And this rustless metal is highly resistant to denting, scratching and corrosion.

- These advantages of ARMCO Stainless make it the ideal metal for your post-war institutional equipment—ranges, refrigerators, serving counters, work surfaces, food carts, cooking and serving ware, and other food-handling equipment.
- ARMCO Stainless also sharply reduces maintenance costs. Since it is solid metal all the way

through, it never needs replating or refinishing. It is as easy to clean as glass, yet will stand up under hard usage.

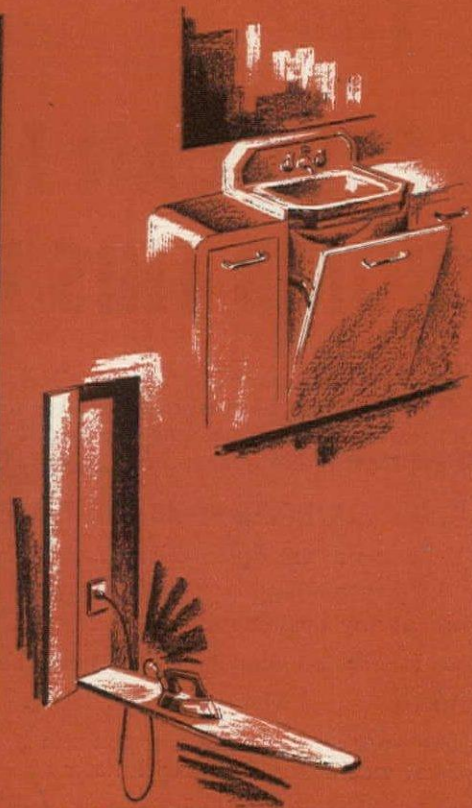
- Do you have the Armco "Sheet Metal Specification Guide," which contains a whole section on Stainless Steel? Write for a free copy — on your firm letterhead, please. The American Rolling Mill Company, 1861 Curtis St., Middletown, O.

FOR EXPORT: THE ARMCO INTERNATIONAL CORPORATION

Help Finish the Fight—
with War Bonds



ELJER MADE SUGGESTIONS...



AND RECEIVED OVER 50,000 REQUESTS



In a recent consumer advertising campaign designed to keep modern plumbing ideas constantly in front of the public, ELJER offered a brochure entitled "Women tell us". In less than three months from the start we had received over 50,000 requests for this illustrated mailing piece.

This tremendous response, which continues even now, signifies two important things

—the architect who specifies ELJER is calling for Quality Plumbing Fixtures which are becoming better known every day, while the builder who offers ELJER equipped structures will find sales easier to make.

For complete information on our entire line, write us and we'll include your copy of ELJER'S book of ideas: "Women tell us".

ELJER CO.
FORD CITY, PA.

Then he said to himself

"THEY CAN NEVER BOMB THIS PLACE"

WITH 300 pound vehemence, Reich-Marshall Hermann Goering once impressed the heilers and the heiled in Berlin with this guarantee:

"THEY CAN NEVER BOMB THIS PLACE"

He was not trying to mislead.
Give him credit . . . he had figured it out as any business man would:

- (a) He figured what his competition had
- (b) He figured what he had

The answer was simple arithmetic . . . then, departing from arithmetic

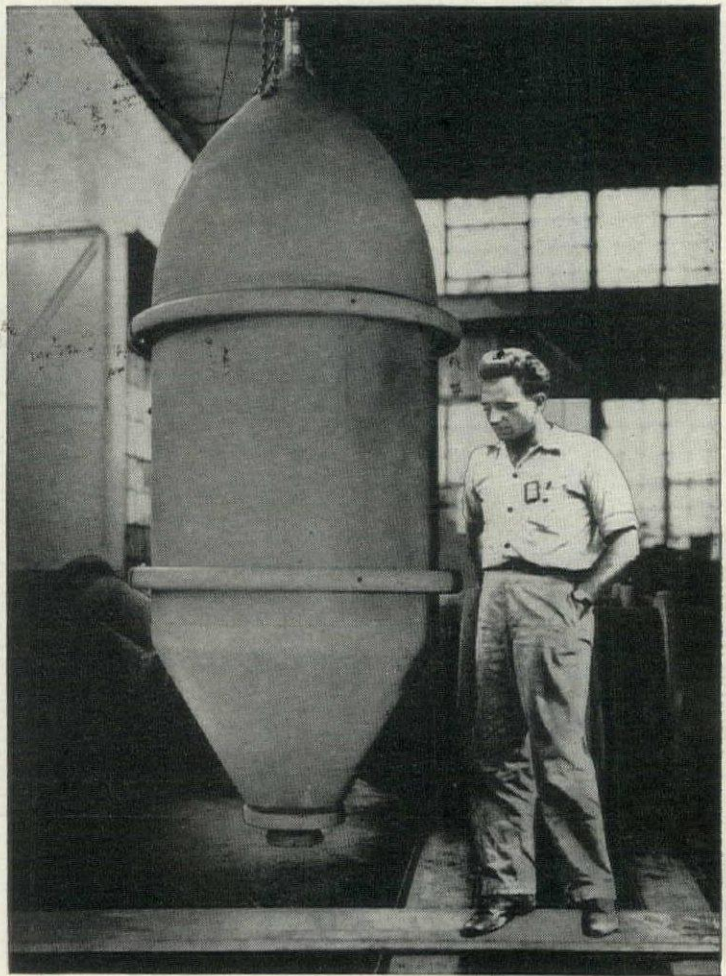
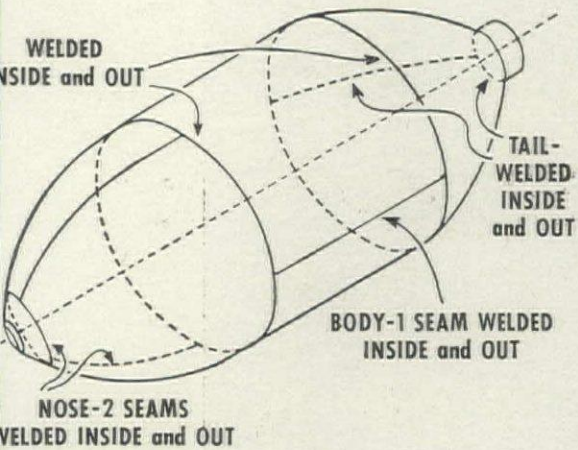
- (c) He *estimated* how long it would take his competition to catch up. On *that* he went completely crackpot—unalterably haywire—irretrievably "losing his market" as they say.

And that just proves again that NO ONE can estimate the regular step-ups in output made possible by enthused producers

- . . . having recourse to a flexible production technique
- . . . that keeps improving regularly.



Listen Hermann, Never say NEVER!



4000-lb. blockbuster, welded as shown in sketch. Its production has been increased by improved arc welding technique.

You're too cagey a rascal *not* to have figured that recourse to Arc Welding would speed America's war output. So you estimated that step up at, say, 25%.

But as it turned out, production of Berlin-busters, ships, planes, tanks and guns was stepped up another 25% and then other 25%'s by added recourses applied AFTER your "NO BOMBING" assurance.

And now, the knockout blow

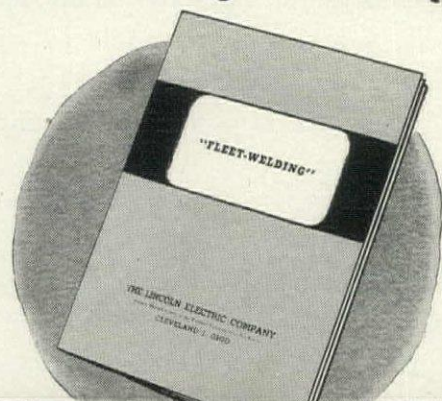
... Lincoln introduces the New "Fleet-Welding" Technique

recourse to which gives additional step-ups in welding production of 25% . . . 50% . . . 100% . . . and more.

This arc welding technique, developed by Lincoln Engineers, uses arc force to get deeper penetration and higher welding speed for all types of joints in mild steel plate, shapes and sheet. Procedure manual with full details will be sent free to engineers and production supervisors.

There is a Lincoln Engineer near-by to assist you in applying the "Fleet-welding" Technique to war production and postwar planning. Call him or write:

THE LINCOLN ELECTRIC COMPANY • Cleveland 1, Ohio



America's greatest natural recourse
ARC WELDING



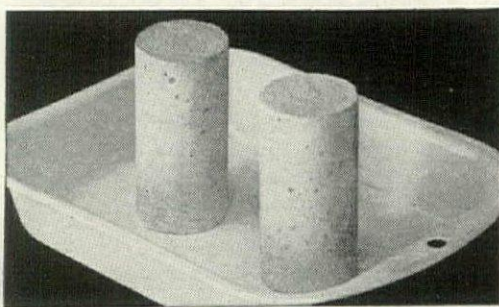
BRIXMENT Mortar

is More Durable

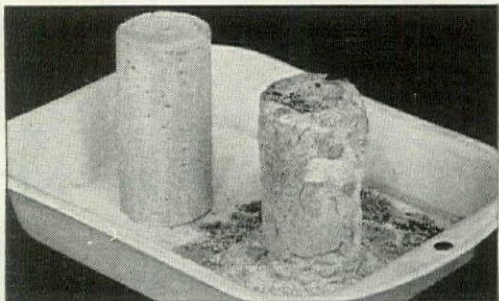
● FOR permanent strength and beauty, mortar must be *durable*—must be able to withstand the alternate freezing and thawing to which it is subjected many times each winter.

Brixment mortar *is more durable*. This greater durability is due partly to the strength and soundness of Brixment mortar, and partly to the fact that Brixment is waterproofed during manufacture. This waterproofing helps prevent the mortar from becoming saturated—therefore protects it from the destructive action of freezing and thawing.

Walls built with Brixment mortar therefore *retain* their original strength and appearance. . . . Even in parapet walls and chimneys, where exposure is particularly severe, Brixment mortar will almost never require re-pointing.



These two photographs show a cylinder of Brixment mortar (left) and a cylinder made with 50-50 cement and lime mortar (right). Both specimens were made at the same time, and subjected to exactly the same treatment.



After curing for 30 days, $\frac{1}{4}$ " of water was put into the tray and the cylinders were alternately frozen and thawed 15 times. Note that the Brixment mortar remains intact, whereas the other mortar has crumbled badly.

LOUISVILLE CEMENT COMPANY, Incorporated
 General Offices: Louisville 2, Kentucky
 Cement Manufacturers Since 1830

"NO FLIES ON SAM!"



WHEN Sam comes home, sturdy, grinning—and toting a souvenir of grim, relentless days . . . you'll agree: *No flies on Sam!*

That's more than just an old slang phrase that came to life again. No flies on Sam or his brothers-in-arms . . . in Fortress Europe . . . the South Pacific . . . Alaska.

Because men in the armed forces were protected against disease-carrying insects by miles upon miles of LUMITE, the new plastic screen that defies the elements! Woven from Saran, it resists the effects of heat, cold, acid

fumes, salt air; is impervious to rust or corrosion . . . yet gives more light and lasts longer.

Sam—and millions like him—will come home, *sold*, through actual living proof, on LUMITE plastic screening. He'll expect—and *demand*—LUMITE efficiency and durability in his home . . . office . . . factory.

Here is *the* postwar product that is being sold to millions of potential future buyers *right now* . . . every hour of the day . . . across the globe. Here is a postwar market well worth investigating—and preparing for—today!

TESTED IN WAR READY FOR PEACE

- ★ Long-lasting . . . will not rust or corrode
- ★ Non-staining . . . no streaking of sills or sidewalls
- ★ Translucent . . . admits more daylight
- ★ Strong, resilient . . . no dents or bulges
- ★ Unaffected by fumes or salt air
- ★ Non-inflammable
- ★ Competitively priced

Memo to Architects and Engineers: Include LUMITE New Plastic Window Screens in your postwar plans for home, factories, offices, schools! Write *now* for detailed information.

The new
plastic screen
cloth

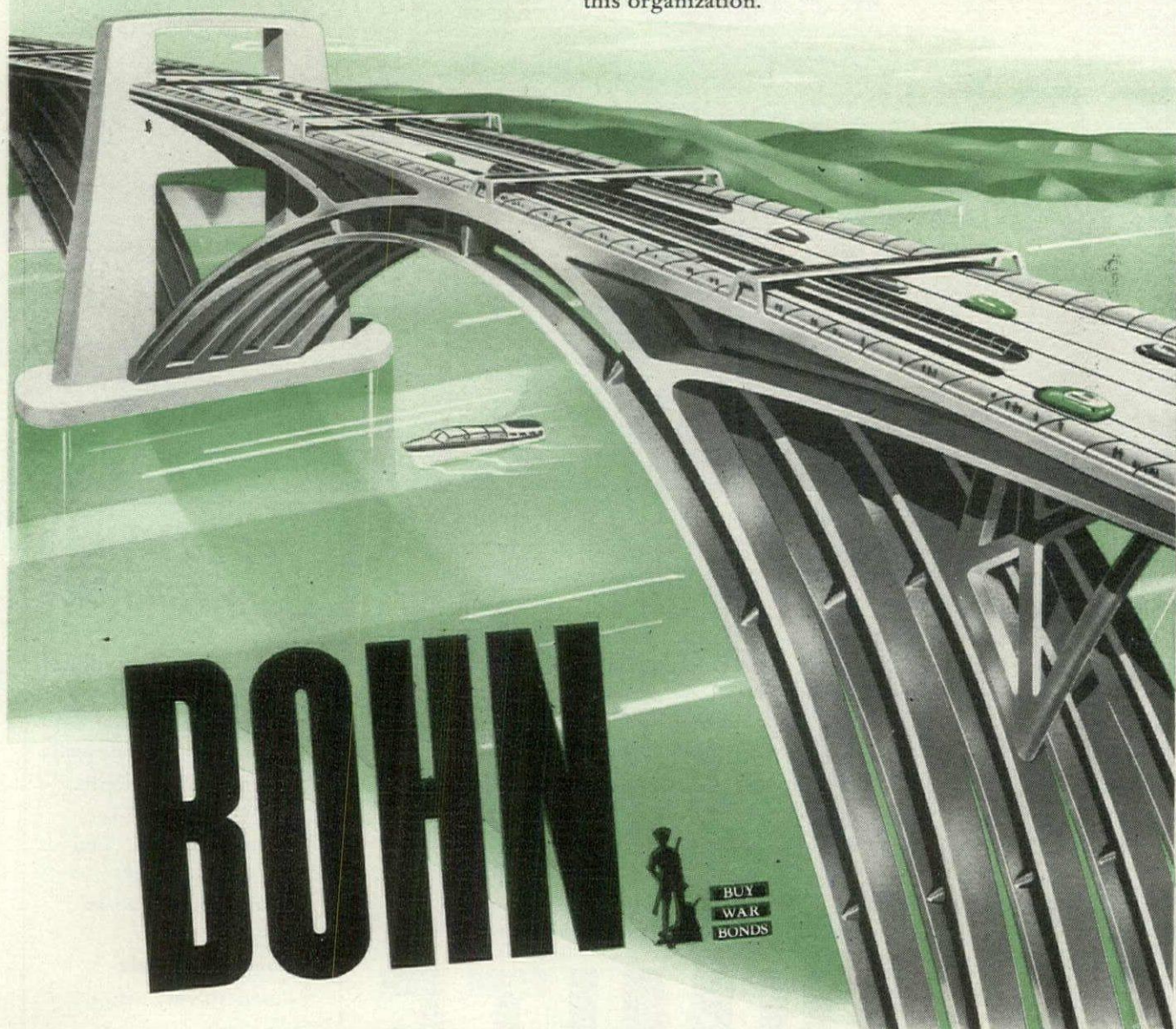
LUMITE

Chicopee Manufacturing Corp., Sales Office: 40 Worth St., New York 13, N. Y.

World's Largest Makers of Plastic Screen Cloth

STREAMLINING WHAT GOES OVER THE STREAM

Architecturally and structurally, the bridges of tomorrow will undergo many changes. Authorities predict bridges will be made of aluminum. Such construction would have outstanding advantages. As a matter of fact, the entire world stands on the threshold of many important advancements. The engineering staff of the Bohn organization see a much wider use of light alloys—advocate many revolutionary designs in a great variety of new products. Some day you may need light alloys. That is the time to get in touch with this organization.



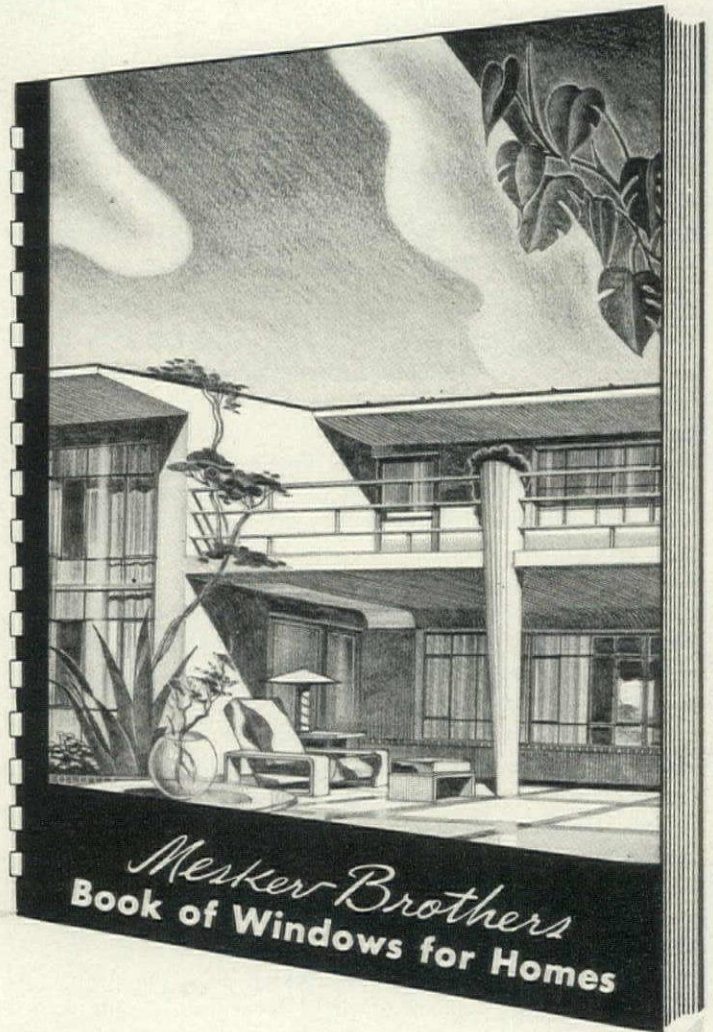
BOHN ALUMINUM AND BRASS CORPORATION

GENERAL OFFICES—LAFAYETTE BUILDING, DETROIT 26, MICH.

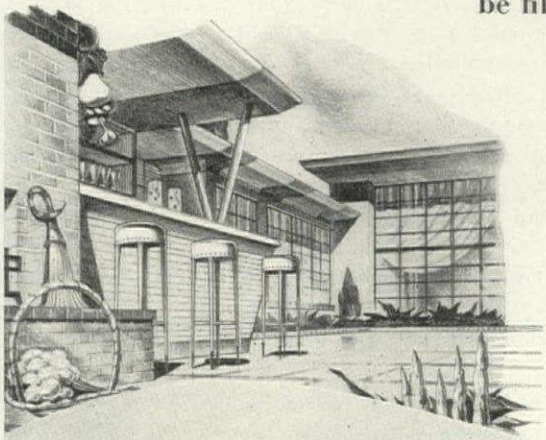
Designers and Fabricators—ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS

NEW . . .

use this new book
for better Post-War
Home Designs . . .



Illustrated at the left are two typical designs from the Mesker Brothers Book of Windows for Homes. Illustrated *by an architect for architects*, it is filled with numerous equally valuable architectural renderings, modern ideas and treatments. Of inestimable aid in the designing of your post-war homes, this book is yours for the asking. Since paper shortage limits editions, requests will be filled as received. Write for yours TODAY!



Shown above are two views of the Solar House featured in the Mesker Brothers Book of Windows for Homes.

MAIL THIS COUPON TODAY
MESKER BROTHERS, Dept. F-74, 426 S. 7th St., St. Louis (2) Mo.
Without cost or obligation, mail me your Book of Windows for Homes.

Architect _____
Address _____
City _____ (give Street Number or P. O. Box No.)
State _____

Manpower shortages prohibit establishing a permanent mailing list. A.P. 74

WINDOWS FOR HOMES

The Condition of Man . . . Studio Secrets . . . Three Lectures on Architecture . . . Build Your Own Home

THE CONDITION OF MAN, By Lewis Mumford. Harcourt, Brace & Co., New York. 423 pages. Illustrated. 6 x 9½. \$5.

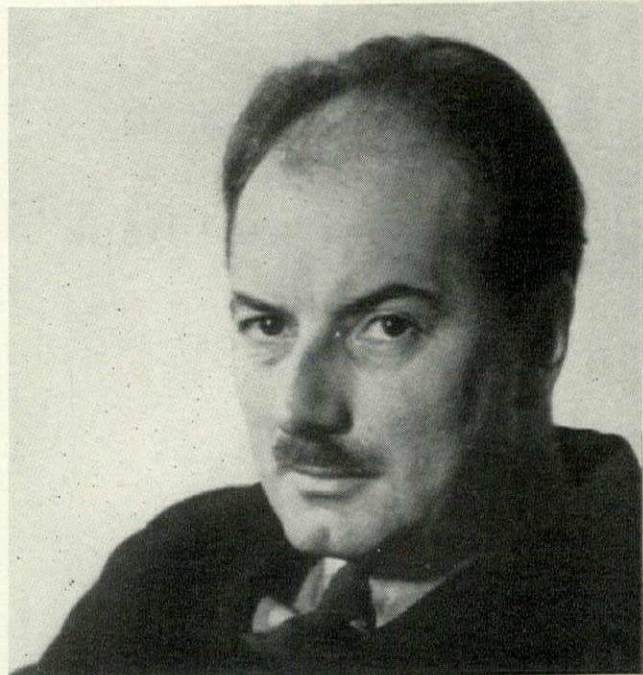
The Condition of Man completes a trilogy begun with *Technics and Civilization* and *The Culture of Cities*. It is no secret that Lewis Mumford has always been a gentleman of great enterprise. This latest work, however, provides a true scale for those of us who have bi-annually speculated on the exact limits to which his intellectual and literary capacity might extend. In most of his earlier works, the author found himself hampered by the relative limitation of a specialized viewpoint as a cultural or social theorist. With *The Condition of Man*, these fetters are majestically swept aside and Mr. Mumford emerges a complete and full blown humanist. To prove it, he sat down and wrote a book which encompasses 2,500 years of the historic, social, economic, moral and spiritual development of mankind, gives an epoch-by-epoch analysis of human shortcomings, and charts the course from here on in, all in 423 short pages. To put it mildly, the result is quite a document.

From the outbreak of his authorship, Mr. Mumford has consistently approached his subjects from an impressive height, but the pinnacle on which this last manuscript was penned has about it an aura of divine and prophetic sunshine in addition to the customary altitude. Reading *The Condition of Man* is rather like looking at world history through the wrong end of a pair of binoculars—beside it, *The Culture of Cities* seems an intimate and homey narrative. It starts in about 600 B.C. and carries on through the history of all western cultures and civilizations with their various social, moral and spiritual expressions, down to the mechanized barbarism of today that everyone knows first hand.

Surprisingly enough the book puts completely un-mumfordish emphasis on many down to earth historical facts. There is less mystic contemplation of the arts than the initiated reader might expect. It also incorporates most of the major themes of *Technics and Civilization* and *The Culture of Cities* and is to that extent repetitious. As the last volume of a trilogy, it does more to re-emphasize and reinterpret the contents of the first two than it does to complement them.

To read the introduction is a prime necessity. Not only does it tell in fifteen pages exactly what man is, it also provides a clue to the purpose of the book, something which does not recur until the last chapter. Mr. Mumford sums up his thesis in the following words:

"In an attempt to control the disintegrating forces that are at work in our society, we must resume the search for unity; and to this end we must explore the historic nature of the modern personality and the community, in all their richness, variety, complication and depth, as both the means and the end of our effort. As the processes of unity take form in the mind, we may expect to see a similar integration take place in institutions. But this change is not an automatic one. Only those who daily seek to renew and perfect themselves will be capable of transforming our society; while those who are eager to share their highest goods with



AUTHOR MUMFORD: The patient is expected to survive.

the whole community—indeed, with all humanity—will be capable of transforming themselves."

So far, so good. At this point the reader should have picked up something of the gentle art of extrication from the meshes of Mr. Mumford's prose. Now, on to retrospect.

After dispensing with the Hellenic and Roman cultures by page 51, the author really hits his literary stride and develops a neat technique for handling all subsequent history. Briefing the reader concisely on the particular slab of history under scrutiny, Mr. Mumford then occupies himself with a verbal dissection of the epoch's great minds, all of which, in the author's eyes, were pretty inferior in one way or another. True to Mumford's form, however, his history culminates in the inevitable elegy of Patrick Geddes.

Mr. Mumford's conclusions are neither new nor profound though his wordy prose and gaudy erudition do much to give that impression. Analyzing the world's woes he says,

"Modern civilization has been arrested in mid-flight: its technical advances in saving labor, perfecting automatism, mechanizing the daily processes of life, multiplying the arts of destruction, and dehumanizing the personality have been responsible for this arrest. The rise of the machine and the fall of man are two parts of the same process: never before have machines been so perfect, and never before have men sunk so low, for the sub-human conduct that the Nazis have exhibited in the torture and extermination of their victims drops below any level of merely animal brutality. That degradation is shared by those who passively condone this sub-human conduct, by belittling its horror and denying its terrible significance."

The Mumford remedy:

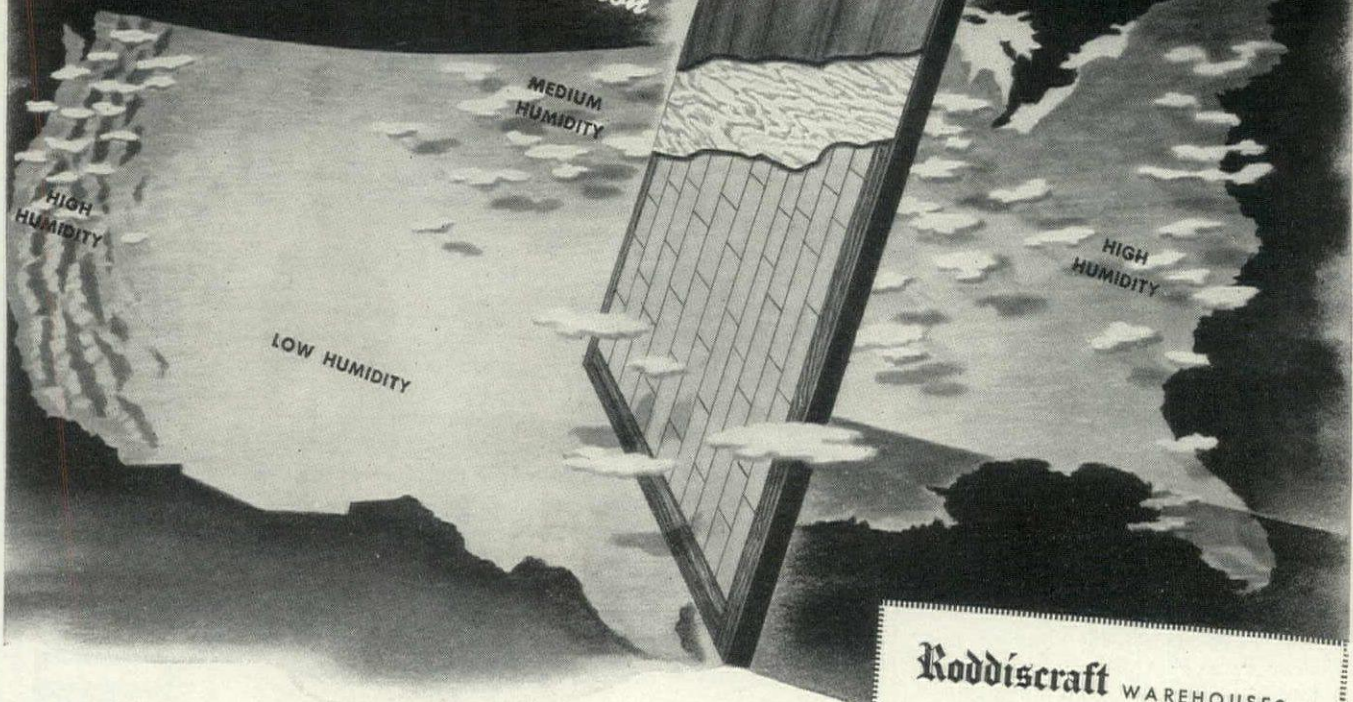
" . . . the disease that threatens us is an organic one:

(Continued on page 28)

Roddiscraft SOLID CORE FLUSH VENEER DOORS

Sealed Waterproof Construction

The Sign of Roddiscraft — built in red, white and blue • dowel trademark — permanently establishing identity and responsibility



Specify Roddiscraft Solid Core Flush Veneer Doors for any climate. Face veneers, cross banding and cores are welded into a solid unit by the Roddis bonding method — the only one that has produced successfully a door absolutely waterproof, fungi-proof and inert to chemical activity. Bonding is done on the largest hot-plate presses in the world, which have produced a large part of the Allied Nations' aircraft plywood. Sides are sealed with single hardwood strips. Double hardwood strips top and bottom allow for fitting and hanging. A test sample door-section will be sent on request. . . . Call on us now for assistance in writing specifications.

Roddiscraft WAREHOUSES

- Marshfield, Wisconsin
- 1440 West Cermak Road, Chicago 8, Illinois
- 4601 West State St., Milwaukee 8, Wis.
- 2729 Southwest Blvd., Kansas City 8, Mo.
- 229 Vassar Street, Cambridge 39, Mass.
- 515 W. 36th Street, New York City 18, N. Y.
- 2615 Latimer St., Dallas, Texas
- 727 N. Cherry St., San Antonio, Texas
- Review & Greenpoint Ave., Long Island City, N. Y.
- 457 E. Sixth St., Cincinnati 2, Ohio
- 1201-5 South 15th St., Louisville 10, Ky.

DEALERS IN ALL PRINCIPAL CITIES

FROM TIMBER TRACT TO BUILDING SITE — IT'S RODDIS ALL THE WAY



Roddis owns many years' supply of timber, does its own logging and cuts its own veneers in our hardwood plywood plant — the largest in the world . . . See Sweet's Architectural File for complete Roddiscraft door specifications. . . . Roddiscraft Flush Veneer Doors are backed by the exclusive Roddis materials and workmanship Guarantee.



Roddiscraft

RODDIS LUMBER & VENEER CO.

MARSHFIELD, WISCONSIN

(Continued from page 26)

it is no localized infection that can be lanced, cleaned, bandaged; on the contrary, it requires a reorientation of our whole life, a change in occupation, a change in regimen, a change in personal relationships, not least, a change in attitude and conscious direction: fundamentally, a change in religion, our total sense of the world and life and time . . . we must reassert once more the primacy of the person . . . The only way to renew the forces of life is to begin once again with the repressed and misplaced elements: to dismantle a large part of the physical structure, to loosen up the automatisms of habit, to challenge even successful forms of routine, to give time, thought, attention, to all those changes which do not, in their first stages require the collaboration and support of existing institutions. Our society is now at the stage where conversion—an inner change—must precede every outer change or transformation.”

This summary of the analysis and remedy is characteristic of the Mumford approach. Despite its inspired idealism, the writing remains unconvincing because reality is entirely absent. Lewis Mumford is primarily an intellectual isolationist who substitutes abstract theorizing, high minded though it may sound, for concrete action. Having no affiliations with a given class or political viewpoint, he therefore offers no clear or applicable opinion which would make sense to a literal-minded world. Apparently Mumford disapproves of the reactionary solution but he also lacks the conviction to countenance any radical social changes as such. If he represented any one class or faction, his basis for renewal might create more enemies but it would win more friends. As it is, he gives the impression of addressing the world from a pulpit from which he never descends to mingle with the crowd.

The book carries most of his trademarks; the hypnotized fascination with timepieces; the refined but exaggerated interest in sex; and the knack of shaping the English language like a pretzel, but they are more easily passed over in some of the author's less pretentious works.

STUDIO SECRETS, by Frederic Taubes. Watson-Guption Publications, Inc., New York. 134 pp., illustrated. 7 1/2 x 10. \$3.50. Mr. Taubes is a painter who has taken the trouble to concern himself with the technical as well as the inspirational aspects of his craft. In this book he discusses at length the oil painting techniques of Titian, El Greco and

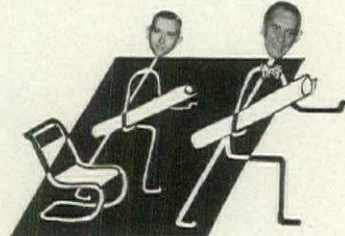
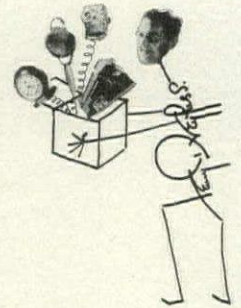
(Continued on page 156)

IN THE FORUM

B. Sumner Gruzen has long nursed a wistful wish to build a housing project without any back doors. In the Paterson, N. J. venture (p. 77) he had his way. Gruzen contends that housewives don't

like to run from kitchen to living room answering doorbells. His plan combines front and back door smack next to the kitchen. "What do houses need two doors for anyway?" demands Gruzen. That, Mr. G., is this month's \$64 question.

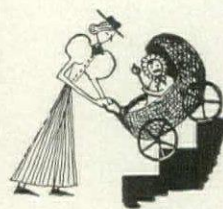
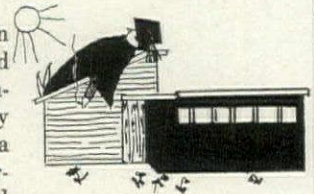
The man who sleeps in that old Colonial house is not even a lineal descendant of George Washington. He is none other than sleek, smooth, streamlined industrial designer Henry Dreyfuss, a man who has removed more ruffs, bumps and rumps from U. S. products than almost any other. Topping this accomplishment are his designs for kitchen utensils, clocks, cameras, trains and planes (p. 91). Also, he hands his friends boxes from which papier maché snakes pop as the lid is unsuspectingly opened.



Leaving their tubular metal chairs in Cambridge, the famous partnership of Walter Gropius and Marcel Breuer made a second invasion of Pittsburgh via the Kensington housing project (p. 65). Their first assault was one of the lushest houses ever to penetrate the North American continent. If Gropius

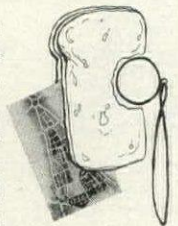
and Breuer are trying to convince the citizenry that they do not always design in a full-blown manner, their present austere venture has succeeded beyond their hopes.

An uncompromisingly modern architect let loose in the hills of North Carolina would ordinarily end up gnawing on roots. A. Lawrence Kocher managed not only to eat, but also to implant strictly modern buildings on hillbilly country. As a teacher at Black Mountain College he supervised student construction of the experimental modern house shown in this issue (p. 108). Since his succès fou, Kocher has emerged in Donald Deskey's office in New York, there no doubt to make new thrusts at 194X.



C. T. Kelly, is such a devotee of rainbow trout that he named a bridge for them (p. 97), although he resisted an impulse to shape it in their image. Mr. Kelly is also an ardent admirer of babies. With none of his own, he worries about other peoples'. His smooth-riding ramps, especially designed for prams, soothe, do not shock the infant nervous system. We can picture young Kelly at the age of 10 months, gritting his teeth while mamma trundled him up the steps. It was then, we like to think, that the ramps for the Rainbow Bridge were born.

When famed and respected Professor Patrick Abercrombie of University College, London finishes with Plymouth, he will have had a share in replanning almost all of England. Besides such picturesque rebuilding assignments as Stratford on Avon, he was largely responsible for both the London Plan and the Hull Plan of reconstruction. At 65 he is precise and bemonocled, has the enthusiasm of a boy of 20. As Chairman of the Housing Center, he regularly munches sandwiches from a paper bag along with lesser planners cramped elbow-to-elbow at trestle tables.



If it's **BRIGGS** —it's colorful



Many of the nation's leading home builders frankly attribute much of their success to the use of colored plumbing fixtures. These blend tastefully with even the most distinctive wall and floor treatments and lend a homelike warmth to the bath and powder room. With them all the drab and cold hospital whiteness of these rooms is eliminated and they become decorative high spots of the home.

That is why color, in a variety of pleasing pastels that complement the decorative scheme of any room, is an important feature of Briggs Beautyware fixtures. Used with modern wall and floor materials, the range of decorative effects is unlimited.

Briggs took the leadership in popularizing this use of colored fixtures — and has made it possible for home owners with even the most modest budgets to enjoy their advantages.

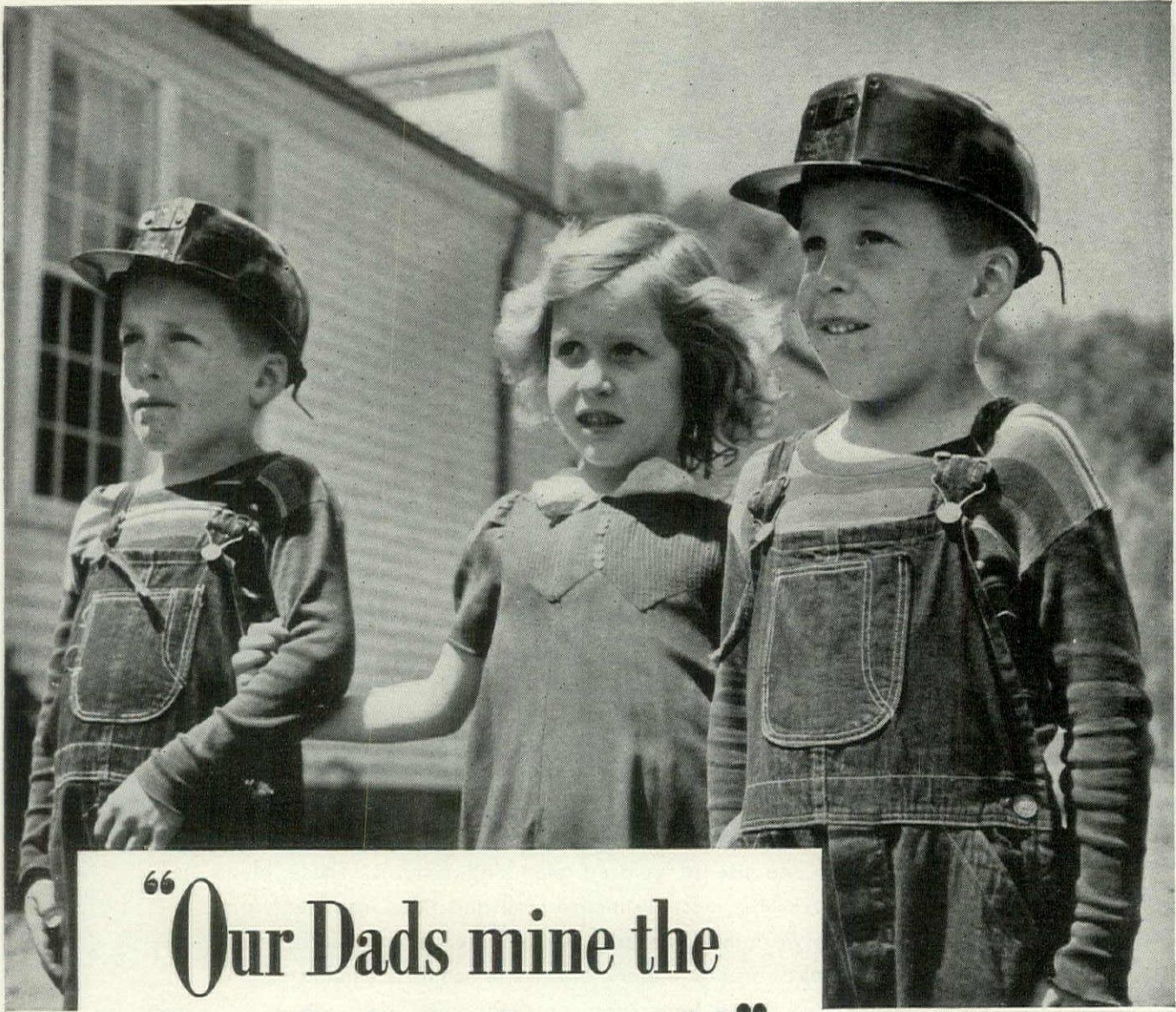
OTHER MODERN FEATURES OF BRIGGS BEAUTYWARE

Smartly styled functional design. • The scientific elimination of unnecessary dead weight — easier handling. • Acid-resisting vitreous porcelain enamel — at no extra cost. • Serpentine embossed flat safety bottom on all Briggs Bathtubs — a patented feature minimizing the hazards of slipping. • Unvarying dimensions — an aid to installation. • Integral one inch flange permitting waterproof flashing of tub to walls.

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BRIGGS MANUFACTURING COMPANY, DETROIT 11, MICHIGAN

BRIGGS *Beautyware*
PLUMBING FIXTURES



“Our Dads mine the best fuel in the world”

These young folks, dressed in hats like their Daddies', have good reason to take pride in the job their fathers are doing.

For their fathers bring from the ground America's No. 1 source of energy and power.

They bring forth the essential fuel needed for the production of steel—the prime power of the nation's railroad system—and the greatest source of electrical energy.

As you've probably guessed—the name of that fuel is bituminous coal.

And many advances have happened in coal mining, just as in other industries during recent years.

Today coal miners are paid better than the average wage of industry as a whole.

Their work is being constantly lightened and their

efforts made more productive by modernization. 90% of all bituminous coal produced from underground workings is electrically cut and transported, and over half of all coal is loaded by mechanical shovels.

This fact has made possible the increases in volume of coal mined which the war effort has required.

It is also an important reason why—despite manpower shortages—America's bituminous coal industry is supplying an all-time record volume of coal.

BUY MORE WAR BONDS

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DRAW COOL COMFORT INTO YOUR PLANS...

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BELT DRIVE, 24 to 48 in.

CAPACITIES
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EMERSON-ELECTRIC
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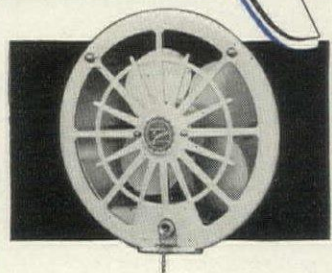
HOME buyers and home builders will welcome the hot-weather relief and comfortable living you include in your plans when you specify Emerson-Electric Home Cooler Fans.

Installed in attics, and turned on after sundown, these quiet, powerful fans provide a constant circulating flow of air. They rapidly vent overheated air trapped in attics and living quarters, while they draw cool refreshing air into the house through open doors and windows. . . . Designed to fit any type of modern home; built to give years of service.



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KITCHEN VENTILATOR FANS

Prospective home owners are particularly impressed when they see that Emerson-Electric Kitchen Ventilators are "part of the plan".

EMERSON  **ELECTRIC**
HOME COOLER FANS KITCHEN VENTILATORS

GET THE FACTS STRAIGHT WHEN YOU BUY FLOORS



■ Kentile, because of its composition, never "holds" dirt and is hardly ever stained. Plain soap-water mopping cleans it—fast and easy. Occasional waxing improves its appearance but is not necessary. Not even greases, of any kind, will affect Grease-proof Kentile.

■ Kentile offers an *unlimited* number of beautiful patterns and color combines. Set tile by tile (not in sheets), Kentile's 15 tile sizes and 44 plain or richly marbled colors make possible designs to enhance *every* interior. The colors go through to the back—cannot rub off.

■ Kentile is one of the *lowest cost* floorings made in America.

■ Kentile floors, laid tile by tile, can always be inexpensively altered later in separate areas.

■ Kentile is available now, without priorities. Authorized installers are established everywhere. No other material can be laid faster or with less fuss and dust.

■ Kentile is virtually wear-proof. For instance, Kentile laid in Rockefeller Center corridors ten years ago is still excellent. Kentile bears 1,000 pound rolling loads without denting or marking. Its resistance to moisture and alkali makes Kentile just as long lasting on concrete in contact with earth.

■ Kentile is unusually comfortable and quiet underfoot (being resilient) and never becomes uneven or hard.

■ Kentile—smooth and slick to the eye—really affords a safe, sure-tread, non-slipping surface.

NOTE FOR OLD-TIMERS: If you're an old-timer you already know most of the facts listed in this ad above. But you may also be keeping alive an old-fashioned misconception—that Kentile shouldn't be used on wood. You got that idea in the days when asphalt tile was occasionally made too brittle and installation techniques hadn't yet been fully developed. But Kentile is being put directly on wood regularly now—on any firm top floor with T & G top boards up to 3" wide and on most any floor when our asphalt underlayment or Plywood is used. **THESE FLOORS ARE ALL WEARING PERFECTLY.** Ask us for the interesting details.

Kentile offers 14 advantages. At least know about ALL of them. Without obligation write for Kennedy's free, interesting, helpful color book about floors.
Write to DAVID E. KENNEDY, Inc.,
58 Second Avenue, Brooklyn 15, N. Y.

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Asphalt Tile
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RIGHT...GET A
FARADAY
SIGNAL EXPERT



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LETTERS

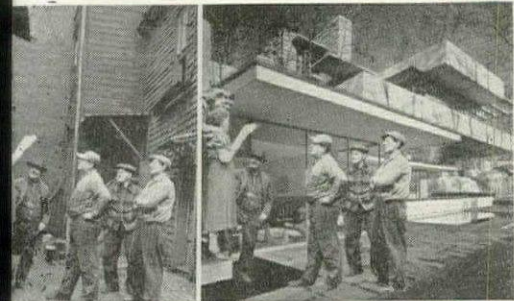
Practical houses for ex-G.I.'s . . . The low ebb of church design . . . Potshots at a Shuttle Airport . . .
Plight of the homebuilding architect.

CHANGE OF SCENE

Forum:

Herewith my suggestion of Com-mando Kelly's friends and neighbors in a different setting.

WALTER MEYERS, *Decorator*
Steubenville, Ohio



Montage Home-For-Hero

YOU'VE HAD IT

Forum:

It has been a long time since there has been a good practical home plan in THE FORUM for the average American. I don't think there has been one in the last two years that the average returned service man would be able to build.

I am very much disappointed with THE FORUM: there is nothing in it for the average American.

Why not forget some of your wild dreams and come down to earth and be of some service to the 90 per cent. . . .

We are getting ready now for post-war home building, the architect is busy drawing plans. Who is going to live in a house like some of those you publish? Perhaps Mr. Avery?

C. E. SHADE

Detroit, Mich.

See ARCH. FORUM: July '44, p. 112; Jan. '44, p. 82 and 88; Aug. '43, p. 88; Nov. '41, p. 310; et seq.; et seq.—Ed.

GEORGIAN CONTROVERSY

Forum:

An editor to whom fine Georgian architecture is fakery should continue to edit his magazine for persons outside the architectural profession. His publication will never mean much to practicing architects.

THE ARCHITECTURAL FORUM used to be a great magazine, but your arrogant editorial bias of the past twelve years hasn't as yet convinced me.

GUY H. BALDWIN

Buffalo, N. Y.

The Georgian period, which closed around 1830, produced some of the finest architecture the world has seen. This is 1944—Ed.

BUILT IN U. S. A.

Forum:

I am very pleased to find Frank Lloyd Wright represented so amply in the exhibit of contemporary architecture shown in your May FORUM. I noticed that the first house was Mr. Wright's "Fallingwater," to me the most outstanding house in a long time.

Thank you for a continually good FORUM.

BERNARD CARPENTER

Napa, Calif.

Forum:

I note that in the current ARCHITECTURAL FORUM summary of the "Built in U.S.A. 1932-44" exhibition that on No. 20—Valencia Gardens—Tommy Church is credited as landscape architect. I would like to record that on No. 18—FSA Woodville Community—Milton Butts and I were the landscape architects, and on No. 19—FSA Chandler—Corwin Mocine was the landscape architect. . . .

GARRETT ECKBO

San Francisco, Calif.

STERILE MONUMENTS

Forum:

On p. 116 of the May ARCHITECTURAL FORUM is perhaps the most significant statement published in your magazine in a great many years. . . .

(The Rev. Massey Shepherd Jr.'s criticism of church architecture.)

With ecclesiastic architecture at the lowest ebb in the history of the world a courageous statement like the Reverend's deserves a better fate than to be sandwiched in between adverts and statements about how Mr. Zilch sold a zillion dollars worth of real estate in one day.

We have a lot of mighty fine privies in the U. S., perhaps the world's finest, as any good club or hotel can boast.

It would be nice to think we could transfer the seat of our emotions to something smacking a little less of creature comfort and \$, than these repositories.

Rich in privies as we are, we look around us far and wide to find anything but the stupid mock churches our architects design for a fee, for a clientele of tragic ignorance.

People deserve something better than these sterile, unimaginative monuments in which to take refuge with their woes and happiness seeking spiritual help and inspiration.

With best wishes to the Reverend—it means something when the words come straight from the horse's mouth. . . .

ERNEST BORN

New York, N. Y.

HOSTILE TO HORNBOSTEL?

Forum:

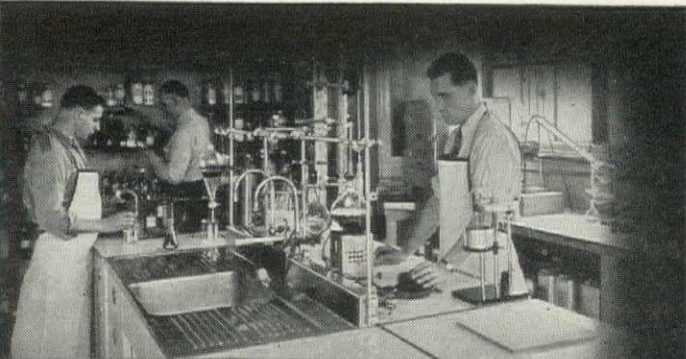
Since the Barrett Co. was generous enough to give Mr. Hornbostel a whole page in your April issue to exhibit his neatly drafted "Shuttle Airport in 194X," one assumes that he must have had something pretty special to offer in the way of a glimpse into the urban future in order to justify such magnanimity. But, even after reading all the mystic double-talk about future space-use, we are inclined to feel that the sum of his achievements is a row of easy targets for the critics' shooting gallery.

For instance, is it really necessary that in 194X we demonstrate Anglo-American entente to the extent of having all traffic drive on the left side of the street? Rather a bit of a change-over in motors and things, y'know. And why is all the traffic at a standstill while pedestrians cross over in the dreary old 192X way? Couldn't we have just one pedestrian overpass? Further, we are horrified at the thought of a double truck roadway across the sidewalk every 60 ft! (Count it off yourself.)

Other questionable improvements so graphically forecast by Mr. Hornbostel are planes that take off cross-wind even though the up-wind runway is wider and longer, and freighters that have to be anchored while tied up to a pier.

Also how does (Continue on page 36)

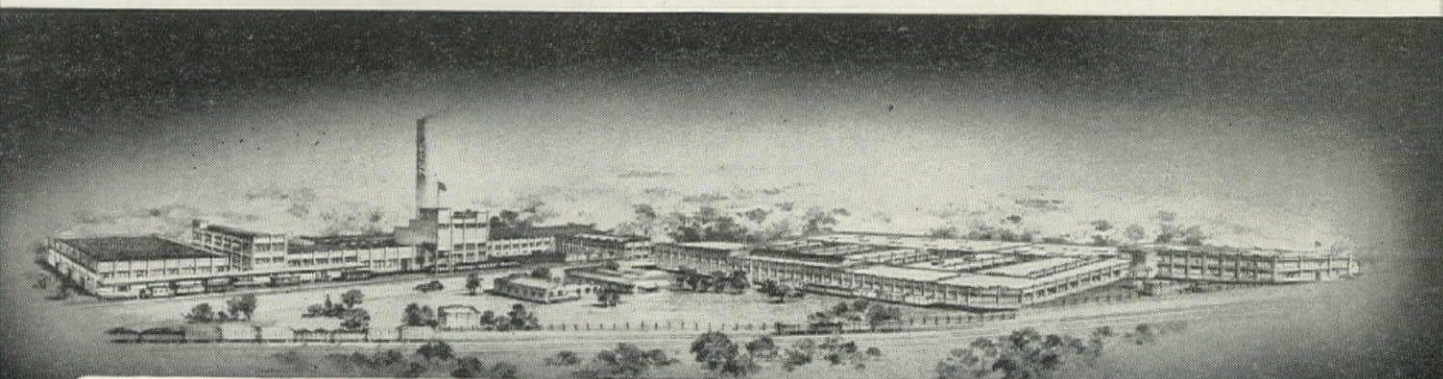
These are our postwar plans . . .



1 To expand the practical uses of Upson Panels through continued research and the development of still more improved techniques for the benefit of the industry.

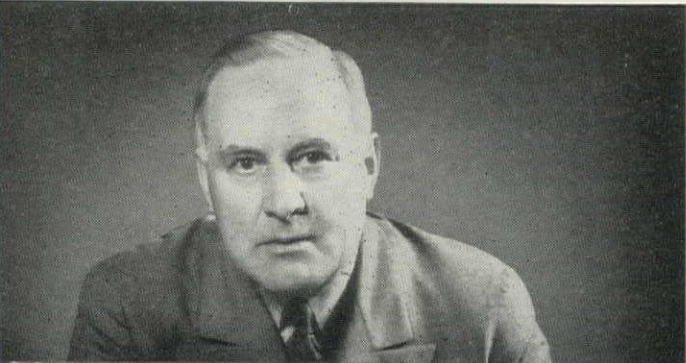


2 To give every possible aid to the users of Upson Panels wherever their unique characteristics produce a better job than other materials can provide.



3 Needs of our armed forces come first, naturally. But when our war job is done, we plan to turn all our experience and facilities of our 23 acre plant

—largest of its kind in America—toward supplying maximum employment and efficient production of Upson Panels for the postwar building industry.



To continue the 100% dealer policy, consistently maintained by the same Upson management since the founding of this business, 32 years ago.



5 To develop still greater consumer preference and understanding of the advantages of Upson Panels through national advertising, already under way.

STRONG-BILT PANELS—approximately $\frac{3}{8}$ " thick—for new construction. **KUVER-KRAK PANELS**— $\frac{1}{4}$ " thick—for covering cracked plaster. **UPSON-PROCESSED BOARD**— $\frac{3}{16}$ " thick—for display and general utility uses. **DUBL-THIK FIBRE TILE**—for kitchen and bath.

THE UPSON COMPANY, Lockport, N. Y.

Upson Quality Products Are Easily Identified
By The Famous Blue-Center

UPSON

SPECIALISTS IN PANEL BOARD

LETTERS

(Continued from page 34)

he expect to unload those freight cars on the outboard side of the barge? We'll bet that even 194X can't solve that one without using a tug!

What is that infernal control tower doing, blocking up half the approach to the runway in use? It surely doesn't need to be in the way with all that extra Barrett roof to sit on. And what are the helicopters doing on the runway? They don't need a runway, and it's too crowded on the afterdeck as it is. Couldn't they be sitting on some of the unused flat spaces?

Again, let's suppose you land your snazzy bat-wing job on the runway shown to be in use. By the time you stop rolling you are well down on the roof of the pier near that unorthodox northpoint inside the orthodox marker circle. Uncle Mac is coming in behind you and behind him some visiting firemen. So you start to turn around and taxi back. Crash! Splash! There goes Uncle Mac into the drink. Or you don't turn around and taxi back. Uncle Mac screams to a safe stop behind you, but what happens to the firemen?

Would it be too much for Mr. Hornbostel to jet-propel himself down to the local hopping ground and take a look at the ancient way of handling planes that the early shuttlers thought up back in 191X? Then maybe he can figure out something that will really work on a roof.

Sir, we were not born hostile to Hornbostel but we are afraid that he is causing, not solving, serious transportation problems in the future.

LT. SIDNEY N. SHURCLIFF, U.S.N.R.
c/o Postmaster
San Francisco, Calif.

REQUEST FROM INDIA

Forum:

As you are aware, a great deal of thought is being given to postwar reconstruction, and that is true of India also. Recently our leading industrialists have placed before the public a plan for economic development of India. This is a 15-year plan which covers a period of three 5-year plans and contemplates raising the standard of living of the people by doubling the national income. In all it contemplates an outlay of one hundred thousand rupees. It will be seen that the economic development of India is a prime necessity if peace is to remain with us. We are, therefore, writing to you to request and seek your help to put us in touch with manufacturers who are keen to develop

(Continued on page 114)

A LETTER FROM THE PUBLISHER

Dear Reader:

These are the days when anyone who discusses postwar markets has to get up in the stratosphere in order not to be a piker. The magazines have been full of fascinating ideas on houses, including such models as the disposable or Kleenex house, the all-glass or Gypsy Rose Lee house, and the circular or Hamburger Heaven House. Obviously, it is going to be a brave new world, with none so brave as the new homeowner.

All of this noodling, even though somewhat fanciful, is not unimportant. New ideas have a way of emerging as crackpot schemes. Somewhere along the line, someone steps in, reduces the crackpot content, and the world moves forward.

At the other extreme, we have the people who reject every new idea. The building industry has its share of these. Between these extremes is the way to a fine, healthy, sustained period of building.

There seems to be a general assumption that yesterday's house, with the addition of a three-pipe instead of a two-pipe electric door chime, is all we need to swing the deal. I doubt it. I think those doubts are thoroughly documented by the historic performance of the home building business. If the Army wants to look at a contour map of the Italian Alps, all they have to do is get out the building curve for the last fifty years.

The public expects something better than a warmed-over version of the 1930 model. They may buy a half million houses, but the second half-million will have to be sold.

We have got to intrigue and convince the *voluntary* as well as the *compulsory* buyers.

If we are gradually to work up to such a figure the building industry will have to learn on which side of the tracks its bread is buttered. In the past, building failed to reach the most stable market in America made up of those with incomes of \$2,400 or less.

Before the million-home market comes in sight, the industry will have to produce a better product as well as a more attractive price. The house will have to look better; it will have to be planned better; its cost of operation will have to be predictable; it will have to be purchased

with a moderate down-payment and financed under a single-payment, long-term plan; it will have to be a complete house, fully equipped for easy and gracious living.

The key to the twentieth century house is liveability — and the key to liveability is the completely equipped house.

The house of tomorrow for the mass market will have to provide automatic heat, hot water, and temperature control, quality facilities for cooking, food preservation, storage, laundering and drying clothes, washing and drying of dishes, disposal of garbage and waste, and the elimination of cooking odors.

These convictions moved the FORUM to explore a new idea — the possibility of having all essential home operating equipment included under the mortgage.

After months of consultation with prominent home builders, architects, bankers and FHA officials, a "complete house" program has been evolved which has passed from an idea to a detailed, workable plan.

So great has been the response to the FORUM's "complete house" program that it has lifted itself almost unaided into a national movement. Largely attended meetings to discuss the program have been held in Hartford, Boston, Cleveland, Kansas City and Buffalo, with Philadelphia, Pittsburgh and New York City on the current list. The program has been featured in such outstanding publications as *Electrical Merchandising*, *American Builder* and *Advertising and Selling*. A pamphlet prepared by



THE FORUM, "Selling the Second Half-Million," which outlines the details of the program is now in its second edition. (Any FORUM reader interested will be sent this pamphlet on request, with our compliments.) Our reticence in discussing the program in the FORUM's pages until now was prompted by a determination to make sure that there were no bugs in the plan. If there are any bugs left they are little ones.

H. M.

STEEL SASH



*...practical, modern, beautiful,
but... WILL IT RUST?"*

Certainly steel is the practical, modern, economical material for sashes. Its great advantage lies in its permanency—an advantage it has only when properly protected against rust.

Hot Dip Galvanizing provides the perfect and inseparable fusion of the heaviest possible zinc coating to iron and steel products, and protects by sacrificial action. Laboratory and field tests both prove that this method is the best and more economical rust preventive.

If you want to be sure of the permanent beauty or usefulness of the iron or steel articles you buy, be sure to specify "Hot Dip Galvanizing." If you make articles of iron or steel, be sure of getting a genuine and expert job of Hot Dip Galvanizing by sending your materials to one of the members listed at the right. American Hot Dip Galvanizers Association, Inc., First National Bank Bldg., Pittsburgh 22, Pa.

"If it carries this seal
it's a job well done."



Buy from the qualified members listed below and KNOW you are getting a genuine HOT-DIP job.

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BUFFALO
THOMAS GREGORY GALVANIZING WORKS,
MASPETH, (N. Y. C.)
ATLANTIC STAMPING CO., ROCHESTER

OHIO

THE WITT CORNICE COMPANY, CINCINNATI
THE FANNER MFG. CO., CLEVELAND
THE NATIONAL TELEPHONE SUPPLY CO.,
CLEVELAND
INTERNATIONAL-STACEY CORP., COLUMBUS
THE NEWARK GALVANIZING CO.,
NEWARK
COMMERCIAL METALS TREATING, INC., TOLEDO

OREGON

GALVANIZERS, PORTLAND

PENNSYLVANIA

LEHIGH STRUCTURAL STEEL CO., ALLENTOWN
AMERICAN TINNING & GALVANIZING CO., ERIE
PENN GALVANIZING CO., PHILADELPHIA
HANLON-GREGORY GALVANIZING CO., PITTSBURGH
OLIVER IRON & STEEL CORPORATION, PITTSBURGH

RHODE ISLAND

JAMES HILL MFG. CO., PROVIDENCE

WASHINGTON

ISAACSON IRON WORKS, SEATTLE

WISCONSIN

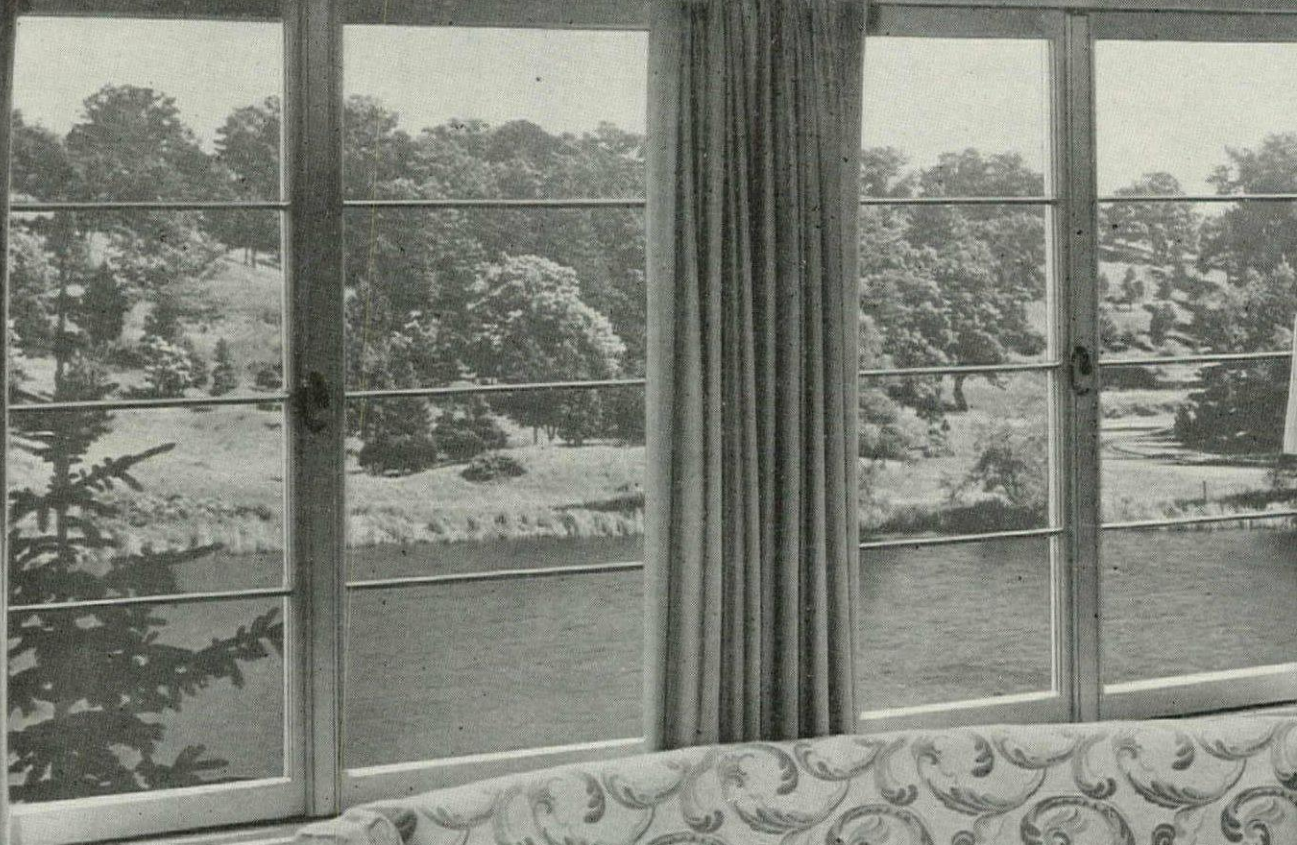
ACME GALVANIZING, INC., MILWAUKEE

Not just Galvanizing

but

hot-dip GALVANIZING

Windowalls



ANDERSEN COMPLETE WOOD WINDOW UNITS

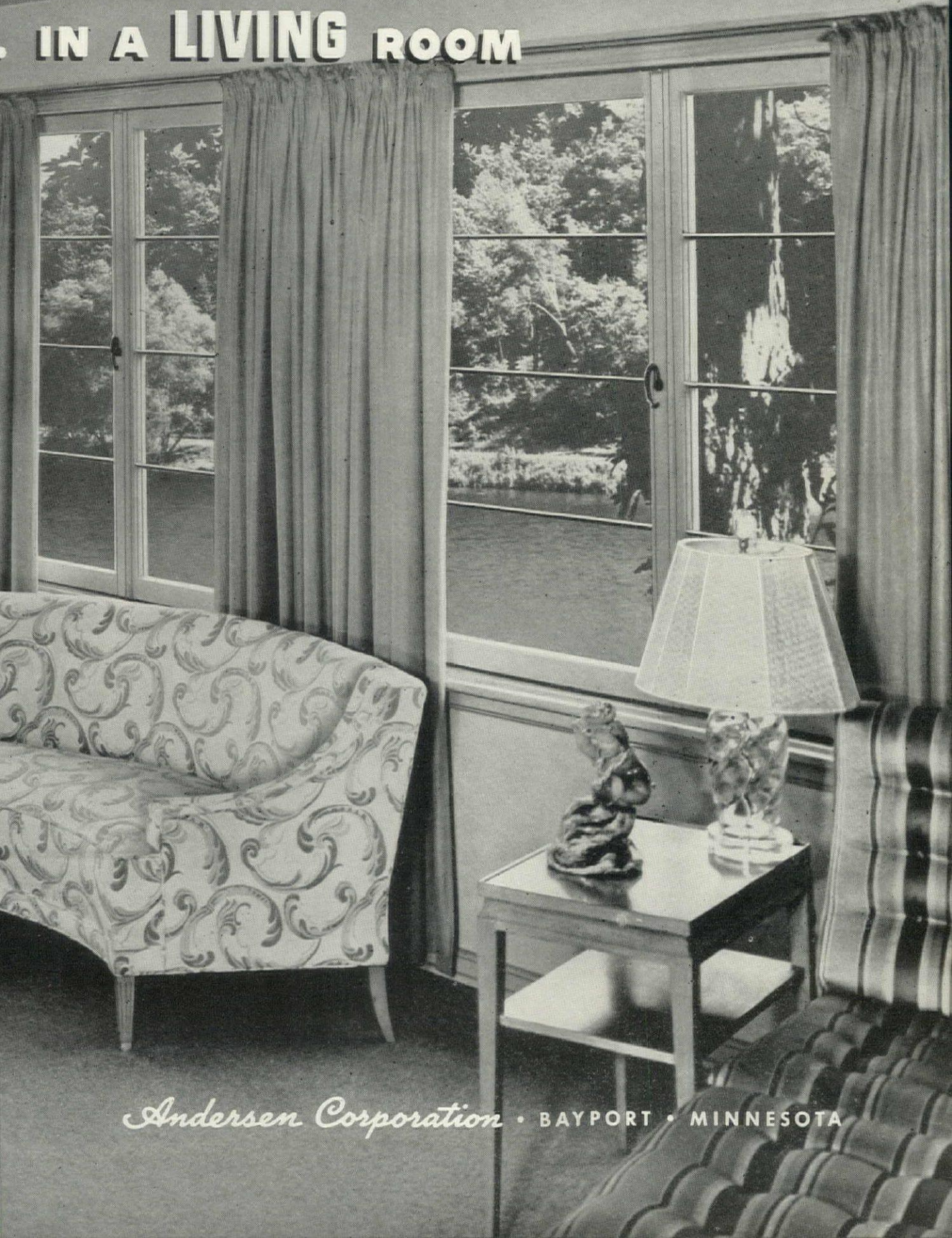
It can be said with complete sincerity that WINDOWALLS help make a livingroom a LIVING room. They create walls that live—walls that literally are a picture gallery of outdoor beauties.

WINDOWALLS, moreover, make indoor living a more comfortable proposition in cold winter months, because they are double-glazed and completely weatherstripped. On the other hand, they can be opened up to bring in cooling breezes on hot summer days.

This WINDOWALL, functioning both as a window and a wall, is made up of Andersen Horizontal Gliding Window Units, for a home in Hamilton, Ohio.

For details of these windows, consult Sweet's Catalog, or write directly to Andersen.

IN A LIVING ROOM



Andersen Corporation • BAYPORT • MINNESOTA

These Points of Coleman Leadership Can Help Me MAKE MY HOMES MORE LIVABLE!

"I have looked over the heating industry, in making my own 'post-War plans'. I find that Coleman leads that field in seven major ways. All these points are interesting. Four of them are so important to me, in my work, that I am planning to specify Coleman; and in many cases am going to make use of Coleman to help me create better, more salable, more desirable homes. Check them yourself and see if you don't agree with me—"

1. Coleman Leads in "Ideas."

*Coleman engineering is so far advanced that they have made themselves the leaders in the warm-air heating field. For instance, their superiority in floor furnace design has made the floor furnace nationally acceptable, instead of a type of equipment virtually limited to California and Texas. The same "idea leadership" in central heating will give top comfort in the Coleman central plants I specify.

2. Coleman Stood First Place

in sales of warm-air heating appliances for the entire United States in 1941. They did it on superior satisfaction.

3. Coleman Leads With Field

engineering help. Their men stand back of the heating equipment firms who supply my builder, to secure satisfactory installations. This will help my houses' reputations for comfort.

4. Coleman is Building

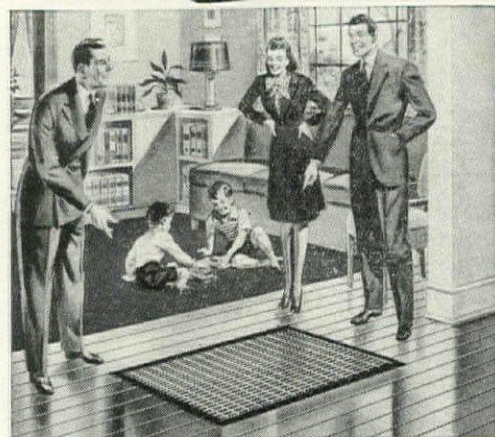
enormous public acceptance, now. They are not "coasting" on past

glories. Their strong national advertising will make the statement: "And it has Coleman heating" a definite selling point for houses.

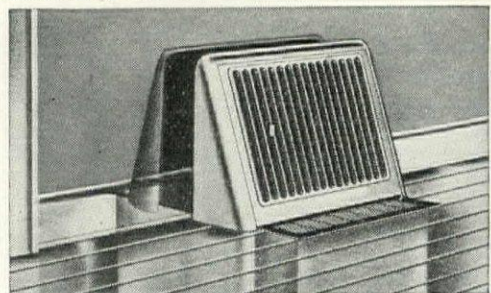
5. These Things, Too, Are Important:

Coleman equipment is profitable for its dealers; it has strong distributor support; and Coleman has ample financial strength. These things are important to an architect, because they mean the heating equipment he recommends will have competent service from good firms—which means continuing homeowner satisfaction.

This Book Will Interest every architect; for it has been written to answer the questions homeowner prospects are asking. Thousands are sending for it. Get your copy, and see what facts about heating are important to your prospects, and how Coleman is answering them. Write Coleman Lamp and Stove Co., 2nd and St. Francis Avenue, Wichita 1, Kansas.



*THE MOST PRACTICAL FORM OF "ADVANCED" HEATING—The Coleman Floor Furnace, with its "warm-floor" principles, flexibility, economy and ease of installation will make basementless designs easy, with construction economy that permits many "extras"!



*DUAL WALL-HEAD ADAPTATION is one of several features that will help you get more flexibility in design. Among other things it will permit "area heating" comfort, with low-cost automatic controls, in many low-budget houses. Investigate its possibilities!

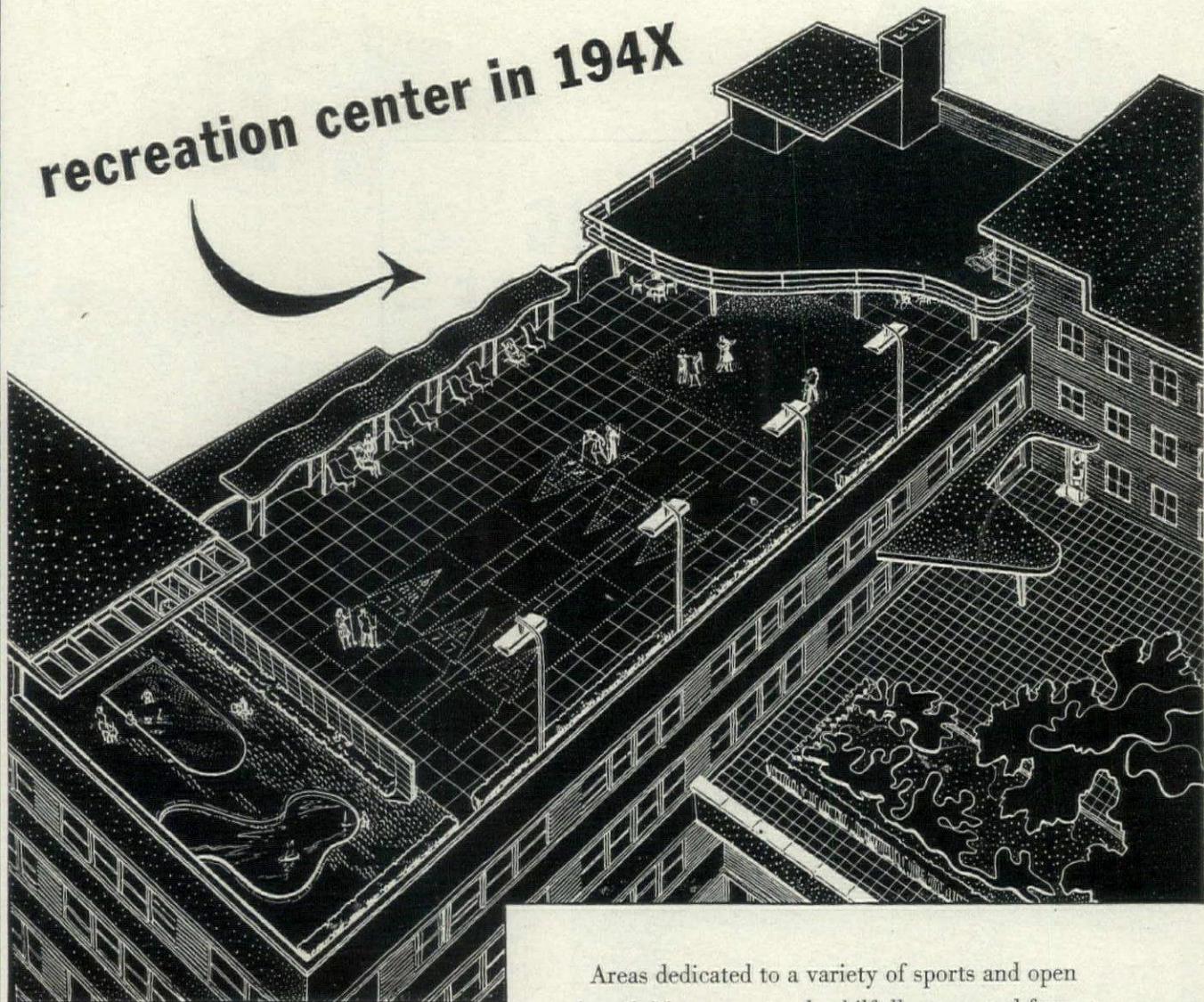


THE "HOT" NAME IN HOME HEATING

Coleman

THE COLEMAN LAMP AND STOVE COMPANY • WICHITA 1 • CHICAGO 11 • PHILADELPHIA 8 • LOS ANGELES 54

recreation center in 194X



Areas dedicated to a variety of sports and open air activities are not only skilfully separated from one another, but are distributed on several levels. This arrangement makes possible a desirable privacy for all who use the roof as well as a minimum of interference among the various activities of the participating groups.

Many of the revolutionary building improvements now in the planning stage will be developed after the war is won, with the aid of Barrett Specification Roofs. These famous coal-tar pitch and felt roofs provide the maximum in dependable, waterproofing and weather-proofing protection.



A practical approach to the problem of open-air recreation in urban areas is efficiently provided by this original plan, developed by the New York architectural firm of Ely Jacques Kahn and Robert Allan Jacobs.

Unlike the waste spaces that characterize the roof-tops of most of today's buildings, this project utilizes the roof for more than mere protection. In effect, it transfers to the top of the structure the surface of the plot on which it stands, supplementing the usefulness of the building and adding substantial value to the property.

THE BARRETT DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 RECTOR STREET, NEW YORK 6, N. Y.

2800 So. Sacramento Avenue
Chicago 23, Ill.

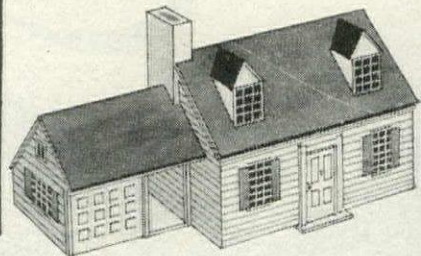
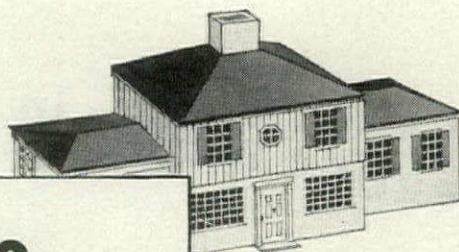
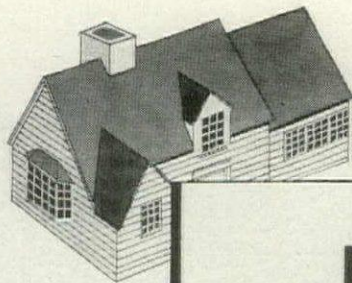
Birmingham
Alabama

In Canada: The Barrett Company, Ltd.,
5551 St. Hubert Street, Montreal, Que.



The design shown here is the eighth in the Barrett series of junctional roof projects prepared by outstanding American architects. You are invited to write for reprints of the complete series for your file.

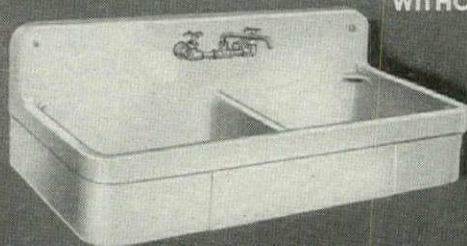
*Trade mark Reg. U. S. Pat. Off.



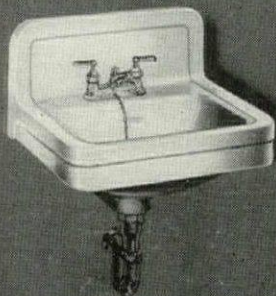
PLUMBING FOR HOMES OF TOMORROW

FIXTURES NOW AVAILABLE—

WITHOUT PRIORITY



CE 19-563 COT-
TAGE sink. Made
of acid-resisting
Duraclay. Double
basin. Heavily gal-
vanized, swinging
spout faucet. Size
42 x 20 x 6 in.



CE 754-V NORWICH lavatory. Made
of vitreous china. Rectangular basin
and built-in soap depression. Heavily
galvanized trim.



CE 11-004 HAN-
OVER closet. Made
of vitreous china.
Close coupled
closet. Quiet, effi-
cient whirlpool
flushing action.



CE 3015L CON-
SERVOR bathtub.
Made of glistening,
easy-to-clean Du-
raclay. For corner
or recessed instal-
lation. Roomy, low
in height. Length
overall: 54"; width
overall: 27".

NEVER before in the history of America has there been such an active interest in home ownership. Thousands of families right now are planning to buy or build a home when war conditions permit. These families are looking for quality and convenience in their home of tomorrow.

Experience shows that houses are frequently judged by the quality of the plumbing; and repeated surveys prove conclusively that the large majority of prospects for new homes regard the name Crane as standing for highest quality in plumbing fixtures.

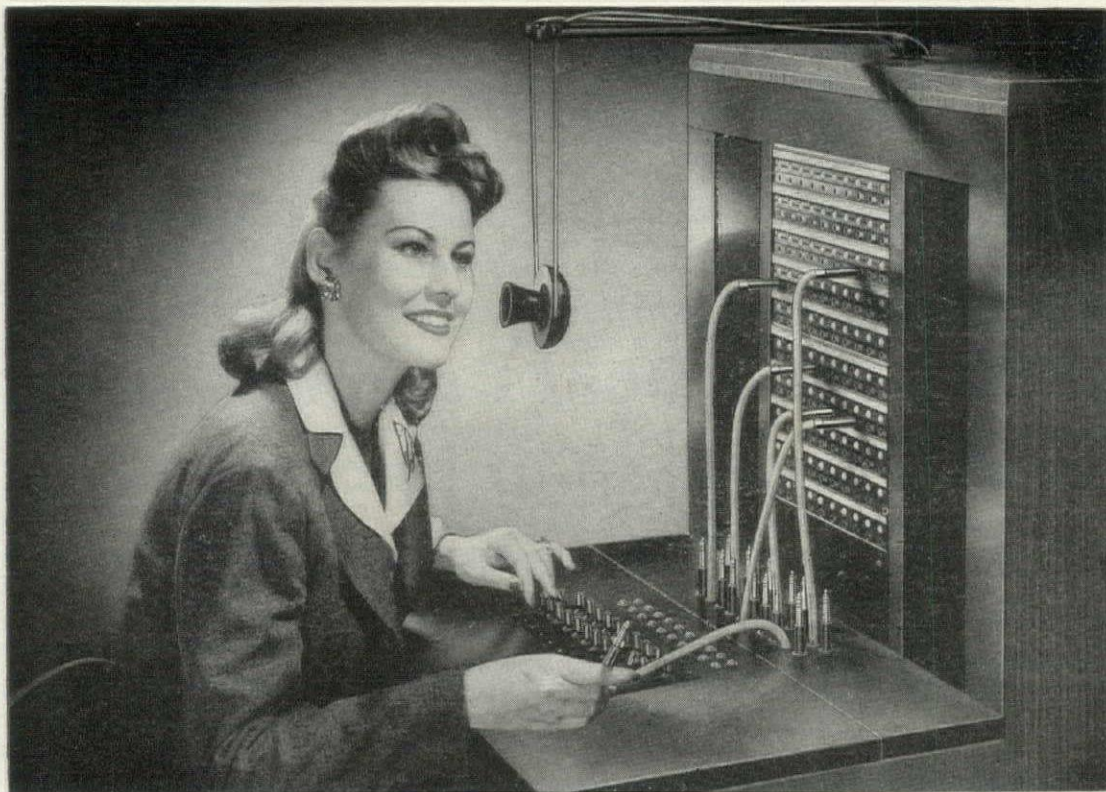
Today, Crane Co. is aggressively stimulating the desire for home ownership among your prospects. Since the first of the year, thousands upon thousands of tomorrow's home owners have written to Crane for information on bathrooms and kitchens for their future homes.

The universal recognition of Crane as standing for high quality can be a strong selling factor in the homes you intend to build. You will find in the future, as many builders have found in the past, that sales can be made more easily—often at better prices, when the plumbing is by Crane.

CRANE

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

CRANE CO., GENERAL OFFICES:
836 SOUTH MICHIGAN AVENUE, CHICAGO 5
VALVES • FITTINGS • PIPE
PLUMBING • HEATING • PUMPS



She's on a Quiz Program every minute of the day

"IS DR. SMITH IN THE HOSPITAL?" "IS THE DIET KITCHEN WIRE STILL BUSY?" "CAN YOU LOCATE DR. JONES ON AN EMERGENCY CALL?"

The telephone operator *knows* what an important part adequate inter-communicating systems have in planning an efficient hospital.

Connecticut Telephone & Electric Division engineers realize this, too . . . and know from long experience how to design and build systems to provide continuing efficiency through the years.

In hospital planning, provision should be made at the earliest possible moment for nurses' call systems, doctors' registry and paging, and an adequate "inside" telephonic system to prevent overburdening of outside circuits.

This division's engineers have many years of experience in the design of hospital systems. Today, working closely with U. S. Signal Corps engineers, they are abreast of notable advancements in communications technique. This know-how will be reflected in our civilian telephone and signalling equipment, postwar.

We shall be completely at the disposal of the armed forces while there is a war job to be done, but we invite preliminary consultations now, with architects, engineers, and hospital officials who have future projects in the design stage.



For utmost efficiency in nurses' call systems and silent supervision, investigate *Connectacall*.



CONNECTICUT TELEPHONE & ELECTRIC DIVISION
GREAT AMERICAN INDUSTRIES, INC.
MERIDEN, CONNECTICUT



Every recent survey shows that post-war home owners will demand an upward-acting garage door.

The Crawford Door Company (maker of Craw-Fir-Dor hardware) will be ready for this enlarged market with a better product. Crawford today is gaining valuable experience by manufacturing precision airplane parts... and Crawford hardware is being further improved through constant research.

Every feature making for easy installation, long life and trouble free operation is being rigidly tested in the Crawford Door Company's engineering research department.

REMEMBER

—Craw-Fir-Dor is economical, dependable, easy to install. Architects, builders and customers approve Craw-Fir-Dor.

For special residential or industrial installations, write

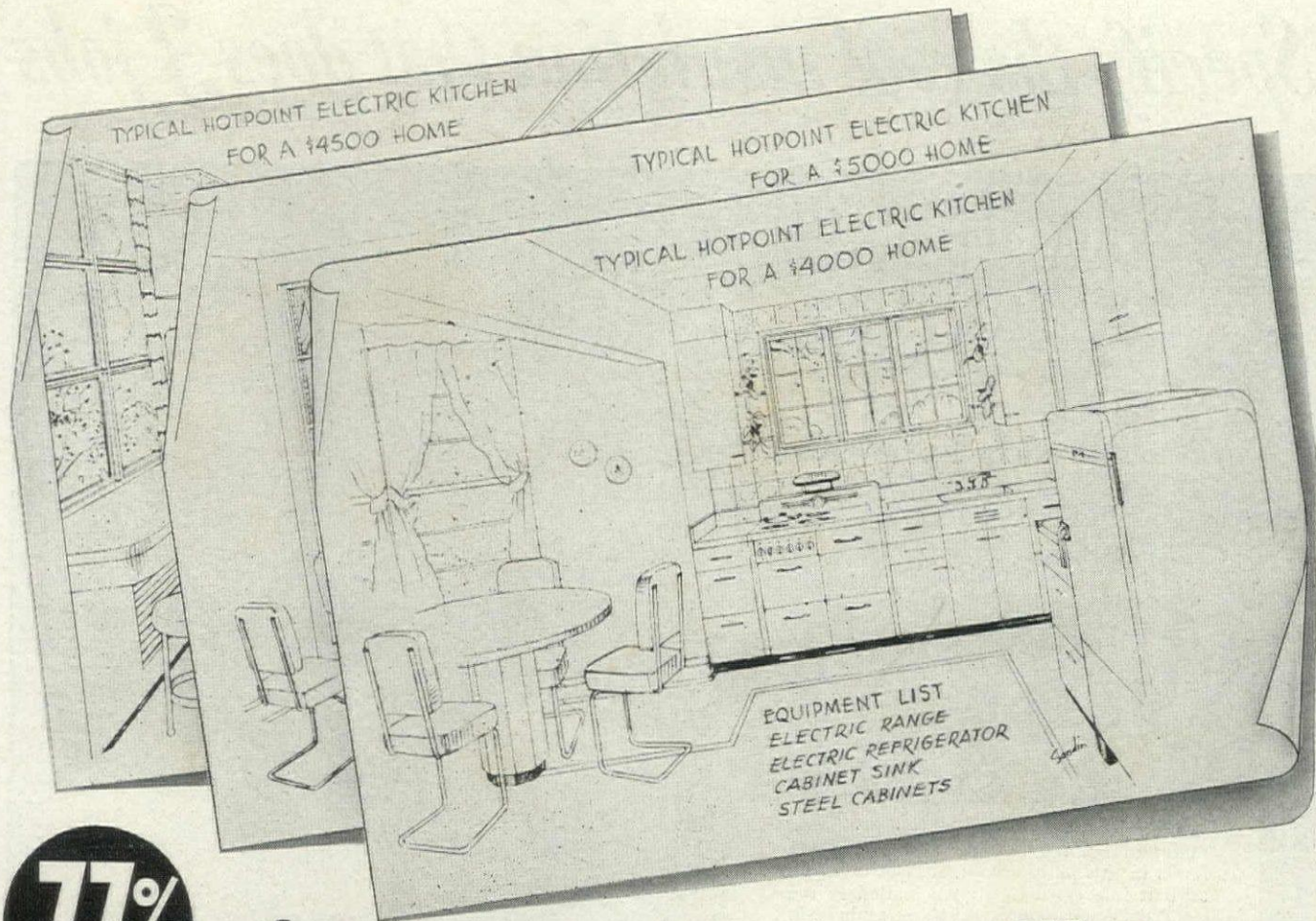
CRAWFORD DOOR CO.
DETROIT, MICH.

who make a complete line of sectional overhead-type doors.

Craw-Fir-Dor
SELF-ENERGIZING • ONE PIECE • OVERHEAD TYPE

GARAGE DOOR

FIR DOOR INSTITUTE
Tacoma 2, Washington



77%

of Postwar Homes Will Rate ELECTRIC KITCHENS

The Chamber of Commerce of the United States predicts that "more than seven out of ten postwar homes will cost \$3,000 or over." Homes in that price range can afford electric kitchens.

Will you make the most of the building boom?

Those buyers not only can afford electric kitchens; they *want* them. Adding to other evidence of this demand are thousands of letters in response to Hotpoint's offer of a home-planning file. They give intimate glimpses of what American women want. Make the most of your opportunity by taking advantage in your plans of this trend to electric kitchens.

Women have the deciding vote

They don't want old-style bare kitchens, but "planned" kitchens, complete with new, modern equipment. The average old appliances are well beyond replacement stage. Win the women by showing irresistible, complete electric kitchens. Remember that to women, *a home is only as modern as its kitchen.*

And 3 to 5 times as many will modernize

Estimates vary regarding the number of present home owners

In most states, all Hotpoint Kitchen equipment can be included in F. H. A. loan.

who will modernize. But authorities agree, from surveys made, that the number will be from 3 to 5 times as many as will buy new homes. Building or modernizing, kitchens will come first.

In speculative building, modern electric kitchens will greatly speed turn-over—which in turn reduces financing costs.

Cash in on Hotpoint's pre-selling

Throughout the war Hotpoint has been pre-selling your prospects with a hard-hitting advertising campaign, promoting War Bond savings for postwar building and for modern electric kitchens. That advertising is continuing, constantly accelerating the trend to Hotpoint.

You will find your local Hotpoint dealer very cooperative. Also "Hotpoint Kitchen Planning Service" by a staff of experienced kitchen designers. Write today for details of this free consulting service. Edison General Electric Appliance Co., Inc., 5651 West Taylor Street, Chicago 44, Illinois.



ELECTRIC **Hotpoint** KITCHENS

REFRIGERATORS • RANGES • WATER HEATERS • WASHERS AND IRONERS • CLOTHES DRYERS • AUTOMATIC DISHWASHERS • ELECTRASINK • STEEL CABINETS

Specify the roof insulation that does 3 jobs

• insulation •
• vapor-seal • water-stop •

PC FOAMGLAS

• 30,000 sq. ft. of 2" Foamglas roof-insulation maintain required temperature and humidity levels in this plastic plant. A layer of 15 lb. asphalt impregnated felt was nailed to the wood deck and mopped with hot asphalt, in which the PC Foamglas blocks were laid. Then 4 thicknesses of felt were mopped in place with hot asphalt. The roof was then flooded with hot asphalt and gravel spread.

THIS new, permanent insulation for roofs is 9 parts air *hermetically sealed* in 1 part glass. Being glass, PC Foamglas is safe from attack by elements that cause deterioration in other insulating materials. Therefore, it maintains insulating efficiency *throughout the life* of the building it covers. You can safely recommend PC Foamglas to your clients, secure in the knowledge that it will give complete satisfaction.

This cellular material is widely used as roof insulation in plants where it must withstand and control temperature, humidity and conden-

sation in large working areas. PC Foamglas does not pack down, slip, swell, warp or rot, is not damaged by acid atmospheres, fumes or moisture. Non-combustible, vermin-proof, it is easily applied.

Supplied in 12 x 18 inch blocks, 2, 3, 4, 4½ and 6 inches thick, PC Foamglas comes in strong, easily handled packages. It can be cut to fit right on the job, with ordinary tools. It lasts *indefinitely*, without maintenance, repair or replacement, effecting important savings of time, trouble and money.

The unique qualities of Foam-

glas will help your clients to operate their plants more efficiently—more economically. Our technical staff will be glad to consult with you regarding specifications for insulating various types of roofs. Meanwhile send for our free booklet which gives architects information they want about insulating roofs *permanently* with PC Foamglas. Pittsburgh Corning Corporation, 2206-4 Grant Building, Pittsburgh 19, Pa.

PC FOAMGLAS

T. M. REG. U. S. PAT. OFF

PERMANENT INSULATION

*9 parts air hermetically
sealed in 1 part glass*



IF IT'S FRIGIDAIRE—IT'S DEPENDABLE

"Today, more than ever,
we appreciate
Frigidaire Dependability"

Frigidaire's reputation for dependable performance has taken on added significance under wartime conditions. Daily, more and more people appreciate what it means to have equipment that can be depended upon.

To continue to make Frigidaire products America's first choice is our goal for the future. The fulfillment of our plans must await Victory. But one thing is certain: *there will be more and better Frigidaire products for more people—and in their making, more jobs for more men!*



**New Wartime Booklet—FREE
to ALL Refrigerator Users!**

Everyone who owns or uses a refrigerator (regardless of make) should read "101 Refrigerator Helps"—the booklet just published by Frigidaire. It's filled with valuable suggestions on the wartime use and care of refrigerators. It's available, free, and in quantities for distribution to tenants, at your local Frigidaire Dealer, Distributor, or Branch Office. Find name in Classified Telephone Directory, or write Frigidaire, 325 Taylor St., Dayton 1, Ohio. In Canada, address 177 Commercial Rd., Leaside 12, Ont.

Listen to

GENERAL MOTORS SYMPHONY OF THE AIR
Every Sunday Afternoon, NBC Network

LET'S ALL BUY MORE WAR BONDS FOR VICTORY!

For Excellence

in War Production

FRIGIDAIRE

Division of

GENERAL MOTORS

DAYTON 1, OHIO, AND LEASIDE, ONTARIO

Peacetime Builders of

ELECTRIC REFRIGERATORS • RANGES • WATER HEATERS
HOME FREEZERS • ICE CREAM CABINETS
COMMERCIAL REFRIGERATION • AIR CONDITIONERS
BEVERAGE, MILK, AND WATER COOLERS



Score another war production bull's eye for **FRINK**:
ENGINE COWLINGS for the cannon-carrying P-39

Pumping powerful armor-piercing shells into enemy tanks and blasting his gun emplacements with explosive cannon fire, the low-flying P-39 is always a welcome sight to our ground forces. On fighting fronts all over the world our troops and the troops of our allies cheer when they see these fast, sleek planes swoop down to clear the way for their advance.

The engine on a P-39 is covered with a cowl, snugly fitted to conform to the shapely streamlined surface of the ship's fuselage. Many of these engine cowlings are made by Frink.

During the 87 years that The Frink Corporation has been specializing in precision engineering and manufacturing, the name Frink has become synonymous with quality and skill in the lighting industry.

A pioneer in Fluorescent illumination as well

as in Incandescent lighting, The Frink Corporation developed LINOLITE, the famous "engineered for vision" Fluorescent equipment now giving such profitable and trouble-free service in many of America's foremost factories, stores and banks.

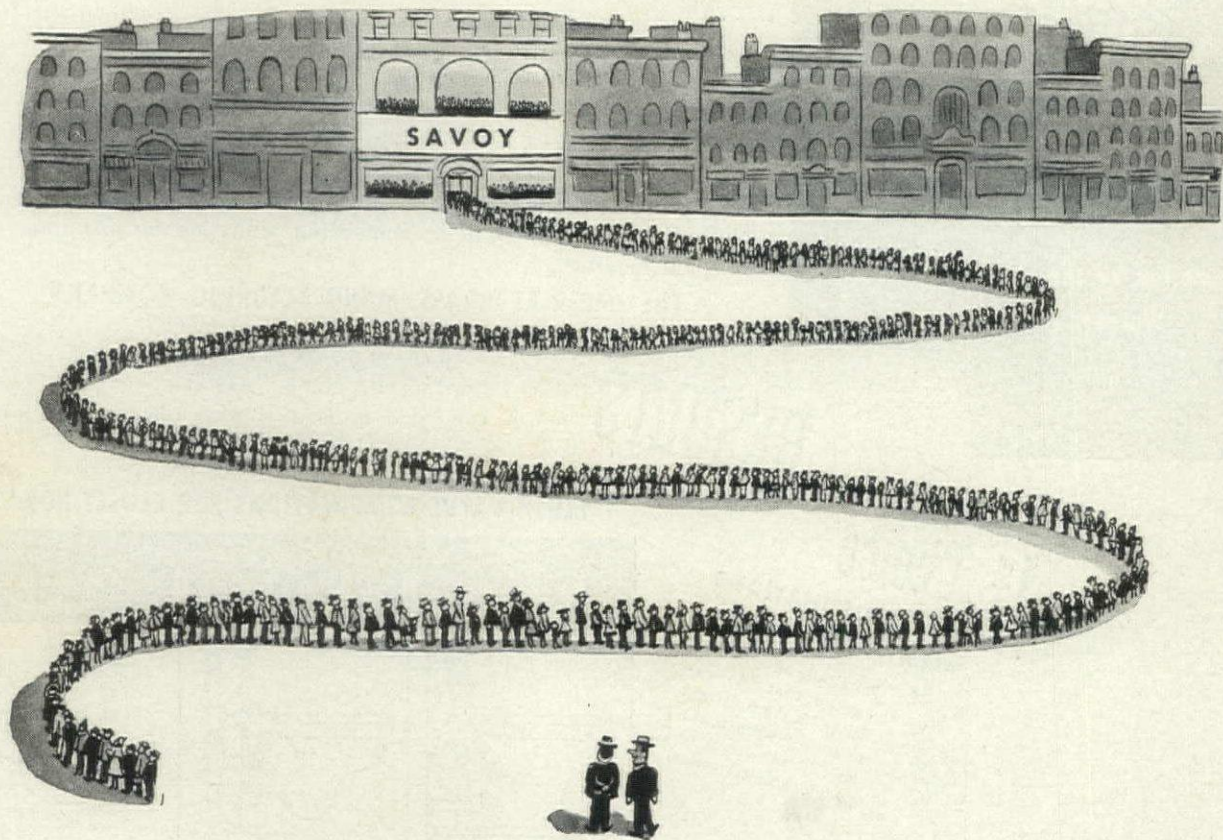
Today Frink is heavily engaged in war production. Tomorrow Frink will resume engineering and manufacturing the high-quality lighting equipment that has gained such an enviable reputation in the industry.

LIGHTING SINCE 1857



Subsidiaries: Sterling Bronze Company, Inc.
 Barkon-Frink Tube Lighting Corporation

★ ★ ★ All Frink employees invest at least 10% of their earnings in War Bonds. ★ ★ ★
 WE ARE PROUD OF THAT RECORD. LET'S ALL BUY WAR BONDS!



"Ever since this restaurant put in Air Conditioning, people have to stand in line to get in."

Next thing you know — they'll want cool comfort at home and in the office too!

MANY a restaurant patron, relaxing in fresh, cool, air conditioned atmosphere, has thought . . . "Imagine enjoying comfort like this *at home* and *at work!*" Then, firmly, "I think I will!"

That's why this cartoon — from a G-E advertisement directed to restaurant owners — reflects a trend worth noting by architects and building management also.

Perhaps you've already joined the far-sighted group that is planning to lend impetus to postwar rentals — by anticipating the public's growing demand for comfortable, air conditioned space. Why not call in G-E to assist you?

G-E has *consistently* offered air conditioning users the advantages resulting from unified responsibility in the design of all important system components . . . from widespread installation and servicing facilities, through authorized dealers and contractors. And after the war you'll find many *new* features in G-E equipment — features that will contribute to greater economy, compactness and flexibility.

☆ BUY WAR BONDS ☆

General Electric Company, Air Conditioning and Commercial Refrigeration Divisions, Section 4137, Bloomfield, New Jersey.

Air Conditioning by
GENERAL  ELECTRIC

Hear the General Electric Radio Programs: The "G-E ALL-GIRL ORCHESTRA," Sundays, 10 P. M., EWT, NBC . . . "THE WORLD TODAY" News, Every Weekday, 6:45 P. M., EWT, CBS

Flush Valve Application Data HOSPITALS

Compiled by the manufacturers of
Watrous Flush Valves

Poll of Architects Indicates Views on Flush Valves for Hospital Service

The selection of the most suitable flush valve combinations for hospital service is an important consideration. In order to obtain a summary of current views on this subject, Watrous recently prepared a special ballot sheet which was sent to a list of 232 architects who have had wide experience in hospital design.

The diagrams below analyze the results.

The use of the study is, of course, limited under wartime conditions but will be helpful in connection with postwar planning of hospital facilities.

THE IMPERIAL BRASS MANUFACTURING COMPANY
1238 WEST HARRISON ST., CHICAGO 7, ILLINOIS

RESULTS

Votes were cast on the question: Which combinations do you believe offer the most advantages for use in postwar hospitals?

1st Choice
FOR ALL COMBINATIONS
SILENT-ACTION 94%

Practically all architects agreed that "silent-action" is the first point to specify when selecting flush valve combinations for hospital service.

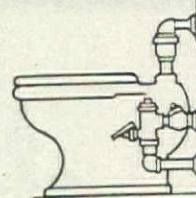
● The sound design and careful workmanship built into Watrous Flush Valves make their selection a source of constant satisfaction over the years to everyone concerned.



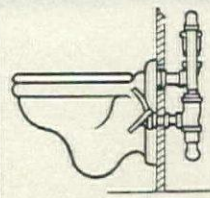
FLUSH VALVE COMBINATIONS FOR CLOSET BOWLS

FOOT-OPERATED—Preferred by 39%

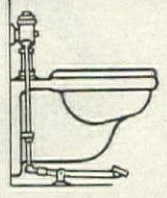
Foot-operated
1st choice



Foot-or-hand operated
2nd choice

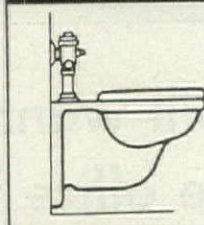


Foot-lever type
3rd choice

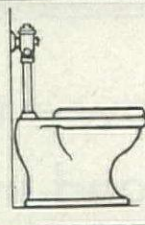


TOP SPUD—HAND-OPERATED—Preferred by 30%

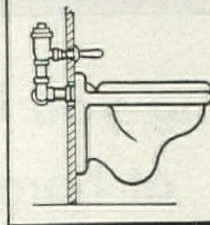
Low top spud
1st choice



Medium top spud
2nd choice



CONCEALED—Hand-operated
Preferred by 22%



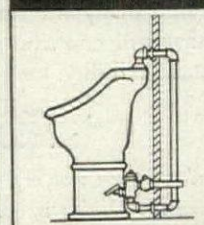
SEAT-ACTION
Preferred by 9%



FLUSH VALVE COMBINATIONS FOR URINALS

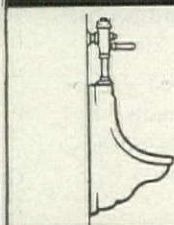
FOOT-OPERATED

Preferred by 39.2%

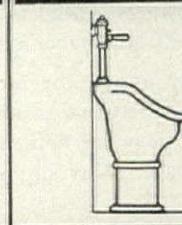


EXPOSED—HAND OPERATED—Preferred by 37%

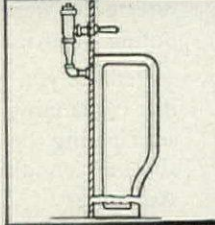
with wall hung urinal
1st choice



with pedestal type urinal
2nd choice



CONCEALED—Hand-operated
Preferred by 23.8%



Watrous Flush Valves



raincoats for building exteriors

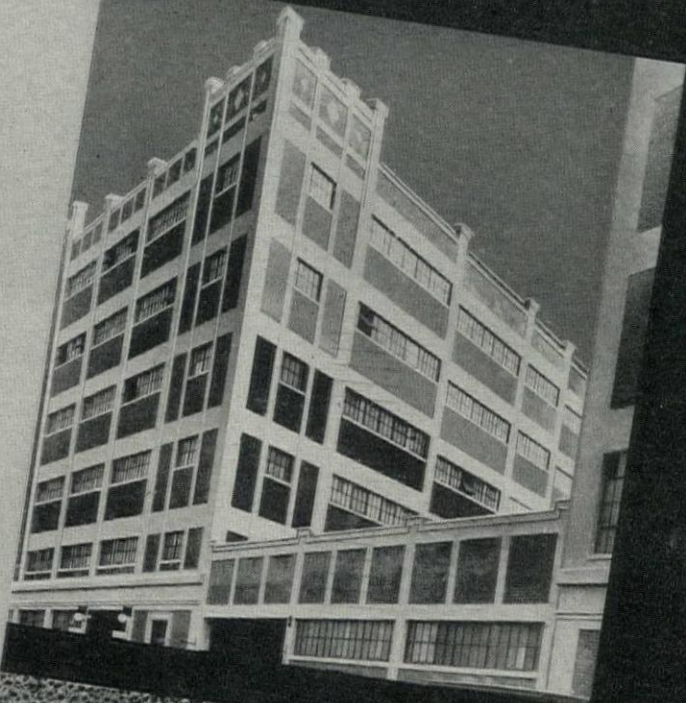
Here is the same building before and after the application of Waterfoil . . . the raincoat for building exteriors. This scientific contribution to masonry protection has decorated and restored many valuable property investments. Waterfoil is manufactured of irreversible inorganic gels . . . non-critical materials . . . They form a hard dense protective coating bonded both chemically and physically to the masonry surface. The Waterfoil coating permits the masonry to breathe as it should, allowing water vapors to escape but impeding water absorption inwards. This helps to avoid reinforcing bar rust and spalling. The Waterfoil literature may prove very valuable to you if you are responsible for property maintenance. Send for it today.

A. C. Horn Company

established 1897

manufacturers of materials for building construction and maintenance

Factories: Long Island City 1, N. Y. • Houston, San Francisco
branch offices in principal cities



WATERFOIL

THE UNIQUE TREATMENT FOR EXTERIOR MASONRY SURFACES





The old world

AN OLD LADY, in this country only a short time, went into a second-hand store and inquired regarding a price of a piece of furniture. The storekeeper said that the price was \$7.00.

"I'll give you \$9.00," said the old lady.

"Well, I said it was only \$7.00," replied the storekeeper.

"Oh, I thought you said \$11.00," exclaimed the old lady. "I'll give you \$5.00."

It is the custom in many foreign countries that everything is bought and sold through such bargaining. The "American Way" is to have a "one price" policy plainly marked with a price tag on the merchandise.

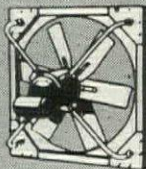
When "or equal" is written in the specification, you can be certain that there will be bargaining between the owner and his architect and the contractor or sub-contractor with price tags well concealed. It is apparent that the contractor has been forced by necessity to use the lowest price quoted to him; because, if he had not, he would likely have lost the contract to a competitor. Once he secures the contract, his only out is to bargain with the owner and architect to have the low-priced articles approved as equal, or lose money.

The owner and his architect must battle for the equipment they want used or lower the quality of their building. As his profit is at stake, the contractor will naturally put up the fight of his life to have an "or equal" substitute approved. Delays are the result and as a rule everybody loses.

The "base bid and alternate" specification is the "American Way." Price tags are out in the open and the owner and his architect can select the best value after proper consideration of quality, price, service and delivery. When this selection has been made, the contract can be signed with no bargaining. The owner receives the building he desires at a fair price.

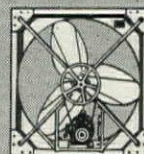
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How It Affects Award of Contract The architect or engineer decides before the contract is let what product will be used, taking into consideration any advantages to be gained by using any of the alternates.

How It Affects Contractor and Sub-contractor Normal bidding and buying practices are not interfered with, but most negotiations are completed prior to the award of the contract by the owner.

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How It Affects the Specifier and Owner The specifier will not be required thereafter to approve materials or equipment as equal to something else.

The owner will have the assurance that he will get what has been agreed upon, without substitution.

Approved by The American Institute
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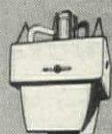
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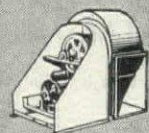


Herman Nelson hiJet Horizontal Shaft Propeller-Fan Type Heaters



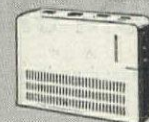
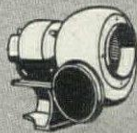
Herman Nelson hiJet Vertical Shaft Propeller-Fan Type Heaters

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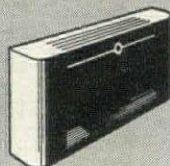
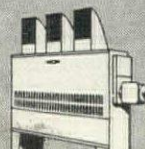
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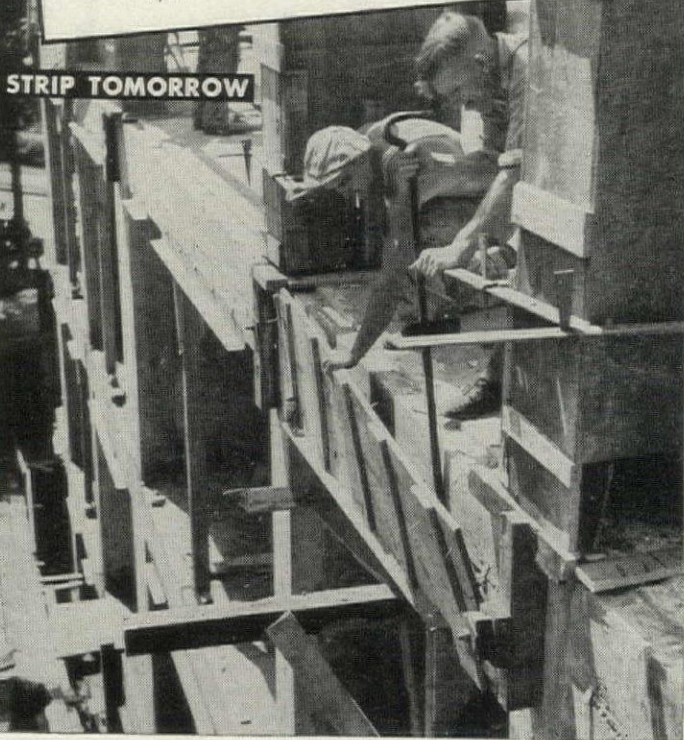
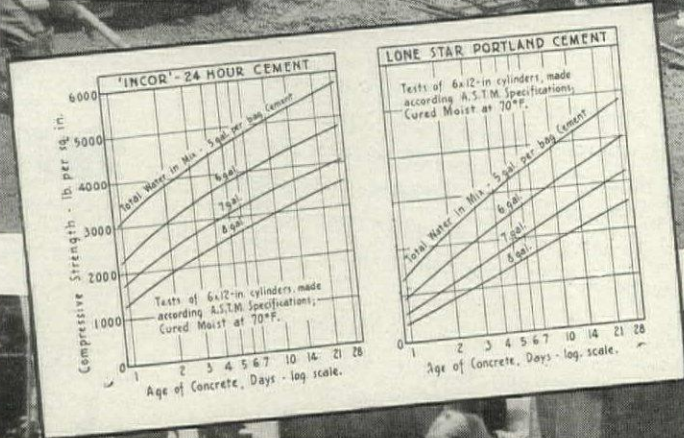
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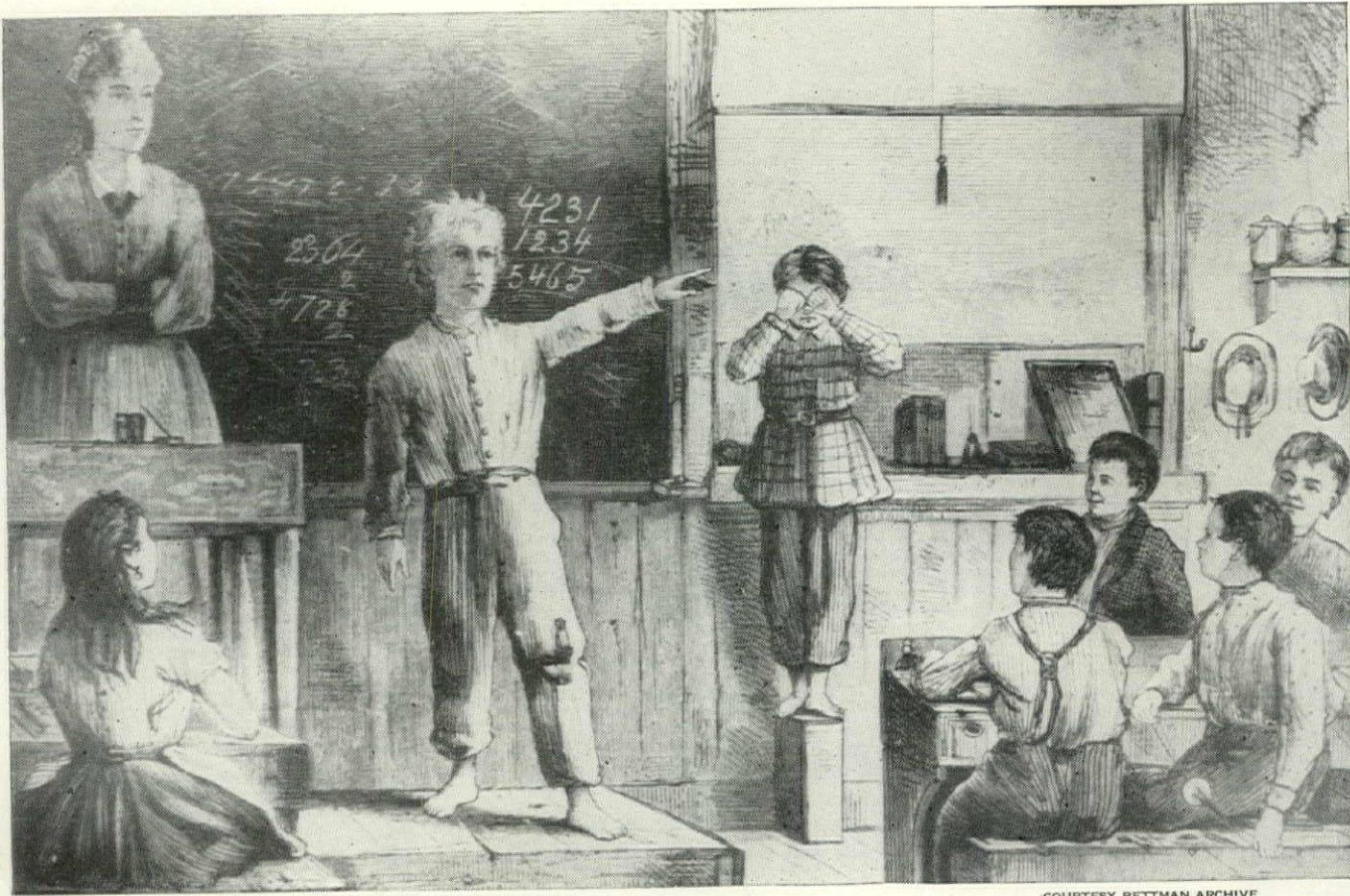
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THE MONTH IN BUILDING . . . NEWS

Nonwar housing this year—maybe (this page) . . . Congress moves to set up a housing research bureau (page 60) . . . Building set for immediate postwar expansion to peak levels (page 61) . . . Chicago leads in Negro housing (page 62) . . . Magazine survey points to modern design as a market first (page 63) . . . Johns-Manville bets on postwar merchant builder (page 64).

RECONVERSION STARTS

Donald Nelson spoke of a 50 per cent drop in war production after the fall of Germany. This was a new figure, higher than any the federal men had used before. One way of giving the new statistic reality was to say that 1,000,000 war contracts would be cancelled. Another way—and the most telling—was to say that 10,000,000 workers would be laid off. The slow-up would be gradual but failing action now for a reconversion start, contract cancellations would take a mounting toll in idle plants, idle workers, a nation unprepared for its postwar destiny. It was potentials on this scale that made the nation understand that reconversion was no longer something that might happen at some indefinite tomorrow. Although the decisive months of the war were still ahead, although war production had been stepped up for a final spurt on some items, cut-backs here and there were bringing home the reality—the beginning of reconversion is here.

Manpower Basic. More and more, the whole question of reconversion turned on the question of manpower. There was, to be sure, a knot of men in Washington who looked at material allotment for civilian production only in terms of whether it would dynamite prewar competitive production patterns. But WPB, although profoundly aware of the inequity of releasing a plant in one area for civilian production while its major prewar competitor is tied up with war contracts, had to work from the facts of local labor supply. Where workers are needed for war contracts, materials will not be allocated for nonwar use. In areas where surplus labor begins to pile up, steps will be taken to supply the materials that will put men to work.

The Brewster stay-ins were a sample

of the force labor is prepared to exert on federal makers of reconversion policy. WPB's revoking of magnesium and aluminum controls was a sample of the easement in materials that certainly is not far ahead. Other tokens: authorization of purchases of machinery, tools and dies from existing surpluses for civilian production; a go-ahead for manufacturers on enough materials to construct a working model of any postwar product now being planned. Prospects were good—if all goes well on the European front—for a substantial flow of critical materials to nonwar production by early fall.

Policing Easement. Housebuilding, like any other industry, would take its major reconversion pattern from the size of local labor supply. By this standard, building should be well off. Construction employment had by summer shrunk from 1,470,000 to 600,000. Most laid-off building workers have, of course, been absorbed by other war industries, but a safe bet is that as soon as contract terminations begin there will be plenty of skilled building tradesmen looking for jobs. Construction's ability to absorb unskilled labor, to swing into production without delay for retooling were other telling points in favor of a quick start where there is building need.

Significant was WPB's growing conviction that the agency cannot possibly do the complete policing job on reconversion that it did on tuning up for war production. Present outlook is that an *elaborate priority system for directing materials back into civilian production will not be set up*. Procedure may rather be to establish negative regulations—to specify labor-short areas where building may not be resumed; to forbid types of building that require an excessive amount of materials.

WPB would like to give a go-ahead.

so far as it can, to what it calls "deflationary" building. This WPB defines as property which produces a continuous income — shopping centers, theatres, beauty parlors, etc. Notion is that this kind of building will take money out of circulation by providing a new outlet for spending. Public works, on the other hand, are regarded as inflationary, since they put money into workers' pockets without creating any new business enterprise for taking it out. This, of course, was fairly abstract theorizing. Chances were that, next to labor supply, local need would be the most impelling criterion.

Equipment Outlook. Housing equipment was beginning to look much less like a major stumbling block. In mid-June WPB halted its two-year-old "concentration of production" program in the stove industry, said that any stove manufacturer may now apply for authorization to resume production of non-electric stoves. If expected cutbacks develop, fractional horsepower motors will be available for civilian allotment by fall, and manufacture of refrigerators can be resumed. But initial source of supply for a quick-starting housing program might well be the vast amount of equipment on hand in war housing dormitories, army cantonments, temporary hospitals. National Housing Agency investigators believed that enough of this would become available in coming months to help housebuilding off to a good start.

Even a bearish outlook had it that nonwar housing would get underway by next January. And there was much evidence to back up the notion that a housebuilding start would be made as early as next fall. Whatever the time table, it was clear that the builders who would get the first chance at material allotments were the men who have their plans ready now, who are prepared to show that labor is available in their areas, who are now busy marshalling

community backing for needed building.

CAPITOL HILL CURTAIN

With one eye on Chicago and the other on Cherbourg, the gentlemen of Congress, like the rest of the U. S., had a hard time focusing on the job in hand. But before the Republicans could join the Dewey parade, before the Democrats could retire to compose their own battered party lines, there was a good deal of legislative hackwork to be gotten through with. There had been some talk among the serious-minded that a recess for political-business-as-usual was hardly appropriate in this, the summer of our national travail. But grinding out a vote on most of the legislation imperatively needed, Congress briefly brought down the curtain on Capitol Hill just in time for the opening performance in Chicago. Scoreboard on matters of special interest to Building looked like this:

G. I. Bill of Rights. While the housing loan provision of the final version is anything but a model of clarity, it was generally agreed that the measure ties the new program firmly to FHA's already-lengthy apron strings. To be eligible for a government-guaranteed equity loan, a veteran will have to obtain FHA commitment for mortgage insurance on the primary loan. As passed by Congress and signed by the President, the Act provides for government insurance of downpayment loans made by private lending institutions amounting to not more than \$2,000 or more than 20 per cent of the purchase price of a house. Interest on the equity loans may not exceed 4 per cent, and repayment is to be extended over a 20-year period. A veteran may apply for downpayment aid anytime within five years of his discharge.

Lanham Money. The Federal Public Housing Authority will have \$7½ mil-

lion to provide for needed war housing over the next four months. Tacked on the measure was \$98,000 to wind up the affairs of the aged U. S. Housing Corporation, which built housing during World War I.

FHA Title VI. Awaiting the President's signature as we go to press is the bill that will lift the war housing insurance ceiling by \$100,000,000. This will keep the Title VI program operating through September; FHA hope is a speedy return to more normal housing operations.

Price Control. Giving OPA another year of life, Congress softened the rent control section with an amendment directing easement where landlords are unduly pinched. General regulations will set up the terms of such relief; OPA wants no door open for a flood of applications. Turned down was an amendment that would have extended rent control to commercial property.

Contract Termination. Aware that speedy winding up of war contracts will be a prime factor in a prompt reconversion start, Congress passed legislation establishing an Office of Contract Settlements, whose \$12,000-a-year head will be appointed by the President. Skirting provisions that would subject settlements to endless review by the General Accounting Office, the bill guarantees a prompt 100 per cent payment for completed items upon contract termination, provides for a 90 per cent advance on raw materials and labor costs.

Housing Research. Introduced by Senator Harley M. Kilgore (D., W. Va.) and by Senator Robert F. Wagner (D., N. Y.) was a resolution proposing a housing research laboratory, to be set up within the National Housing Agency and supported by such annual appropriations "as may be necessary." A major aim: development of materials and techniques that will cut housing costs.

VANPORT FUTURE?

Will use of \$26,000,000 Kaiser-built Vanport City, Ore., now home to 40,000 war workers, end with war production? Already families moving out outdistance families moving in, and the project has about 2,400 vacancies.

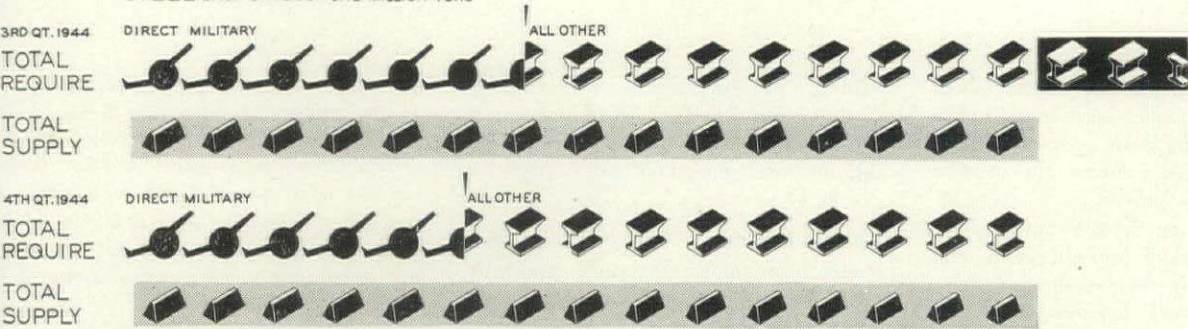
Last month the Portland Housing Authority proposed a future for Vanport City. Said the Authority, which manages the project: Vanport might logically become a rehabilitation center for war veterans. Many discharged service men will need prolonged and con-



DEAN WURSTER

Seated in a background far removed from slums and their clearance sit William Wilson Wurster and Mrs. Wurster (Catherine Bauer). This great California architect now becomes Dean of M.I.T.'s School of Architecture. Wurster's progressive ideas and appeal to students will offer competition to nearby Cambridge, add lustre to Boston as educational hub of the U. S.

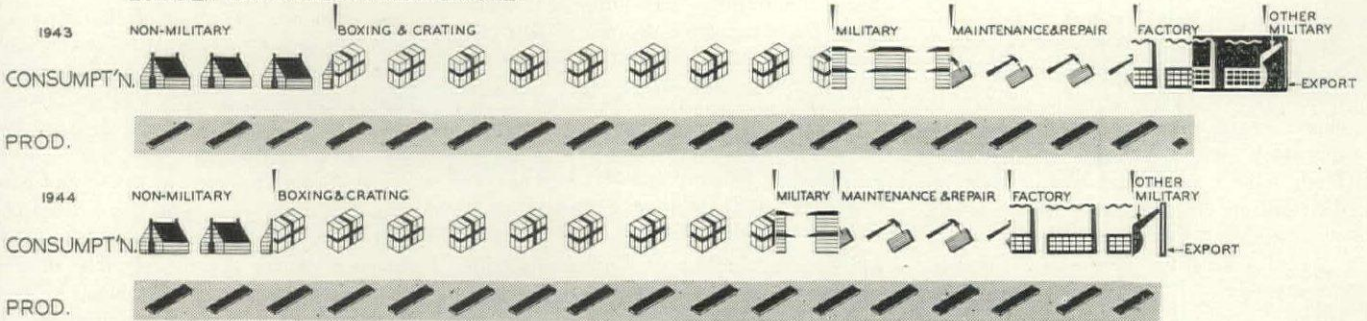
STEEL EACH SYMBOL = ONE MILLION TONS



STEEL REQUIREMENTS for the last half of this year show that military use is shrinking. According to WPB's figures, 5½ million tons of steel will be enough to meet military needs in the last quarter of the year. Other Claimant Agencies can expect to share in 9½ million tons, unless recent increases

in tank production change the picture markedly. Steel use authorized by WPB in the third quarter exceeds anticipated supply by 2¼ million tons. Production schedule adjustments and inventory carry-overs tend, however, to keep orders placed on mills below total authorized allotments.

LUMBER EACH SYMBOL = TWO BILLION BOARD FEET



LUMBER REQUIREMENTS, as screened by WPB, will this year amount to 34 billion board feet, a drop of about 4½ billion from last year's consumption. Main reason: the cut in both military and nonmilitary construction. Boxing and crating use, which takes the major slice of lumber output, is expected approxi-

mately at last year's level, about 11 billion board feet. Prospect is that crating needs will drop off sharply after this year. European reconstruction, next call upon U. S. lumber, is expected to take a much smaller slice. Supply for the year is expected to come close to meeting consumption.

tinuous medical treatment, but will not require hospitalization. About five miles from the government hospital at Vancouver, where many soldiers are now patients, Vanport's housing accommodations would permit veterans to live with their families while getting treatment.

LUMBER STRAIT-JACKET

Long portended by WPB rumblings (see ARCH FORUM, Mar., Apr., '44), over-all control of lumber was at last a fact—at least WPB hoped its newest barrage of amendments and directives would add up to that long-desired end. The complexities of devising a control strait-jacket for the protean-shaped lumber industry have been almost fathomless. There are 50 species of lumber. There are scores of grades and sizes. There are 37,000 sawmills and more than 25,000 wholesale and retail distribution yards. There are more lumber customers than anybody has ever counted.

Early WPB attempts to even out lumber supply were focused on controls at the production end. Various trys at regulating the purchases of major consumers were found unworkable. This time WPB believed it had found a broad-gauge control that would cover

every lumber user from the householder putting up an extra shelf to the industrialist putting tens of thousands of board feet into boxing and crating. Established are specific procedures under which sawmills deliver lumber, distributors receive and deliver lumber, and consumers buy. Quarterly authorizations control the amount major consumers may receive.

It was urgent that there be no leaks. Gap between consumption and need over the last two years has drained stockpiles. Early in 1944 lumber stocks stood at 7 billion board feet; in 1941 stockpiles had totaled 17 billion. WPB estimate was that 1944 production would come close to meeting the year's pared-down requirements (see chart).

EXPANSION POTENTIAL

Rapid expansion to an annual rate of \$11 billion (1940 costs) by the end of the first postwar year is well within the capacity of the construction industry. This is the conclusion of Alexander C. Findlay of the Department of Labor's Division of Construction and Public Employment, who has made a careful appraisal* of all factors governing the

* *Postwar Capacity and Characteristics of the Construction Industry*, Monthly Labor Review, May '44.

industry's potential for quick expansion.

Although last year's construction total dwindled to half the 1942 peak of \$11½ billion and further reduction is expected, wartime construction activity will not drop to a level lower than \$3 billion, Findlay believes. Flexibility and methods of operation characteristic of the industry will open the way for an immediate postwar start, and the outlook for materials, equipment, and labor presents no major obstacles. Findlay's analysis assumes that Germany will be defeated before Japan and that reduced military requirements will permit the "extensive release of industrial plant and a corresponding reduction in the war use of materials." The probable picture:

Construction Equipment. "Now sufficient for a rate of at least \$12 billion per year and likely to remain so. Its age and condition will present some difficulties during the early months after the war if no prior improvement is possible, but will not restrict volume."

Findlay finds permanent shop equipment of special-trade contractors little affected by the war and available without need for reconversion. Prefabricators have multiplied shop capacity enor-

NEWS

mously. "Current factory capacity is at least 165,000 houses per year, and a number of firms plan postwar expansion which would increase this rate to at least 200,000 houses."

Truck shortage is the only uncertainty in the outlook for field equipment. Other items (air compressors, scaffolding, ladders, work benches, etc.) are either in good supply or can be manufactured quickly. Prompt expansion of truck output is likely, but construction will have to share trucks with other industries.

According to a WPB estimate, privately owned construction machinery amounts to 450,000 pieces. "The construction-machinery industry expanded its operations for the war to a rate which, if maintained after military purchases cease, would replace the civilian inventory within about two years." Modern new machinery within military distribution channels at war's end will be available for sale.

Findlay uses these estimates of equipment need:

- ▶ Highway construction requires equipment having a value, when new, of 15 per cent of a full season's work: a \$3 billion yearly highway program would require \$450 million worth of equipment.
- ▶ Heavy construction amounting to \$3 billion per year would require equipment costing \$600 million (20 per cent is the average ratio).
- ▶ Building construction of \$6 billion yearly would need only \$300 million in equipment (5 per cent).

"A total program of \$12,000,000 per year in the three subdivisions of construction would require machinery and equipment with a new value of \$1.35

billion. The new value of that likely to be on hand at the end of the war is estimated at \$1.95 billion, plus any additions which may take place after the defeat of Germany."

Building Materials. "There will be keen competition among materials, especially since prewar usages have been modified greatly in order to conserve critical materials. Some war-expanded industrial capacity will probably be used for increasing the output of building materials formerly produced only in small amounts. . . . Productive capacity for all types of building materials, except plumbing fixtures and lumber, is sufficient for a construction rate of \$15 billion per year."

▶ Lumber supply will be initially limited by lack of logging equipment and skilled labor.

▶ Plumbing fixture capacity is now adequate for a \$12 billion program, with quick expansion likely.

▶ Reconversion in metal-fabricating industries can be completed in six months, except for electric refrigerators.

Will material needs of foreign reconstruction limit U. S. building activity? Findlay's view: "Export requirements will be greatest for lumber and considerably less for those products for which productive capacity abroad can be expanded."

Labor. Civilian workers available at war's end will amount to 1,120,000 building mechanics, 440,000 experienced helpers, 400,000 inexperienced workers capable of construction labor. If employed steadily, these workers would be enough for \$8.75 billion worth of construction. Demobilization is ex-

pected to yield enough additional workers to quickly up output to the \$11 billion level.

Findlay's conclusion: "The most serious obstacle to rapid expansion of the construction industry is likely to be lack of preparation on the part of owners, including private corporations and public agencies."

NEWEST HOUSING MARKET

Socially-conscious *PM* thumbed Federal Housing Administration figures, reached a socially-significant conclusion: private builders have flopped on the job of providing war housing for Negroes. Less than one per cent of the housing built by private enterprise under war priorities has been for Negro occupancy, *PM* said. Of 362,077 war housing units finished by April 1, only 2,880 were for Negroes.

The Negro one-tenth of the nation has long depended on second-hand housing. Full wartime employment boosted Negro earnings enormously, but multiplied Negro housing problems in the same proportion. New thousands of workers came to look for homes in the already overcrowded black belts of the cities—workers willing and able to pay high rents. But the notion that Negroes are a poor risk hung like palsy over housing investors; restrictions pinned the Negroes firmly in a hundred Harlems.

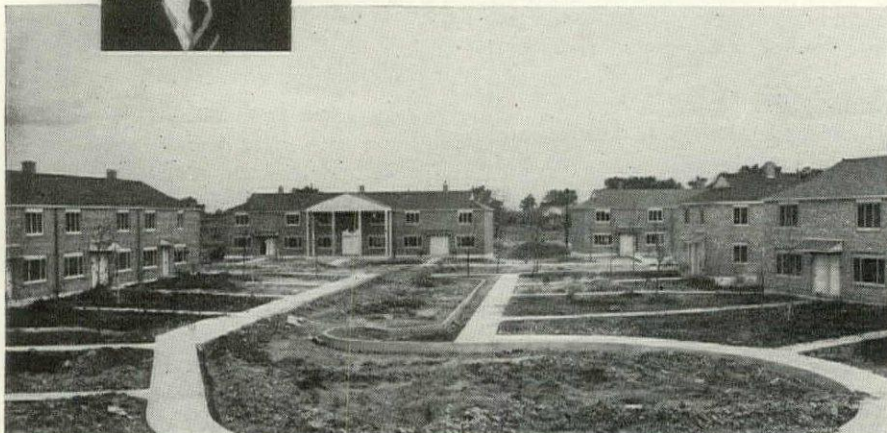
Last month the National Association of Real Estate Boards, not notorious for the kind of social-consciousness represented by explosive *PM*, urged its members to take action to provide better housing for Negro families. Firmly skirting the "social, political or racial issues which are often injected into the discussion of housing for Negroes," NAREB said that "provision of adequate housing for millions of Negro families represents not only a need but an economic opportunity of which we, as business men, should take advantage."

This was the kind of plain talk Building men understood, and some had already sensed the possibilities of the new Negro housing market. NAREB could point to Negro housing initiated by its members in Birmingham, Ala., Detroit, Cleveland, Chicago, Philadelphia, and Tulsa.

2,000 for Chicago. The Chicago job was outstanding. Negro housing units started over the last year by private enterprise number more than all the Negro housing built in the city over the last quarter-century. Prime reason: the Chicago Real Estate Board's drive to draw local Building money into this investment area.



PRINCETON PARK, Donald O'Toole's 908-unit development for Chicago's Negro families, covers 80 acres. Seven acres are set aside as landscaped park space, areas for lawn tennis, archery, track sports and children's games. Design of the two-story brick buildings and site layout is the work of Holsman & Holsman.



When the drive got underway in January, 1943, some local mortgage houses shied away from financing Negro projects; by this time, the Board reports, they are asking for business. Local builders joined enthusiastically in the Board's efforts, as did the Association of Commerce. Already finished are 600 new units in Negro neighborhoods; underway are 60 additional projects which will provide 1,400 units. Less than 10 per cent is "for sale" housing; rentals for the remainder range from \$42.50 to \$55 monthly. The Real Estate Board hopes that large-scale land purchase and lengthened financing terms for future building will bring rent scales down even farther.

Some 200 Negro families have already moved into Princeton Park, a 908-unit development on Chicago's south side, within a 10-minute ride of a half-dozen of the area's big steel plants. Irish Donald O'Toole, young (35), earnest South Side realtor, was convinced that private business, with FHA help, could meet the housing needs of Chicago Negroes. Joining with Holsman & Holsman, architects, O'Toole formed Community Development Associates, which acquired the 80-acre site and started construction of Princeton Park. Other members of the firm: Preston A. Higgins and Alvin G. Hubbard, attorneys; the Brisch Brick Co., and Lawrence B. Perkins, architect. Mortgages amounting to \$3,200,000 are split into parcels, six of which are held by the RFC Mortgage Co., under FHA-insurance, the remaining three, now under consideration for FHA-insurance, are being handled by the Trust Co. of New Jersey.

Good Postwar Prospects. Said Donald O'Toole, who selects his tenants by home interviews: "Negro rental housing is an excellent long-term investment. The people in Princeton Park have good educational backgrounds and good prewar records of employment. They've had splendid training for war-time jobs and have good union protection of their jobs. All of these things make them good postwar prospects."

DIVORCE FROM TRADITIONAL

Since Godey's Ladies Book made the editorial discovery that a woman's heart and home adds up to a reliable publishing formula, the slick magazines have loomed impressively as the most effective single force in shaping the U. S. housewife's dream of a good life. Of the many who have hit upon a working system for equating the female sex drives with advertising lineage, few



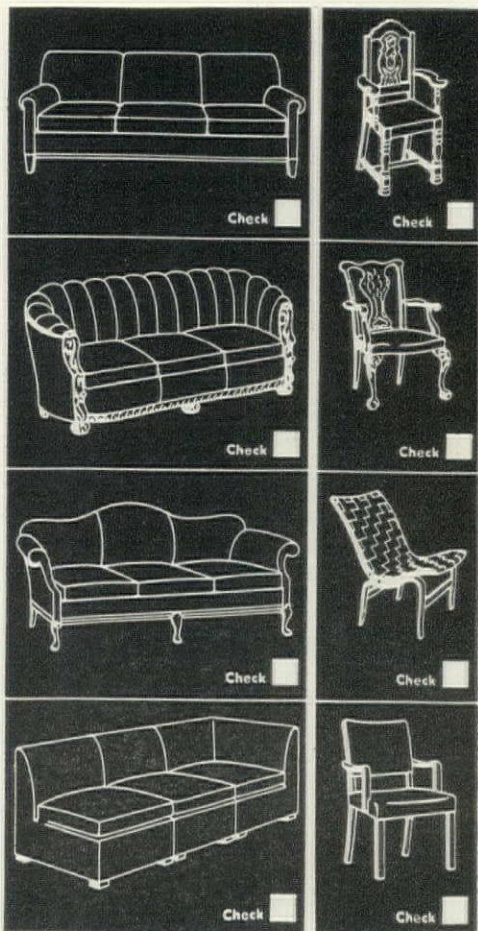
MARY GILLIES

have deemed it profitable to depart from the antiquarian cult which, with the aid of the Grand Rapid copyists, has enthralled a generation of homemakers. But if American women have long seemed married to traditional

interior. About half the voters said they plan to buy or build a new house, and of this group 61.2 per cent chose modern design. Since Godey's Ladies Book made the editorial discovery that a woman's heart and home adds up to a reliable publishing formula, the slick magazines have loomed impressively as the most effective single force in shaping the U. S. housewife's dream of a good life. Of the many who have hit upon a working system for equating the female sex drives with advertising lineage, few have deemed it profitable to depart from the antiquarian cult which, with the aid of the Grand Rapid copyists, has enthralled a generation of homemakers. But if American women have long seemed married to traditional

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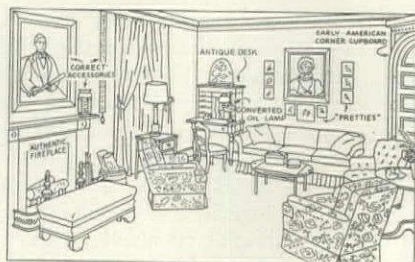
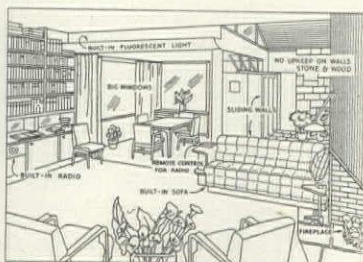
interior. About half the voters said they plan to buy or build a new house, and of this group 61.2 per cent chose modern design.



CONSUMERS' CHOICE of individual pieces of furniture was checked by line drawings like this. Try your luck at rating these samples in order of market preference; for McCall's vote, see page 140.

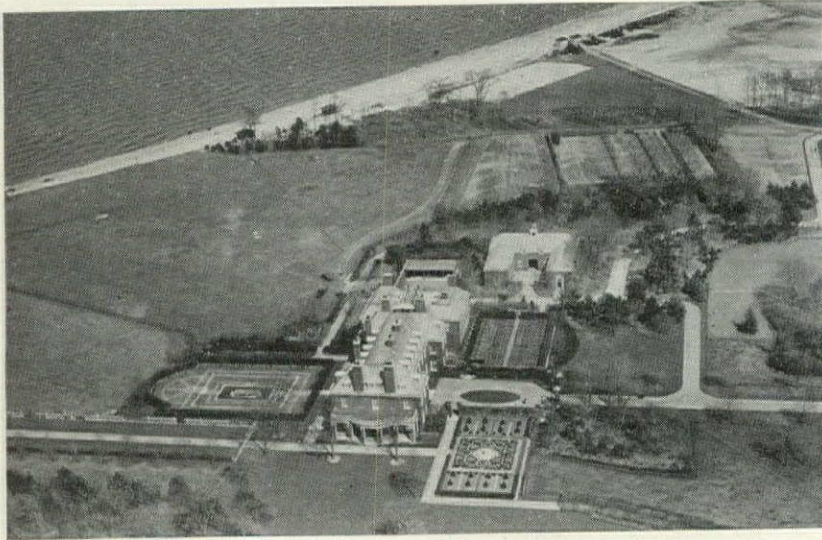
climb down from the domain of the expensive, custom-built house. Low-income groups voted decisively for modern; only top-brackets planning to spend more than \$10,000 for a new home gave traditional a margin. Main reason given for the modern vote: rooms will be easy to clean—a point of view underlining the income correlation. Whether they plan a modern or traditional house, almost all voters hoped for both fireplaces and large-view windows.

(Continued on page 64)



MODERN DESIGN was preferred by a majority of McCall readers who participated in the magazine's contest-survey of consumer taste. For survey purposes, interior styles were defined by full-color reproductions of the modern living room shown left, part of a Massachusetts home designed by Carl Koch, and of a traditional room, equally attractive, furnished by New York's Lord & Taylor. McCall's pointed out that both rooms could be furnished for the same amount of money, added line drawings identifying each piece of furniture and equipment.

Keystone



POSTWAR BUILDING LOTS

The late J. P. Morgan raised prize iris at this East Island estate, fought many a bitter tax battle with Glen Cove, L. I. over its 257 acres. Executors last year tried to make a present of it to State Park Commissioner Robert Moses, who said a prompt "no thanks." Last month neighboring estate owners were jolted to hear that Joseph Miller, Beverly Hills, Calif. developer, had

bought the property for \$120,000, planned to divide it into two- and three-acre building lots. Razed would be the Georgian mansion with its 13 baths and 18 fireplaces. But what mainly outraged the surviving Glen Cove barons was Miller's plan to fill in tradition-haunted Dosiris Pond, a 110-acre lake rimming several properties. To the Pond's rescue went Francis E. Powell, Jr. and Eduoard Le Roux, retrieved it from Miller at a price of \$40,000.

McCall's was not surprised to find that 64 per cent of the vote for modern came from women under 36. Only in the over-60 age group did traditional get a majority vote. Less predictable was geographic breakdown. New England and the South, long considered the stronghold of traditional styles, gave modern a small margin. The East South Central States and the Middle Atlantic—where an urban vote prevailed—polled a majority for traditional. The West, as surprised nobody, showed a stronger preference for modern than the East.

However the ladies might vote, it is a reasonable assumption that what they actually buy will be sharply conditioned by what they already have in their living rooms. But the trend towards modern—tied as it is to lower-income groups (bulk of the market) and to young homemakers—holds promise of a substantial demand from newly-formed families and from new home owners. The McCall contest-surveys (studies of other rooms are now in progress) may well give impetus to home furnishing manufacturers now groping for valid designs that will meet contemporary needs. At the very least,

the consumer vote ought to go far to bolster the progressive policies of McCall's own alert home editor, Mary Davis Gillies, who has long been able to discriminate between an integrated, functional interior and the bleached-mahogany nightmares marketed to an unwitting public under a specious banner of modernism.

PRINTABLE CASSANDRA

Semi-annually oracular, the National Association of Real Estate Boards has always found its regular pronouncements on the real estate market an excellent way to collect newspaper space. But last month publicity-wise NAREB could tote up even more news clips than usual. NAREB's sour but newsy note: postwar residential construction would amount to not more than 300,000 units annually (See ARCH. FORUM, June '44).

Scurrying to its mimeographs, the Producers' Council, which also dabbles in prophecy, was the first to get off a counterblast. "In view of the fact that the demand for new dwellings is greater than ever before and since the savings at the command of the American people are by far the largest in history," PC

found it "inconceivable that the rate of postwar residential construction would fail to rise above the depression level predicted by NAREB."

Equally miffed was the National Association of Home Builders, which told its members: "Few experts believe that we will average less than the 1940 rate of production—600,000 units."

Shrugging at prophecy, the Mortgage Bankers Association spoke resoundingly of need. MBA said it had averaged the "15 most authoritative estimates made in recent months." Answer: annual need for 1,000,000 homes during the first five postwar years.

Contemplating the tumult among its colleagues, NAREB, like professionally lugubrious Leo Cherne of the Research Institute of America, could recall that Cassandra, while never a popular girl at Troy, has always managed to get into print.

NO EASY CURES

First to initiate state-aided housing, New York State last month added another housing first to its record. Inaugurating a Community Development Service, the State Division of Housing was ready to give any interested city or town a lift on the road to replanning.

"There are no easy answers or cures to the highly technical problems of housing, urban redevelopment, community planning," reminded State Housing Commissioner Ira S. Robbins. While local autonomy must be the keystone for postwar planning, the Commissioner said, the state has a big stake in such planning and a clear responsibility to assist where it can.

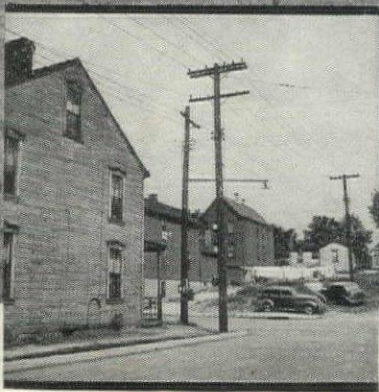
LOGISTICS OF HOUSING

How fast will postwar housebuilding wheels turn? Stacked up light construction need is one clue. Eighteen million families do not own their own homes; 37 million standing residential structures need improvement; 10 million other buildings need major repairs; 6 million farms have only one-fourth of the buildings they need.

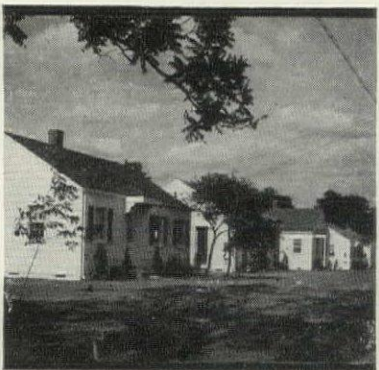
But Arthur Hood of Johns-Manville, who uses these figures to spotlight the housebuilding potential, knows that need is only part of the answer. A bigger part lies in what Hood calls the "logistics of distribution."

As production-minded as anybody else, Johns-Manville is now busy developing 55 new and improved building products. But, long preoccupied with the end market, the Corp. sees clearly that it can turn out these and other

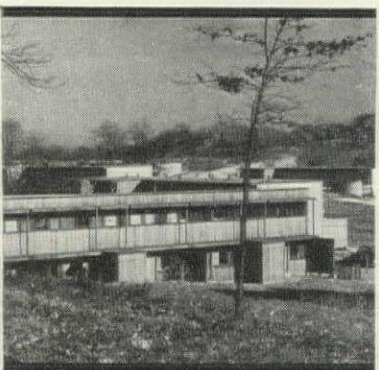
(Continued on page 134)



They lived like this . . .



They dreamed of this . . .



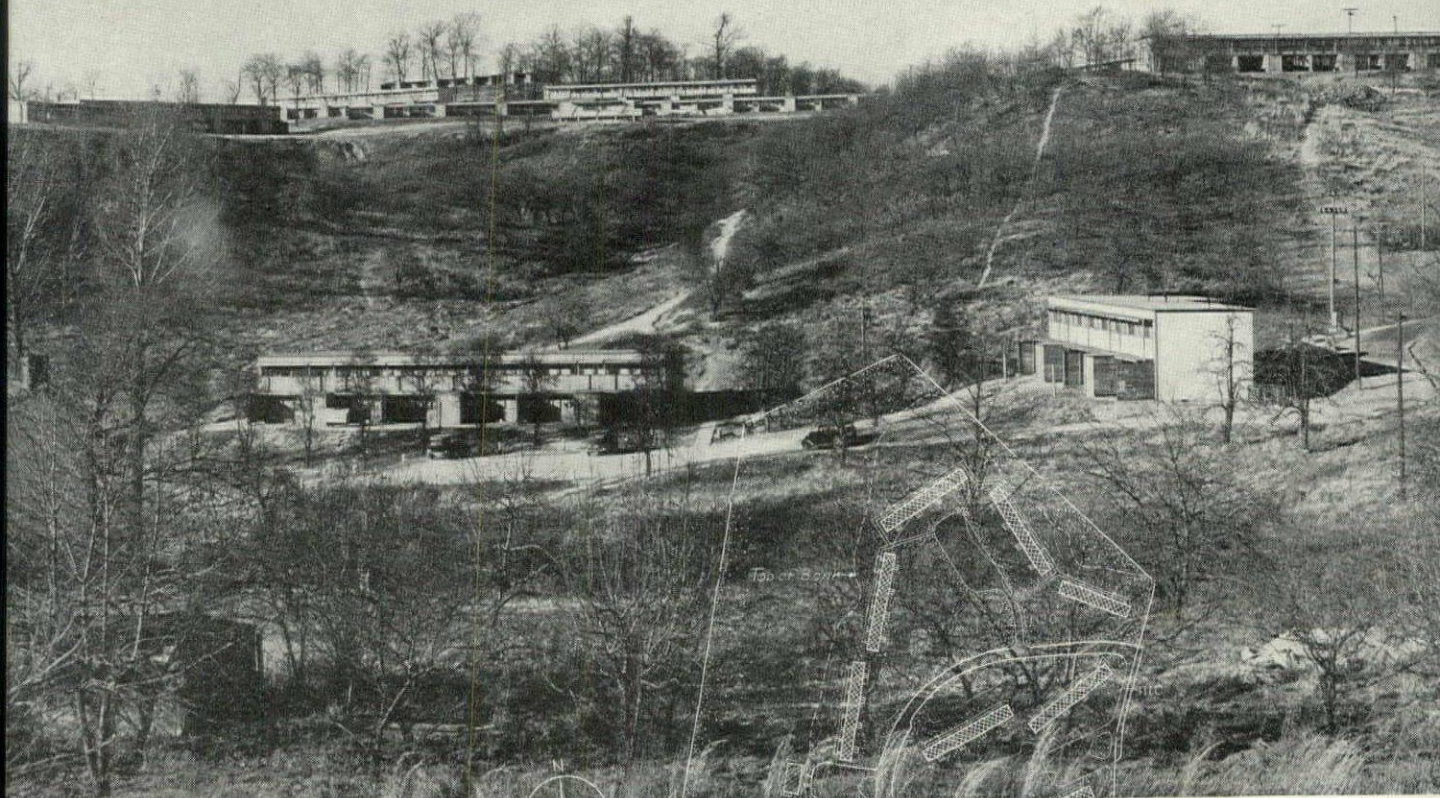
And this is what they got.

ALUMINUM CITY TERRACE HOUSING

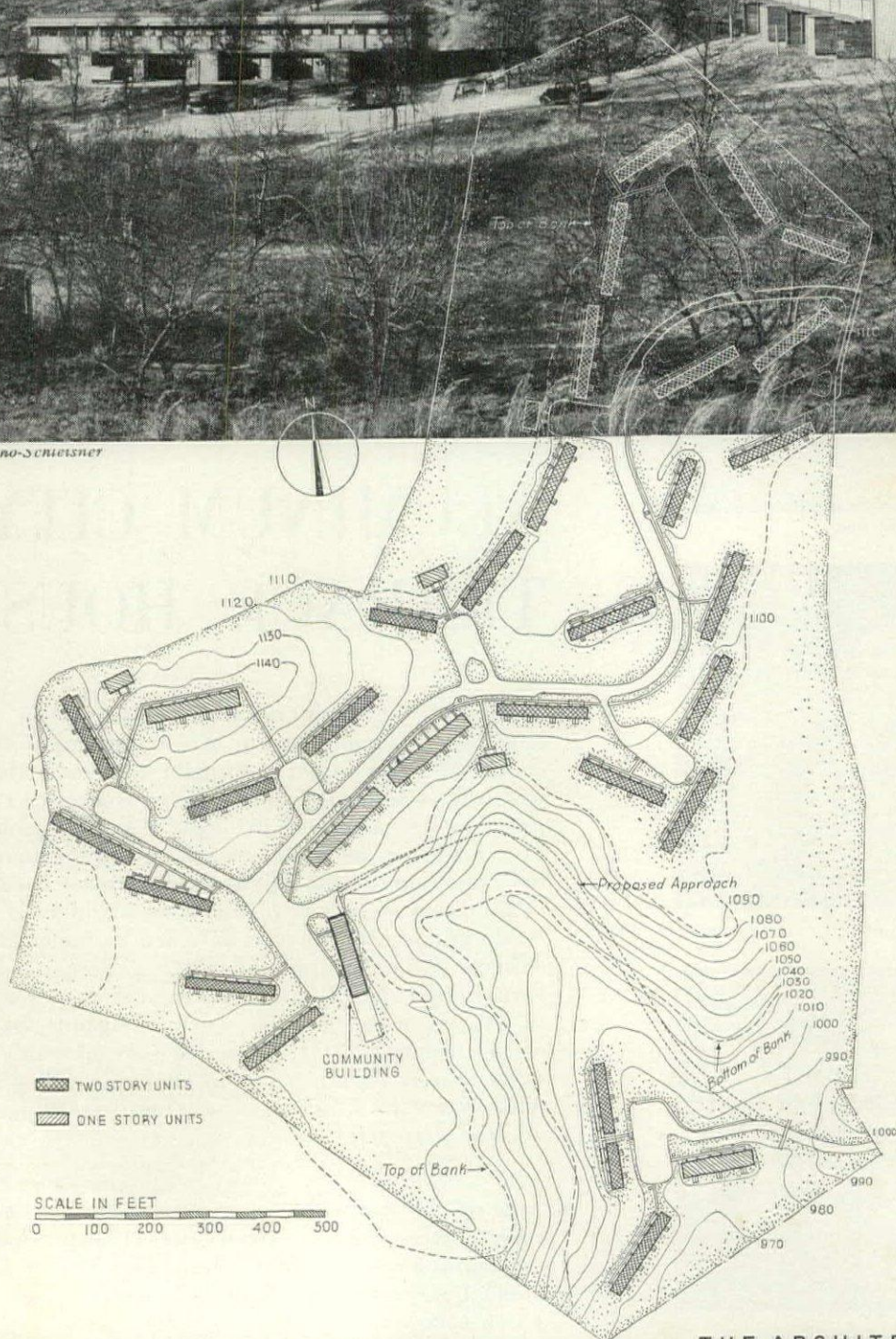
There was one substantial difference when Pittsburgh launched its huge program of war housing, following the course of other major industrial centers unable to cope with the swelling tide of incoming workers: Pittsburgh's program was conceived in terms of design quality as well as expedience, its architects given extraordinary latitude in developing their solutions, extraordinary encouragement in finding ways to improve current standards.

Aluminum City Terrace, designed by famed Bauhaus architects Walter Gropius and Marcel Breuer, now at Harvard, grew from this policy. For reasons political as well as esthetic, it was a storm center of dispute from the day of its inception. It is presented here not only as a case study in war building, but in changing tastes as well: of Aluminum City's 240-odd tenant families, 89 per cent have decided that they like it.

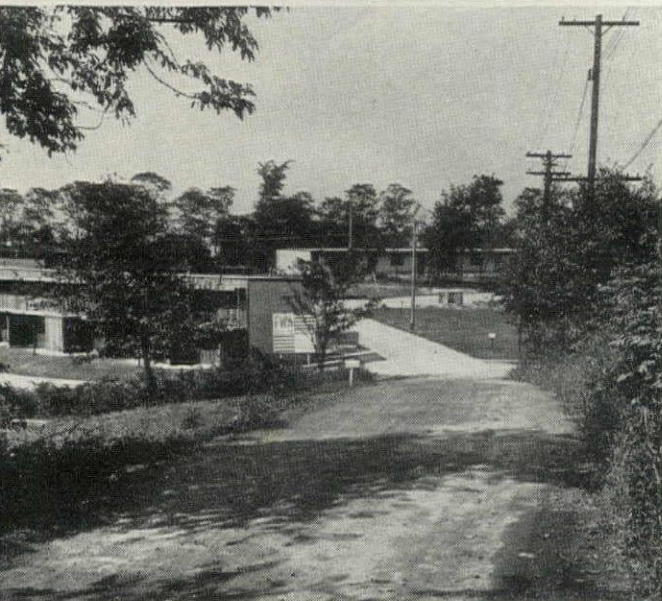
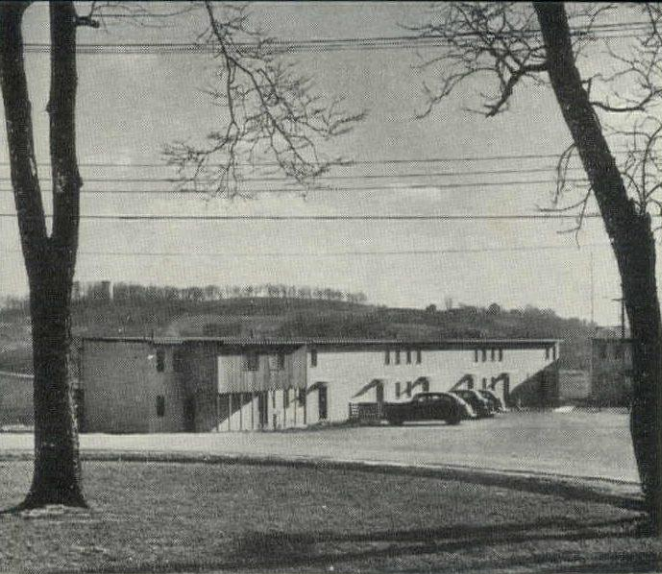
Architects: Walter Gropius and Marcel Breuer. Consulting Engineers: Specifications—J. Georges Peter; Plumbing, Heating, Electric—Hubbard, Rickerd & Blakely; Landscaping—Walter L. Chambers; Roads, Utilities—Hunting, Davis & Dunnells. General Contractor: Joseph J. Bendik.



Photos: Gottschow-Schietzner



SCALE IN FEET
 0 100 200 300 400 500



VIEW OF PROJECT SHOWS RURAL CHARACTER OF SETTING

The design of Aluminum City Terrace grew primarily out of a hilly wooded site. It was further conditioned by the architects' wish to give all of the units southern orientation and a view. From these factors was created a very informal site plan and open building arrangement.

A single winding road leads through most of the project, with the units ranged freely along it in conformity with site contours and views, some units backing up to the road, some fronting it. There are 250 units of three types: 202 two- and three-bedroom two-story groups, 30 one-story one-bedroom rows, and 8 semi-detached one-bedroom houses.

Total development costs were \$1,228,470.41, of which \$50,000 went for land, \$305,581.04 for utilities and site development, \$796,952 for building construction (\$3,188 per family).

TENANTS' OPINION

While Aluminum City Terrace is much like other war housing projects in its minimum construction, cramped areas, lack of amenities, etc., it is outstanding as one of the most modern projects that have been built and as the storm center of one of the most violent controversies over Federal housing. In an attempt to discover tenant reactions under these conditions, a survey was made on the spot by an ARCHITECTURAL FORUM representative. Twenty-five occupants (mostly housewives) were interviewed, and specific questions asked in an effort to bring out their opinion on modern design features and on certain general problems common to all housing projects. Many practical suggestions came out of this survey; but the most impressive revelation was the growing tenant approval of the project—in the face of outside criticism and in the face of the tenants' own prejudices before living there.

EXTERIOR DESIGN

Public opposition to the project had been most violently centered on its appearance: "Chicken coops . . . rabbit hutches . . . you can't tell the fronts from the backs!" was the opinion of the Pittsburgh newspapers. So the tenants were asked how they liked the looks of the houses.

Here was the most negative response of the whole questionnaire: 11 out of 25 disliked the exteriors, although actually their disapproval was expressed in an uncertain manner. Many hastily went on to express their positive satisfaction with the appearance and arrangement of the interiors. Eight stated that they had heard the houses called "chicken coops" before they came; but of these, only two still believed this was justified.

"When I first came to look at them I refused to come in any further. But we couldn't find any other place, so then we moved in. I like it inside."

"I don't think they look very nice for homes. Like everybody said, they all look just like chicken coops."

"A lot of the delivery-men coming here say: 'Of all the defense housing we've seen—in McKeesport and everywhere—these look the worst.' But I think they're nice."

"I got used to the outsides. I got rid of the gravel around the back door and utility shed, and planted it to grass."



"The houses look nice, but I wish they'd do something about the landscaping."

ACCESS

An unusual feature of about half the row-houses is that the brick fronts face away from the road traffic, while the unpainted wooden backs are on the road side. This was done for the sake of orientation—all of the houses have their rear window expanse to the south, southeast or southwest. The tenants seem bothered by this arrangement—partly because of a prejudice in favor of front doors facing the street, partly because of the unpainted wood on the access side.

"I would like the looks of the outside if the houses were turned around so that the front faces the road. People have to walk clear around to get to the front door."

"I don't like the outside of the houses. I think the front should be where the back is."

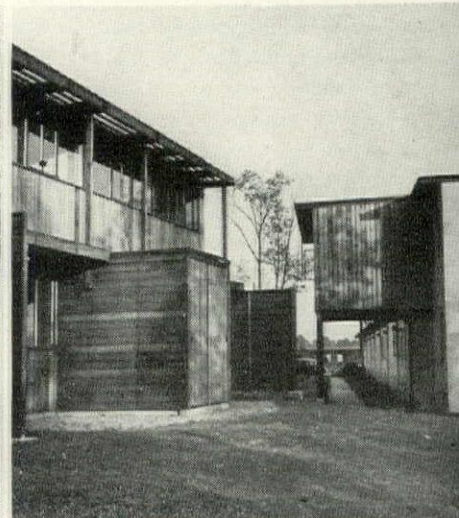
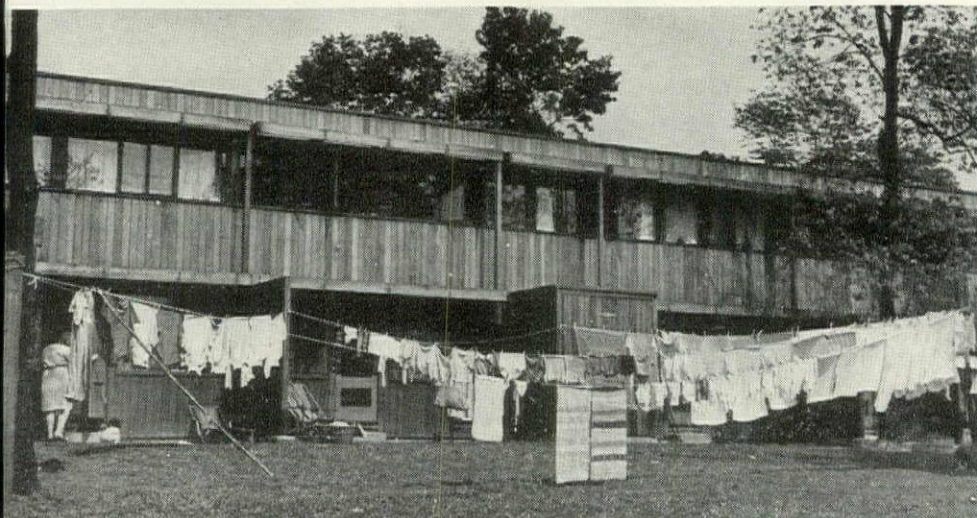
"I like the front, but not the back because it's unpainted." (Continued on page 69)



REAR OR "WORKING" SIDE OF 2-STORY, 8-UNIT ROWS IS BROKEN BY PROJECTING WALL PARTITIONS AND UTILITY S

Gottscho-S

TENANTS PREFER CONVENIENCE TO CONCEALMENT FOR THEIR DRYING LAUNDRY, WHICH ADDS TO SITE'S INFORM

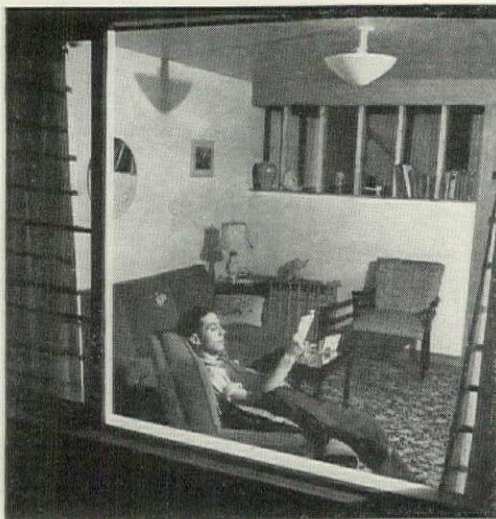
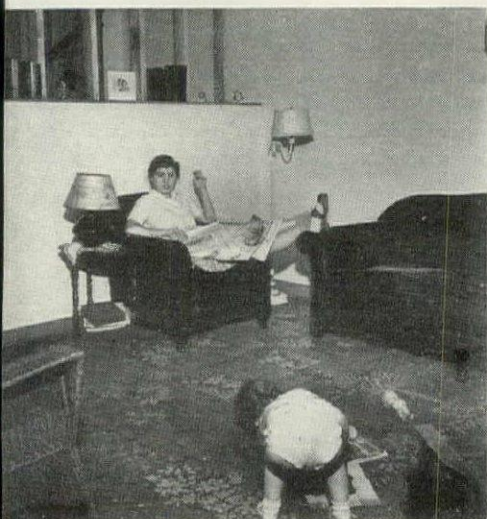


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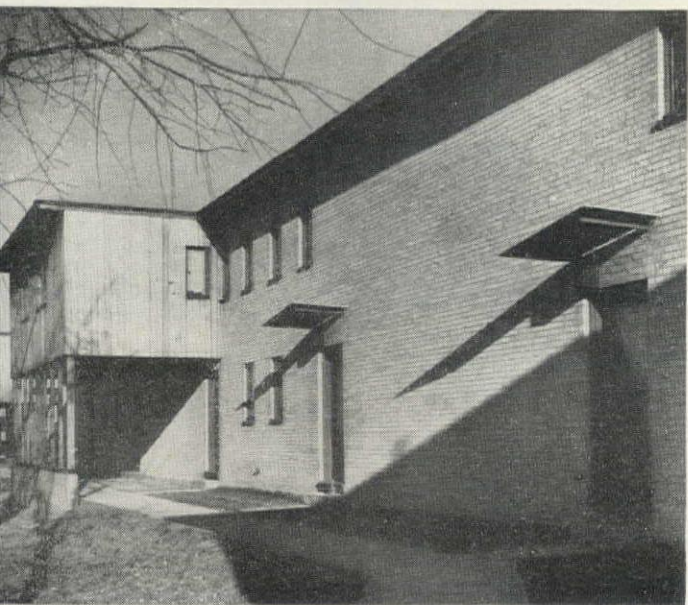
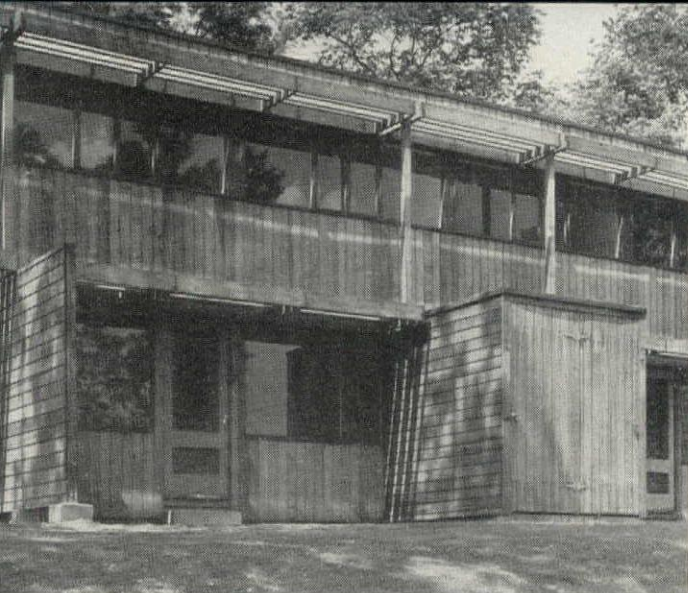


INFORMAL SITE PLAN AND SUN ORIENTATION PRODUCE VARIED AND INTERESTING VIEWS THROUGHOUT THE PROJECT

OPEN PLAN OF INTERIOR PROVIDES DESIRABLE FLEXIBILITY FOR TENANTS' VARIEGATED FURNITURE AND POSSES



Gordon



OW SIDES FACE THE SOUTH, BRICK FRONTS FACE NORTH

Photos: Gottscho-Schleisner

Brick veneer is used on the walls on the access side, treated cedar on the southern walls with their broad windows and slatted sunshades. The general orientation of the living areas to the south, southeast or southwest allows for complete control of the sun's rays. In this latitude the summer sun has a very steep angle, while the winter rays are much lower. With a projecting hood over the windows, the hot summer sun can be completely excluded from the buildings without sacrificing light and view, while in winter the rays of the sun pass under the hood and penetrate the full depth of the rooms.

An outside garden shed for tools, bicycles, baby carriages, etc. is provided for each unit. These and fence partitions serve to divide the outdoor garden and sitting areas, from one another, giving each some degree of privacy.

TENANTS' OPINION (cont'd)

particularly liked our windows—thought they were beautiful with all the sunshine coming in.”

“I like the big windows, but they're hard to clean.”

The problem of curtaining the expanse of glass came up frequently, and another minor reservation was the need for windowshades or venetian blinds.

“I believe I like the big windows better now than when I moved here—now that I have drapes and everything. It would be fine, though, if we had venetian blinds.”

“I don't care for the big windows. I'd rather have smaller ones where you can use venetian blinds or something. When my little boy had the measles I wanted to darken the room, and there's nothing you can do about it. Curtains alone don't keep it that dark.”

“I don't like them. If I had a big shade I might . . . I like light when I want light, but when I want dark I want dark. They don't allow us any sort of shades or blinds. That's for uniformity.”



“I like the big windows, but not for all one wall in the bedroom. You have to keep it covered up.”

INTERIOR PLAN

The apathy expressed over the question of exterior design changed to enthusiasm when the interiors were mentioned. Here the open plan of kitchen, dining area and living room, with only a low partition separating the kitchen, seemed very popular. Twenty liked the arrangement; 4 did not; I was uncertain.

“We do like the houses. They look real nice; but they look niftier inside.”

“If we ever build, I want it arranged just like this, with better material—perhaps plaster walls.”

“I like the way the kitchen and dining room are separated. When you have a party it's nice, because you don't have to walk into the kitchen while you're entertaining your guests and leave them.”

“I like the inside. I came from a six-room house with rooms as big as the kitchen and living room put together. But when it comes to housecleaning, this is much better.”

“I like the partition arrangement because you can watch the baby from the kitchen.”

“I didn't like the partition when I first came because I wasn't used to it, but I like it now. It's convenient.”

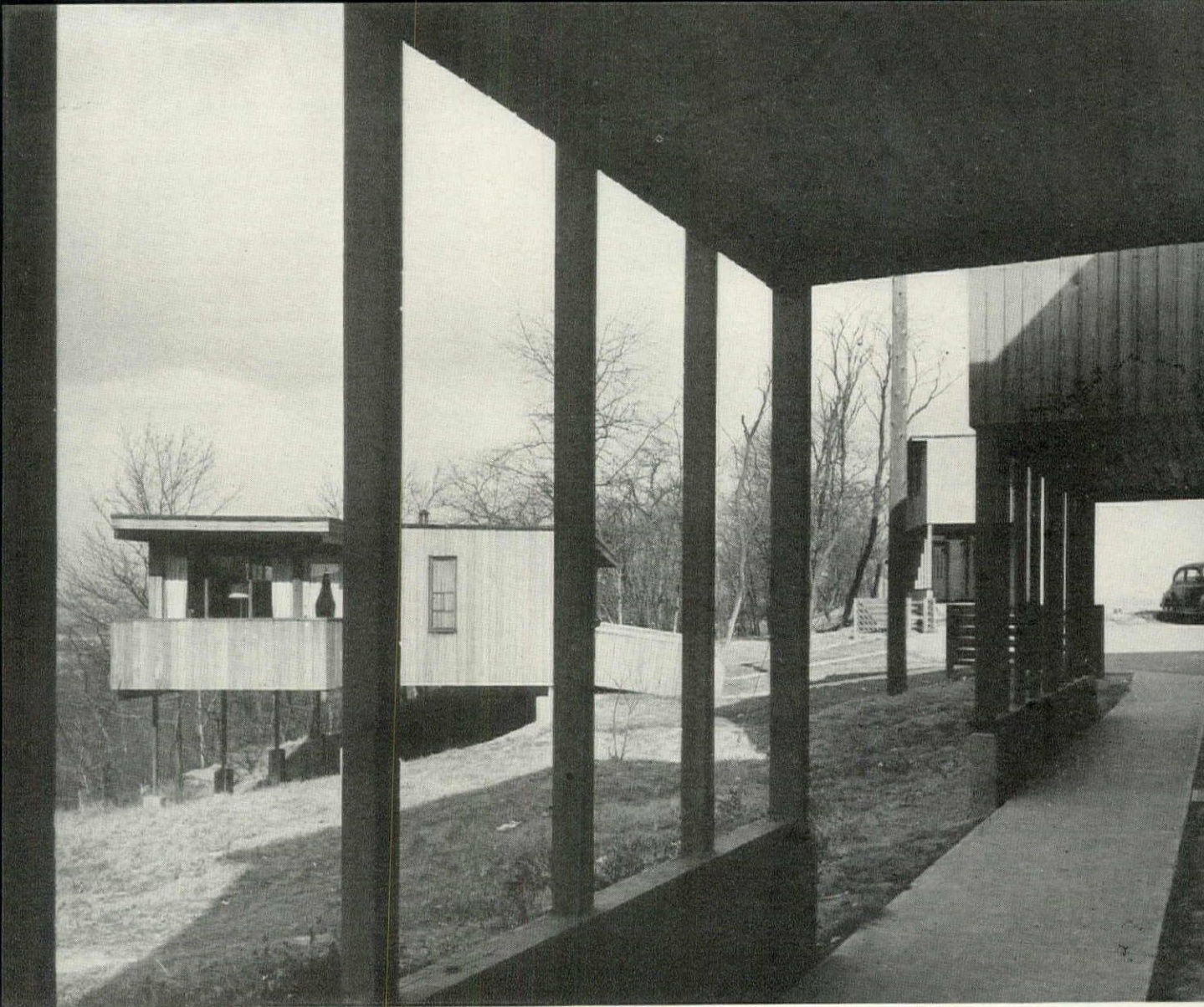
“I like the partition but my husband does not. He said it looks like they didn't want to finish it.”



“The insides are kind of cozy and comfortable and easy to keep clean.”

LAUNDRY

One of the major problems in housing projects—and one still unsolved at Aluminum City Terrace—is that of laundry and drying space. Here an indoor utility room is provided in each unit. But, as the following comments reveal, this does not seem adequate, (Continued on page 73)

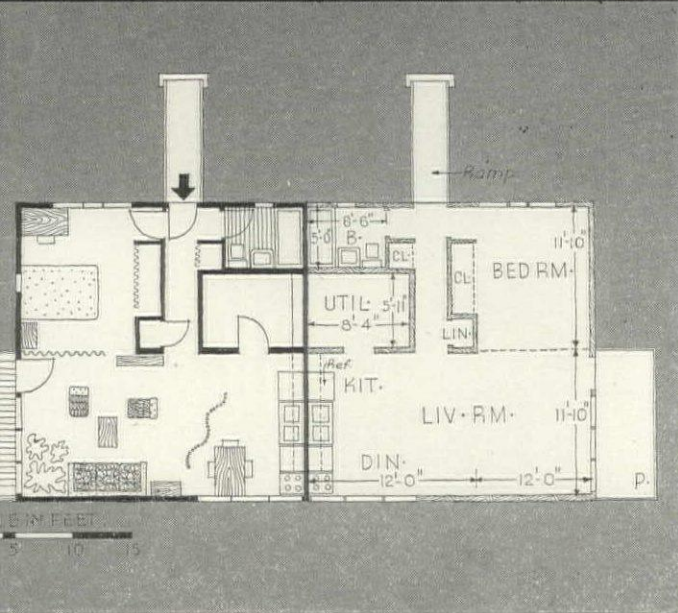


SEMI-DETACHED UNITS ARE TUCKED BETWEEN LARGER TWO-STORY ROW-HOUSES ON THE STEEP CREST OF THE

ROOMS HAVE SPACIOUS WINDOWS AND VIEWS AND AN OPEN PLAN WITH LIVING, DINING AND COOKING IN ONE S



Photos: Gottscho-Sa



OTHER PLANS, THIS HAS LIVING ROOM ON THE VIEW SIDE

Taking advantage of the picturesque slope where the hilltop sheers off into the river valley, four small, semi-detached houses are perched on stilts at the edge of the slope. The somewhat nautical spirit of these little units is carried out by use of inclined gangplanks instead of the usual stoop at the entrance.

The twin units are quite different in plan from the larger two-story row-houses. Here the living room, dining room and kitchen are completely open, lacking even the low partition used in the other plans. In the original design even the bedroom had no partition between it and the living room, but a wall was actually built.

Another feature of these apartments is the cantilevered porch projecting from the ends. All walls are of vertical cedar siding. Rental is \$14 to \$32, according to income.

TENANTS' OPINION (cont'd)

especially for drying clothes indoors on rainy days. Some projects have community drying rooms—but this idea was very unpopular. The majority of tenants have their own washing-machines; and perhaps the problem will eventually be solved with the perfection of these machines to provide auxiliary drying on rainy days when the housewife is not able to air or bleach her clothes in the sun. But the solution most commonly volunteered was that of a cellar for drying.

"One problem here is drying your clothes. When you dry them inside, the windows sweat so much. You're not allowed to put nails in. So I just put my rope on the hinges of the doors. The indoor utility room is too small for my washer. I can't get near the tubs."

"The laundry room (utility room) is too crowded. It allows for one rinse tub. And another bad thing is that there is no drying space; but I think it would be better to have more space inside than to have a community laundry."

"I would rather hang my clothes in the bedroom in winter than have a community laundry. I want a basement."

"I want my own place for laundry. I had a community laundry arrangement when I was a nurse in a hospital, and when you went for a pair of stockings they weren't there."

"I don't like it in winter because there's no place to put your clothes—only a line in the bedroom. I don't like community laundries. You have to wash on certain days, and it might not suit my plans."

Partly because of the needed drying space and partly for other reasons, 14 of the 25 tenants thought they needed a cellar; 10 said they did not need one; and one was uncertain. However, when it came to the matter of a community laundry, 19 preferred things the way they were to having one; 3 preferred a laundry; 3 were uncertain. And some tenants were content with things the way they were.

"I wouldn't want a basement. I spend so much time looking after the rooms with the children around, I'm just crazy about it the way it is. The simpler it is the less work it is cleaning and the more time you have with your children or outside."

STORAGE SPACE

Outdoor utility sheds projecting at the rear of the houses give a degree of privacy between the units. Tenants were asked whether these sheds were satisfactory. Twenty-two out of 25 liked the sheds; 1 did not; and 2 were uncertain.

"I like the utility shed better than a basement. I had a big basement and it took so much scrubbing. This is lots better."

"I find it easier to keep the utility shed 'red up' than a cellar."

"I like it living this way in rows. The partition and tool shed make it private."



"The tool shed is all right to store things in, but it doesn't improve the looks."

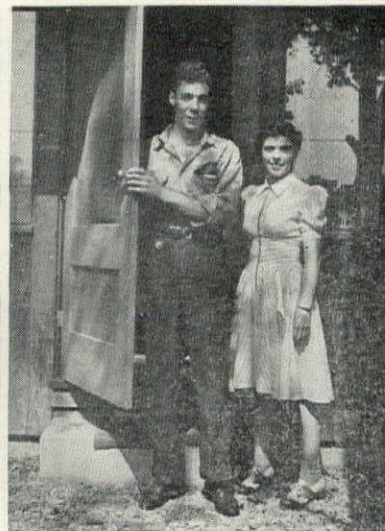
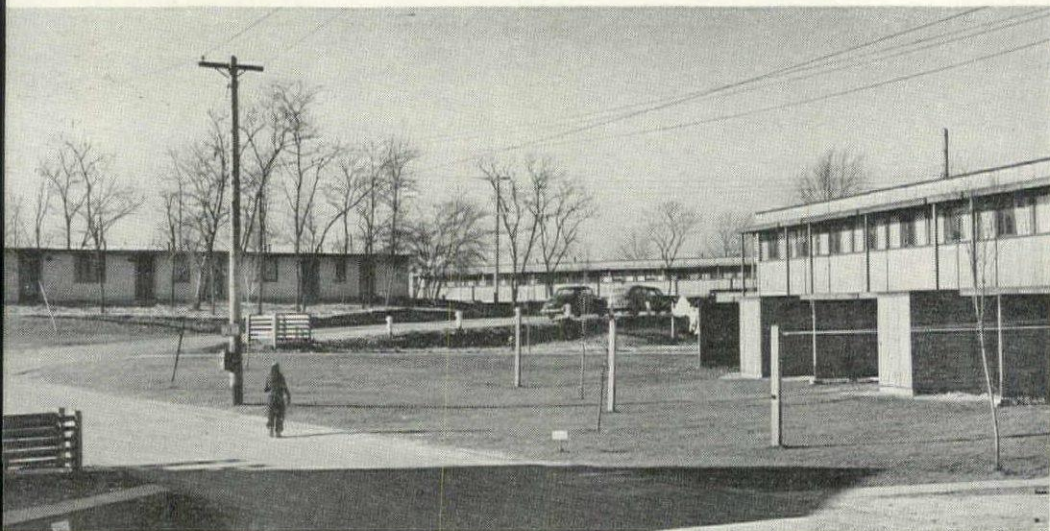
Indoor storage space is included in each bedroom, with large open areas at the ends of the rooms; in an upstairs linen closet; open shelves in the kitchen; and the utility room. The question was asked, "Is there enough closet and shelf space?" Twenty-two thought there was; 1 didn't; 2 didn't know. But a chief (Continued on page 75)



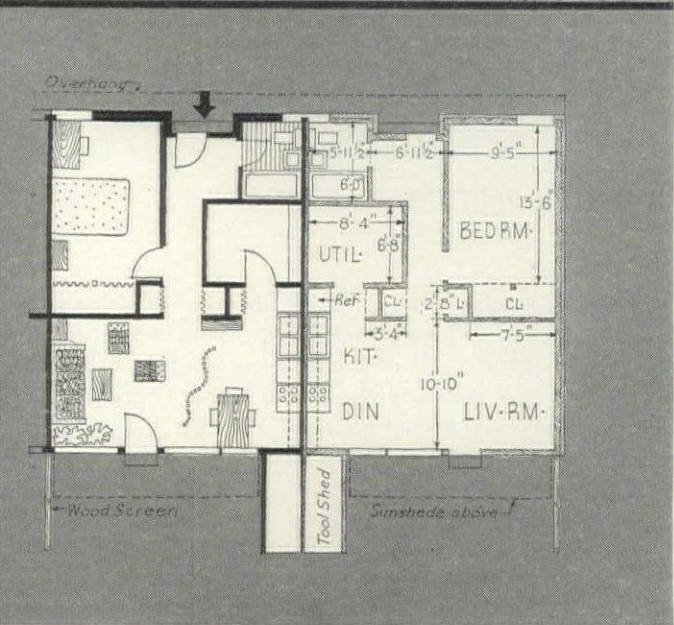
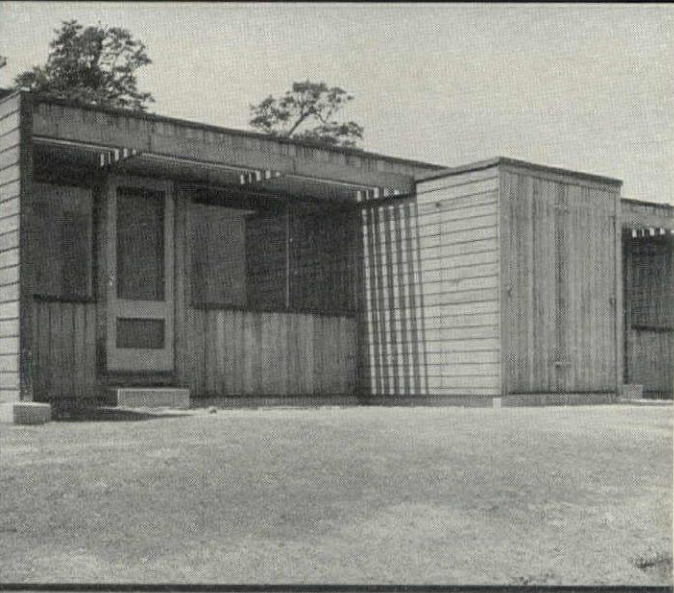
ROW HOUSING INTRODUCES A GREGARIOUS WAY OF CITY LIVING INTO THE OPEN SURROUNDINGS OF THE COUNTRY

Photos: Gottscho-Schle

SOME TENANTS ARE STILL DOUBTFUL ABOUT UNUSUALLY WIDE WINDOWS, SUN AWNINGS, UNPAINTED WOODEN WALLS



Gordon C.



Y SHEDS AND FENCES BREAK YARDS OF ONE-STORY UNITS

Giving further variety to the site plan and breaking the monotony of two-story buildings are a few one-story one-bedroom units built in rows. There are 30 units of this kind—one group of six, three groups of eight in a row. Their construction is similar to that of the two-story houses: brick veneer on the fronts, vertical cedar siding and wide horizontal window rows with their sunshades on the rears.

In plan they are more like the small twin units, with bedroom separated from living-dining room-kitchen and accessible from a hall. Rentals are in the same range as for the two-family houses: \$14 to \$32 including water, electricity and gas for heaters.

The project was started under the auspices of Dr. B. J. Hovde, Administrator of the Pittsburgh Housing Authority, and eventually turned over to the newly organized Westmoreland County Housing Authority, which now runs it.

TENANTS' OPINION (cont'd)

criticism of the storage arrangements was that there were no doors on the closets and this involved considerable expense in curtaining them.

"I find enough space inside. I don't like the clothes-presses (open-front closets), though—it takes so much material to cover them."

"I like the houses, with one exception: that there aren't doors on the cupboards. Otherwise I would say that they're all right. I think the space under the steps could have been utilized, though—to store our canned goods."

"There isn't enough space to store my canned fruit inside the house. I have to keep it in the linen cupboard upstairs."

"The utility rooms should be cooler for fruit and canned stuff."

"For canned goods I could use more space inside. It freezes outside in the utility shed."

"A lot of people don't like the dishes sitting out in the open. But there is a good bit of cupboard space."



ROW HOUSES

Generally speaking, the tenants did not seem to mind row-house life (although the Mayor of New Kensington had stated that the desire for individual homes was deeply established in his community and that the project did not satisfy the occupants for that reason).

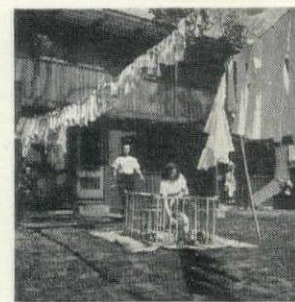
"I used to think it was important to live in a free-standing house, but now I don't know that it matters."

"It's not necessary to live in a freestanding house. This is really better, because the houses would all be alike anyway, and then they would look a lot worse than these row houses do."

"With the children, it's all right to be living in a row. My little girl has to get used to having children around who will stand up for themselves. It will do her good."

"I wish you could fence in the backyard. It would look terrible, of course. But it's awful running after the kids. I have to put the baby on a rope."

"I think if most people had their own little yard space it would be a help."



SOUND CONTROL

Living in row-houses has the accompanying problem of noise-proofing between units. Here the walls are of wood frame construction, with no closets or other means of deadening the sound. Many families expressed sharp criticism on this point; but as a whole, the problem did not seem to bother the larger group of tenants too much. Eleven of them did not think there was too much noise coming through the walls; 7 did think so; and 7 were undecided.

"We don't like the apartments being connected. It isn't soundproof. It is pretty bad, particularly upstairs. There are openings under the baseboards where you can see straight through and where cooking odors come through."

"The noise going through the walls doesn't bother me too" (Continued on page 76)

much. I try to keep my children quiet. If everyone would, it would be all right."

"We were thinking of getting a piano, but with the thin walls we wouldn't dare."

"At first the noise coming through the walls was terrible. My neighbor talked so loud, and talked about us. But now it's all right. My new neighbor is quieter."

GARBAGE DISPOSAL

Many public housing projects—including Aluminum City Terrace—have been criticized for the disorder resulting from mismanagement of garbage disposal. Here the problem apparently has been solved. Twenty-one thought the arrangement good; none disapproved of it; and 4 didn't give it much thought.

"People keep their garbage cans in the tool shed in summer. They carry their cans to the pens—one for each group of houses—where it is collected once a week. It's a pretty good arrangement."

"After all, you should do a little bit of work yourself."

GENERAL REACTION

Twenty-one out of 25 tenants liked living in the project; 3 were still uncertain. Only one was positive in his outspoken dislike of living there—and this was the one man questioned, a husband who happened to be home from work that day. He repeated many phrases of the familiar newspaper and word-of-mouth propaganda against the place, starting out excitedly: "The houses are a terrible waste of money! They cost too much to build! There must have been some graft somewhere! I don't know just how much they cost, though. They should have been better insulated against sound."

After this outburst, his wife, when queried, said mildly: "I like them all right."

The husband turned: "You didn't tell me that"

Wife: "Well, they're convenient, aren't they?"

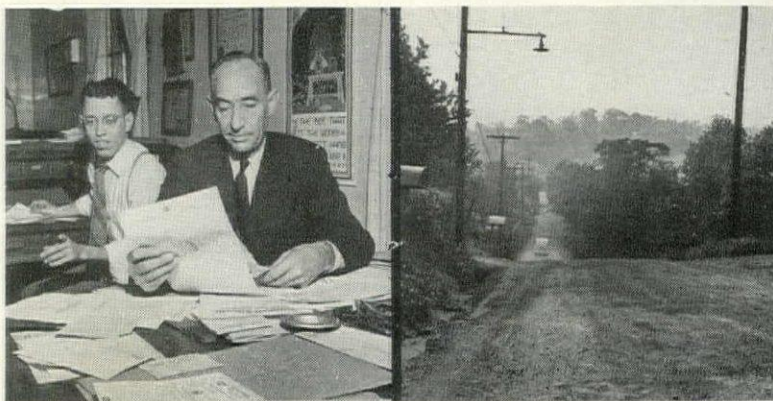
The husband reconsidered, spoke more thoughtfully: "Well, if they were duplex it would be better. I don't like this wholesale grouping of families. One likes a little privacy and independence and seclusion. I called them chicken coops before I came. After all, chicken coops have an open front. I think if they were painted outside they would look all right. They're all right inside, too—only they're small. But I like the big windows, for health."

This husband's reaction is typical of that of many tenants: a critical attitude that eventually shifted towards approval.

"It's a lot nicer than living downtown. I wouldn't want to live downtown again."

"I like it. I'm just crazy about it. I think it's ideal for the average family. My husband wasn't crazy about coming out here to live, but now he likes it."

As a whole, the tenants appeared happy and contented. How much of their approval is attributable to the unusually free space arrangement of the interior design; how much to gradual acceptance of a somewhat revolutionary and bare exterior; how much to the unusually large windows; how much to the extremely pleasant site cannot be revealed by a survey of this kind. But what is revealed is that public acceptance does not always follow the pattern laid down by advance prejudice and propaganda. Most of the things the tenants object to are characteristic problems of all housing projects, whereas the features of Aluminum City Terrace which are particularly modern in design have met with wholehearted approval at the most and with uncertainty at the least.



MAYOR WALLEY of New Kensington (shown with his secretary-nephew) rode into office on the crest of the wave of opposition to the Aluminum City Terrace project, then held up the building of a new road to the site, thus slowing occupancy of the project. But now the Mayor faces a new election, while the housing project is nearly 100 per cent occupied.

NEW KENSINGTON POLITICS

For a short period in housing history, FWA's Division of Defense Housing under Clark Foreman followed the policy of assigning projects to outstanding modern architects. Under this administration, Aluminum City Terrace was assigned to Marcel Breuer and Walter Gropius of Harvard. Architects Gropius and Breuer produced a scheme that was almost a revolution in public housing, with their accustomed severity of exterior design and exceptionally open interiors.

Partly because of its modern design, which made it vulnerable to the usual conservative-minded opposition, and partly through a combination of circumstances have nothing to do with the design, the project ran into stormy politics. Private real estate's usual fears of government competition were intensified by a political campaign in which the project became a target for mud slinging. Shifts in housing administration and policy, budget curtailment, and accompanying changes in site plan further complicated things. The former Mayor of New Kensington who had helped sponsor the project and had assured a new and shorter road from the town to the site, lost his campaign for reelection. The new and unfriendly administration failed to build the planned access road, and the housing was suddenly left high and dry. During the election campaign, a Pittsburgh newspaper had run an interview with the antagonistic Mayorial candidate referring to the houses as "chicken coops"; and this was picked up by other papers and built into a local "cause celebre."

Although the project was completed by May 15, 1942, tenants dribbled in, and it was not fully occupied until the end of 1943. Occupancy was not speeded by the fact that the anticipated expansion of the nearby ALCOA plant failed to materialize.

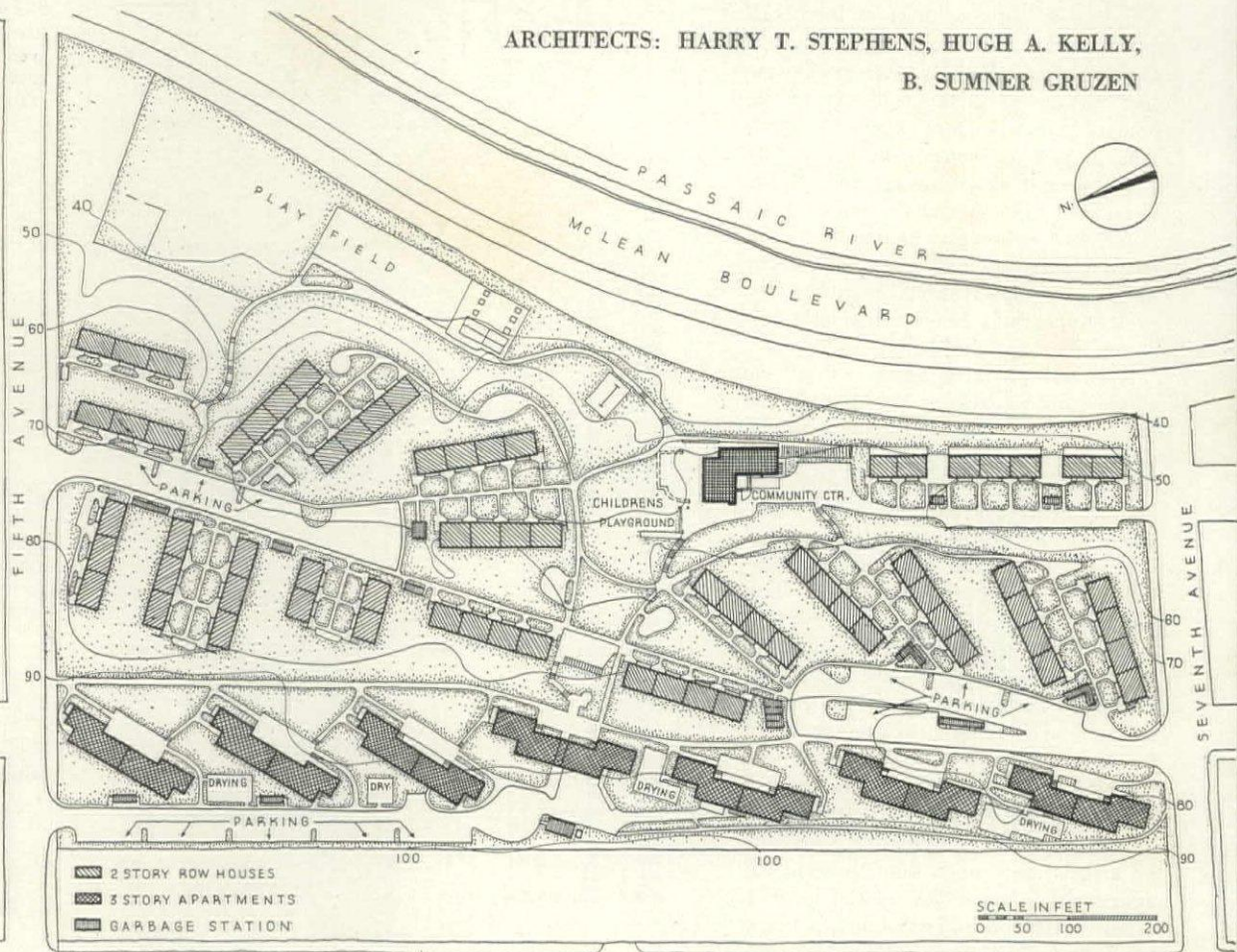
Eventually newspaper criticism subsided, tenants became more accustomed to the design, the new Mayor somewhat relaxed his vehemence. But even today he still says: "Because of this project there has been no increase in private building in New Kensington. We would have built a thousand homes if it hadn't been done. The design of the houses in multiple units isn't suitable to our community; this town is accustomed to individual homes. The architecture is terrible (but I'm not a connoisseur). I don't think the arrangement inside is good. Perhaps 50 per cent of the people living there will move out if other houses are provided."

But today Aluminum City Terrace is almost fully occupied. In the valley below, in the smoky little factory town of New Kensington, it is still criticized. But most of the tenants now like it. A great deal of sound and fury has not kept people from going there, living there, and finding it good beyond their dreams.

RIVERSIDE TERRACE HOUSING

Permanent war housing for Paterson, N. J. exploits an excellent waterfront site and utilizes a uniform, single entrance plan for apartment and row house units.

ARCHITECTS: HARRY T. STEPHENS, HUGH A. KELLY,
B. SUMNER GRUZEN



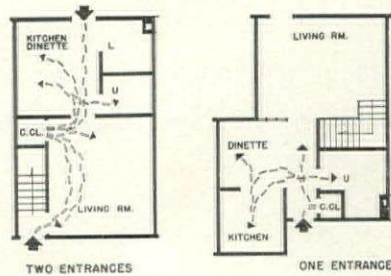
OBLIQUE ARRANGEMENT OF BUILDINGS FACILITATED GRADING AND CAPITALIZES ON THE VIEW



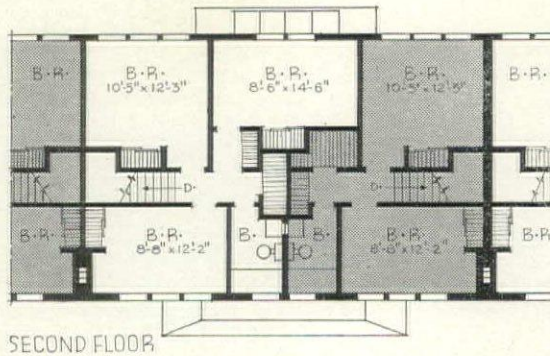
Built for Paterson's industrial workers, this housing project is located on a sloping site along the shore of the Passaic River. A total of thirty buildings have been arranged in an excellent, simple row pattern, most of them oriented to the south and east, a few to the northeast. Though much consideration was given to the contours of the land to save labor and expense in grading, the plot plan in no way suffered by it. The maximum advantages of the view were utilized and the building arrangement conveys a definite sense of combined privacy and space. While the buildings themselves are anything but pretentious, their general appearance is one of pleasant simplicity.

A single planning idea, that of the single entrance, was used in both apartments and houses, limiting all circulation except that up and downstairs, to the front of the unit. In the row houses, bedrooms on both floors straddling the party wall permit a flexible distribution of space between adjoining units. In this way, it is possible to have two three bedroom apartments or a four and a two bedroom apartment in each double unit. Living rooms are at the rear and open on to small individual terraces. The relation of the apartment house entrances to the central stair well permits an identical floor plan for all three stories.

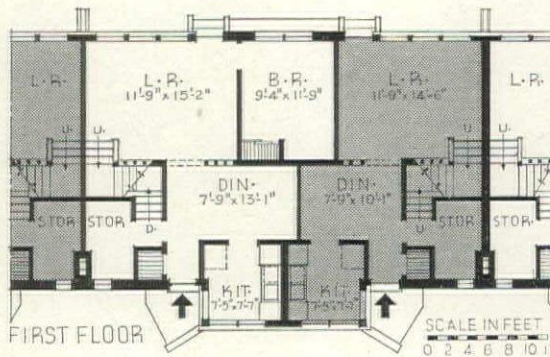
Unit plans for row houses appear to be a little more open than those of the apartments. A few of the latter have no compartmentation and are laid out along somewhat rigid lines with proportionately larger areas of solid wall.



ONE-ENTRANCE unit plan Riverside Terrace shows greatly improved circulation control when compared to standard USHA unit plan

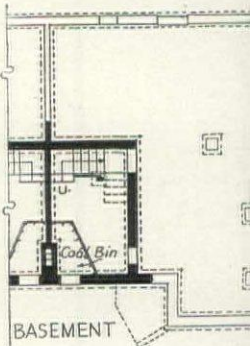


SECOND FLOOR



FIRST FLOOR

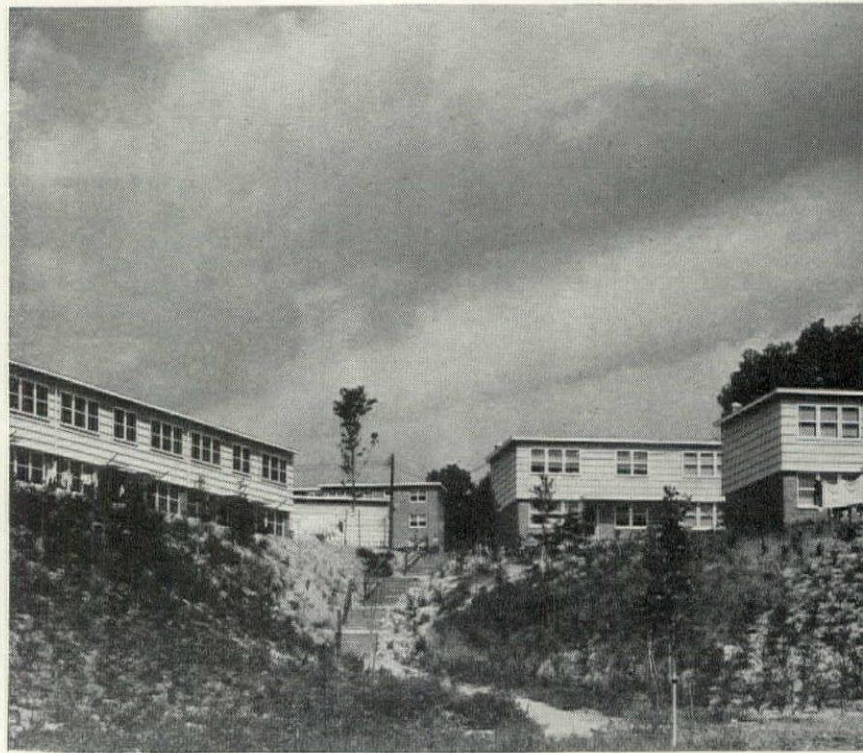
AS ACTUALLY BUILT, a space under the kitchen was provided, increasing storage space by conversion of former heater room and enlarging bedroom.



BASEMENT

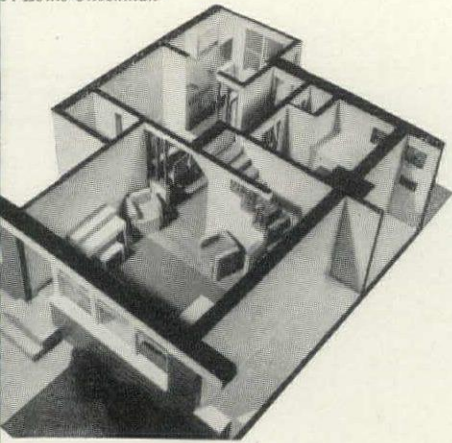
CONSTRUCTION OUTLINE

STRUCTURE: Apartments—4 in. brick, National Fireproofing Co. and concrete block. Two story buildings—shingles on studs. Interiors—Rocklath and plaster, U. S. Gypsum Co. Floors—oak, Atlantic Oak Floor Co. **ROOFING:** Johns-Manville. **INSULATION:** Walls—flameproof cotton. Roofs—rigid insulation, Flintkote Co. **WINDOWS:** Sash—wood, double hung, N. J. Mill Co. Glass—double strength, quality B, American Window Glass Co. **FLOOR COVERINGS:** Kitchens—linoleum, Sloan-Blabon Corp. **KITCHEN CABINETS:**—wood, Colonial Products Co. **HARDWARE:**—P. & F. Corbin Co. **ELECTRICAL EQUIPMENT:**—American Steel & Wire Co., H. B. Austin Co., Simplex Wire & Cable Co., Lightoller Co. **PLUMBING:** Fixtures—American Radiator-Standard Sanitary Corp. Pipes—Wheeling Steel Corp. and A. M. Byer Co. Valves—Walworth Co. Kitchen equipment—American Radiator-Standard Sanitary Corp. **HEATING:**—Steam system. Boiler—Pacific Boiler Corp. Radiators—National Radiator Co. Grilles—Register & Grille Co. Thermostats—C. A. Dunham & Co. Valves—Ohio Valves Co. and American Valve Co. Pumps—Yoeman Bros. Co.

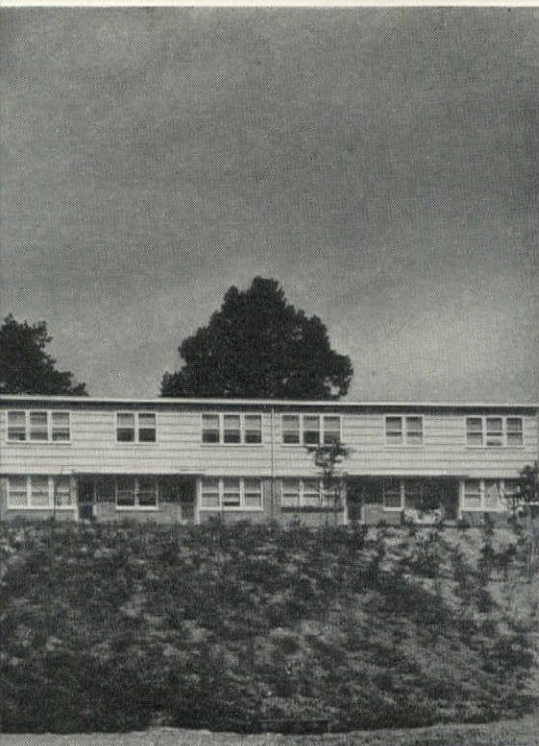
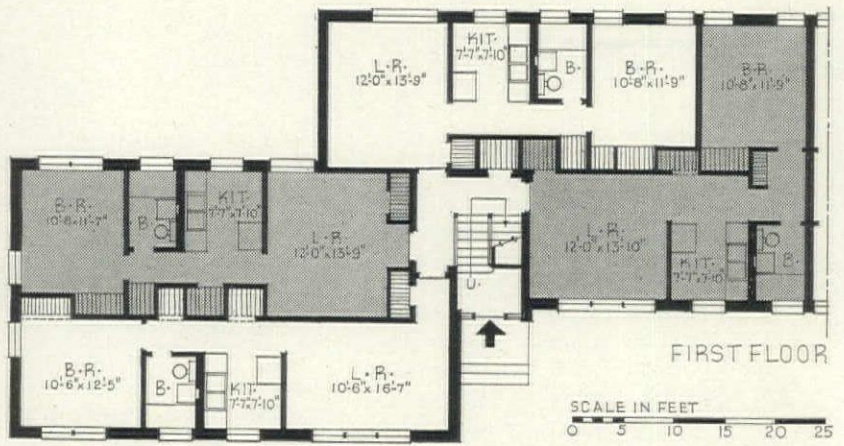
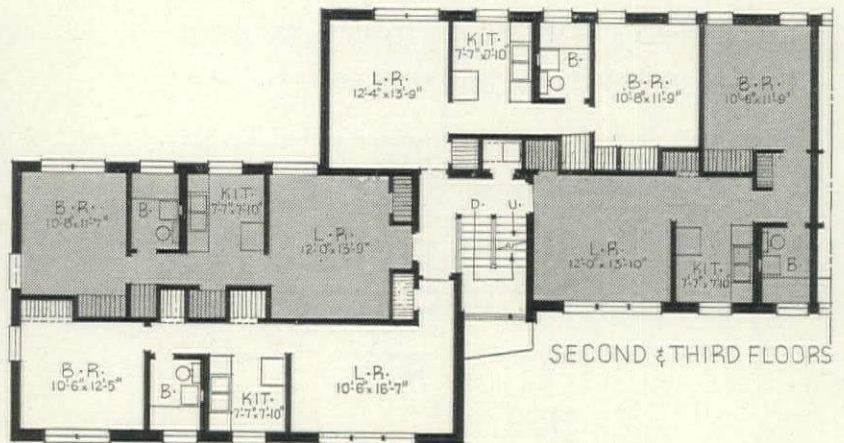
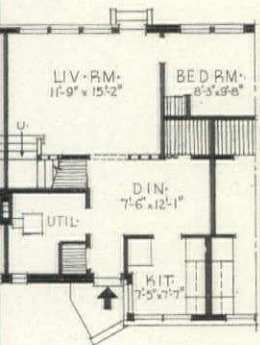


STEPPED DOWN TO THE WATER, BUILDINGS AT REAR HAVE UNOBSTRUCTED

Designed by T. Conrad
 Drawn by Louis Checkman



ORIGINAL PLANS made no provision for basements (above and below). Adequate storage space previously occupied needed space in the living room.



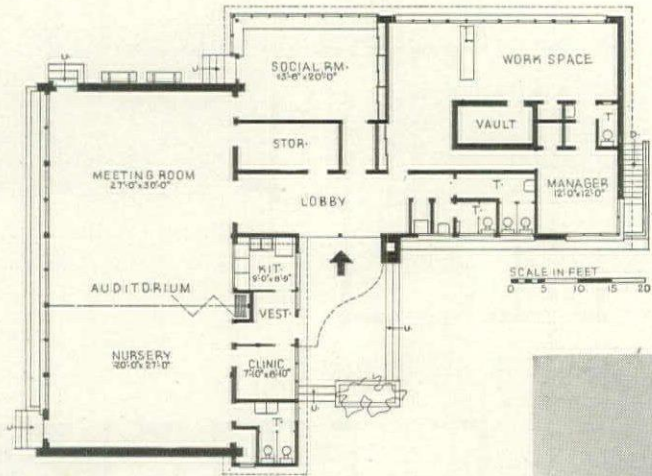
HOUSES HAVE BRICK AND SIDING EXTERIORS



THREE STORY APARTMENTS OVERLOOK RIVER FROM REAR OF SITE

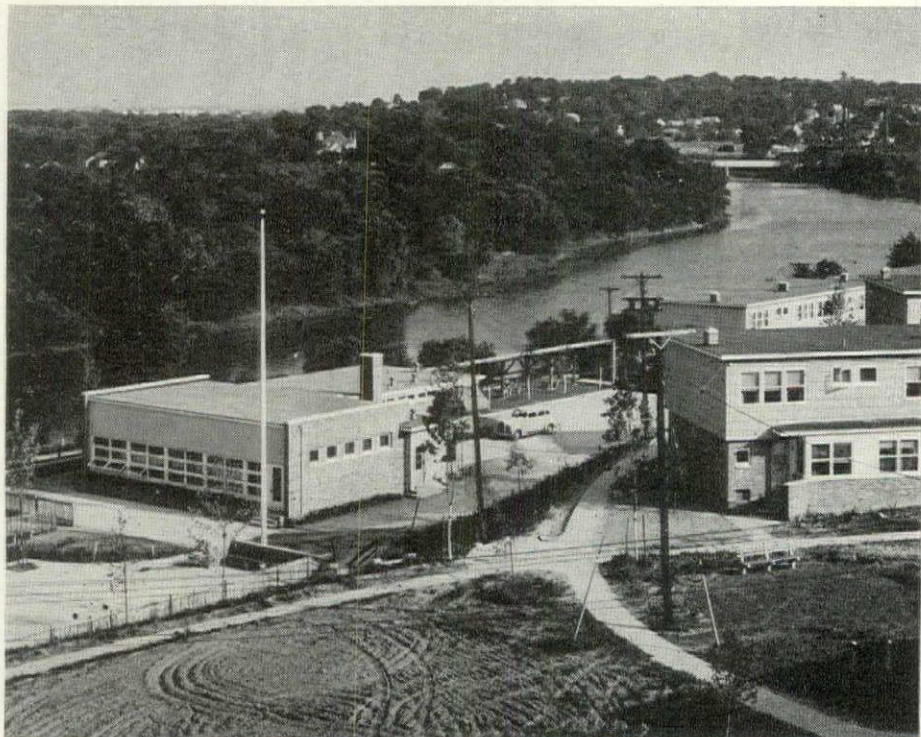
RIVERSIDE TERRACE HOUSING, PATERSON, N. J.

HARRY T. STEPHENS, HUGH A. KELLY, B. SUMNER GRUZEN,
ASSOCIATED ARCHITECTS AND ENGINEERS
KELLY, SYSKA & HENNESSY, MECHANICAL ENGINEERS
MICHAEL M. BURRIS, LANDSCAPE ARCHITECT



TERRACE, COMMUNITY BUILDING

The centrally located community building provides three areas for adult congregation as well as a nursery school. The main auditorium, rarely used during the daytime, can be subdivided into the nursery and a meeting room. The building occupies the most desirable and accessible location on the site.



THE NORTH WINDOWS OF AUDITORIUM OVERLOOK CHILDREN'S PLAYGROUND

PLANNING WITH YOU

Plymouth, England, overcrowded before the war and half destroyed by the blitz, is taking advantage of a unique opportunity for long-range planning.

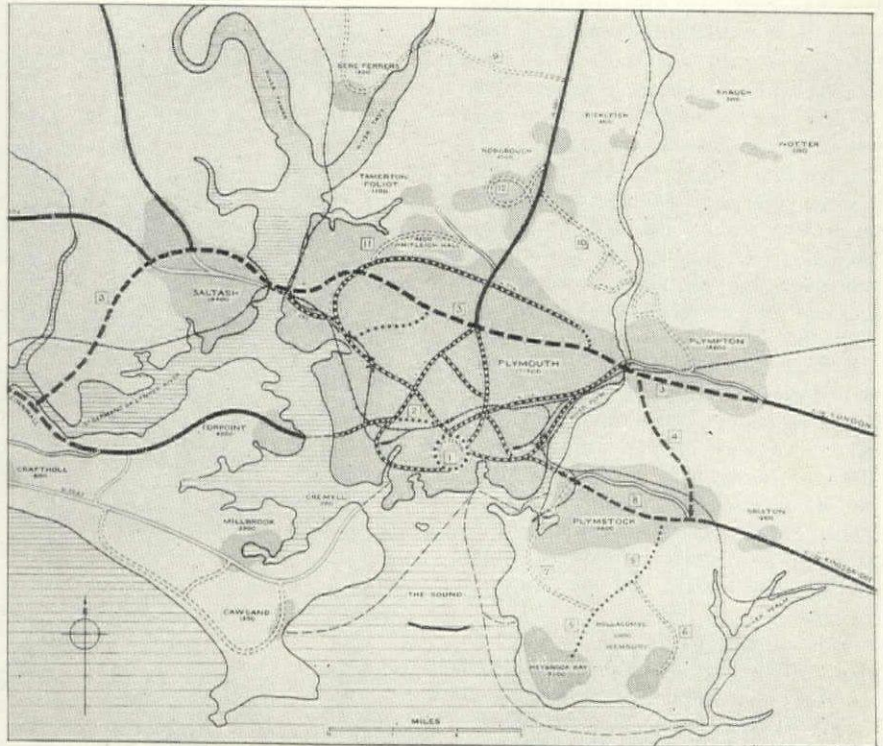
Plymouth, England has a real city plan. No small-time repair job, its postwar planning program will make sweeping changes in the entire life of the city. With one third of its central area and thousands of houses obliterated by the Luftwaffe, Plymouth is snatching the opportunity to do a re-designing job from scratch.

Under its enterprising Lord Mayor—Lord Astor—plans have already been completed covering the needs of a city of 250,000 people. Responsible for the job are J. Paton Watson, city engineer and surveyor, and Patrick Abercrombie, famed town planner, whose design for the city of London has already caused such a stir. (See ARCH. FORUM, Aug. and Nov. '43) Plymouth's plan is even more far-reaching than that of London. Its aim is to relieve overcrowding and to relate all areas to each other. Its creed is that land should be utilized for the benefit of all, not for certain vested interests.

Without the spur of bombing, American cities have not gone so far. But Plymouth, blitz or no blitz, was in need of planned rebuilding, as are most cities in this country. Its haphazard growth had led to traffic congestion and overcrowding in the city proper, wasteful use of agricultural land on the outskirts of town.

In spite of its complicated urban area, Plymouth is not hard to analyze. It is a town with a definite topography—a water-girt city on a tongue of land, divided by two estuaries and many rivers into separate small islands with consequent problems of communication. Only possibility of expansion is north into the hilly Dartmoor section. These emphatic natural boundaries are responsible for the thickly populated urban areas, but also add great natural beauty to the city.

Plymouth's industrial role is equally well defined. One of England's finest harbors, the city's principal occupation is, of course, shipping. Second in importance is her fame as a vacation spot. Many beaches and nearby rolling countryside draw the tourist trade as a land breeze draws flies. In addition, Plymouth presents a market for surrounding agricultural products and is a center for shopping and amusement. With such a stable economic set-up, planning is made much easier.



PLYMOUTH'S postwar planning includes much of the surrounding area. A spectacular bypass will run along a valley—between the outer fringes of the suburbs and the more populated zones. Only four intersections will connect it with Plymouth proper. Country roads, cycle tracks and footpaths will care for less speedy traffic.

However, Plymouth's sporadic growth, like that of American cities, has made living within its boundaries less than beatific. England's oldest chartered borough started five centuries ago as three communities—Plymouth, Stonehouse and Devonport. Originally there was a certain amount of planning in the Stonehouse area, and Devonport, built as Plymouth Dock in the 17th century, was laid out on a definite rectangular grid. With the industrial era, this embryonic planning was pushed aside and the towns became mainly labor pools for housing the greatest number of people in the smallest space at the lowest cost. Areas of tightly packed "byelaw" houses sprang up to mar the appearance of the city. In American towns a similar pattern of slums was being woven by the new industrial expansion.

After the first world war public housing provided better living conditions, but solved no basic community problems. In America we have only recently caught onto the idea of public

housing, which, though better than nothing, is not enough.

In 1928 the three towns, still growing side-by-side but independently, united to become the City of Plymouth. Over 220,000 people were by now crowded into congested areas, and planning became an evident necessity. Under limited existing legislation individual schemes were slowly worked out for Plymouth and surrounding suburbs—Plympton, St. Mary's Northwest, Plymstock, etc. Then came the war. All plans were halted.

If these piece-meal rebuildings had taken place, however, they would have proved a curse rather than a blessing. Traffic congestion in the center of town, already the worst in West England, would have been intensified almost to the point of paralysis. The Civic Centre and the dockyards, cramped into a small space, could only be eased by real expansion. Blighted areas could not be cured by spotty slum clearance.

The new plan is a different matter. It includes Plymouth and all its sur-

rounding areas, regardless of boundary, in a unified and integrated whole. For the first time in a British city plan a balance is struck between town and country with provision for the development of agriculture. The new city will get the most out of the natural layout of the land—the coast, the Devon moors, rivers, woods, even the hilly and irregular sections. Enough light, air and space will be provided for everyone. Industry will be separated from housing and the dockyards will be extended without houses or shops. Residential zones will be within easy reach of work areas.

Plymouth's core will be the Civic Centre grouped around ancient St. Andrews Church. This will be a shopping district, the focal point for civic administration, an office, banking, educational and amusement area. A vista from the railway station at one end of the Centre to the Hoe on the harbor will form the axis of the new city. Terraces, slopes, steps and pools will take advantage of the various levels. Rapid through traffic will be entirely cut off, diverted to an outer ring road. Thus, Plymouth citizens will be able to shop and stroll in covered walks and arcades without dodging trucks or taxicabs.

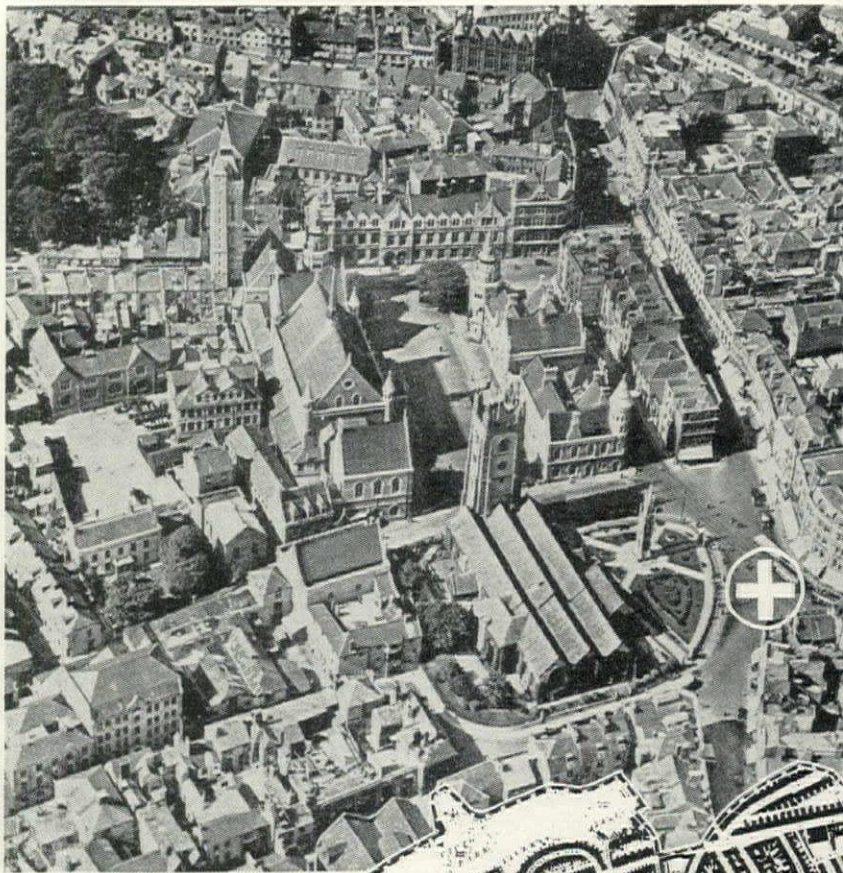
This central pattern is repeated in Historic Plymouth on the east side of the Hoe—that section of town redolent of Sir Francis Drake and Sir Walter Raleigh. The quaint Elizabethan houses and narrow cobbled streets in this citadel were hardly touched by the blitz and will be walled off to form another Centre quite distinct from modern Plymouth.

This preservation of historic landmarks which the tradition-soaked British love so well is an important part of the plan. Churches, half destroyed in the blitz, will be left unrepaired as monuments to the "apocryphal nights" of 1941.

Most of the blitzed areas, however, were districts already condemned. This allows the planners a unique opportunity. About one third of the city's houses are 80 to 100 years old. Nearly 33,000 will have to be rebuilt or restored. The three-story house with a separate entrance for each apartment is recommended rather than tall apartment buildings.

Density of population in the city will be kept to 100 persons per acre in the central core; around this will be an area of 50 people per acre, and on the outskirts 25 per acre will be the maximum.

Residential communities, satellites to the business districts, will be the unit of planning. Each will be built around a school and a cultural center and provided with leisure and sports facili-



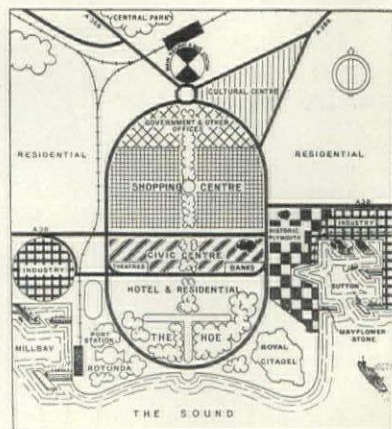
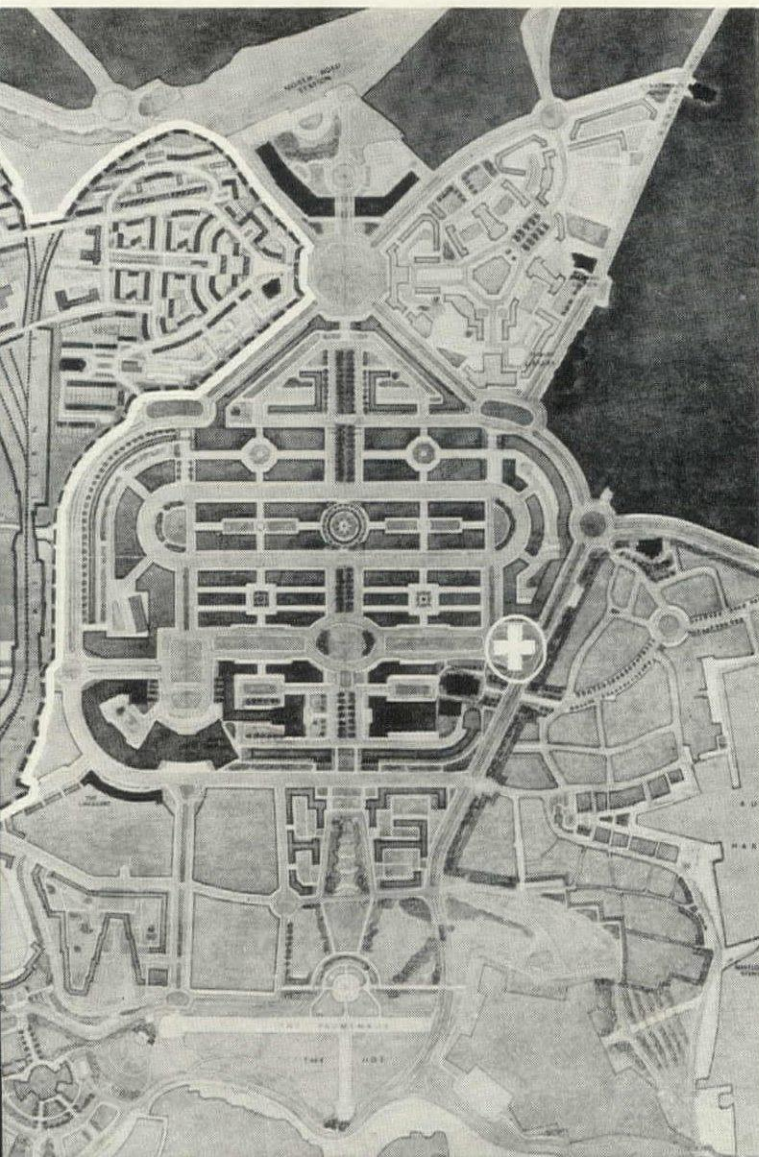
HOUSING is separated from industry and from expanded dockyards in Plymouth's new plan. With buildings represented by black areas, overcrowding is evident on prewar map. Postwar map shows less building, greatly increased open space, good use of neighborhood units. Existing Naval Hospital remains.



MARKS SAME INTERSECTION OF CITY CENTRE BEFORE WAR (LEFT), AFTER BLITZ (ABOVE), AS REPLANNED (BELOW)

PREWAR LANDMARKS are vaguely discernible in post - blitz Plymouth. Monument in first picture has been destroyed except for base, but tower opposite monument still stands after bombings. Replanned Civic Centre (below) occupies old position in city, but is expanded and simplified. Dotted lines show juxtaposition of newly designed housing area next to the Centre. Schematic diagram (lower right) indicates main divisions of

the Centre into shopping, government, hotel and residential sections with through traffic diverted to an outer ring road. Historic Plymouth, almost untouched by bombs, is completely separated from the new city. Street map (below) shows prewar traffic system with postwar streets superimposed in black. New streets are much wider, and greatly decreased in number to fit the future simplified traffic scheme.





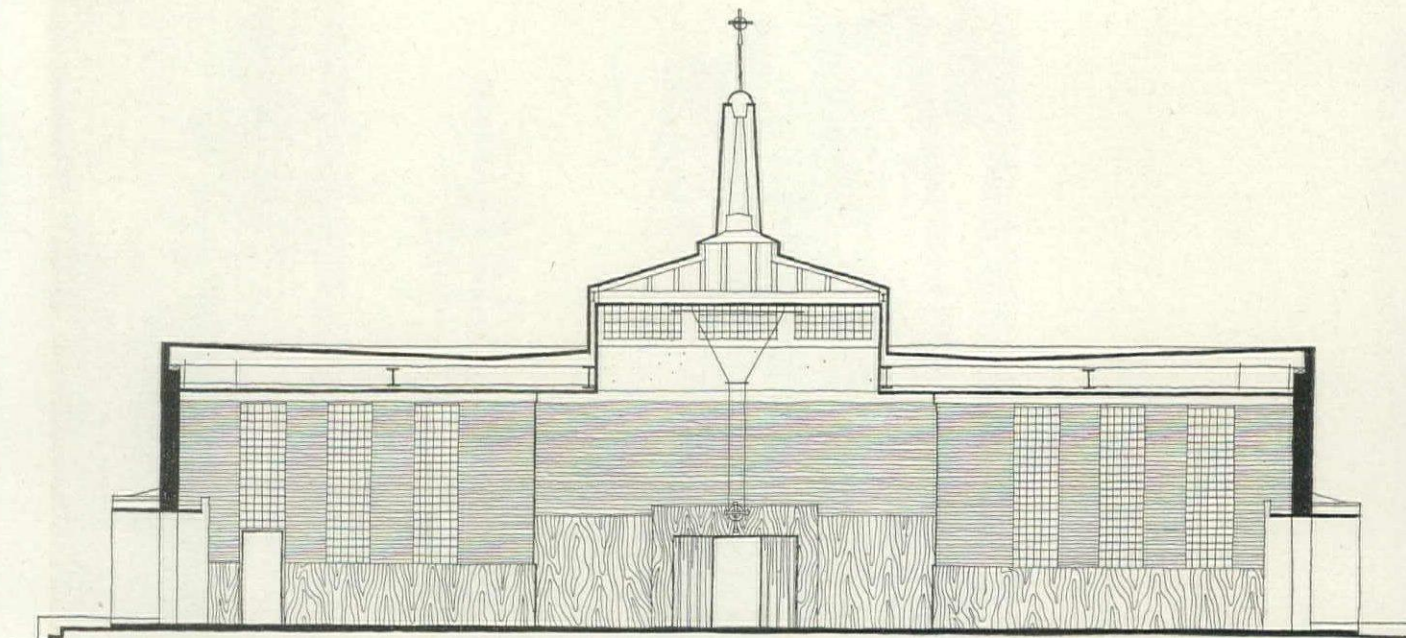
Photos: Ezra Stoller

SAINT MARK'S CHURCH, BURLINGTON, VT.

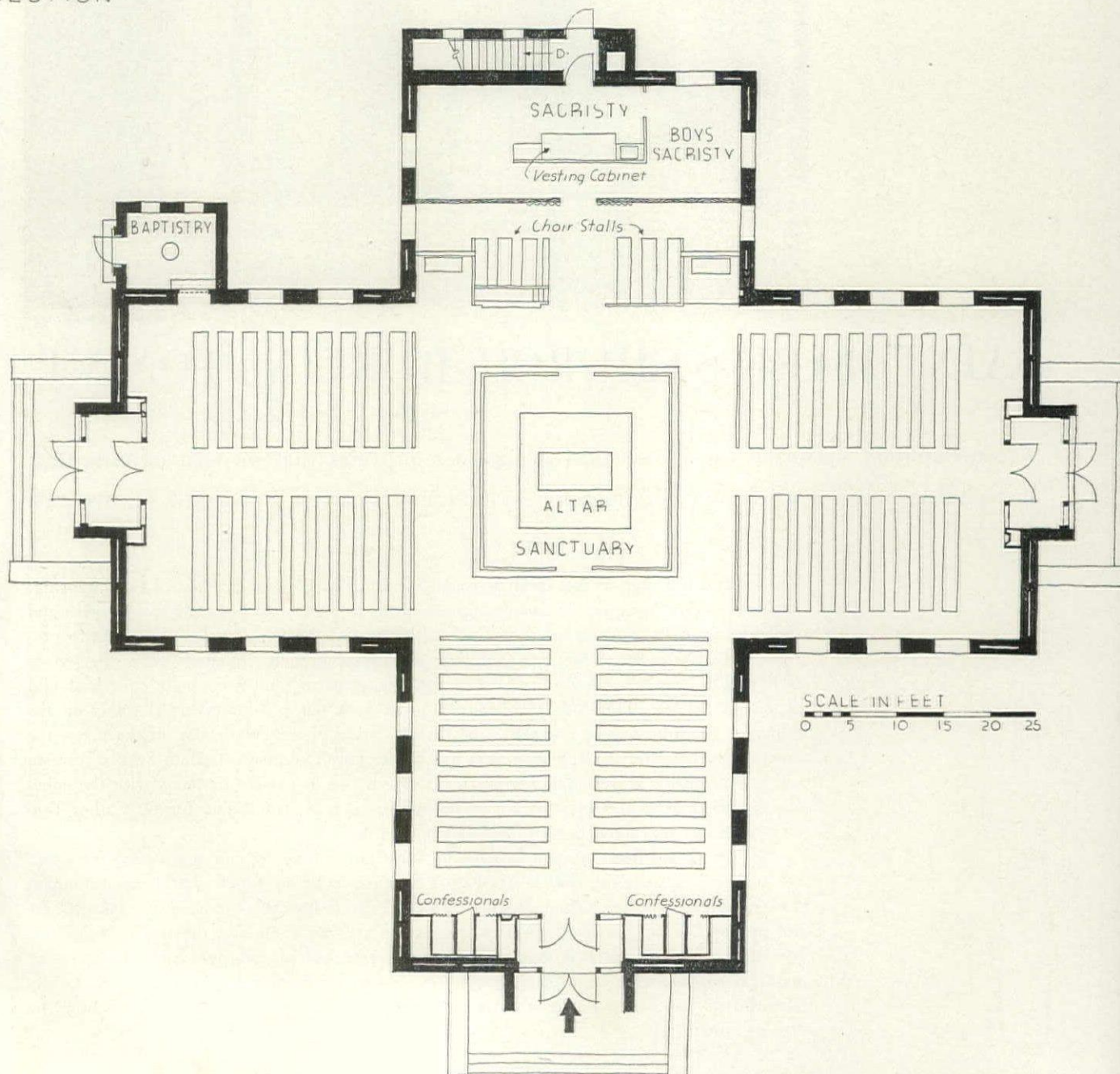
A contemporary approach to ecclesiastical design demonstrates that modern building can furnish harmonious expression to a living religion. FREEMAN, FRENCH, FREEMAN, ARCHITECTS.

The forthright design of this small Vermont church is largely the product of two important elements. Aside from the obvious capability of the architects, an unusually progressive and appreciative attitude toward architecture on the part of the parish priest did much to produce a truly functional religious building. Freeman, French, Freeman were selected as architects because they had no preconceived notions as to what a Catholic church should or should not be. Therefore, they were able to work out a solution based solely on the liturgical requirements of the plan; the true meaning of the celebration of the mass, the functions of the altar, its appurtenances and other church accessories. Both Father Tennien and the architects believe that a modern church can be in perfect harmony with the spirit of religion: that its design need not be limited to accepted traditional forms. Father Tennien expresses this conviction in the following words:

"It has always been the true position of the Church that she can adapt herself to, and put to her use, anything that is good . . . Because truth, of which she is the custodian, does not change—cannot change—she has been expected to be as unchanging herself. By not properly distinguishing between the contents and the container, the two have become identified . . . the Church is ever in flux, adapting herself to each age, each climate, each political regime, and each social system. So too in her buildings, she is not tied to any material or any particular style so long as they are worthy and in keeping with her religious spirit."



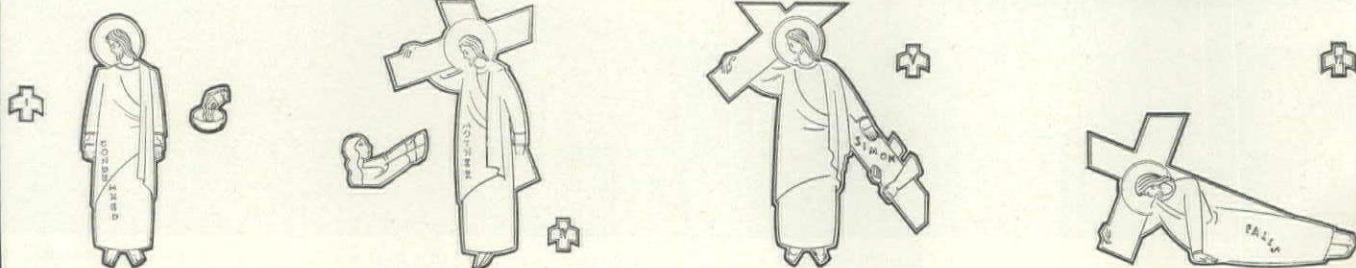
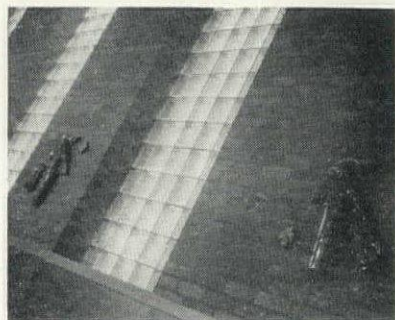
SECTION





The Catholic Church differs from other Christian churches in one important respect: the altar is the true nucleus of the plan; the walls and roof secondary to it. For this reason the architects found that a modern adaptation of the traditional church transept was most suitable since they visualized the congregation as gathered around and participating in the ceremony rather than as mere onlookers. The seating was divided into three groups, one opposite the priest and one at each end of the altar. To further emphasize the spirit of participation the altar was given its central location and bared of massive ornamentation. Not only is the priest clearly visible to the entire congregation during the celebration of the mass, he also faces it—an impossibility in many traditionally styled churches where the altar is often located at the extreme rear.

Wall ornamentation consists solely of small porcelain reliefs symbolizing the Stations of The Cross, designed and executed by Raymond Barger, sculptor.



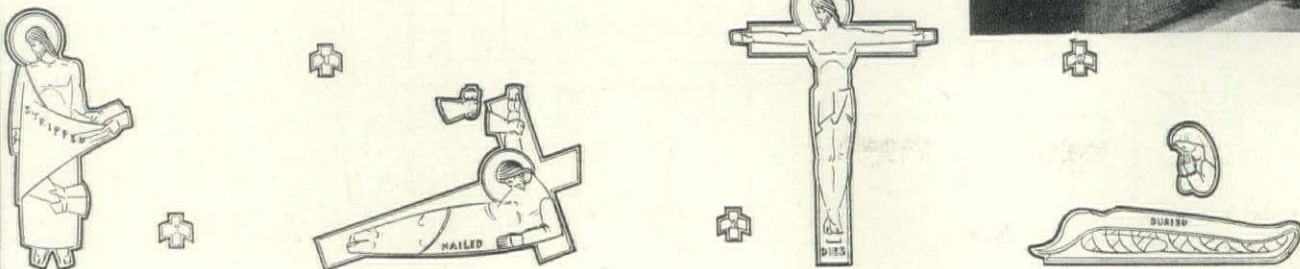
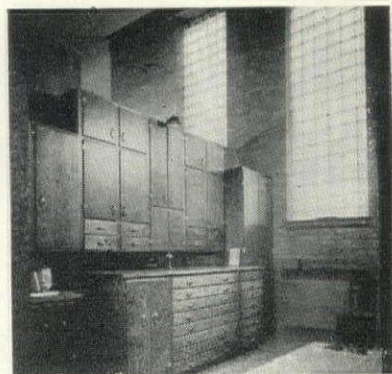


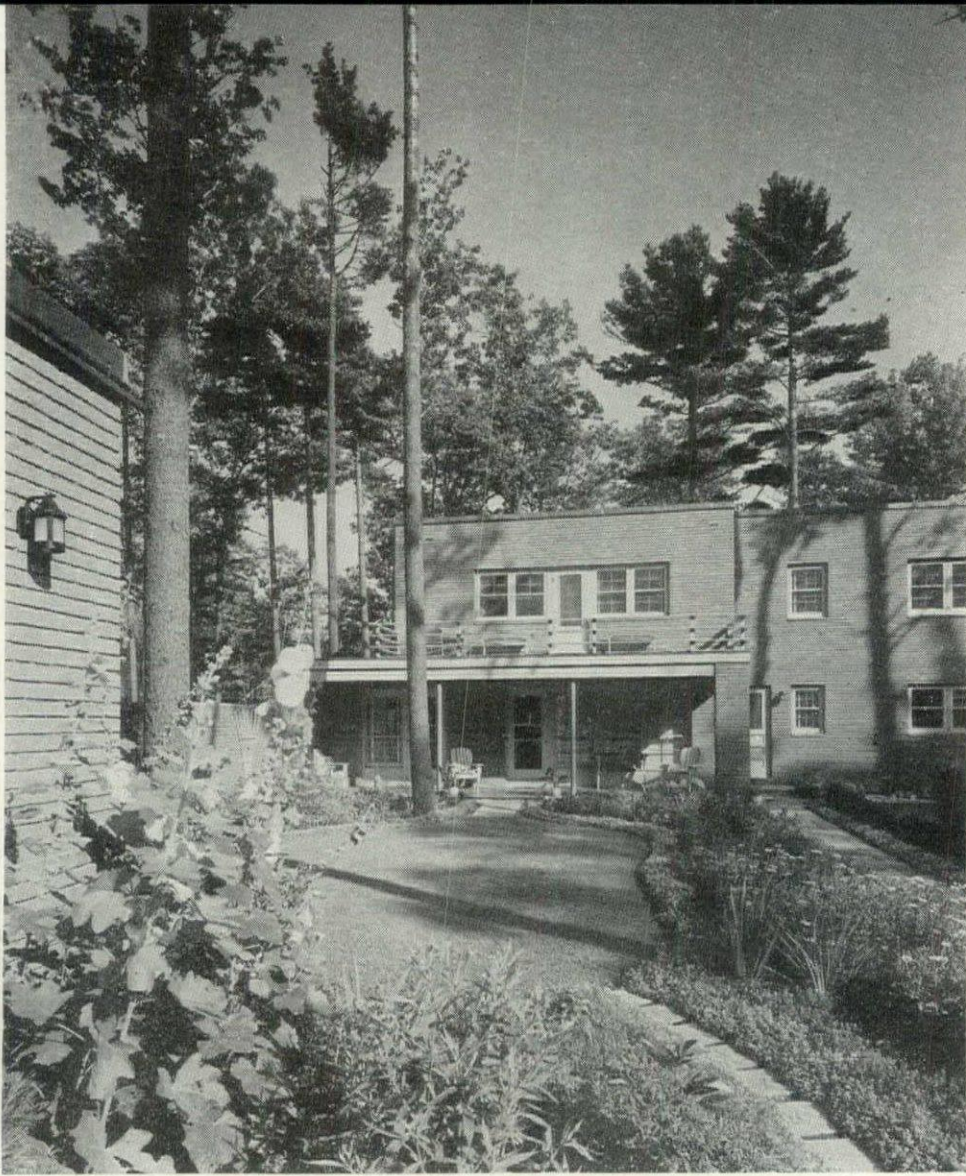
THE SIMPLICITY OF ALTAR, ALTAR RAIL, STATIONS AND LECTURN EXPRESSES USEFULNESS RATHER THAN ORNAMENT



Gloom, too often associated with church interiors, is eliminated by adequate lighting from glass block windows and a raised clerestory immediately over the altar. Native materials were used wherever possible: red brick walls, green-grey slate roofing, natural finished oak for pews and wainscoting, red marble floors. Only two accent colors were introduced: turquoise for the porcelain reliefs and vermilion for the accompanying numerals, wainscoting joints, and plastic rings on the bronze altar candlesticks. Draperies and ceiling are a paler turquoise. The altar rail is brushed metal. The site, a flat, heavily wooded tract, is large enough to accommodate a parochial school and parking area planned for future construction, in addition to the church and rectory.

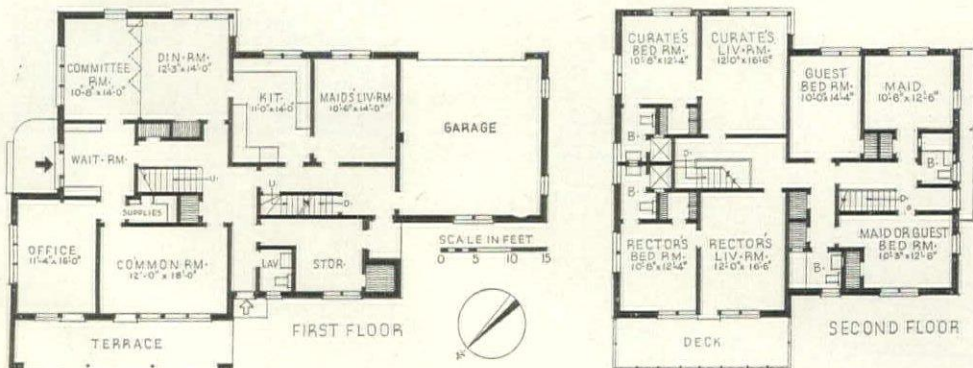
The sacristy, screened off behind the choir stalls, has dressing spaces for the clergy and choir and a commodious, well-designed vesting cabinet.





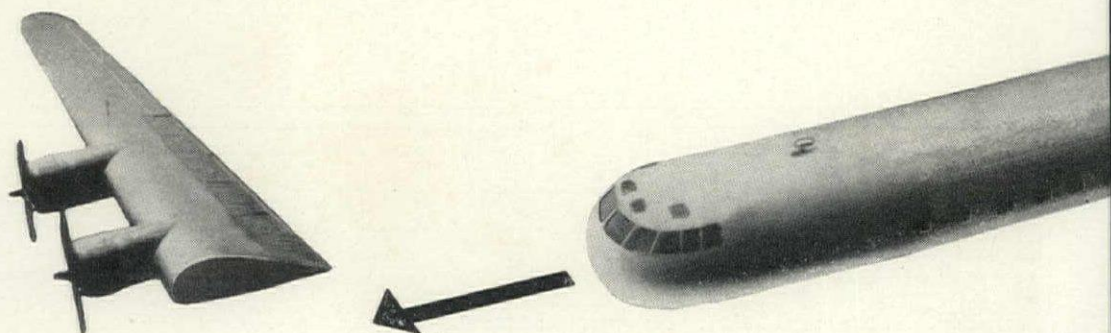
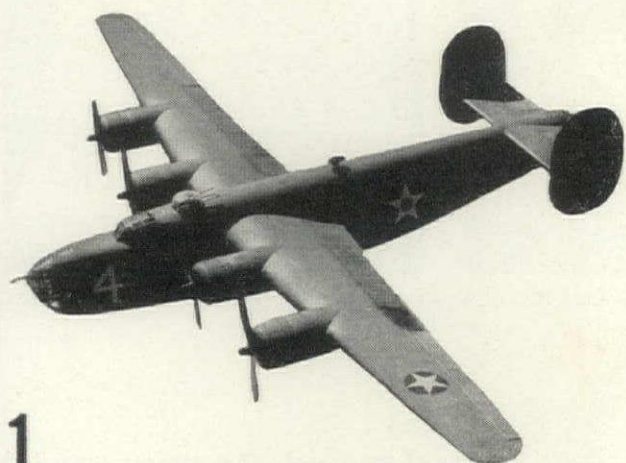
The rectory garden has the informal charm immortalized in the English vicarages, while the simple brick exterior of the house carries out the lines and feeling of the church. This homogeneous building group contrasts sharply with the familiar combination of a gothic church and a victorian rectory side by side. Requirements for the rectory were that it house the pastor and curate (in separate suites), a sexton and a housekeeper. Also included are a public conference room for parish activities, a common lounge for the use of the pastor and curate, guest rooms for visiting clergy, an office for the pastor which is adjacent to the church and which can be isolated from the living portion of the rectory.

FREEMAN, FRENCH, FREEMAN, ARCHITECTS

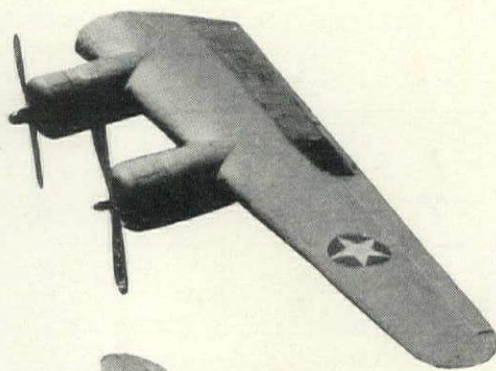


POSTWAR TRANSPORT PLANE

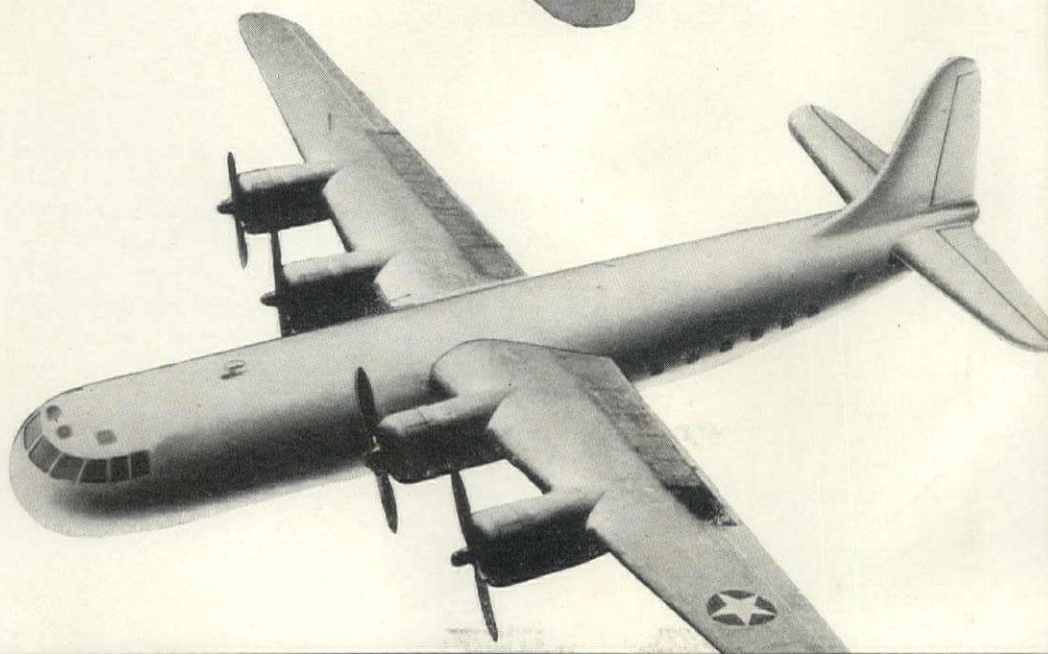
In one of the most ingenious design programs thus far to come over the postwar horizon, Henry Dreyfuss develops a series of seating and sleeping arrangements for transport planes. Designed for Consolidated Vultee Aircraft Corporation, the scheme transforms its famed Liberator bomber into an airliner after the war. Plans fit a new fuselage for use with present wings and engines. Full-size mock-ups of alternative arrangements are already on view for airline executives.

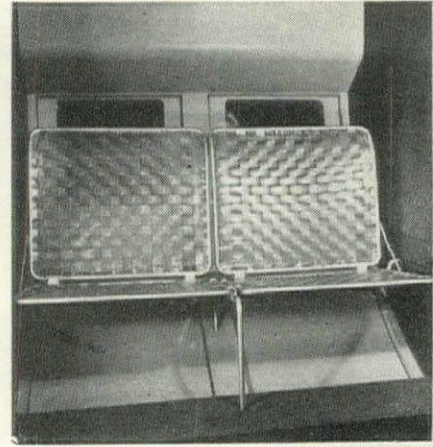
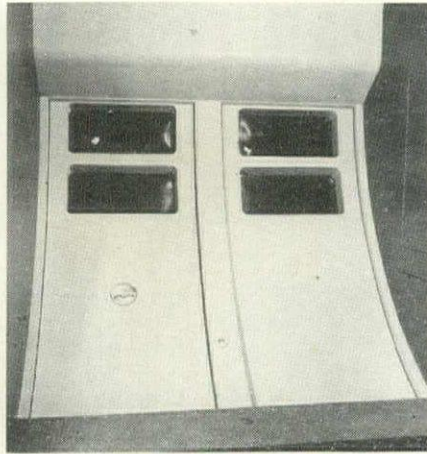


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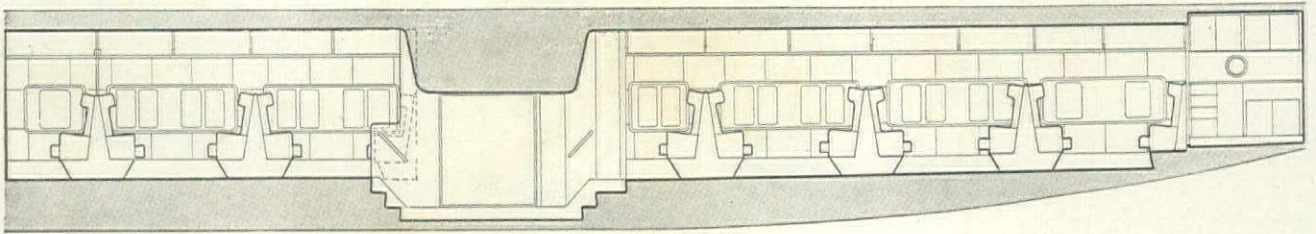
3





WHEN HORIZONTALLY SLIDING ENTRANCE DOORS CLOSE, TWO LOUNGE SEATS FOLD DOWN FROM RECESSED PANEL

Three-and-one coach arrangement uses irregular chair grouping to provide a feeling of space, cuts 48 passenger capacity b

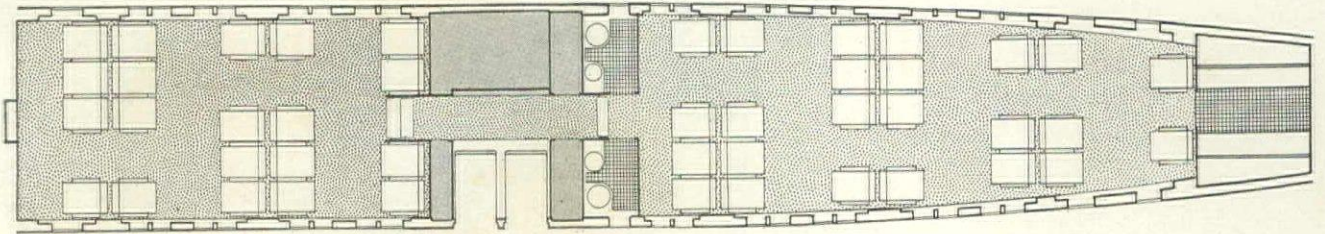


BACK TO BACK SEATS

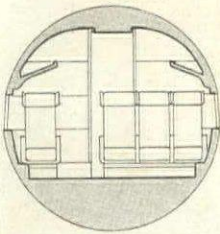
BAGGAGE TOILETS

BACK TO BACK SEATS

GALLEY

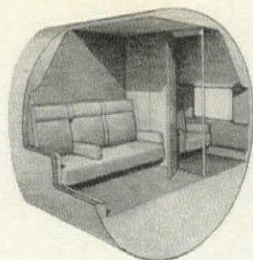
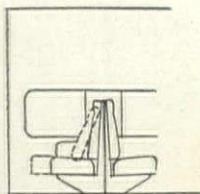
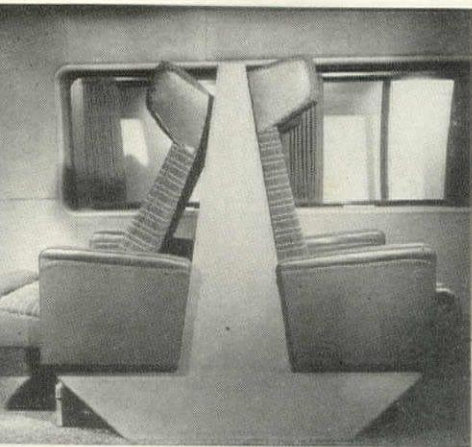


ENTRANCE TOILETS



The Dreyfuss designs for postwar transport interiors stress passenger comfort and convenience. Of particular interest is the new coach plan in which the usual two-by-two seating system is broken into alternate groups of one and three seats. An informal and uncrowded atmosphere results.

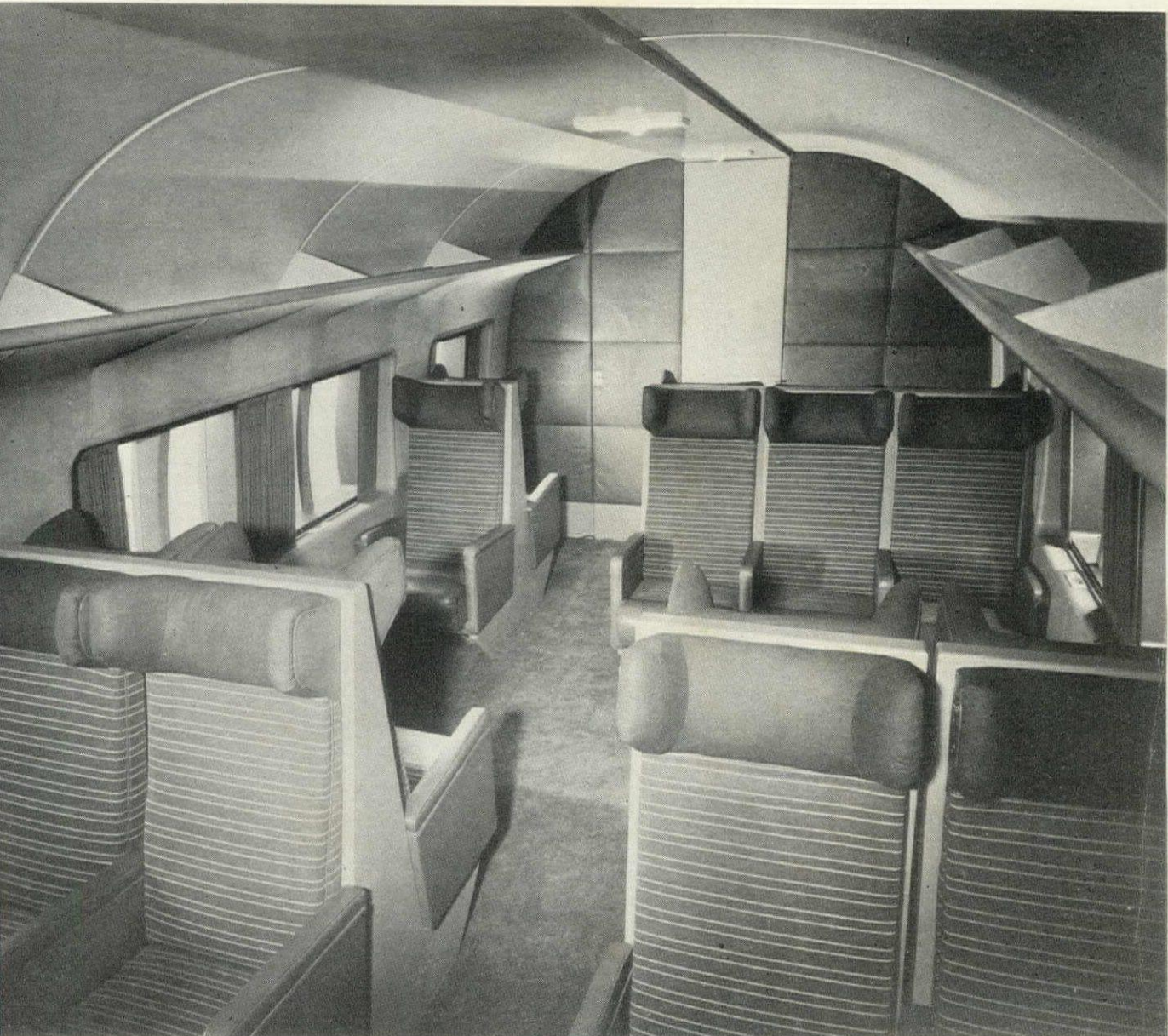
Unlike prewar airliners, the converted Liberator's wings are at the top, not the bottom, of the fuselage. This creates a lower ceiling in the center of the plane. The cabin is therefore divided into two sections by a passengers' entrance directly beneath the wings. Two sliding panels in the hull slip forward, open like elevator doors into a small lobby. Coat closets and a luggage compartment are built into this entrance-way. Formerly, all luggage was stowed away out of reach, but now only a small part goes back to the tail. Space under each seat accommodates a small suitcase. An overhead baggage rack, which doubles as a handrail, allows the passenger immediate access to his belongings.

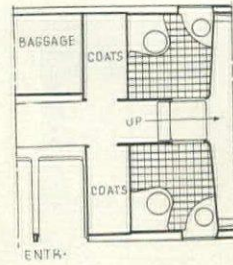
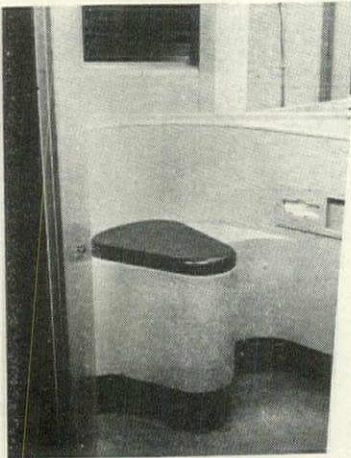


SEATS RECLINE, END TIER BECOMES A PRIVATE COMPARTMENT WHEN PARTITIONS EMERGE FROM SEAT BACKS AND WALL

Placing seats back-to-back is a further departure from prewar design, here introduced for the first time in any day transport.

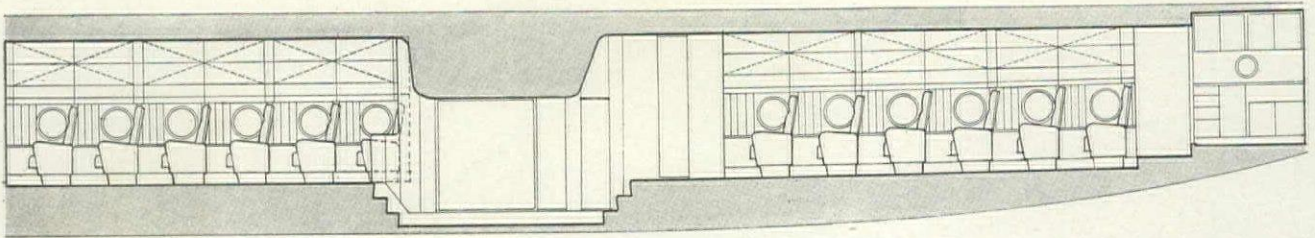
PRIVATE GROUPS OF ONE AND THREE SEATS ELIMINATE THE FORMER STRAIGHT AISLE, GIVE IMPRESSION OF PRIVACY





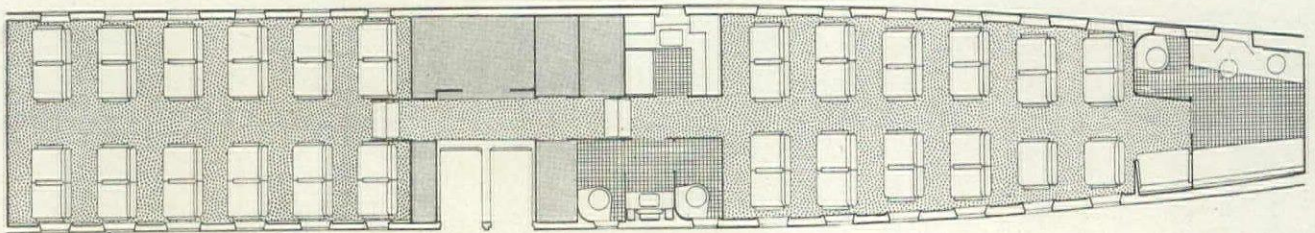
COMPACT TOILET FACILITIES OFFER UNUSUAL CONVENIENCE, PLASTIC MIRROR COVERS WALL OF POWDER ROOM

Day and night plane interior converts quickly from a coach plan for 48 passengers into a sleeper accommodating 24. In

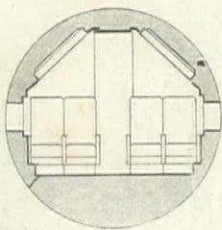


BAGGAGE CLOSET GALLEY

TOILETS



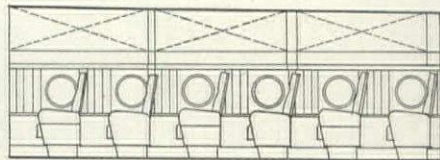
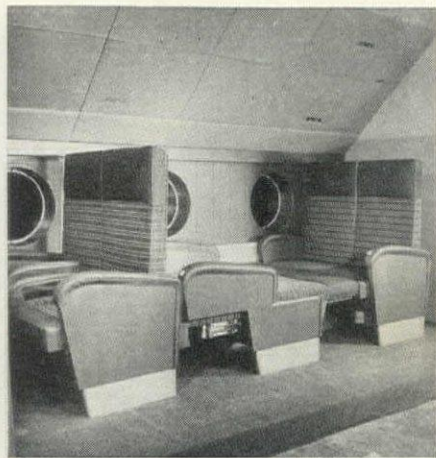
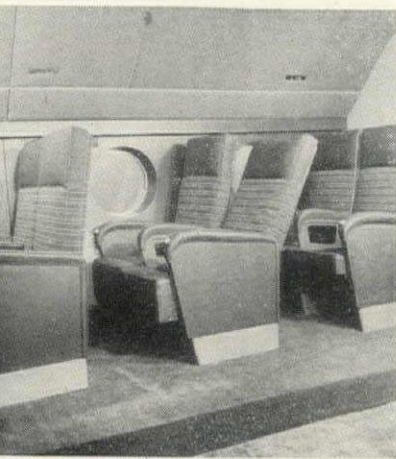
ENTRANCE TOILETS



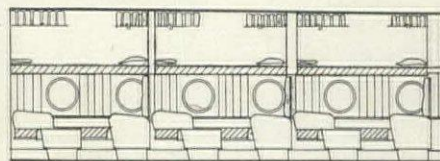
The second plan is a novel arrangement—a Pullman that is not a Pullman. It can be used for daytime transport, then quickly converted into a sleeper for a return night trip. However, this design is not in conventional Pullman style. Instead of double seats, separate chairs in pairs tip and slide forward. The backs of adjacent pairs straighten to form walls, the upper berth drops from a concealed panel, and two end closures extend the wall to the ceiling. Berths 36 in. x 79 in. are thus created, larger even than Pullman accommodations on trains.

As in the coach plan, this design is separated into two parts with toilet facilities conveniently placed in the mid section. One communal lavatory serves two toilet compartments.

Polaroid windows in the sleeping section are an innovation giving heretofore unknown visual comfort and privacy. The passenger may select variable densities of light from bright sunlight to complete darkness.



DAY



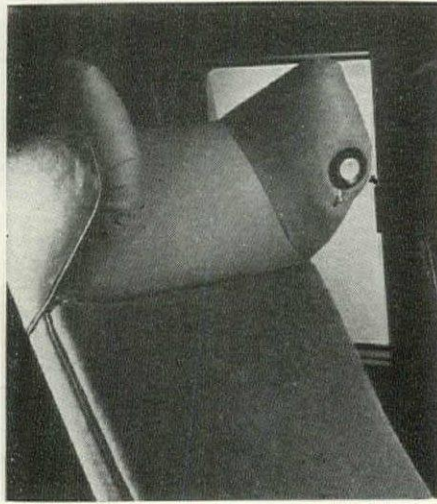
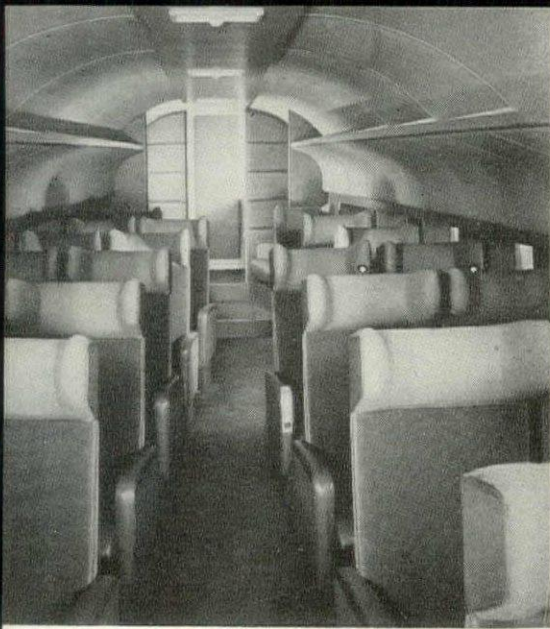
NIGHT

ALTERNATE CHAIR BACKS TIP, LIE FLAT AS SEATS AND ARMS SLIDE FORWARD TO MAKE COMPACT LOWER BERTH

Like the standard Pullman, all seats face in the same direction and slide forward in alternate pairs to form lower berths.

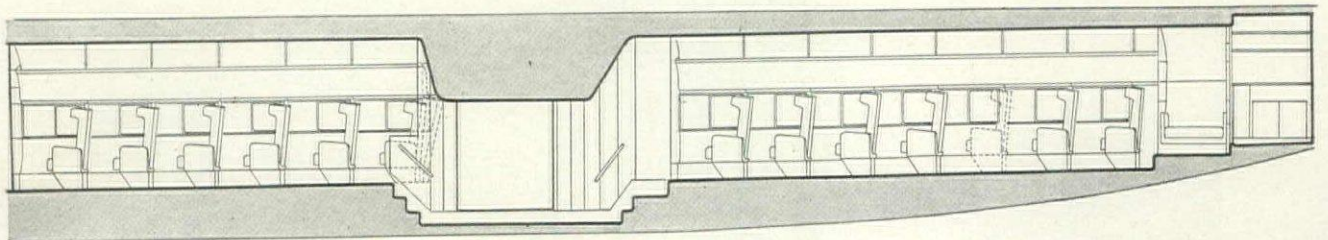
UPPER BERTH, CONTAINING LIGHTWEIGHT BEDDING AND CURTAINS, DROPS FROM BULKHEAD PANEL





CANTED CHAIRS HAVE READING LIGHTS AND RADIO SPEAKERS BUILT INTO WINGS

Conventional coach plan is based on a straight center aisle flanked by chairs in the standard grouping of two.

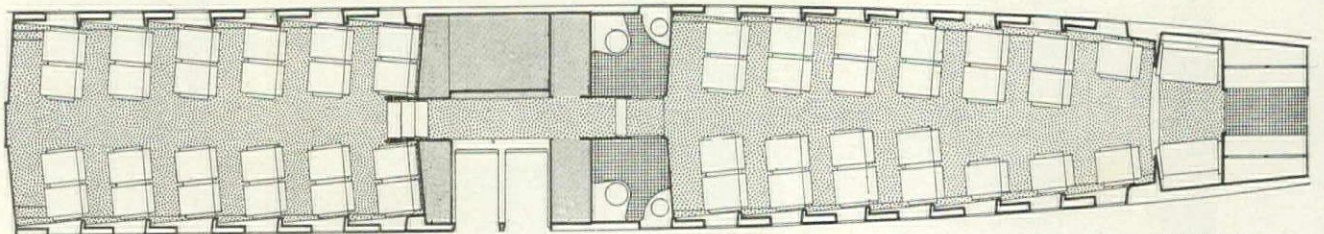


DOUBLE SEATS

BAGGAGE CLOSET TOILETS

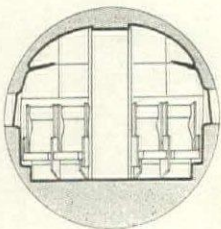
DOUBLE SEATS

GALLEY



ENTRANCE TOILETS

LOUNGE



Comfortable wing chairs like those used in the three-and-one coach plan are found in this conventional seating arrangement. A pillow radio in one wing and reading light in the other are added luxuries. Canting the chairs slightly towards the windows keeps the passengers' feet out of the aisles and provides greater visibility. Sliding window shutters of translucent plastic control the amount of daylight. Because of all-important weight economy, resin-bonded paper, thin wood veneers, lightweight, fire resistant fabrics and plastics have been used throughout interiors.

Airline executives, perhaps fearing split seat grouping, still favor the conventional coach plan. But they enthusiastically acclaim the sleeper transport, with its separate chairs facing forward, in preference to standard Pullman design.

PEDESTRIAN BRIDGE, CHICAGO, ILL.

Photos: Hedrich Blessing

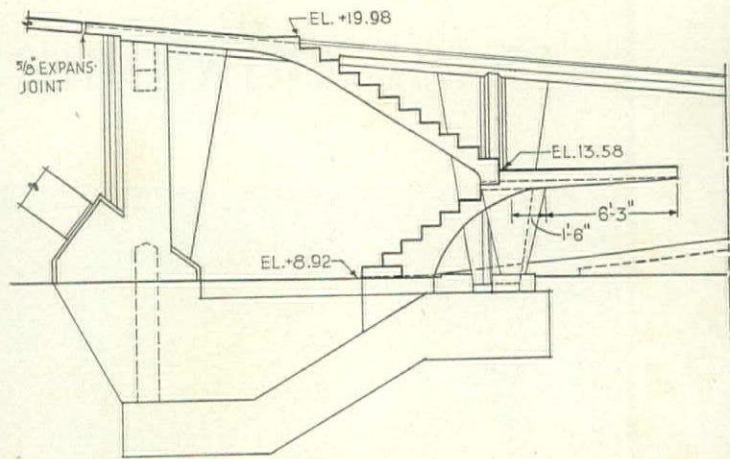
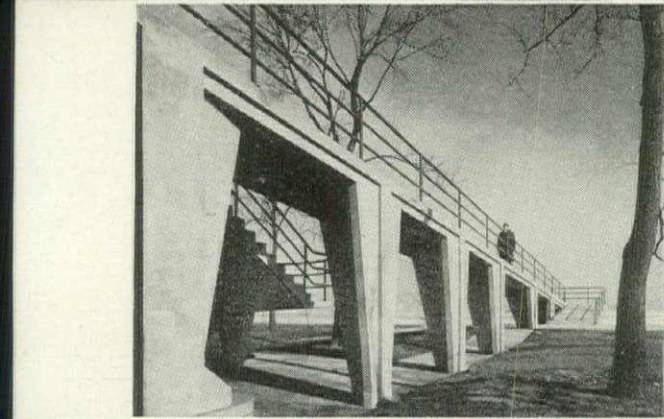


CHICAGO PARK DISTRICT
ENGINEERING DIVISION
RALPH H. BURKE, CHIEF ENGINEER

This pedestrian bridge* is part of the large scale plan for the improvement of Chicago's Outer Drive. The engineers were confronted with the problem of channelizing an enormous volume of both pedestrian and vehicular traffic, since Lake Shore Drive is believed to carry a heavier concentration of traffic than any artery in the world. The passarelle serves as access to the city's popular North Beach where thousands flock each Sunday.

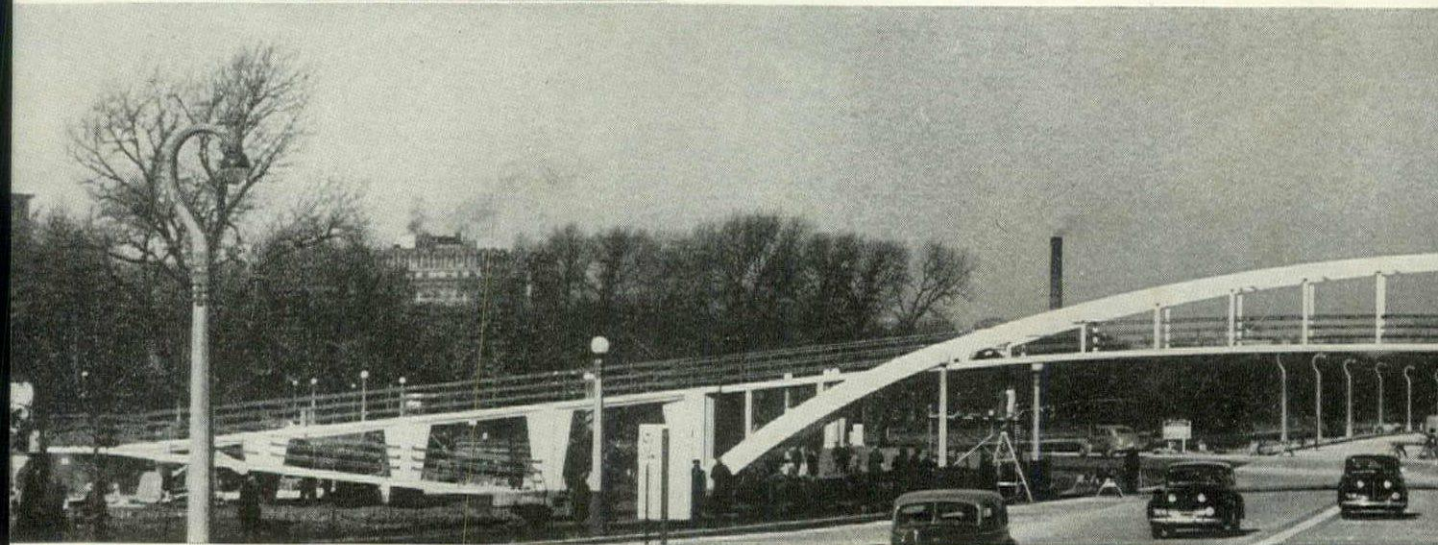
The three and a half mile stretch of waterfront highway is the first piece of road to be specially built for different traffic capacities at different hours of the day. Three steel and concrete curbs which can be raised and lowered at will, separate the four vehicle lanes permitting three quarters of the roadbed to be used for southward traffic during the morning and the proportion to be reversed during the evening rush hour. In this way a 200 ft. highway capacity is achieved

* Chosen by the Museum of Modern Art as one of the country's 47 best structures.



STAIRS AND ANCHORAGE

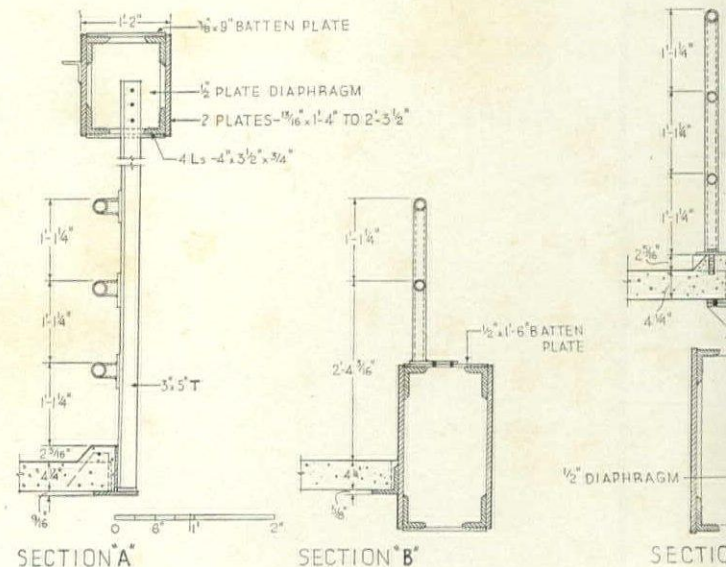
REINFORCED CONCRETE, rigid frame construction of the approaches has a light, clean appearance. Two curving stairways located at either end of the span provide quick access for those not wishing to use the ramps.



on a 100 ft. road. Because of the construction, no crown was necessary, the road having continuous drainage from the shoulders to the inner curbs. This saved 50 per cent of construction cost. Located on Chicago's high-priced "Gold Coast", the narrower width permitted by the flexible traffic control also realized a great saving in real estate.

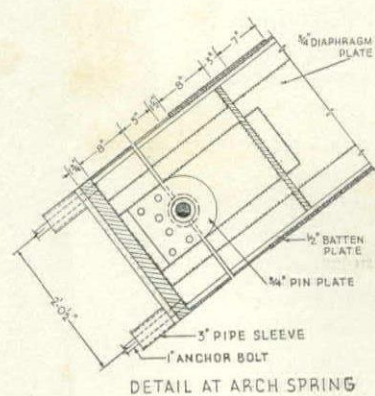
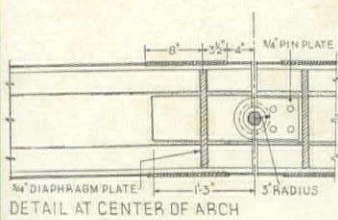
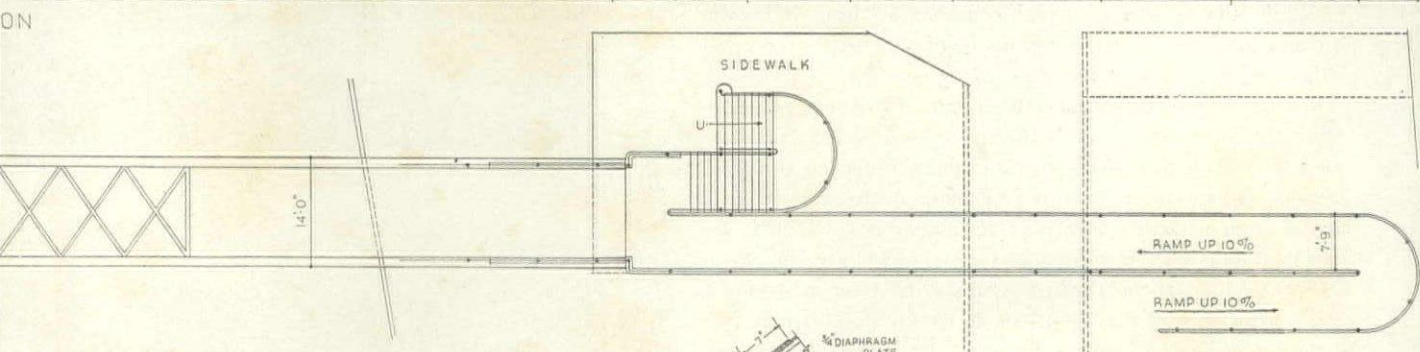
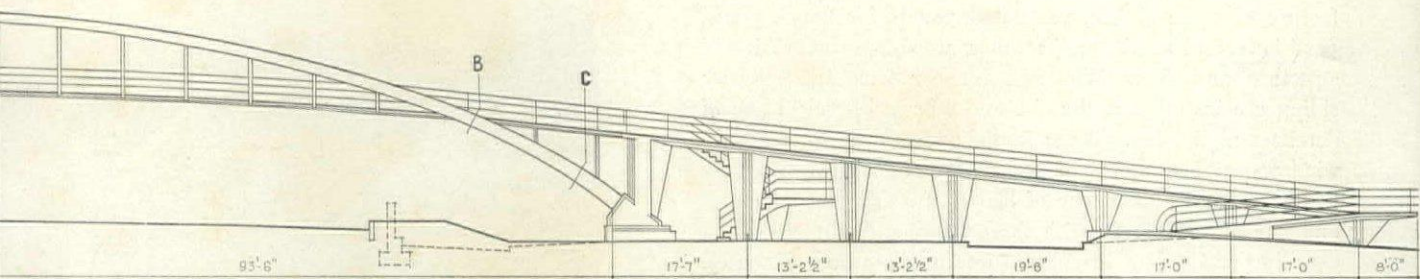
The outstanding characteristic of the footbridge is its integration of engineering and architectural elements. The long, continuous footway transects the arch in a simple curve which is further carried out in the long grade of the approaches, and enhanced by the use of light beams for hangers and supports.

The span is a three-hinged, tubular arch built up of angle irons and flush steel plates. Cross bracing of latticed beams at the crown and under the footway fits well with the general design.





BRIDGE IS APPROACHED FROM BOTH ENDS BY LONG, CURVING RAMPS WHICH ACCOMMODATE BABY CARRIAGES AND BICYCLES



P R E F A B R I C A T I O N

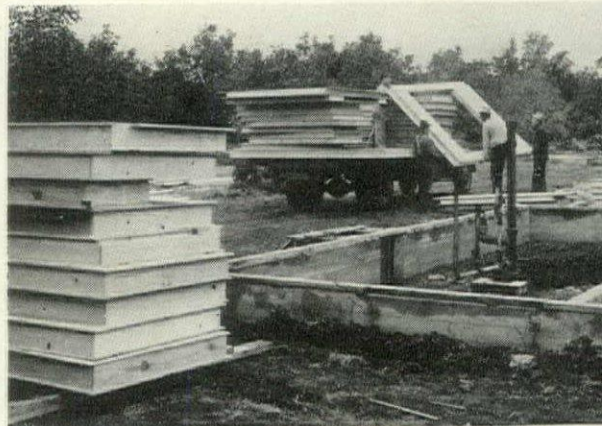
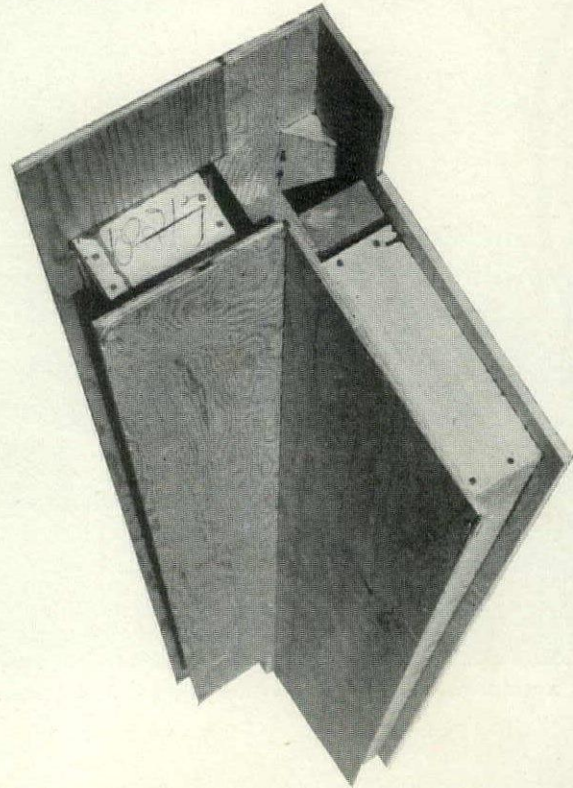
The Evans Products Co. builds a group of experimental houses to test the quality potential of mass production.

Scotching the general fear that prefabrication will become identified in the public mind with the limitations of war housing, a new system of prefabrication has been developed by the Evans Products Co. to demonstrate that mass-produced houses can be practically indistinguishable in quality and appearance from conventional construction. The mechanical repetitiveness, inferior materials and cramped accommodations typical of most war housing have created a widespread, fallacious belief that such characteristics are an inevitable concomitant of mass production. But since recent work on non-emergency, better-quality prefabricated dwellings has been practically non-existent, it will be some time before this misconception is eliminated.

Taking advantage of the need for employe housing at their Lebanon, Ore. plant, the Evans Co. erected 25 units as a demonstration of what the prefab potential really is. It is interesting to observe that in order to produce a structure of conventional appearance it was necessary to scrap many factory-built items. Finishing is done entirely by hand. Nevertheless, the results are convincing. The houses combine the major advantages of prefabrication but offer details and variations which the layman has come to believe possible only in conventionally built homes.

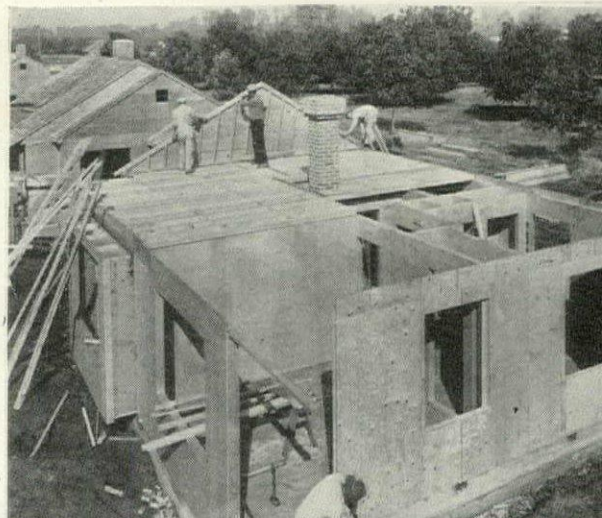
The basic production plan involves the precision manufacture of stressed-skin, ventilated panels for floors, walls, partitions and ceilings; in other words, a prefabricated structure and skin. Windows, interior trim and exterior siding are installed at the site and offer a liberal choice of details and finishes. These include several types of roofs, windows, siding, etc. The Lebanon development has only two basic house plans, one of 800 sq. ft. with two bedrooms and one of 900 sq. ft. with three bedrooms, but individual detailing produces a varied and interesting group of houses.

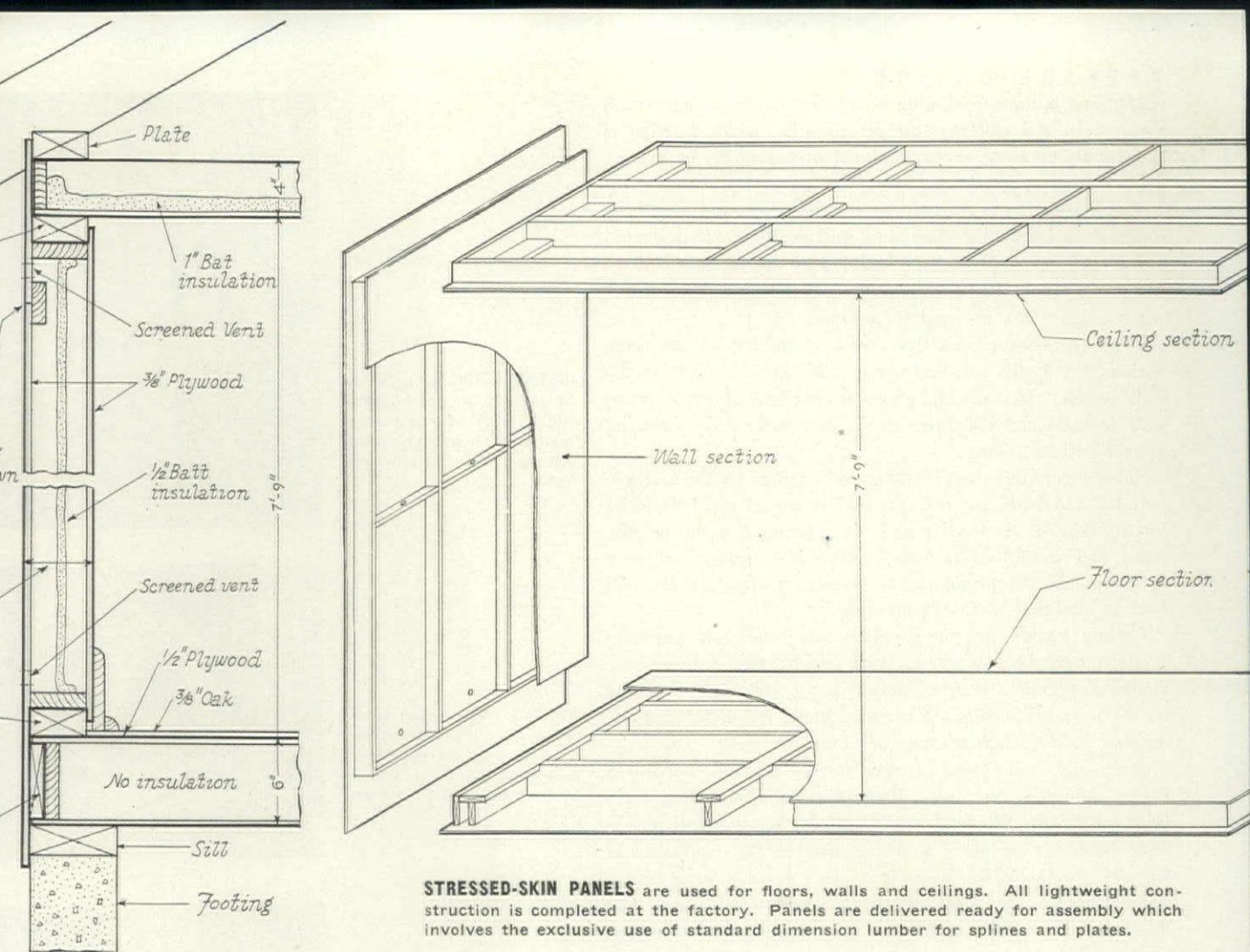
While the system of panel construction has no revolutionary features, it embodies many of the better points of other methods and eliminates many of their weaknesses. The panels consist of sheathing-grade plywood glued to thin stiffeners on 12 and 16 in. centers. They are constructed on precision-built jigs and put through an equalizer before shipment. A patented phenolic-resin glue is used under high pressure and dried by infra-red rays. This results in unusually light-weight panels which are, in effect, box-girders far surpassing conventional framing in strength. All units, except the ceiling panels, have 1 in. stiffeners and plywood facing on both sides. On the ceiling panels the plywood is glued only to the bottom of the members and 2 x 4 in. lumber is used as stiffeners. Wherever practical, a uniform panel width of 4 ft. is maintained to conform with the standard dimension of Douglas Fir plywood. However, in the case of sections for large windows, where 4 ft. panels would be impractical, wider units and narrow compensatory panels are employed. Floor panels have a thickness of 6 in., wall panels 4 in., partition panels, 3 in. Exterior wall sections are equipped with three sets of ventilating holes located at the top. (Continued on page 102)



FOUNDATION IS COMPLETED BEFORE DELIVERY OF

FALSE CHIMNEY TOP IMPROVES EXTERIOR PRO

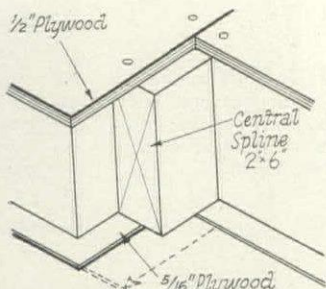




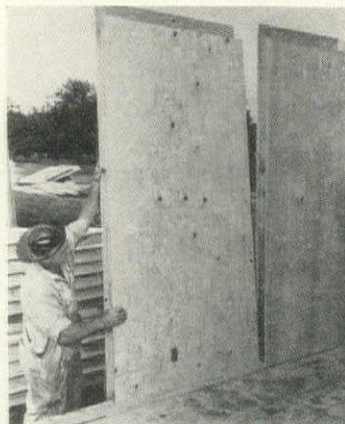
STRESSED-SKIN PANELS are used for floors, walls and ceilings. All lightweight construction is completed at the factory. Panels are delivered ready for assembly which involves the exclusive use of standard dimension lumber for splines and plates.



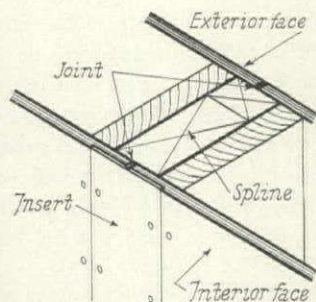
SECTIONS ARE 4 X 12 FT.



FLOOR PANELS have 1 x 6 stiffeners with 5/16 in. plywood on both faces. Standard dimension 2 x 6 lumber is used for splines in floor joints.

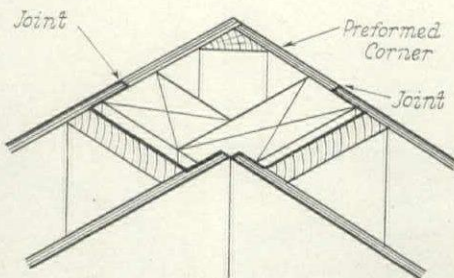
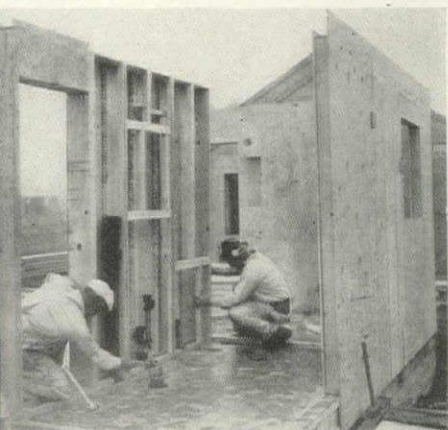


WALLS REST ON 2 X 4 PLATE



WALL PANELS are joined with 2 x 4 splines. One ply of interior sheathing is rabbeted for inset strip, glued and nailed to conceal joint.

ING PANEL IS AMONG FIRST INSTALLED



CORNER CONNECTIONS utilize a specially notched spline devised to provide a simple and efficient reinforcement for right angle joints. A glued-up plywood case is later nailed over the exposed lumber on the outside.

INSTALLING CORNER CASING



PREFABRICATION

center and bottom to eliminate moisture condensation within the panels. All stiffeners are set slightly inside the edge of the panels creating grooves which, in assembly, fit around 2 in. lumber splines.

The foundation is poured, the chimney built and plumbing roughed in before the floor and wall sections are delivered to the site. Assembly can be handled by average carpenters. The floor panels, 12 ft. in length, are the first to be installed with ordinary 2 x 6's used for splines.

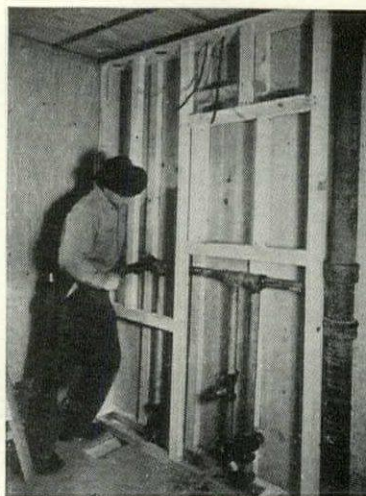
After the floor panels have been assembled on the foundation, 2 x 4 sills are laid around the edges to receive the wall panels. The outside plywood covering of the exterior wall sections extends down to the foundation top, insuring a weathertight joint.

Since it contains the plumbing connections for the kitchen, laundry and bath, the utility panel is one of the first to be set up. Unlike the wall panels, it is shipped with one plywood face not glued in place. After the section has been installed and the plumbing connections made, the plywood face is braddled to the framework.

Ceiling panels are put in place after wall and partition sections have been erected. Roof construction follows conventional practice. Rafters, precut at the factory, are erected on the job; gable ends are prefabricated; red cedar shingles applied in the usual manner as a roof covering.

Bedrooms and living rooms have standard hardwood floors, laid on the job. Bathrooms and kitchens have linoleum floors. Windows are installed after the wall panels have been set in place and trimmed in the conventional way. A special plastic paint is applied as an interior finish. A new system for disguising interior plywood joints was developed by the Evans Co. for use in the houses. It consists of a thin veneer strip, $\frac{1}{8}$ in. thick, which is applied to the interior wall joint, the panels having been counter-sunk to this depth at the factory to accommodate the inset. This technique produces an unusually uniform surface.

The Evans Co., which has erected over 2,500 war housing units of the ordinary type, indicates with this small experimental group of houses what its approach to the postwar prefabrication market will be. Barring the emergence of a completely-fitted, factory built house of modern design, it looks like a good bet for immediate postwar business.



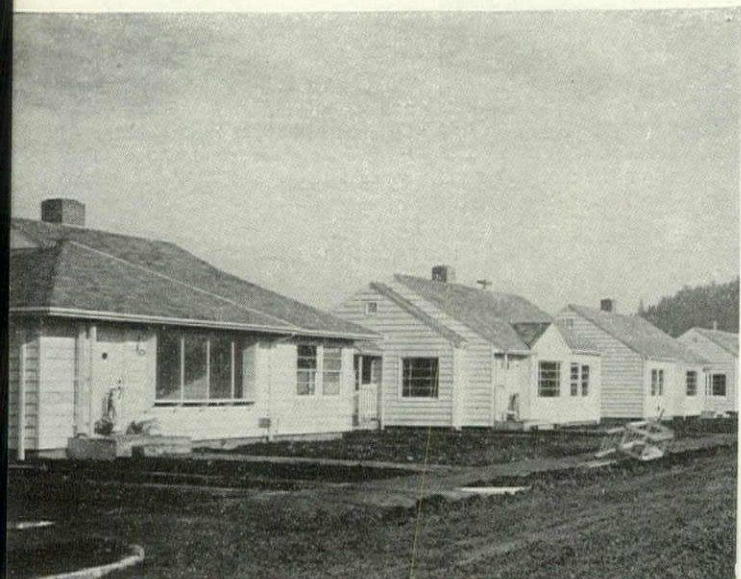
INSTALLATION of balance of drain and vent plumbing. Note furring for medicine cabinet and wiring for bathroom light.



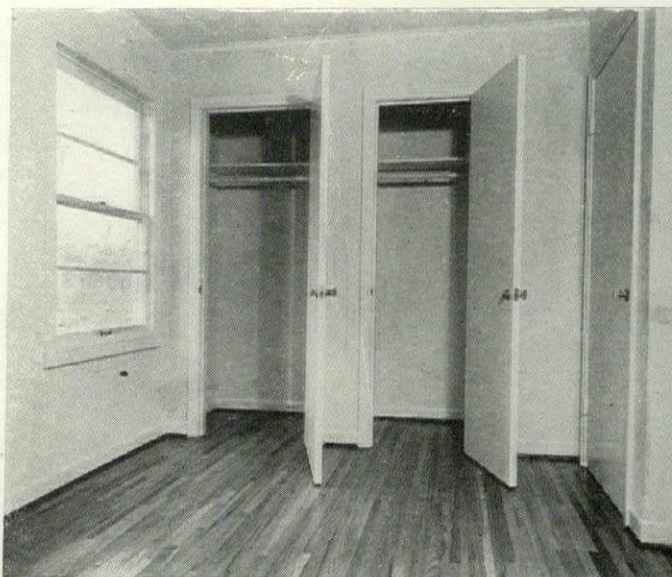
PANELS are shipped with a small integral strip across bottoms of door openings. This is sawed free after walls have been erected.



PLASTIC PAINT applied in two coats covers knot-holes and defects; provides a durable, smooth interior finish.



LIVING ROOMS have variously detailed picture windows, an almost universal feature of moderate cost housing on the west coast. Conventional roof framing provides added interest through numerous gable combinations.



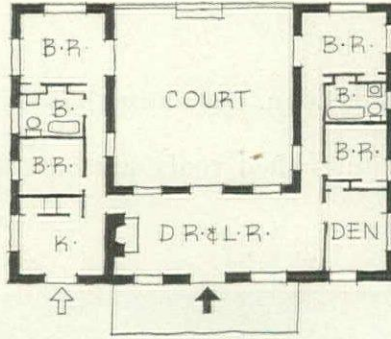
HARDWOOD FLOORS and standard trim give the interiors a thoroughly conventional appearance. Cove molding is used to conceal the joint of wall and ceiling panels, long a prefabrication problem. Flush doors add a modern touch.

HOUSE

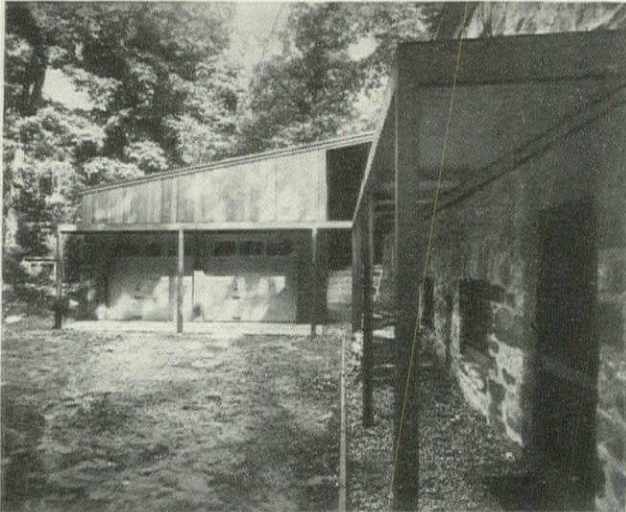
near Stamford, Conn. An unusual alteration by designers Alan Burnham and Albert Lee Hawes substitutes shed roofs and natural wood for fieldstone gables.



ORIGINAL HOUSE was intended for summer use only. It was built by a local contractor from a stock U-plan. Problem was to redesign it to meet requirements for continuous residence. Built of fieldstone like a small Italian villa, it sat in beautifully wooded surroundings.

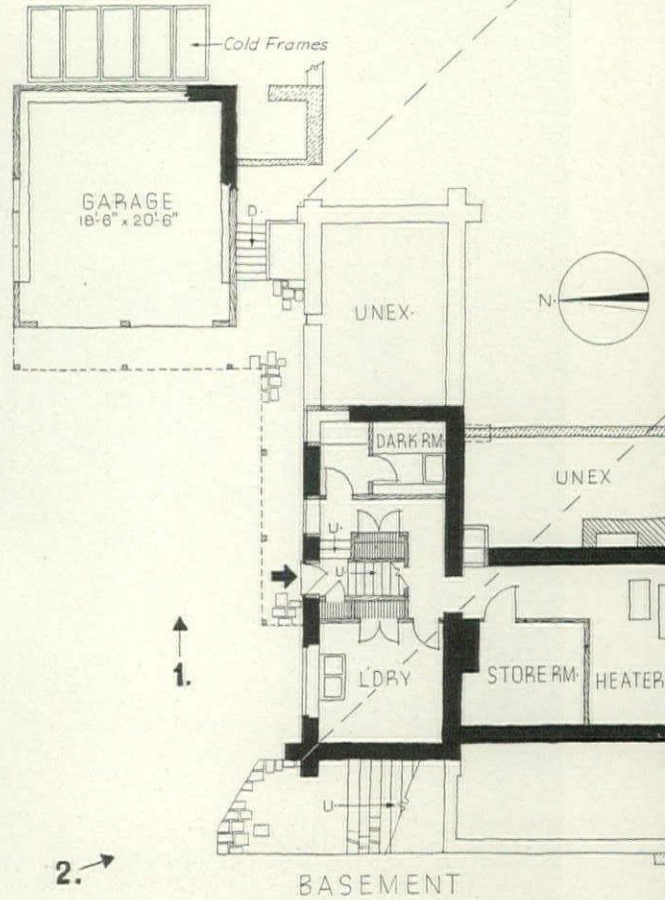


Photos: Richard Garrison

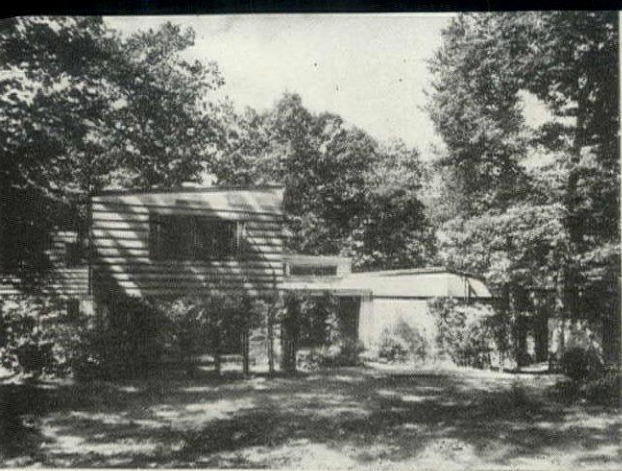


1. ROOFED PATH CONNECTS GARAGE TO NORTH WING

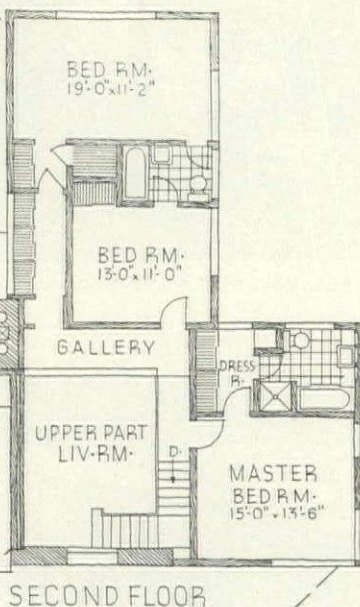
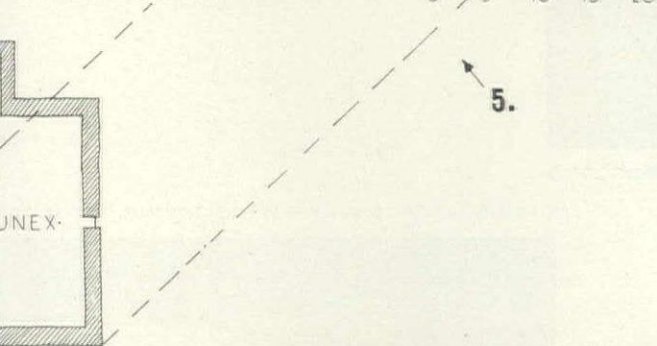
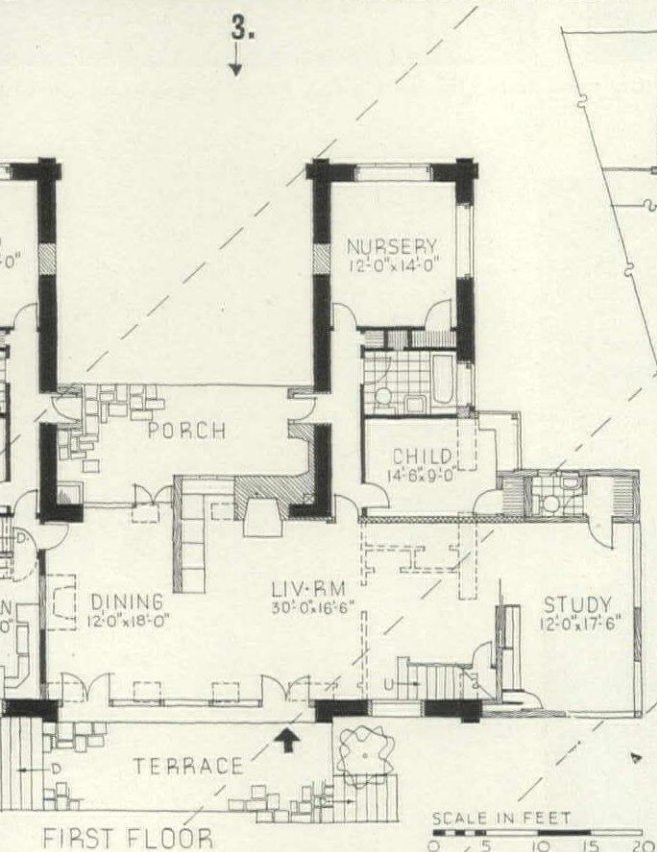
2. STAIR TO TERRACE AND ENTRANCE



ALAN BURNHAM AND ALBERT LEE HAWES, DESIGNERS

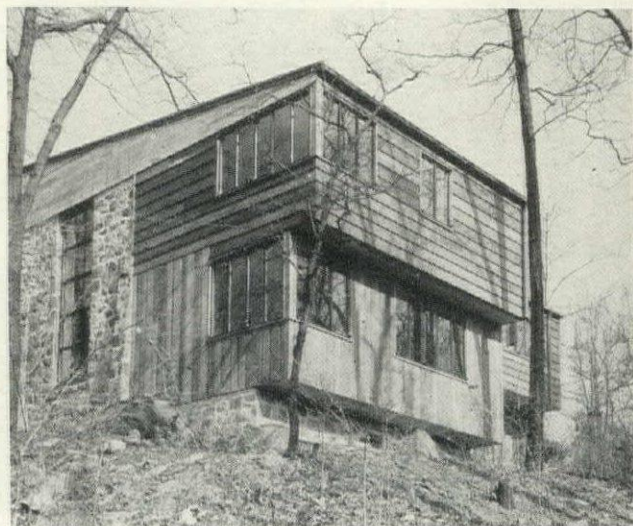


3. "AFTER": SAME VIEW AS THE ONE SHOWN AT LEFT

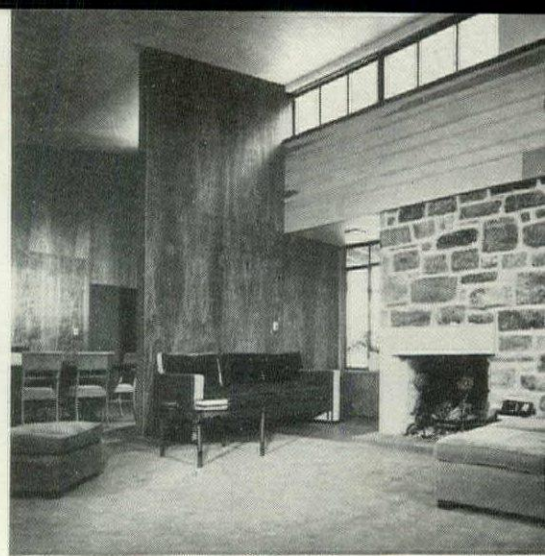
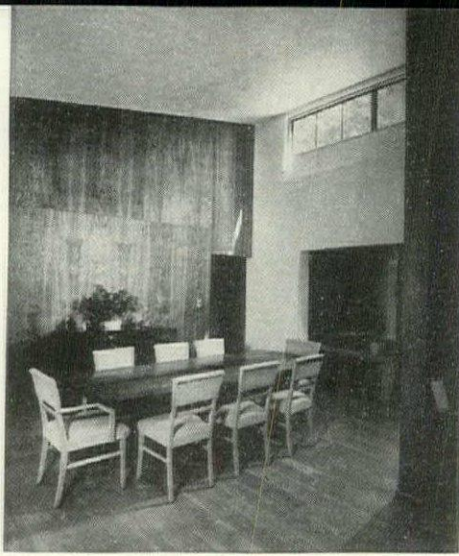


5. STAIR HALL WINDOW AND TERRACE ON WEST SIDE

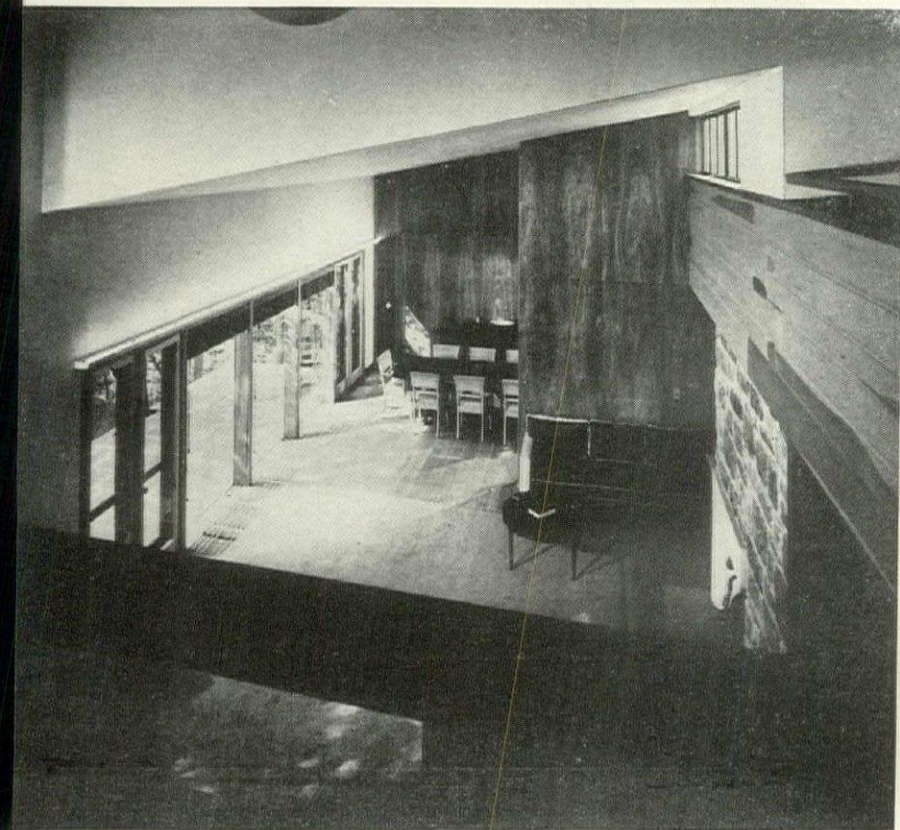
4. NEW SOUTH WING ADDS STUDY AND UPPER FLOOR



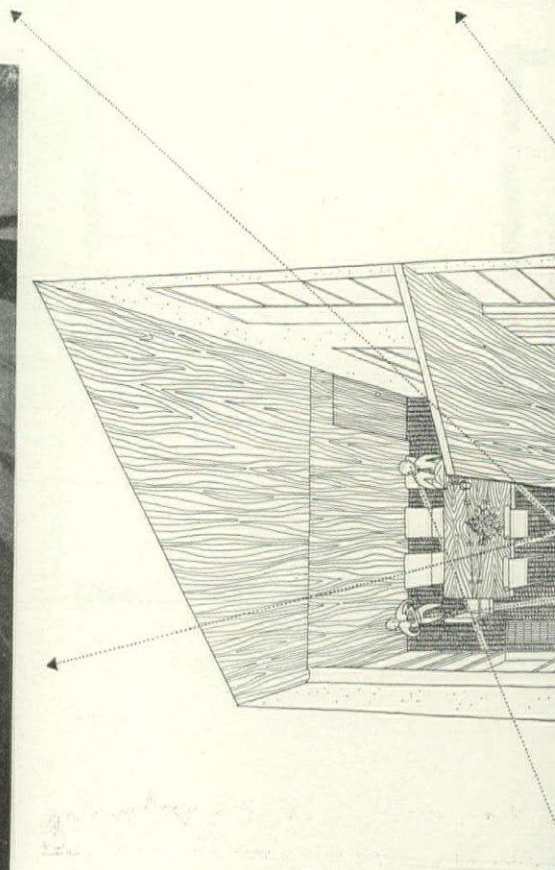
In remodeling this house, existing masonry walls were left undisturbed wherever possible. The architects added to the U-plan, ripping away the roof and most of the architecture above the eaves-line. The northern of the two bedroom wings remained much as it was: existing bedrooms there are now used for maids' rooms, while an extra stair leads down to the sheltered sidepath giving convenient winter access to the motor court and garage area. Bedrooms in the other wing became nursery and child's bedroom, and an existing den became part of the living room. A study was added on this side, and over it and the existing wing a second floor was built giving additional master bedrooms. The living room fireplace was removed from the north wall to create space for a dining area next to the kitchen, and rebuilt in combination with another on the porch facing the court.



TALL WALNUT PLYWOOD PARTITION SEPARATES DINING AREA FROM MAIN PART OF LIVING ROOM

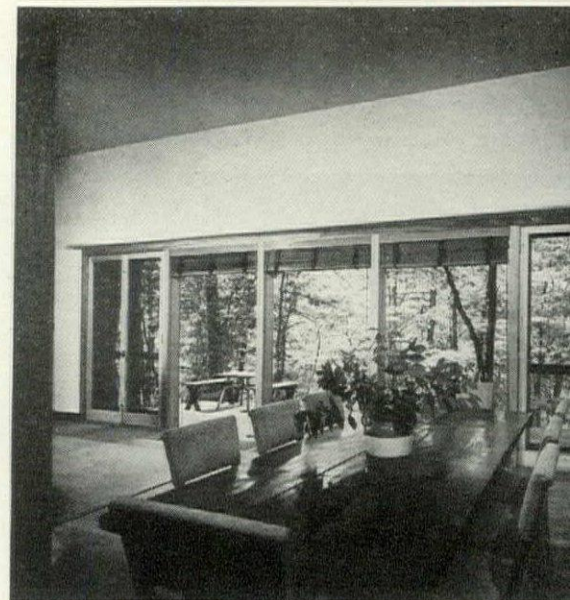


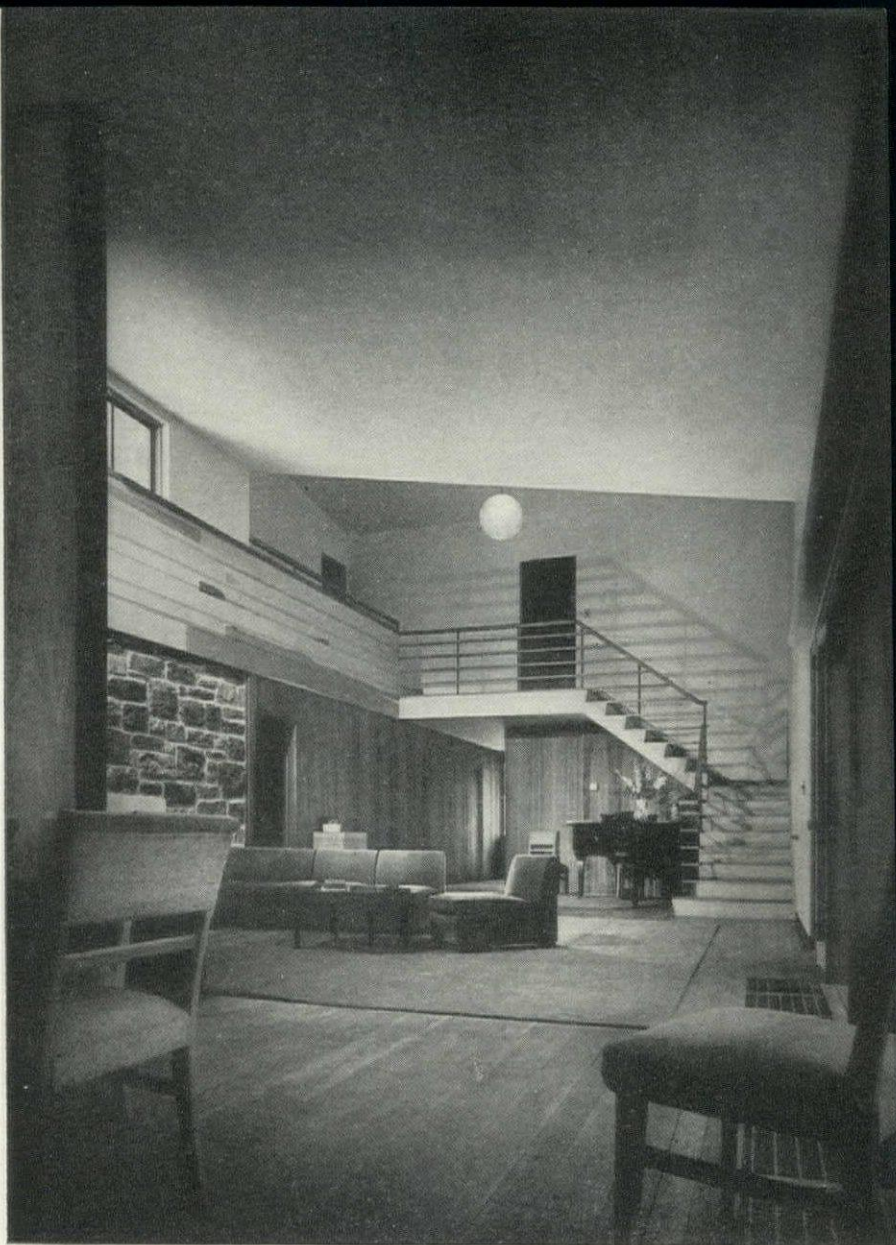
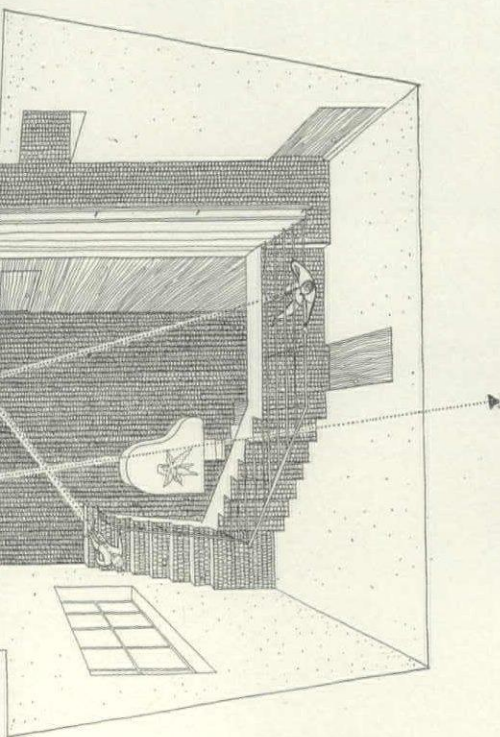
A SECOND FLOOR GALLERY GIVES ACCESS TO MASTER BEDROOMS



DINING AREA SHARES WIDE LIVING ROOM WITH

ALAN BURNHAM AND ALBERT LEE HAWES, DESIGNERS





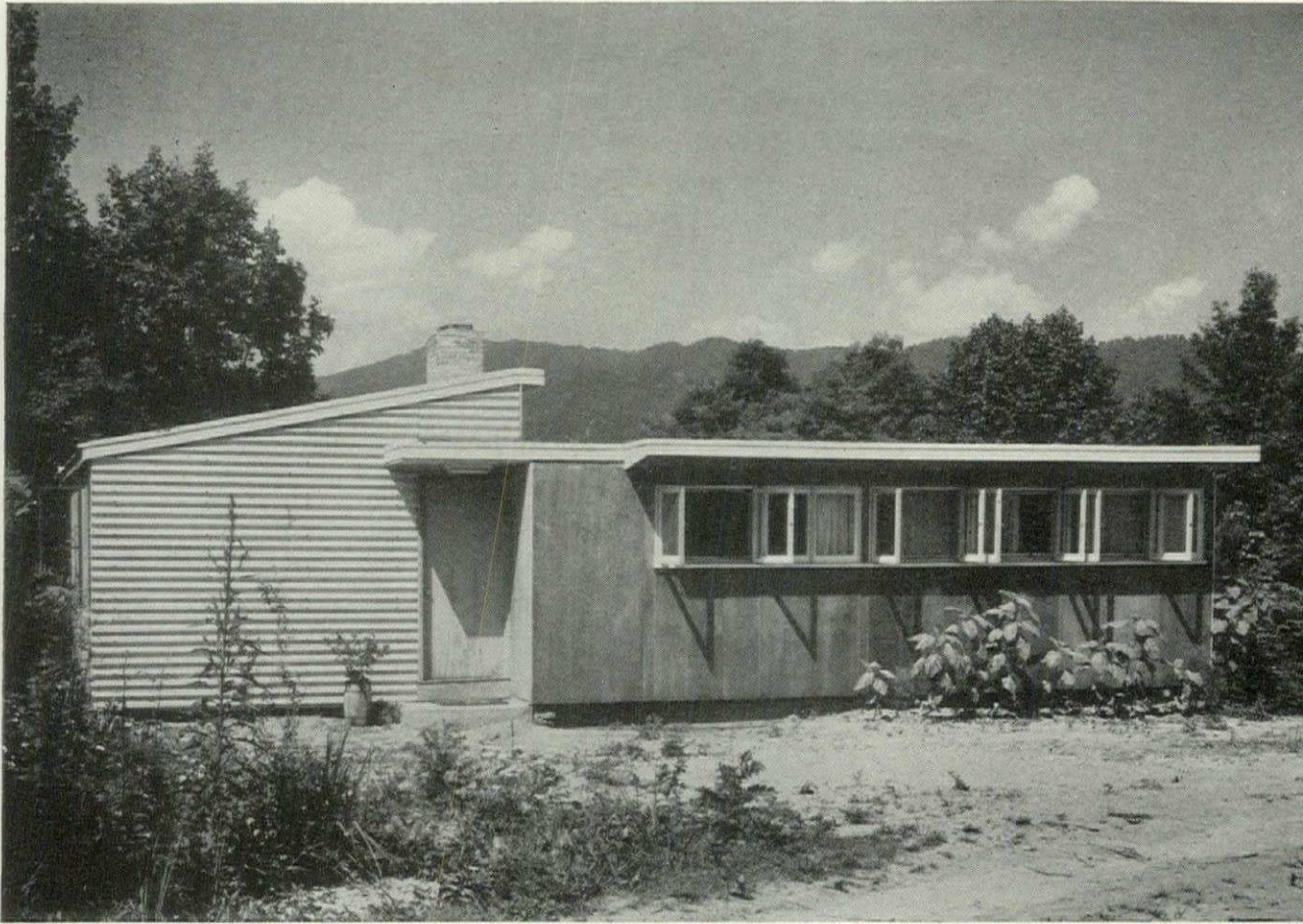
DRAMA IS AFFORDED BY OPEN STAIR, VARIED CEILINGS AND WALLS

CONSTRUCTION OUTLINE: STRUCTURE—sheathing and redwood siding, insulating lath and plaster. ROOF—4-ply, Barrett Co. INSULATION—Rockwool, Johns-Manville. WINDOWS: Sash—steel casement, Lemco, Lundell Eckburg & Co.; Truscon Donovan awning, Truscon Steel Co. Weather-stripping, Chamberlain Mfg. Co. Glass—double strength, Libbey - Owens - Ford Glass Co. FLOOR COVERINGS: Kitchen—linoleum, Armstrong Cork Co. Bathrooms—tile. WALL COVERINGS: Living room, dining area and study—Weldbord, U. S. Plywood Corp. and plaster. PAINTS: Texolite, U. S. Gypsum Co. GARAGE DOORS—Overhead Door Co. HARDWARE—Yale & Towne Mfg. Co. KITCHEN EQUIPMENT: Range—Hotpoint, General Electric Appliance Co., Inc. LAUNDRY EQUIPMENT: Washing machine—Bendix Home Appliances, Inc. BATHROOM EQUIPMENT—Kohler Co. HEATING—hot water system. Boiler and burner—H. B. Smith Co., Inc. Radiators—American Radiator-Standard Sanitary Corp. CONTRACTOR: RAYMOND D. RITCHIE.

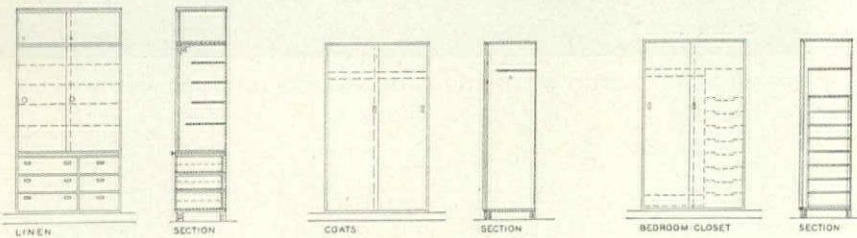
Given a view to the west of a wooded slope, and the long, narrow living room of the existing house, the architects have succeeded in composing a spacious and livable area out of complex elements. The original space was expanded vertically as well as horizontally. It has been widened by pushing the fireplace back into the court, and lengthened by sliding doors opening into the new study at one end. The new room is broken by partly partitioning the dining section at one end. A new shed roof produces a remarkably open and well-lighted effect. Different ceiling levels create interesting variety of room heights: the stair area is two stories high, the living room proper a story and a half. Clerestory windows on the east wall supplement lower windows opening onto a shaded, roofed porch. The west wall has been opened up by the removal of masonry, piers and divided into three large sections of fixed glass flanked by glazed doors leading to the terrace. Lighting fixtures have been specially designed; of particular interest is the continuous trough over the west windows, equipped with an intensity control giving a variable quantity of indirect light from the ceiling.

HOUSE IN BLACK MOUNTAIN, N. C. A. Lawrence Kocher designs an exp

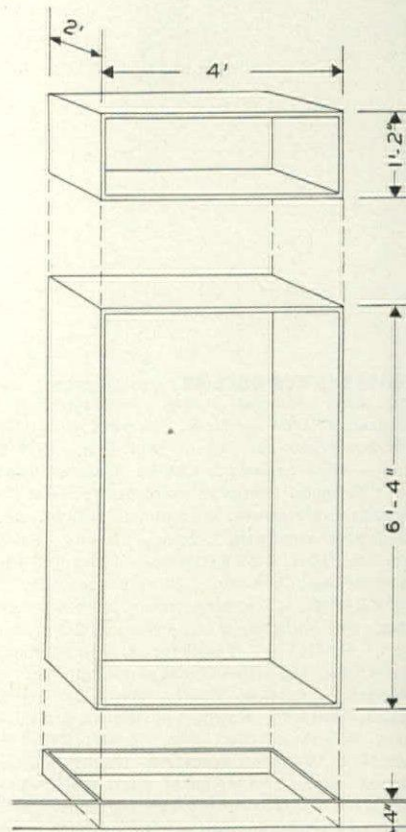
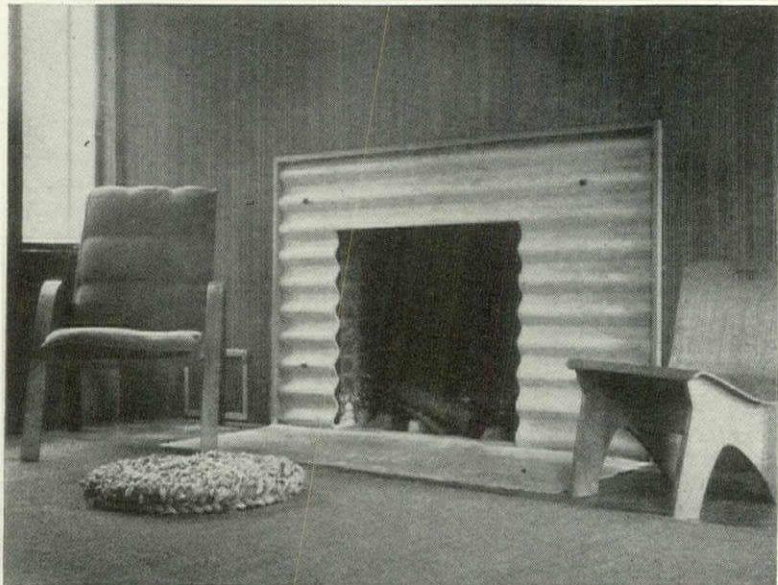
Photos: A. L. Ko



SHED-ROOF LIVING ROOM HAS CORRUGATED TRANSITE WALL WHILE BEDROOM PORTION IS FACED WITH PLYWOOD

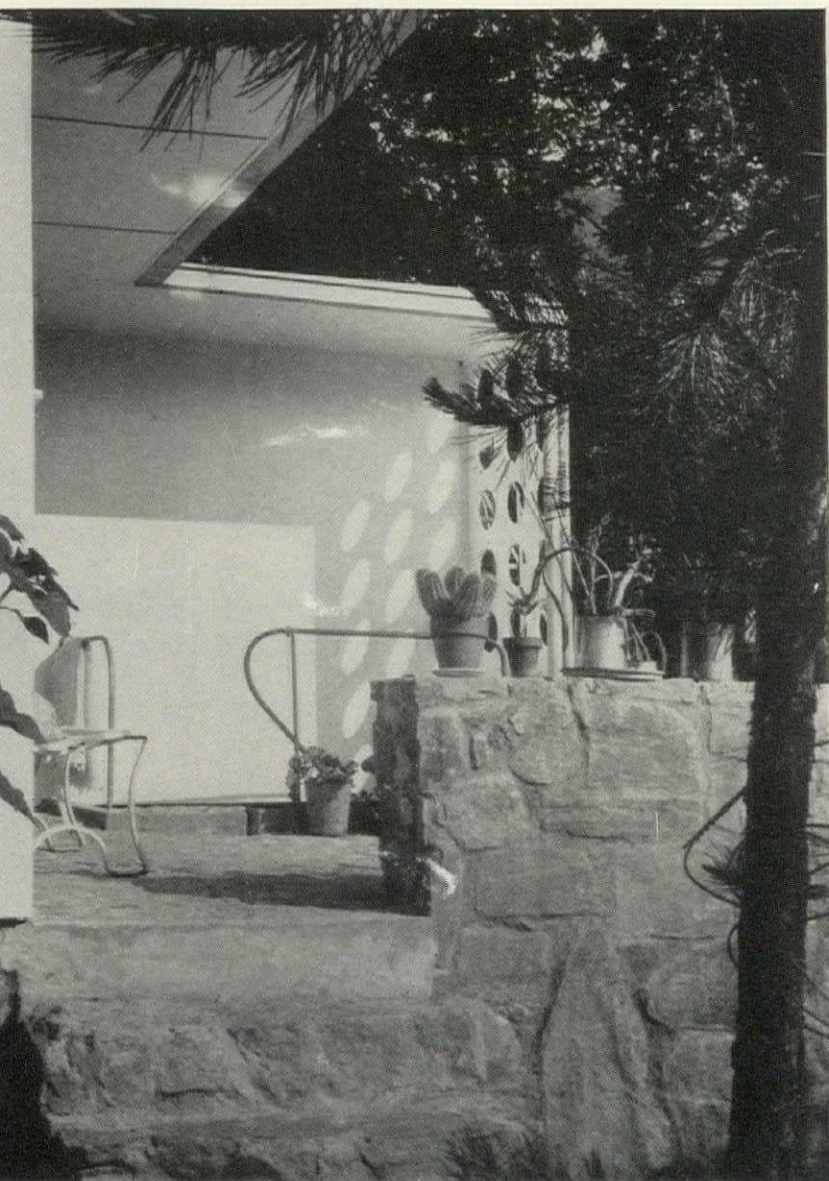


CORRUGATED TRANSITE IS ALSO USED FOR FIREPLACE FACING

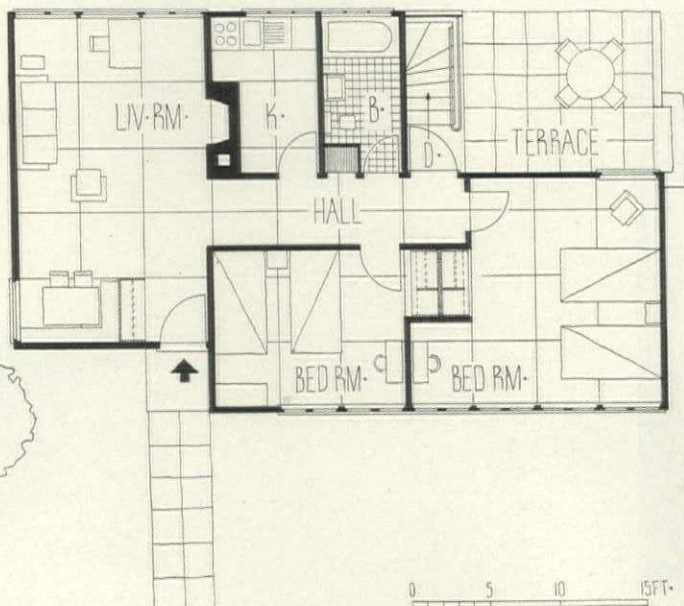


COMPONENT PARTS OF UNIT CLOSET

Black Mountain College and his architectural students learn about prefabrication by building it.



STAIRWAY UNDER SHELTER LEADS FROM TERRACE TO BASEMENT



This faculty house was built by architectural students at Black Mountain College, where construction of buildings is included as a part of the training in design. Manual training and actual contact with materials is considered a corollary of the college's concept of architectural education, and the program of work in the building crafts supplements academic classroom study.

The house was designed for prefabrication, using methods which were believed to be appropriate for student labor both for instruction and experimentation. A local carpenter served as "adviser" to "job captain" Claude Stoller, but the work on the house was done almost entirely by students.

The plan, which called for plywood units, is based on 4 x 8 ft. panels which could be readily made on the site prior to erection. This was intended to show the possibilities of using plywood structurally for walls without studs; but because of limited facilities, some studs were eventually used. Although designed on modules, the plan was not dictated by them, for some of the walls are located at half-module points.

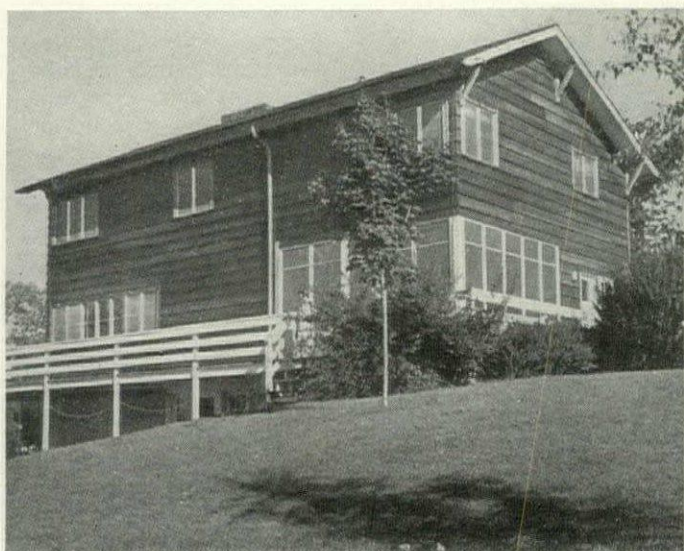
The living room was intended to serve also as a classroom for music, necessitating some acoustical treatment. There are perforated panels at the piano end of the room which serve as a sound trap, and the ceiling of vermiculite plaster also deadens sound. In making these panels, one student worked at a power-driven drill, perforating $\frac{1}{8}$ in. holes spaced 2 in. apart. He did eight panels at a time and it took him four hours to do the job.

The living room has windows at the high side of the room under the shed roof, which permits cooling of the house and admits additional light. Main windows are to the rear, which is the direction of the view. The terrace is also on the view side, while the bedrooms face the road and the prevailing breeze.

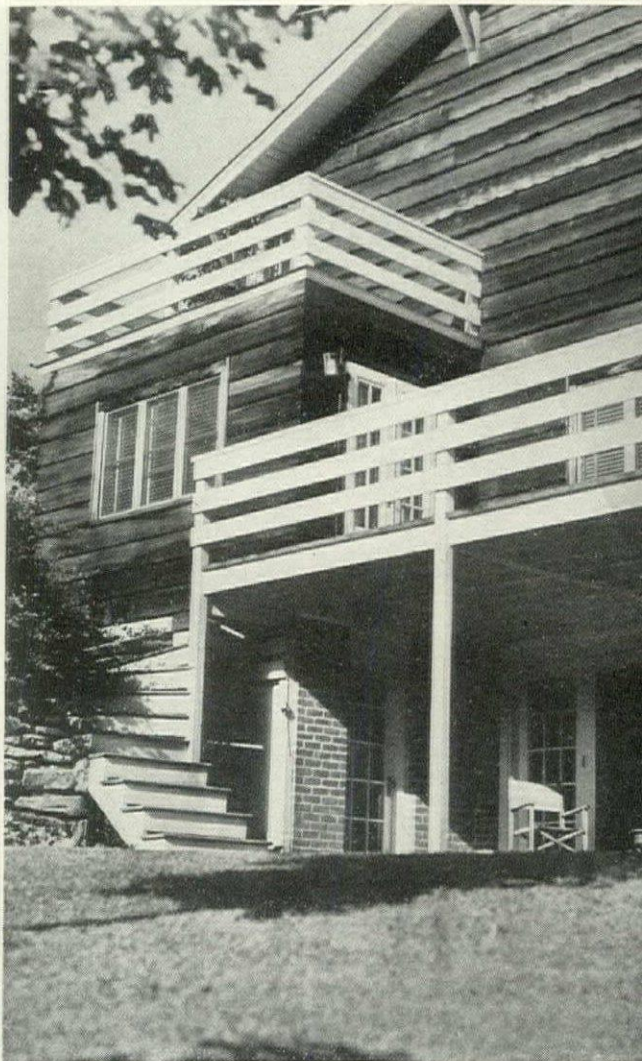
CONSTRUCTION OUTLINE: STRUCTURE: Exterior walls—Superharbord, Harbor Plywood Co. and Transite, corrugated sections, Johns-Manville Co.; inside—plywood, U. S. Plywood Corp. Floors—oak plywood and pine. ROOF AND DECK—white porcelain granule roll roofing, Philip Carey Co. INSULATION: Outside walls—rock-wool, Johns-Manville Co. Roof—Ferrotherm, Ferrotherm Corp. WINDOWS: Sash—steel, Truscon Steel Co. Glass—Pennvernion and plate, Pittsburgh Plate Glass Co. BATHROOM EQUIPMENT—American Radiator-Standard Sanitary Corp. and Hajoca Corp. HEATING—hot air system. Regulator—Minneapolis-Honeywell Regulator Co.

HOUSE IN BENNINGTON, VT. Architect Edwin Avery Park's concept of a modern

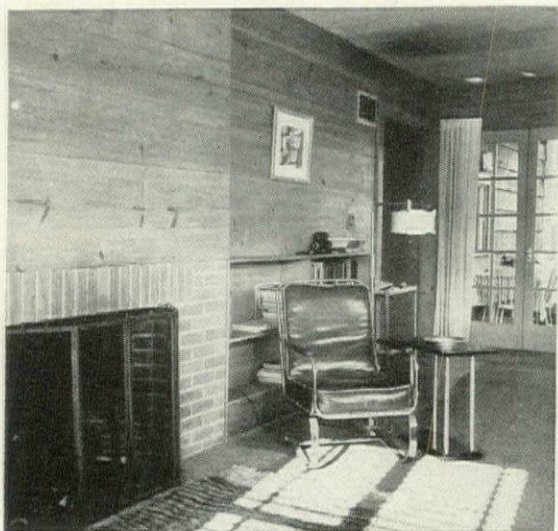
Photos: Richard H...



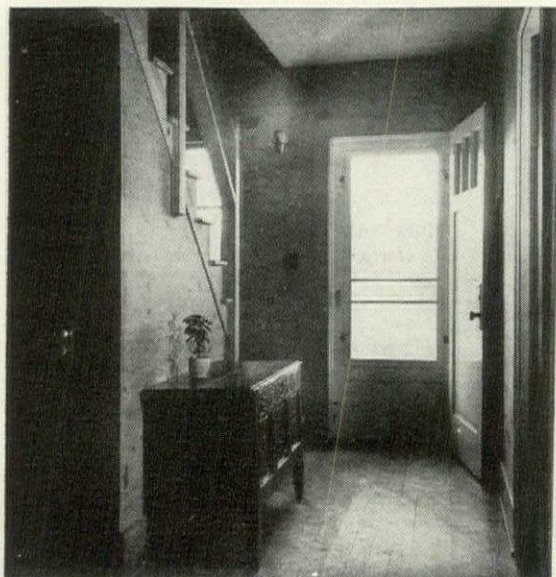
DARK CEDAR EXTERIOR APPEARS SOMEWHAT FORBIDDING



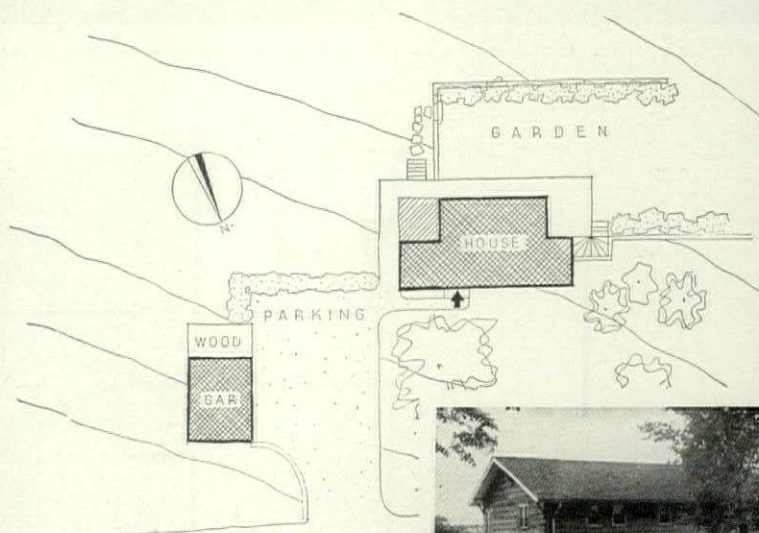
WESTERN END PROVIDES OUTDOOR SPACE ON THREE



CHIMNEY PIECE IS RESTRAINED BUT EFFECTIVE

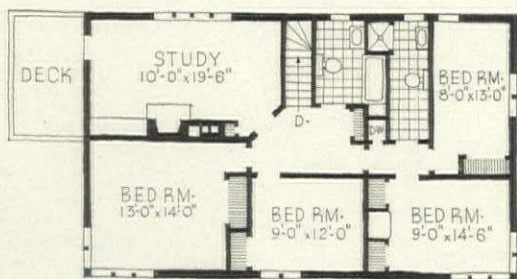


NOTE SIMPLE, CARPENTER-BUILT STAIR RAIL

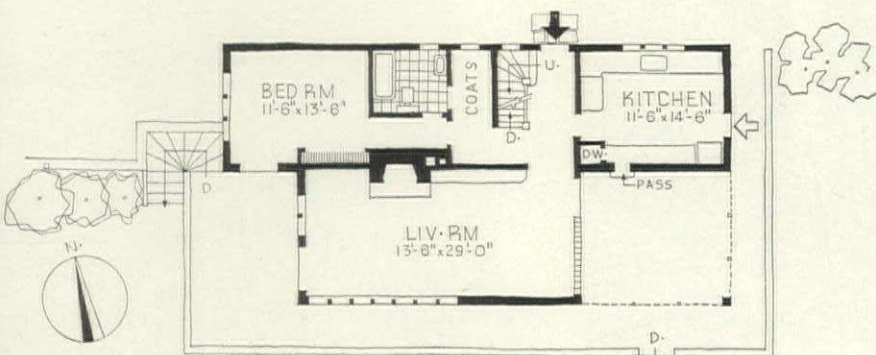


ENTRANCE SIDE FACES DRI

ed by a region of deep winter snows and a sound carpenter tradition.

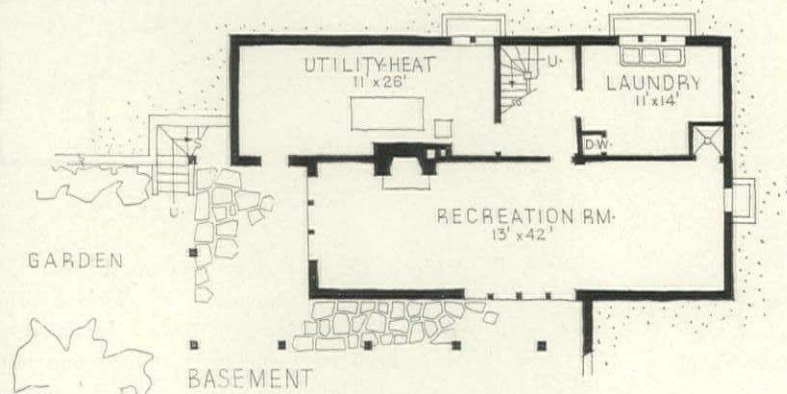


SECOND FLOOR



FIRST FLOOR

SCALE IN FEET
0 5 10 15 20



BASEMENT

Oriented to the "backdoor-kitchen-snow shoveling" farm life of Vermont winters, this house has an indoor-outdoor accessibility that makes it extremely livable the year round. Adaptation of the house to the southern slope is excellent. And the interior scheme is spacious and fluid with living-rooms on all three floors.

Entrance is from the uphill side, close to the garage and woodshed for wintertime convenience. The door opens into the intermediate floor level, which has a very large living-dining room, and a convenient guest bedroom and extra bath. Supplemented by a study with fireplace on the third floor and a recreation room on the ground level, this comfortable winter living scheme is expanded in summer by the U-porch surrounding the middle floor and the sheltered ground-floor terrace beneath. Outdoor accessibility is generous, with stairways from both ends of the porch to the terrace.

According to the architect: "The house was built from 1/4 in. scale drawings by a local carpenter-contractor, Guy Morse. He had never seen glass block, and didn't want details. He had never seen anything like my drawings: he called them 'purty pictures'. He said, 'We'll work things out on the job.' We did. It meant a lot of drawing on shingles, but the house is very sound and very simple. It definitely doesn't have that look of being too finished in the midst of a not-too-finished setting. In essence, we tried to adapt the modern trend in architecture to the reality of Vermont, its climate, its mores, its traditional resources in carpentry, and not in any sense to impose a preconceived perfection. We all enjoyed building this house."

Mortgagee: North Bennington First National Bank.



MIDDLE FLOOR PORCH RUNS AROUND THREE SIDES OF HOUSE.

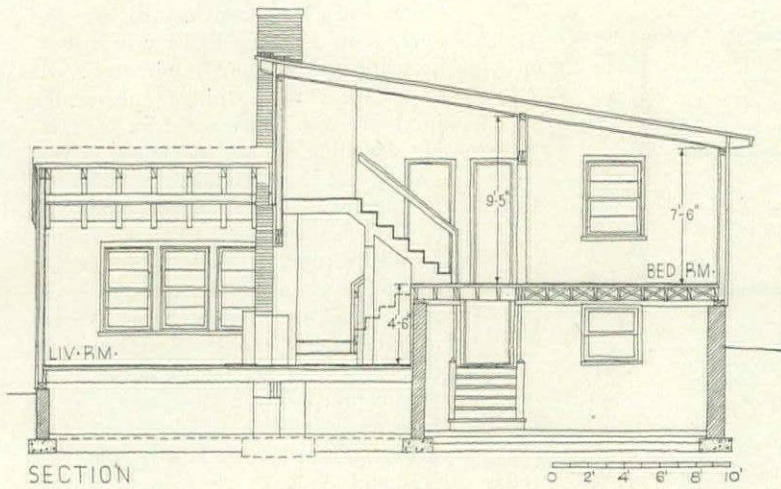
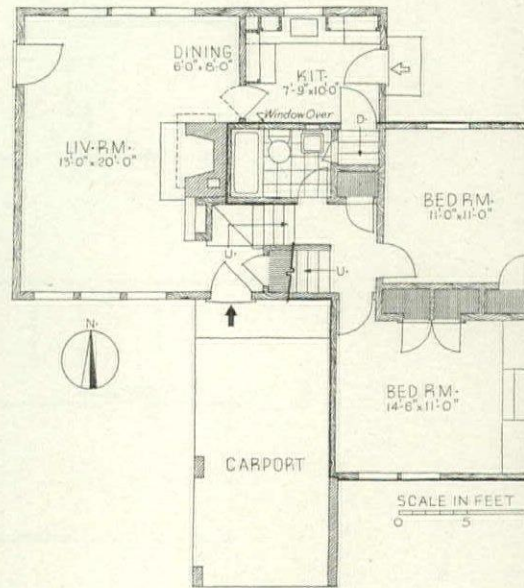
CONSTRUCTION OUTLINE: STRUCTURE: Exterior walls—frame, 12 in. cedar clapboards outside; inside—plaster on 10 in. white pine boards. Floors—birch. Roof—cedar shingles. Decks—canvas. SHEET METAL WORK: Flashing—copper. Gutters and leaders—galvanized iron. INSULATION: Outside walls and attic floor—rockwool. WINDOWS: Sash—double hung, aluminum, Kawneer Co. Glass—double strength. Glass blocks—Owens-Illinois Glass Co. FLOOR COVERINGS: Kitchen and bathrooms—linoleum. WALL COVERINGS: Living room—white pine. Halls—wallpaper. PAINTS—Samuel Cabot, Inc. WIRING SYSTEM—BX. KITCHEN EQUIPMENT: Range—Monarch electric, Malleable Iron Range Co. Refrigerator—Frigidaire Sales Corp. LAUNDRY EQUIPMENT: Washing machine—Universal, Landers, Frary & Clark. PLUMBING: Soil pipes—cast iron. Hot and cold water pipes—copper. HEATING: Delco Conditionaire, General Motors Corp.

HOUSE IN VALHALLA, N. Y. A neat, compact bi-level plan fitted to a limited

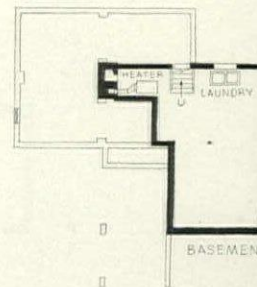
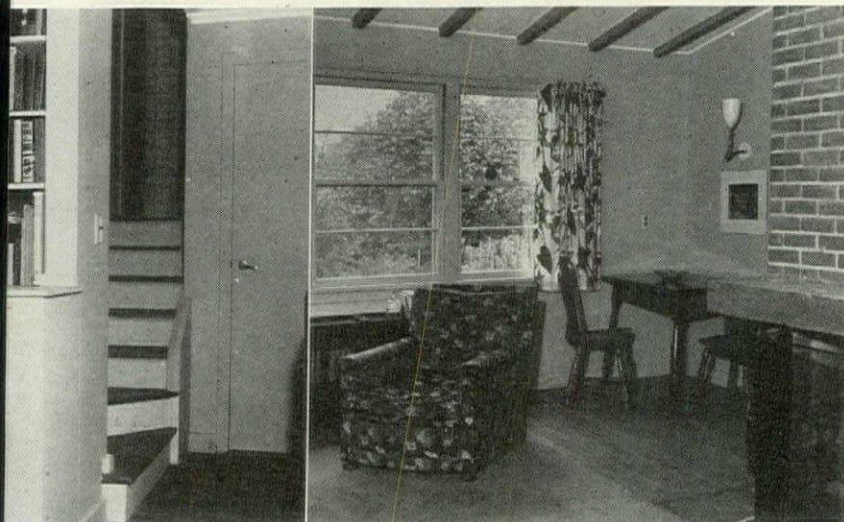
ARCHITECTS: CHARLES E. TILTON
BURNETT V. VICKER
DESIGNER: GARDINER ANGELL



AWKWARD CARPORT COMPLICATES AN OTHERWISE GOOD DESIGN



BEDROOM STAIRWAY AND DINING ALCOVE IN THE LIVING ROOM



Built within a limited budget, this small house has four floors at half-levels neatly interlocked. The slope of the shed roof provides space for a porch on the uppermost level and for two bedrooms half a floor below. The living room wing is another half-level down, at grade. And the basement laundry-and-heater room is half out of the ground in a half-excavated space beneath the bedrooms.

In the living room wing there are interesting ceiling angles provided by the shed roof and interlocking plan. The dining area is set off from the rest of the living room in an L created by the projection of the bedroom stair-well and fireplace. Just off the dining area, under the low pitch of the roof is placed the kitchen.

Mortgagee: Washington Irving Trust Co., Tarrytown, N. Y.

CONSTRUCTION OUTLINE: FOUNDATION: Concrete block. STRUCTURE: Exterior walls—Timbolok wall construction; U. S. Gypsum Co. Perfo-tape interior finish, wall board and plaster board. ROOF—built-up ply, slag finish, Barrett Co. INSULATION: Ground floor and attic—Rock wool, U. S. Gypsum Co. FIREPLACE DAMPER—H. W. Covert Co. WALL COVERINGS: Bathrooms—Linowall, Armstrong Cork Co. HARDWARE—P. & F. Corbin Co. BATHROOM EQUIPMENT—American Radiator-Standard Sanitary Corp. HEATING—warm air system, humidified, Thatcher Furnace Co. Regulator—Minneapolis-Honeywell Regulator Co.

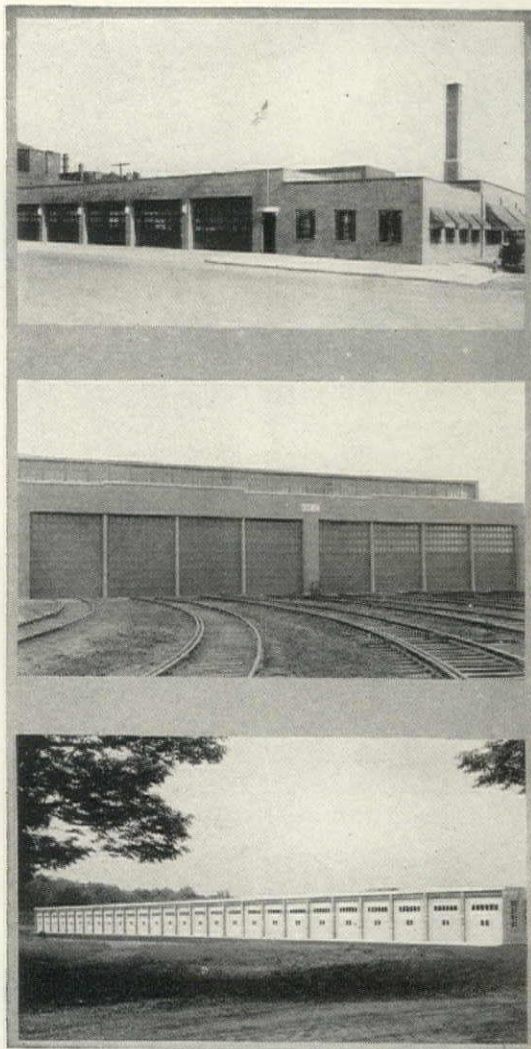
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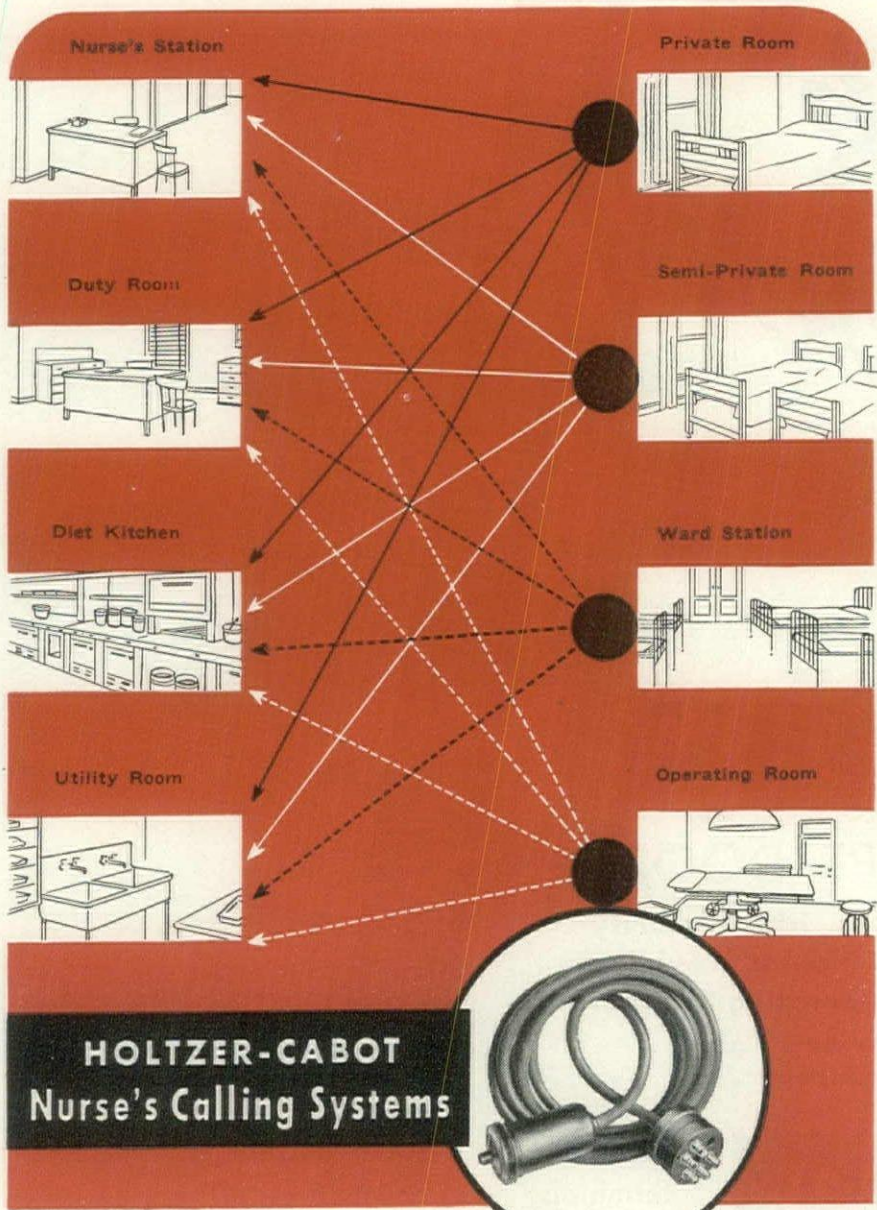
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Holtzer-Cabot Nurses' calling systems quickly summon the nurse to a patient's bedside. Pressure upon a button sounds buzzers and illuminates lamp signals at selected points. Accidental dropping of button will not reset or detach plug. However, if a plug should become accidentally detached, lamp signal lights and buzzer sounds continuously until plug is replaced.

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Catalog, giving complete information on Holtzer-Cabot Hospital Signaling and Communication equipment, will be sent on request.

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LETTERS

(Continued from page 36)

trade and commerce with India. We are qualified to handle a large number of lines. We are sending a list indicating the various industries in which we are interested. . . .

Y. A. FAZALBEH

Bombay, India

(List on request—Ed.)

STUMBLING PROBLEM

Forum:

In the May FORUM, p. 14, in your article on Postwar Wiring: "The low outlet is on a switch control, a device designed to drive men mad." Evidently some men do not have far to be driven. The situation is easily handled by using a little white surgical tape on just one of the lamps controlled from the wall switch, so it can only be operated from the wall. Or, if an amateur electrician is around, one lamp switch can easily be doctored so it won't turn off. This would be almost impossible to change to 3-way switches, especially as lamp switches are not built that way and three or four wires would be required for each lamp, to say nothing of special convenience outlets and plugs.

C. S. REED

Duke Power Co.
Charlotte, N. C.

The FORUM thanks Mr. Reed, but stands pat on its opinion. Since we were dealing with superlative postwar wiring, we naturally spoke in terms of the best possible switch control for portable lamps. Taping or doctoring the lamp switch still leaves unsolved the problem of turning the lamp without a trip across the room. If the lamp and the wall switch were near each other Mr. Reed's suggestion would be sensible, but switch control would hardly be necessary. It would also work if two 3-way switches were used, one on the wall near room entrance, another on the wall near the outlet for the lamp. The best solution, however, is the development of a new type of outlet and lamps equipped with a 3-way switch plus a 3-prong plug. This would require cooperation between lamp and outlet manufacturers, but is the only really effective way to solve the problem.

MONEY COUNTS

Forum:

May we say how glad we are to see the credit line to the federal savings and loan associations in your March issue.

This recognition should encourage those who believe that financing should also respond to housing needs.

COLWELL BEATTY

Hinsdale Federal Savings & Loan Assn.
Hinsdale, Ill.

(Continued on page 120)

For Door Specifications

Choose these basic All-Purpose Douglas Fir Doors

ATTRACTIVE, architecturally-correct . . . Douglas Fir Interior Doors feature basic 3-panel designs adaptable to every type of building. Specify them, with confidence, in your post-war planning!

A New Line!

FACTRI-FIT

Precision-Built Douglas Fir Doors

1 FACTRI-FIT doors are pre-fit at the mill, trimmed, ready to hang.

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4 FACTRI-FIT doors are scuff-stripped to protect the precision-cut corners in shipping.

FACTRI-FIT features cost a little extra — but this added cost is more than offset by savings on the job.

Write for catalog showing the complete line of Douglas Fir Interior Doors, TRU-FIT Entrance Doors, and new specialty items.

Attractive 3-panel designs are available in the stock line of Douglas Fir Interior Doors — basic, all purpose designs, planned to give a door adaptable to all types of building.

That means you can specify Douglas Fir doors for every need, giving your client the benefits of beauty, durability, long-life—plus advantages of the new FACTRI-FIT features.

Available now only for essential building, Douglas Fir Doors will be ready again when war needs are over.

Douglas Fir DOORS

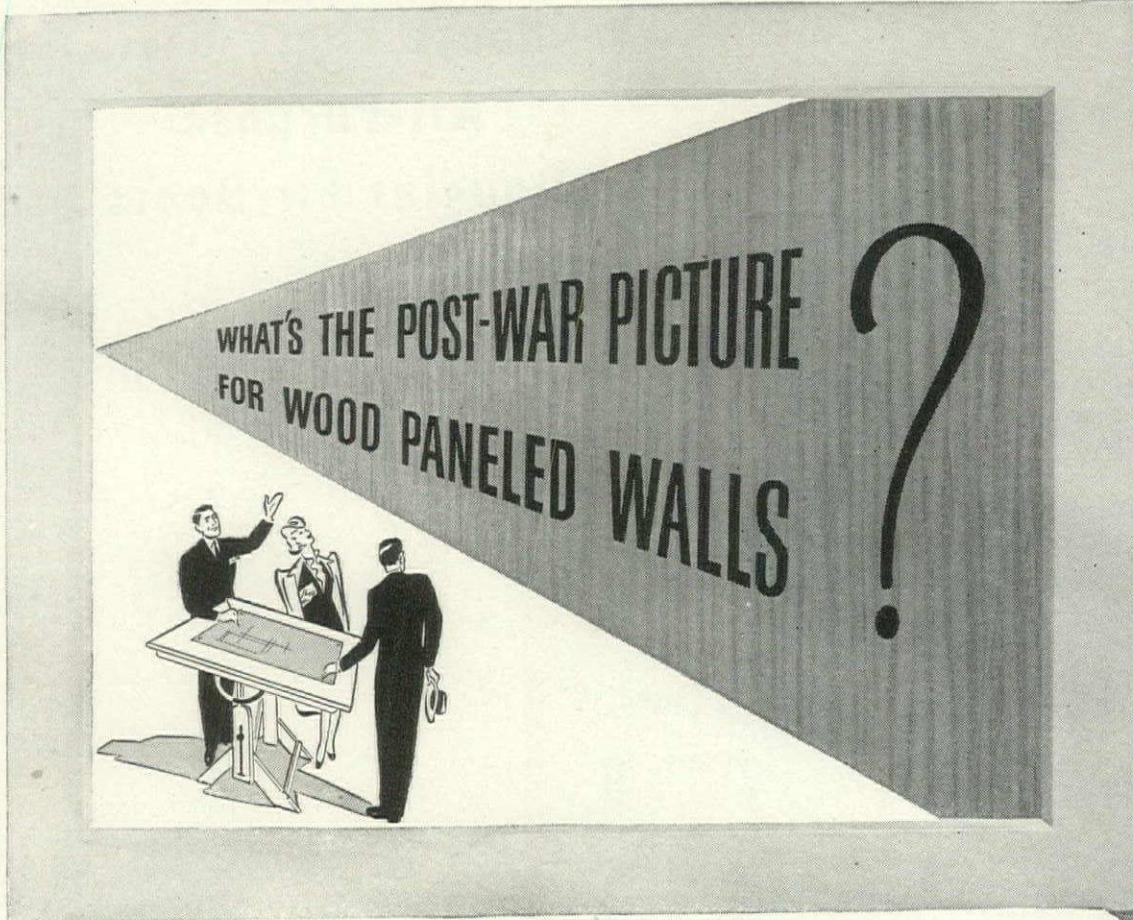
FIR DOOR INSTITUTE

Tacoma 2, Washington

Remember!
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Durable Douglas Fir Doors are made from all-heart-wood, vertical-grain, soft, old-growth Douglas Fir.

NATIONALLY ADVERTISED! Full page advertisements, in color, feature Weldwood Plywood in Better Homes and Gardens, American Home, House Beautiful.



Beautiful!

15,206 inquiries in one month from the first advertisement!

If you've had any doubt as to whether your clients want plywood-paneled walls — dispel it now.

They do!

Over 15,000 persons have asked for information *the first* month Weldwood Plywood Paneling was advertised!

And that advertisement was only a starter! Available for your post-war use at little more over-all cost than plastering, walls of Weldwood Plywood Paneling will bring sales-stimulating beauty to homes in every price range.

In genuine walnut, mahogany, Weldtex, knotty pine, oak, gum and other fine hardwoods, these gorgeously grained 4' x 8' x 1/4" panels, (factory-finished if you like) are eminently prac-

tical. They're crack-proof and guaranteed for the life of the building.

Weldwood Plywood Panels provide all the advantages of dri-wall construction.

No intricate installation; they go right on furring strips attached to studding...

No "plaster damp" to cause cracks and warping...

No 3 to 6 weeks' delay while moisture dries from walls...

No waste of materials.

And for those walls and ceilings that are to be covered with paper or paint, sturdy, inexpensive Weldwood Utility Panels with their extra-heavy gum faces will provide an ideal under-surface.

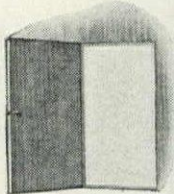
Forever smooth, they do not develop raised grain-lines to show through wall

paper or paint. A quarter-inch in thickness, they will be available in convenient 6' x 4', 7' x 4' and 8' x 4' size panels. (Grain runs short way.)

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Distributing Units in Boston, Brooklyn, Chicago, Cincinnati, Cleveland, Detroit, High Point, Los Angeles, Louisville, Newark, New York, Oakland, Philadelphia, Rochester, San Francisco, Seattle... Send inquiries to nearest point.

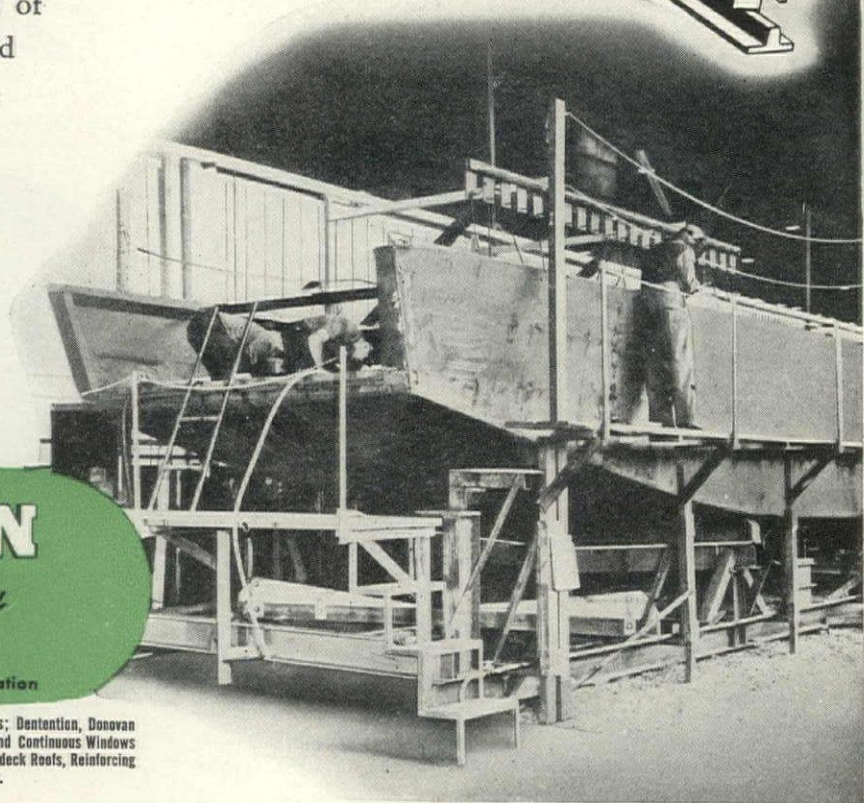


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While America was growing up, Truscon Open Truss Steel Joists helped put strength into thousands of structures from Main Street to Broadway. For lightness, rigidity and construction economy they were hard to beat.

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Two years of war armament production... two years of development in skills and designs... will make it possible for us to announce an improved Truscon Open Truss Steel Joist when our war-production duties to America are fulfilled.



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Residential Double-Hung and Casement Windows, Intermediate Casements; Dentention, Donovan Awning Type, Maximalir Louver Type, Projected, Pivoted, Double-Hung, and Continuous Windows (and Operators); and a Complete Line of Steel Joists, Metal Laths, Steeldeck Roofs, Reinforcing Products, and Steel Doors for Buildings and Hangars.

HOW STEEL ~~STRETCHES~~ THE SYLVANIA LINE OF "COMPLETE PACKAGES OF LIGHT"

Government release of steel for fluorescent fixture fabrication enables Sylvania to round out its line of "complete packages of light" to fit all industrial and commercial general lighting requirements.

Now there are SEVEN INDUSTRIAL UNITS

Continuous-Row Type

Back into the line come these outstanding Sylvania Fixtures with steel reflectors, designed primarily for continuous-row or end-to-end installations. They are made with the same high quality materials available in 1942.

Single (4-foot) channel top-housing

HFF-104—two 40-watt lamps, for continuous-row mounting
HFF-154—three 40-watt lamps, for continuous-row mounting

Double (8-foot) channel top-housing

(Continuous wire-way enclosure reduces cost of continuous-row installations)

HFF-208—four 40-watt lamps, for continuous-row mounting
HFF-308—six 40-watt lamps, for continuous-row mounting

All models come completely equipped with lamps, ballasts, and starters — pretested and ready for immediate installation.

All-Purpose Type

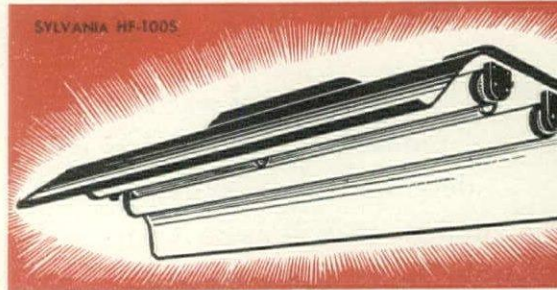
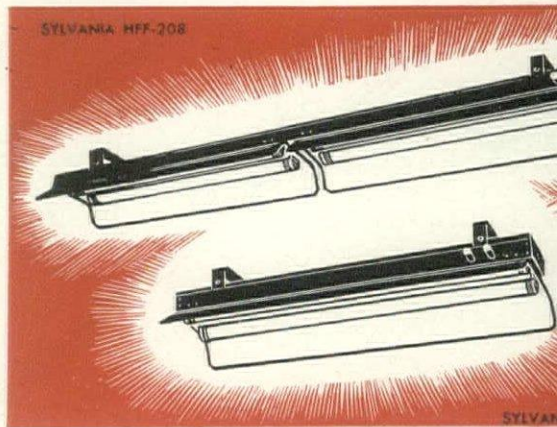
The famous Sylvania "Fixture of the Future," which has proven so popular in war industry, is now available with a reflector drawn from 20-gauge steel, with a reinforcing lip. Finished with durable synthetic enamel. For either continuous-row or individual mounting.

HF-100S steel reflector has knockouts that provide for easy conversion from two to three lamps. The streamlined top-housing in all models has knockouts that make almost any type of mounting possible. Supplied in "complete packages of light" with lamps, starters, and ballasts, pretested, wired, and ready for immediate installation.

HF-100S—two 40-watt lamps
HF-150S—three 40-watt lamps
HF-235S—two 100-watt lamps

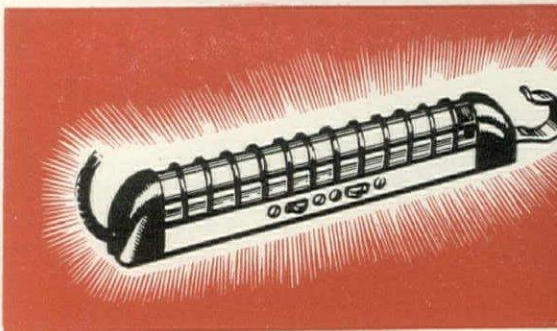
Portable FLUORESCENT WORK LIGHT FOR INDUSTRY

P-7 Sylvania Extension Cord Lamp makes fluorescent light portable for the first time. Compact dimensions — $10\frac{1}{4}$ " x $1\frac{3}{16}$ " x $1\frac{7}{8}$ ". Goes anywhere the hand can reach in close-quarter work. Cool and adequate light from a 6-watt Sylvania Fluorescent Lamp is safe and efficient. Steel guard prevents lamp breakage. Handy hook leaves both hands free to work. Operates on 110-125 volts, 60-cycle, AC only.

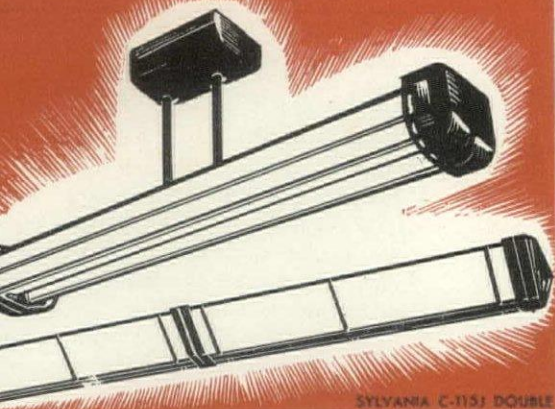


SYLVANIA
ELECTRIC PRODUCTS INC.
Salem, Massachusetts

Fluorescent Lamps, Fixtures and Accessories, Incandescent Lamps,
Radio Tubes, Cathode Ray Tubes, Electronic Devices

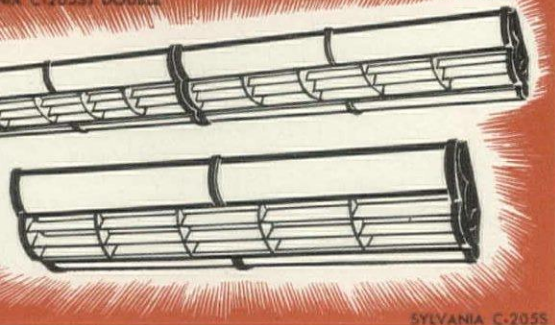


SYLVANIA C-100



SYLVANIA C-100 DOUBLE

SYLVANIA C-205S DOUBLE



SYLVANIA C-205S

SYLVANIA C-201S



SYLVANIA C-201S

Now there are SEVEN COMMERCIAL UNITS

Two-Lamp Shielded and Unshielded

It is now possible to resume the manufacture of this handsome and adaptable series. All models have steel reflectors and employ 40-watt lamps. This variety of models will make for wider fluorescent application to the commercial and institutional field.

Two 40-watt Lamps

- C-100 unshielded with pendant
- C-101 shielded with pendant
- C-113 unshielded surface-mounted
- C-115 shielded surface-mounted

All models are supplied with Sylvania Lamps as "complete packages of light."

Louvertype

These highly efficient fixtures are decorative in appearance but functional in design, with diffusing panels on each side of the lamps and louvers directly beneath. Equipped with four 40-watt lamps. Steel reflectors.

Four 40-watt Lamps

- C-205S individual surface-mounted

Four-Lamp Shielded and Unshielded

These Sylvania Fixtures, which are ideal for stores, offices, laboratories and hospitals, now are equipped with 20-gauge steel reflectors finished with synthetic enamel. New design hinged end-caps and hinged diffusing panels make for easier and speedier maintenance. Supplied complete with four 40-watt Sylvania Fluorescent Lamps, Dua-Lamp Auxiliaries, and Starters — pretested and ready for immediate installation. Available with or without pendant.

Four 40-watt Lamps

- C-200S unshielded, surface-mounted, individual
- C-201S shielded, surface-mounted, individual

Leading Manufacturer of Fixtures in the Fluorescent Field

IF YOU HAVE A PROBLEM TO WHICH FLUORESCENT MIGHT BE APPLIED, WHY NOT CONSULT SYLVANIA ENGINEERS?

SYLVANIA "COMPLETE PACKAGES OF LIGHT"

Industrial Fixtures

Commercial Fixtures

HFF-104 ()	C-100 ()
HFF-154 ()	C-101 ()
HFF-208 ()	C-113 ()
HFF-308 ()	C-115 ()
HF-100S ()	C-205S ()
HF-150S ()	C-200S ()
HF-235S ()	C-201S ()
P-7 ()	

SYLVANIA ELECTRIC PRODUCTS INC., Boston Street, Salem, Mass.
Dept. AF-744

Please send me information on the fixtures I have checked.

Name _____

Title _____

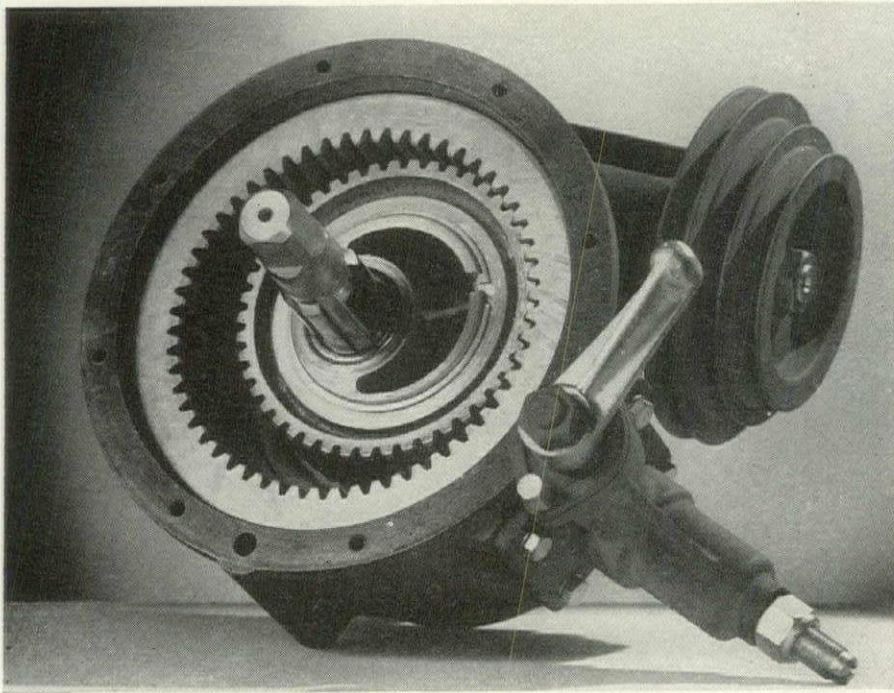
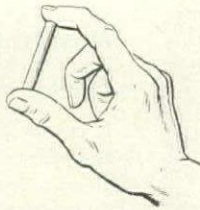
Firm _____

Address _____

City _____ State _____

WE ELIMINATED THIS TINY PIN . . .

AND CHANGED THE STANDARDS
OF AN INDUSTRY



In conventional stoker designs the transmission is protected against overload by a little metal gadget called a *shear pin*. In the case of a blocked feed screw, the pin is sheared off, thereby disconnecting the motor from the driving mechanism. Until a service man can replace the pin, the stoker is inoperative.

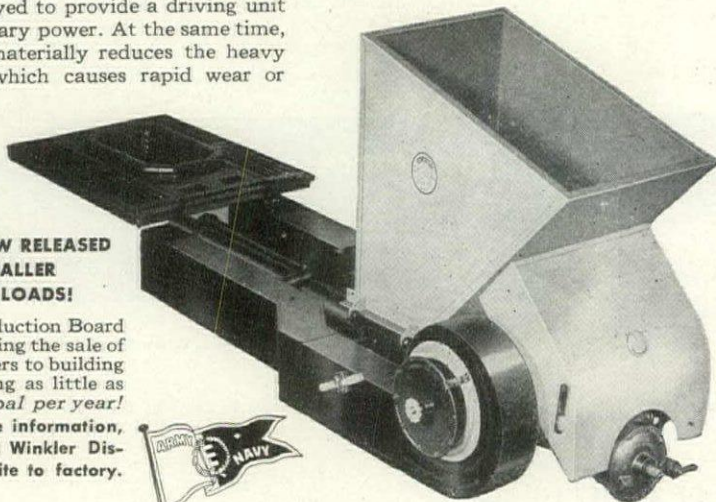
The Winkler Stoker has no shear pin! Its transmission is fully protected against overload damage by the Winkler Safety Release. If an obstruction should block the feed screw, this device automatically and continuously disengages and re-engages the motor and transmission until the obstruction is removed. *The Winkler Stoker thereupon resumes operation without the need for service.*

In the Winkler Stoker Transmission the inherent mechanical advantages of *internal planetary gearing* are ingeniously employed to provide a driving unit of extraordinary power. At the same time, this design materially reduces the heavy tooth load which causes rapid wear or breakage.

STOKERS NOW RELEASED FOR SMALLER HEATING LOADS!

The War Production Board is now approving the sale of Winkler Stokers to building owners burning as little as *25 tons of coal per year!*

For complete information, see your local Winkler Distributor, or write to factory.



WINKLER

fully automatic STOKERS

U. S. MACHINE CORPORATION • LEBANON, INDIANA

LETTERS

(Continued from page 114)

CAUTIOUS SPECULATORS

Forum:

The Miller letter in your May issue blisters mortgage agencies with the charge that "the *speculative* (the italics is ours) house builder has given the public a chance to buy exactly what the mortgage companies have permitted him to build."

Guilty, Your Honor! Amen! and a host of other expressions conveying vehement admission.

First, may one inquire why a "speculative" builder should be permitted to speculate with other people's savings? Certainly, anyone should be permitted to speculate with his own money, but when it comes to speculating with all the money some old folks may have in this world, some of the trustees of this money are still old-fashioned enough to take the confidence and trust seriously.

And what pray tell, is wrong with one being trustworthy?

VICTOR C. GRAHAM

*First Federal Savings & Loan Association of Omaha
Omaha, Neb.*

STARVING IDEALISTS

Forum:

. . . The only trouble I find with many of these Billy Sunday philippics against the architect . . . is that they overlook the basic causes for the architect's dilemma of the present generation. They seem to hold that a man's appetite has no function in the operation of human conduct and that the architect can be exhorted into edification by a mere appeal to his piety.

They expect him to "take arms against a sea of trouble and by opposing end them." But they forget that the formula of the building operation inherently works against the exercise of him of ingenuity, originality and skill. The owner demands that every useable inch be eked out of the property; the blueprint is colored by the tyrannical demand for maximum profit with minimum outlay; the docility of the home buyer, the indifference of the lender, the absence of a market keenly competitive in quality, a tax structure that demands the utilization of every utilizable inch; goodwill and reputation for skill won not for designing the most comfortable house but for one that will bring most profit to the client—all this gives little opportunity for using the architect's endowments. Nothing gained by overcrowding, hell! There's

(Continued on page 124)



Can too many watts spoil the cook?

WHAT'S cooking in the Bjones kitchen this morning? Well, practically nothing—as usual. (Mary's beginning to boil, but that's all).

Meanwhile, the entire family—including "Barkus," the Bjones bloodhound—facing slow starvation.

Pretty soon, poor Bjonesy will have skip his breakfast—and do a Dagwood down to the station to catch the 8:19 . . .

And all because Mary Bjones has to connect all her electrical appliances to a way gimmick plugged into a single outlet!

Of course, it isn't Mary's fault—there just aren't enough electrical circuits to carry the load properly. Result: appliances don't get hot enough. Cooking slows down. First thing you know, the

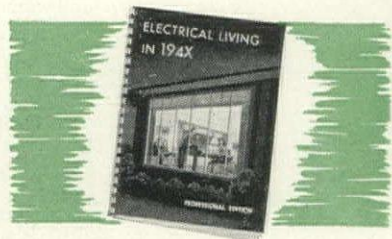
breakfast and Mary's disposition are both spoiled.

We at Westinghouse think it's about time the Bjoneses—and the Smiths and the Browns—get a break. That's why we created the Better Homes Department . . . to help educate home owners on the urgent need for "better wiring for better living."

BETTER HOMES DEPARTMENT Six Point Advisory Service

offers you free technical advice—on the selection and application of fixed electrical equipment in 194X homes—dimensions and clearances, for proper installation and easy access for servicing—placing of lighting outlets and controls—location and size of wiring, water supply and drainage lines.

Refer your electrical problems to the Westinghouse Better Homes Department. Our housing specialists will give you authoritative information, promptly.



SEND FOR THIS FREE BOOK!

"Electrical Living in 194X" takes your prospects on a personally conducted tour through a completely electrified home. Tells them all about increased electrical loads in future homes—modern circuit protection—lighting and lighting controls—entrance equipment and distribution panels.

Get your free copy of this 64-page book now, by writing Better Homes Department (AF-74), Westinghouse Electric & Manufacturing Company, Pittsburgh 30, Pennsylvania.

Westinghouse

Plants in 25 Cities Offices Everywhere

WESTINGHOUSE PRESENTS John Charles Thomas, Sunday 2:30, EWT, NBC.
"Top of the Evening", Mon. Wed. Fri. 10:15, EWT, Blue Network

For most industrial, commercial and decorative lighting,

Fluorescent is Better

HERE'S THE DIFFERENCE!

There are two kinds of fluorescent lighting—*hot cathode*, the older type, and *cold cathode*, the newer type, of which Zeon fluorescent lighting is the outstanding example. Both types are good; both are a great improvement over incandescent light in most cases. But the newer cold cathode fluorescent has many advantages over the hot cathode type—advantages which in some installations are of supreme importance. Here is a quick comparison of the two types:

HOT CATHODE

Highest efficiency; average output 42 lumens per watt. (Comparable incandescent lamp around 15 lumens per watt).

Lamp life two to three times as long as incandescent lamps.

Multiple auxiliaries: starter; reactor; wiring to each lamp.

Fixed lengths, standard size lamps.

Inflexible, straight units. One fixed light output.

COLD CATHODE

Practically as high efficiency; average output 39 lumens per watt. (Elect. Test Lab. as quoted by Architectural Forum).

Lamp life extremely long. Less maintenance.

One auxiliary—a transformer. Series circuit. In special installations up to 100 feet of tube from one outlet.

Standard size units, or varying lengths of tubing for custom-built installations.

Completely flexible; any length, any shape. Light intensity variable through current control. Almost unlimited range of colors.

FEDERAL ELECTRIC KNOWS COLD CATHODE

Federal Electric Company, Inc., has been a leader for over fifteen years in the development and use of gaseous discharge lamps. To Federal Electric, cold cathode manufacture and operation is not new; what is relatively new is its adaptation to industrial, commercial, and residential illumination. This has made great strides in the last few years, because of the sim-

ilarity, efficiency, long life and practically no maintenance of cold cathode lighting.

Federal Electric Company will gladly assist you with suggestions for designing, installing, or operating cold cathode fluorescent lighting systems. Call the nearest Federal Electric Company office, or write direct.

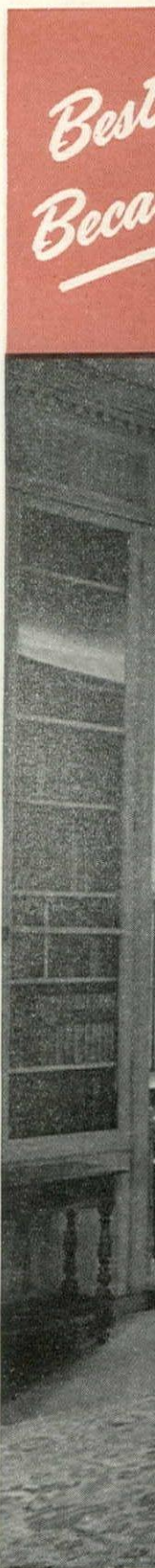


LIGHTING DIVISION

FEDERAL ELECTRIC COMPANY, INC.

8700 SOUTH STATE STREET, CHICAGO 19, ILLINOIS • TELEPHONE VINCENNES 5300

Branch Offices: Cincinnati • Houston • Louisville • New Orleans • Dallas • Indianapolis
 Milwaukee • New York • Duluth • Kansas City • Minneapolis
 Philadelphia • Subsidiary Company: Federal Brilliant Company, St. Louis, Missouri



But there are **2 Kinds** of Fluorescent Lighting...For most applications

Cold Cathode is Best

LONGER LAMP LIFE

LOWER MAINTENANCE COST

INSTANT STARTING

★ **CONSTANT LIGHT FLOW**

★ **FEWER AUXILIARIES**

★ **GREATER FLEXIBILITY**



Federal Zeon cold cathode fluorescent lighting in the library of the J. Sterling Morton estate on the Morton Arboretum, Lisle, Illinois. A continuous line of gold tubular Zeon lamps concealed in the cove give an even, soft, diffused low-level illumination in a color that harmonizes with the tones of the interior.

The Best Shower Made

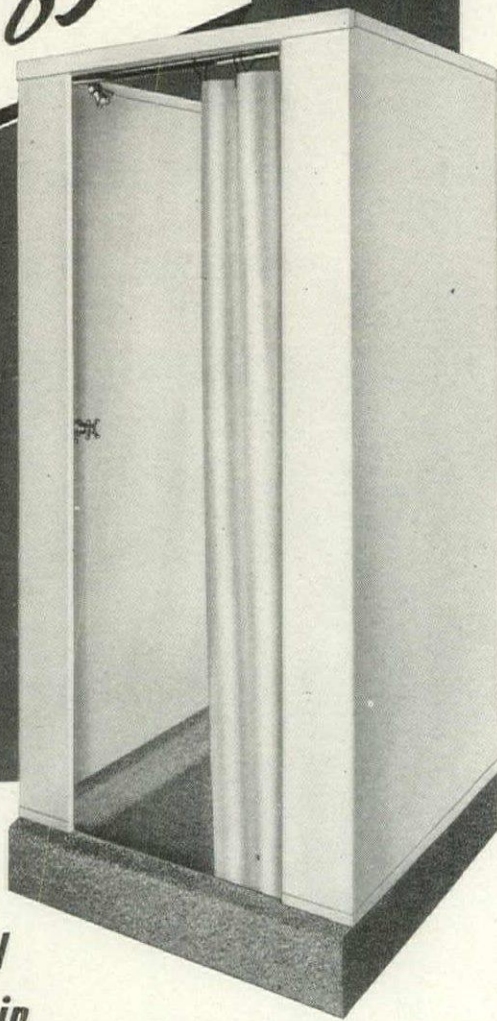


under wartime
material
restrictions

★ 36 x 36 x 78" full size

★ Standard Ensign terrazzo receptor 6" deep with cast in drain

★ Heavy Duty Walls full 1/4" S-2-S Masonite hard board, coated inside and out with waterproof baked - on enamel.



**... Recommended
for installations in
homes, clubs, hospitals or public buildings**

The Fiat No. 85 is a shower cabinet we are proud to present. While this unit was engineered to conform to wartime restricted use of steel, the No. 85 has the essential features of a quality shower — beauty, structural strength and leak-proof construction. The No. 85 is now available for immediate delivery through the plumbing trade on low priorities.

FIAT METAL MANUFACTURING CO.



1205 Roscoe St., Chicago 13, Ill.
21-45 Borden Avenue, Long Island City 1, New York
32 So. San Gabriel Blvd., Pasadena 8, California



LETTERS

(Continued from page 120)

a lot gained, many lots. There's only a short jump from the architect of 1870 who produced for its profit-making potentialities, and the architect of today. Only a dwelling law stands between them. The architect is becoming a dispensable, a Chippendale without chips, a subcontractor with a college degree. With the tendency toward standardization and prefabrication, where do you get this "high optimism"? Some will prosper momentarily in the profession but most of them would wind up as clerks in cigar stores, FHA developers, government employes or subcommittee vice-chairmen of citizens' housing councils. While the tide is still rolling, they will remember the side on which their bread is buttered, and those fortunate enough to have it buttered on both sides will not feel too badly if their hands get smeared a bit in the handling.

Public housing does offer the architect the same type of opportunity that socialized medicine offers the doctor. But with the architects' customers now looking to government as the new vehicle for granting subsidies to private enterprise and removing stake and risk from building ventures, how can architects be expected to flaunt their client interests by favoring public housing which stands in opposition to such formulae? The architect must choose between making a living by forgetting an idealistic nonsense, conform to the pecuniary demands of his client as he always has in the past, or incur the wrath of the National Association of Home Builders. We may not approve of this but why kid the architect? If he stands on the side of the homebuilder against public housing, it is because he has made the choice between being a functioning realist or a starving idealist.

CHARLES ABRAMSON

New York, N. Y.

MORE ON THE LAY MIND

Forum:

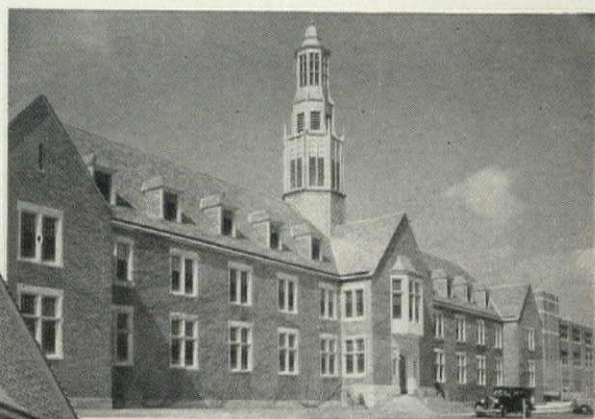
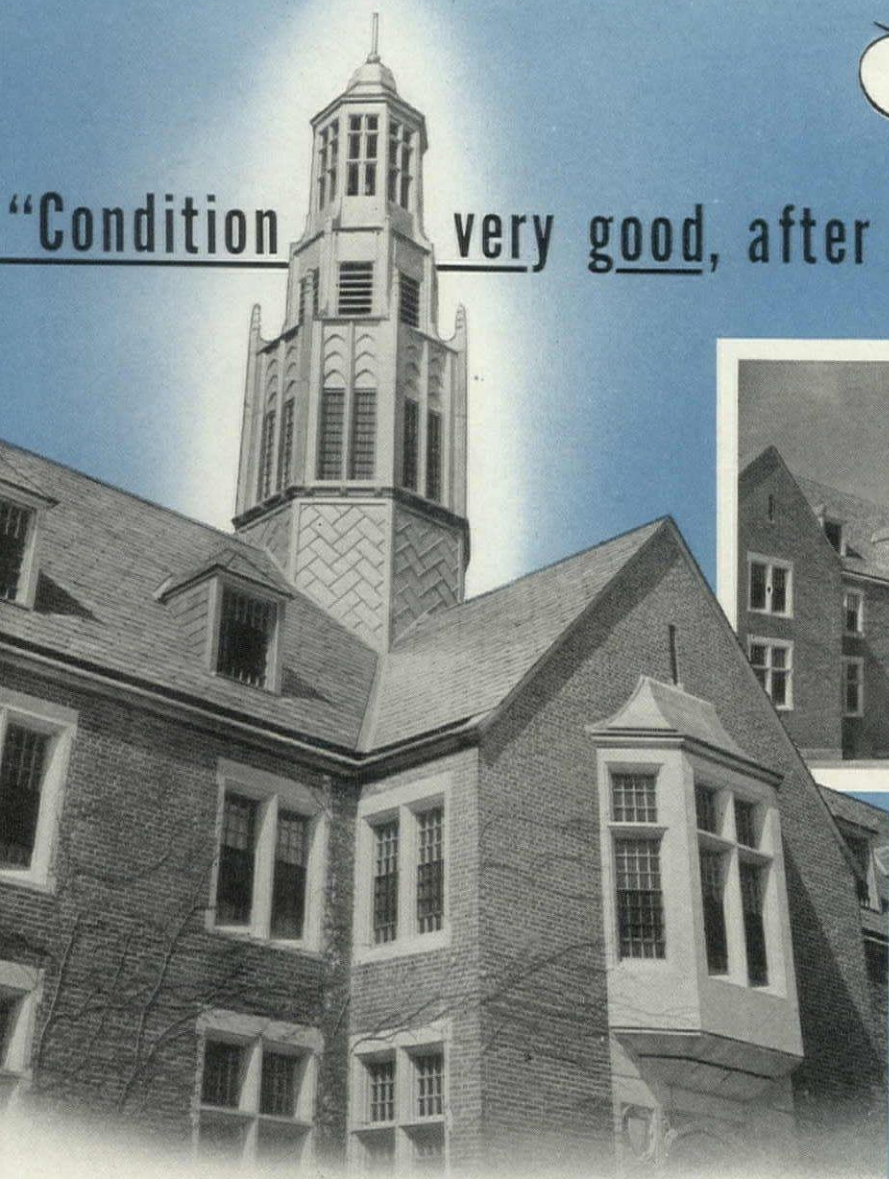
My views "as a layman" correspond to those expressed in Gerald Loeb's interesting article in Feb. 1944.

In my country, architects are regarded by the average person as expensive luxuries, and they find themselves willy-nilly in the hands of "building speculators." In the words of the article—"There is a crying need for a real publicity medium that will teach the need and advantages of good architecture to the public. It is my belief that everyone has a right to the best

(Continued on page 130)

Let's Look at the Record

"Condition very good, after thirteen years"



House of Correction, Billerica, Mass.
Charles R. Greco of Boston, Architect

Its tower is constructed of aluminum sheet with aluminum windows. It has aluminum flashings, ridge cover, box gutters, valleys and an aluminum roof over the entrance bay window.

A logical conclusion to draw, from performance reports on this and many other buildings, is that aluminum helps reduce the time which must be devoted to upkeep.

The versatility of aluminum, its many forms and finishes, are likewise important to designers and operators of public properties. Structures utilizing aluminum earn popular acclaim. The durability of

aluminum and the ease of maintenance simplify the task of upkeep.

Today, of course, architectural uses for aluminum must be kept on the drawing board. But include it in those designs you plan to have ready when our fighters come home. We'll gladly give you any information you may need on Alcoa Aluminum Alloys. Write ALUMINUM COMPANY OF AMERICA, 2166 Gulf Building, Pittsburgh 19, Pennsylvania.

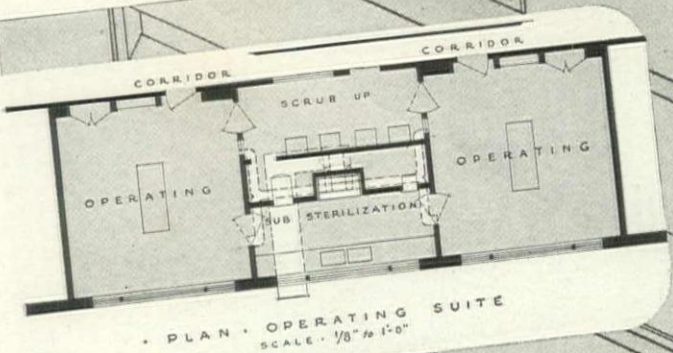
*The Window
of the
Future is
Aluminum*

ALCOA ALUMINUM

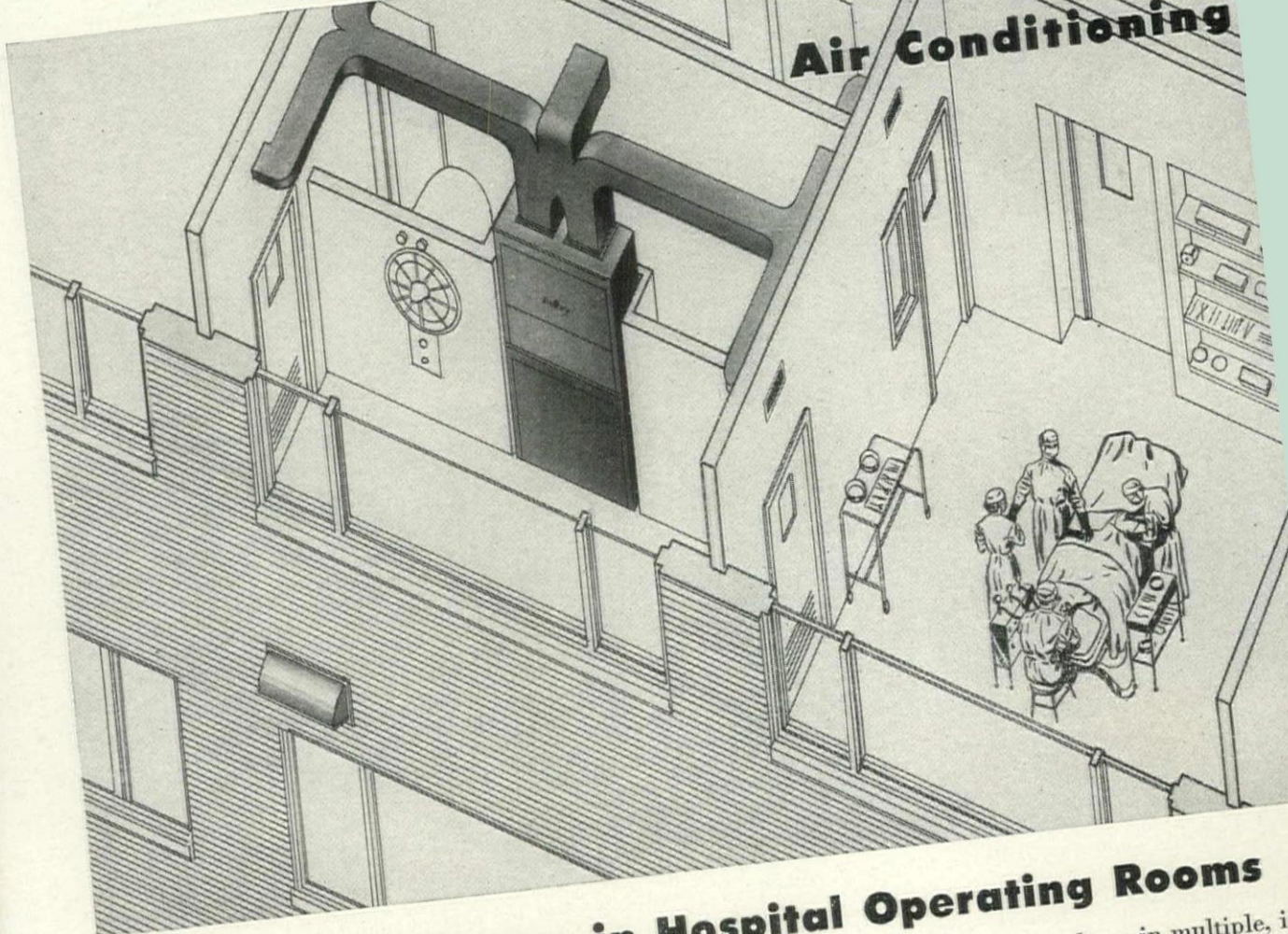


Reg. U. S. Pat. Off.

*Chrysler
Airtemp*



**"Packaged"
Air Conditioning**



A Helpful Factor in Hospital Operating Rooms

Modern architecture is incorporating a new, functional efficiency in all types of structures. And Chrysler Airtemp "Packaged" Air Conditioning . . . because of its compact, flexible unit design . . . is offering a simple solution to over 80% of all temperature-humidity control requirements. Throughout the country, with national interest riveted upon hospital accommodations, Chrysler Airtemp "Packaged" Air Conditioning Units are being specified for new and old hospitals.

The ease of application, singly or in multiple, is causing architects to recognize these time-tested, contained units as a most practical means of providing a new temperature-humidity control efficiency.

The Chrysler Airtemp organization will be glad to cooperate with architects in making plans and estimates for all types of domestic heating, commercial refrigeration as well as air conditioning installations.

BUY WAR BONDS

CHRYSLER AIRTEMP

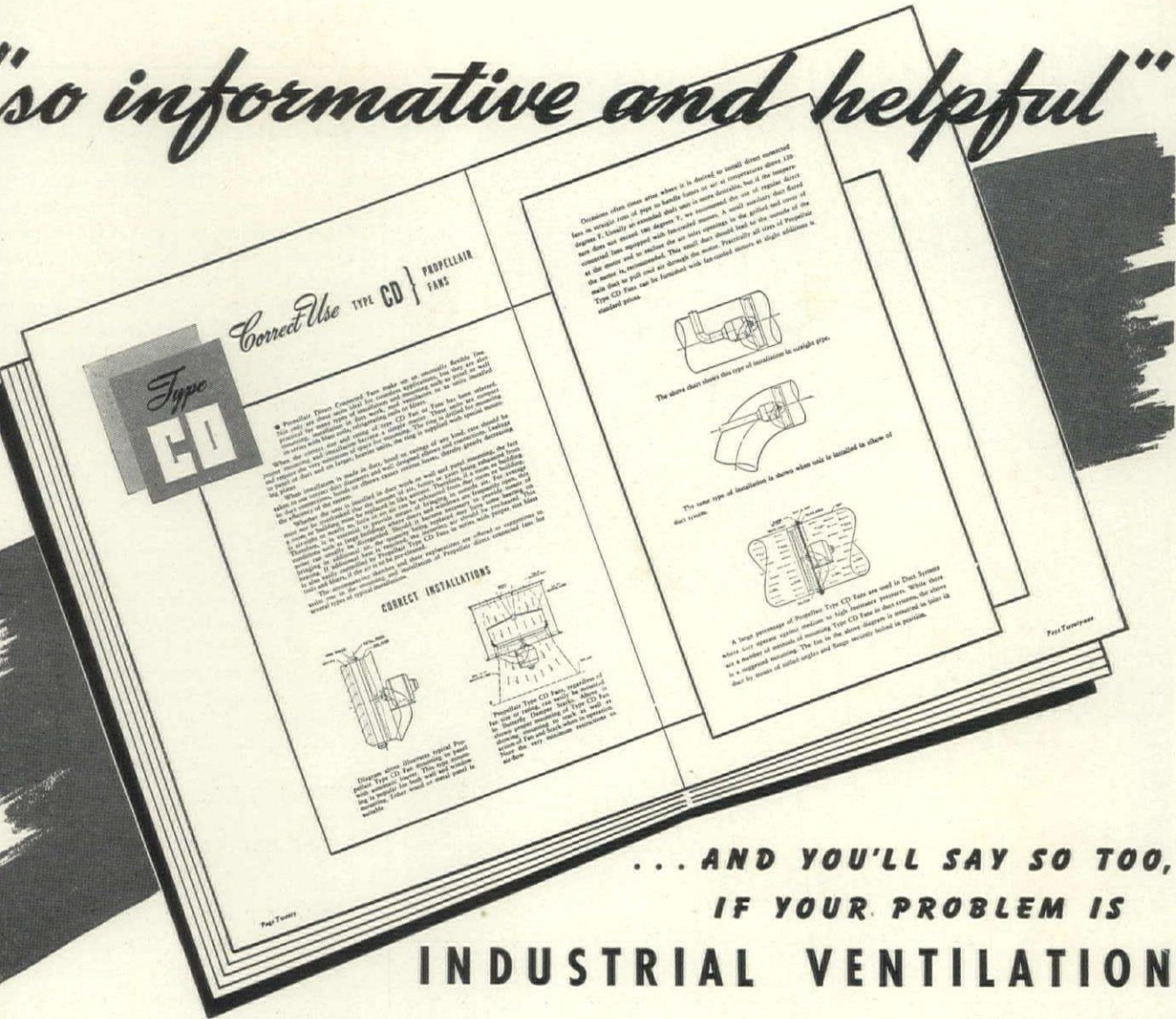


AIRTEMP DIVISION OF CHRYSLER CORPORATION • DAYTON, OHIO

Tune in Major Bowes every Thursday, CBS, 9 p. m., E. W. T.

THE ARCHITECTURAL

"so informative and helpful"



**... AND YOU'LL SAY SO TOO,
IF YOUR PROBLEM IS
INDUSTRIAL VENTILATION**

Here is a book as broad in its scope as the growing need for modern industrial ventilation—72 pages of research results by a leader in the field, with facts and figures, tables and charts, presented for quick reference. One busy executive wrote, "In these days when catalogs deluge a buyer like snowflakes in a storm, it is refreshing indeed to receive one that is so informative and helpful." We believe you will say so too, when you see it.

Sections are devoted to propellers, explaining why airfoil design improves efficiency for higher output at lower horsepower; to entrance ring construction, showing how application of the airfoil principle reduces impeding eddy currents; to typical arrangements that overcome flow-retarding obstructions; to recommended air changes for general and specific requirements; to duct design; to dust collection and elimination; to properties and pressure-velocity relationship of air; and to other related subjects important in the solution of industrial ventilation problems.

Propellair equipment is serving all industry in correcting poor ventilation; in removing excessive heat, odors, gas, acid and paint fumes, dust, smoke, steam; in cooling and drying products; in cooling workers—and in many other ways. Get the facts. Send for this informative catalog, now! It's yours for the asking. Learn how simple it can be to have really modern ventilation.

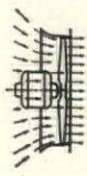
EXCLUSIVE PROPELLAIR FEATURES



AXIAL-FLOW AIRFOIL PROPELLERS

Exclusive Propellair design results in air-flow that is even over all parts of blade ... not just tips. Non-overloading propellers give maximum air with minimum horsepower.

CURVED ENTRANCE RING



Eliminates air-flow restrictions almost 100%. Thus, full fan capacity is utilized and more air per horsepower is delivered.

Mail This Coupon



PROPELLAIR, INC., Springfield, Ohio (AF3)

Please send me the 72-page Propellair book of ventilating information.

Name.....Dept.....

Firm Name.....

Street Address.....City & State.....

My ventilating problem involves:

Heat Fumes Moisture Dust

Post-war Flexachrome is Ready



Flexachrome in the offices of the Ohio Bell Telephone Co., Canton, Ohio

Since 1942 Flexachrome Plastic Tile Flooring has been off the market. Its constituent materials had a war job to do—but Tile-Tex laboratories have not been idle during this period. They have developed an even more flexible, better looking, longer lasting Flexachrome for those buildings you are designing now that will be built after V-Day.

In pre-war days when architects wanted the *finest* in decorative resilient tile flooring, they specified Flexachrome Plastic Tile. Flexachrome's principal ingredient is one of the best known plastic resins—proof against grease, highly resistant to most acids and alkalis, and tough as the hide of a mule.

In floor areas where you need a strikingly beautiful material that combines extraordinary ease of cleaning with exceptionally long wear, specify the new Flexachrome. For more facts, ask us to send you the colorful pamphlet "Flexachrome—an Exclusive Tile-Tex Product."

★ *The Tile-Tex Company*

101 Park Avenue, New York City • Chicago Heights, Illinois

LETTERS

(Continued from page 124)

housing their means can afford. The proper housing could go a long way towards improving most people's attitude to living. That this housing is not available when it is most needed is a serious reproach against what we please to call civilization. However, more power to THE FORUM in the days ahead when there is no restriction on paper and the concrete expression of 1945 ideas.

JOYCE ROOPE

Mosman, NSW, Australia

INTIMATE DETAILS

Forum:

Why not publish new views and details of the many fine *modern* houses and buildings you have shown in your magazine. There must be many nooks and corners and details which it would be a pleasure to behold—to say nothing of the different aspects during the different seasons. There could be even more views of the Waterfall house.

SCHOMER LICHTNER

Milwaukee, Wis.

METRIC AGITATION

Forum:

One of the decisive factors for efficiency in production is good tools. The shop or the plant with modern and better tools will have a definite advantage over the shop or plant using outmoded and impractical tools.

What is true for the competitive fight between manufacturing plants is true for the competitive fight in the economic field between nations. The nations with the better tools will have an advantage in production over the others. We, in America, have recognized that in many ways, and our improved tools are one of the reasons for our tremendous industrial capacity. Still, in one respect, we are using a tool very inferior to the tools of other nations, and that tool is our system of weights and measures. . . .

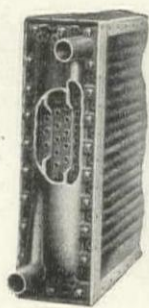
. . . Now if we wish to determine the area of an *object*, we have to multiply feet and inches with feet and inches. We have to convert all dimensions into inches, and then, after our multiplication is finished, we have to again convert into feet and inches. This becomes even more complicated when miles and yards or parts of inches enter into the mathematical operation. In the metric system every part of the meter down to the *thousandth of a millimeter*, is ex-

(Continued on page 132)

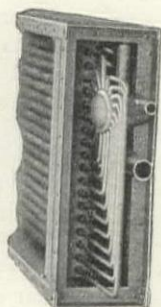
AEROFIN

Heat Exchange Surface

Hot Weather Ahead!



Cleanable
Tube Unit with
Removable Header



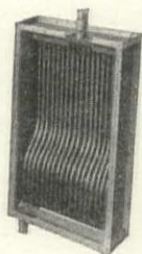
Direct Expansion
Unit with
Centrifugal Header

AEROFIN is the answer to your cooling problems, whether for comfort or Industrial Process.

DIRECT EXPANSION coils for all types of gaseous refrigerants.

CONTINUOUS TUBE for water or liquid refrigerants.

CLEANABLE TUBE with removable headers for liquid refrigerants where periodic cleaning of tubes is made necessary because of unusual amounts of sediment or scale-forming chemicals.

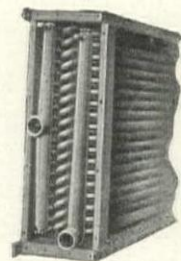


Aerofin
Flexitube Unit
for Heating

In addition, a complete line of HEATING COILS for all temperatures and pressures.

"Coils for special application on request."

Full information may be obtained from our home office or any of the district offices listed below. Consult them on your specific problem.



Aerofin Continuous
Tube Water Coil

AEROFIN CORPORATION

410 S. GEDDES ST., SYRACUSE, N. Y.

Chicago Detroit New York Philadelphia Dallas Cleveland Toronto



SNARL PREVENTION FOR STRUCTURES

Materials—Equipment—Men. Someone must bring them together—coordinate them so each fits into its proper place... someone who knows what materials to buy—where to buy them—how to get them on the job at the right time to become a part of the structure through the use of competent labor.

This multiple function of procurement from many widely separated sources is a particular skill of the general contractor and his organization. An expert of long training and practical experience in the many complex phases of construction, the general contractor provides a service that guarantees there will be an efficient structure completed at a specified time and delivered to you at a price known in advance.

This Is Blueprint Time!



THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.

NINETY CHAPTERS AND BRANCHES THROUGHOUT THE COUNTRY
NATIONAL HEADQUARTERS—MUNSEY BLDG., WASHINGTON, D. C.

Skill, Integrity and Responsibility in the Construction of Buildings, Highways, Railroads and Public Works

LETTERS

(Continued from page 130)

pressed in decimals of the *meter*, and every metric operation can be done in the simplest manner without any conversion.

I had an opportunity to study the working methods of "Production Illustration," which has an important part in speeding up the production of airplanes and many other goods. I observed that nearly half of the time which was spent in converting plans and elevations of airplane parts into perspective drawings, was used in arithmetical operations which were necessary only because of our complicated measuring system. Thousands of man hours could be saved in this branch alone, and millions of man hours are wasted in all other branches of production because of our impractical and antiquated system of measuring.

The metric system is legalized in this country. Why shouldn't we in the architectural profession adopt it and set an example for other professions? Many industries, such as the optical industry, have been forced to adopt the metric system as they could no longer get along with the old measuring system. Others have found a way out by using decimal parts of the inch and thereby increasing the already existing confusion.

We are standing on the threshold of a new important construction period. I feel that this would be the time to act, and to throw away a tool which has proven inferior. I feel that your magazine should be in the first row for a fight to free American production from the disadvantage which our inferior measuring system burdens on our entire economic life.

VICTOR GRUEN

Hollywood, Calif.

ADS FOR ALASKA

Forum:

This is a letter from a soldier in Alaska who subscribes to your magazine and shares the copies with several engineer outfits on the post.

I wish to tell you how especially pleased we are that you are not putting out an overseas edition that would omit the advertisements. Many ideas are presented by the firms that advertise that are valuable to those who expect to build in the postwar era. Whenever spare time permits, the men in the Army are getting their ideas onto paper.

SGT. PAT WRIGHT

APO, Seattle, Wash.



OWNERS ARE DELIGHTED WITH THE UNIFORM TEMPERATURE AND FUEL ECONOMY OF FORCED HOT WATER HEAT

No matter how well a house is planned, *it is no better than its heating system!* Give your clients the kind they'll always thank you for . . . give them heat which is controlled *automatically*—not by opening and closing windows. Give them a B & G Triple Duty System!

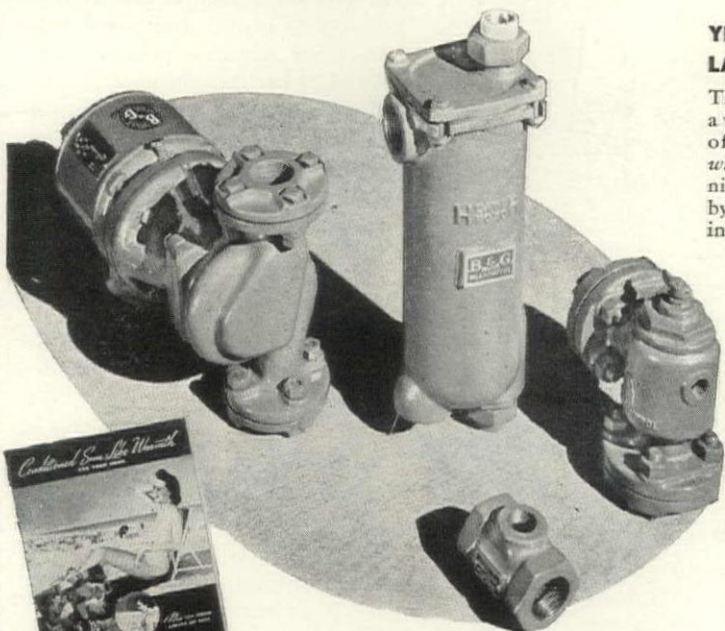
This system of *forced hot water heat* meets every requirement of the ideal heating system. It does not overheat the house when the weather is mild. It does not fail when the temperature skids to zero.

Heat delivery by means of water under mechanical circulation can be modulated so gradually and smoothly that every slight variation in outdoor temperature is met by a corresponding change in the heat supply. Therefore, *overheating*, the most common cause of both discomfort and fuel waste, is eliminated.

For genuine *living comfort* with *genuine operating economy*, specify B & G Triple Duty Heating . . . the heating system of today and tomorrow.

YEAR 'ROUND HOT WATER FOR KITCHEN, LAUNDRY AND BATH

The owner has at his command a virtually inexhaustible supply of domestic hot water—*both winter and summer!* It is furnished at amazingly low cost by the B & G Water Heater, an integral part of the system. A great convenience and a great money saver!



This is the simple, dependable equipment of the B & G Triple Duty System. Send for booklet, "Conditioned, Sun-like Warmth," for complete information.

B & G

TRIPLE DUTY SYSTEM

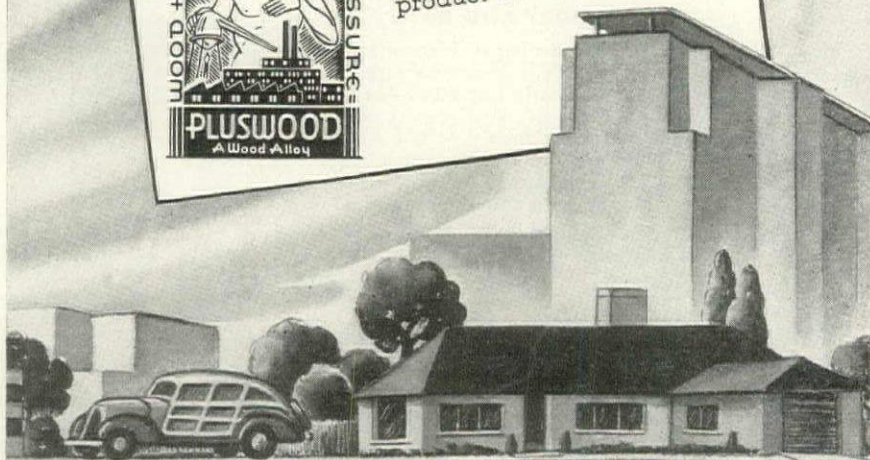
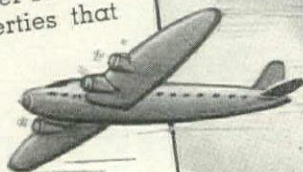
BELL & GOSSETT COMPANY
MORTON GROVE, ILLINOIS

A New Material for Architects and Builders **PLUSWOOD**

a wood alloy with high aesthetic qualities
and an exciting weight-strength ratio

YOU will find many stimulating applications for Pluswood, a dynamic new material half as light as aluminum by density, but with the strength of steel. Combined with this extraordinary structural capacity is an unusual aesthetic value, a permanent, glass-like, almost scratchable wood grained surface to which varnish or wax need never be applied. Pluswood, too, is highly dielectric, highly resistant to fire, inert to mild acids or alkalines and impervious to water.

Add all of these advantages together, and you have a multi-purpose, super-service building material providing properties that should fire the imagination of forward-looking architects and builders. Your ideas for its post-war application are invited, for Pluswood will then be readily available, made to any predetermined engineering description in a wide range of woods, and at a cost that is less than you might suppose. Back of this new wonder material is the Lullabye Furniture Corporation—since 1897, America's foremost manufacturers of juvenile furniture. Write today for the interesting Pluswood brochure that will give you complete product information.



PLUSWOOD Incorporated, Oshkosh, Wis.

Affiliated Companies { LULLABYE FURNITURE CORPORATION, Stevens Point, Wisconsin
NORTHERN HARDWOOD VENEERS, INC., Butternut, Wisconsin
ALGOMA FOREST PRODUCTS, LTD., Bruce, Ontario, Canada

MONTH IN BUILDING

(Continued from page 64)

products at full capacity only when it solves the problem of selling into full consumption. As a working solution, Johns-Manville is betting heavily on the postwar merchant builder, a kind of housing superman which distribution engineer Hood has been piecing together over the last 10 years.

To cut through housebuilding's chaotic distribution picture, something on a superman scale is needed. Some Hood figures that define the confusion: No one manufacturer produces more than one per cent of the total housing product. Sixty-five types of products go into a house; these are produced by tens of thousands of manufacturing units.



ARTHUR HOOD

Manufacturers have competitive sales organizations, must market their products through 20 types of wholesalers, who in turn have supplemental sales organizations. But both manufacturers and wholesalers try to sell to 17 types of retailers, as well as to 37 kinds of service organizations and 33 kinds of retail sales organizations, all trying to influence consumer demand. Key point of this dizzying distribution spread, as Johns-Manville sees, is the ultimate "package" sale to the consumer.

As a tool to hew out a big block of the postwar housing market and set a pattern of industrial responsibility, Johns-Manville proposes the merchant builder—"a responsible retailer who will give the consumer the same sales and service responsibility that he gets from other retailers in competitive industries." For the customer, the Johns-Manville scheme means one-package housing, served up with the merchant's disingenuous flair hitherto almost unexploited by the housebuilding business. In this postwar housing service center, a customer may in one stop choose his house from a display of models, select all materials from plumbing, to roofing, contract for the completed package, arrange financing. Back of the house will stand the producers' guarantees of equipment and materials, the builders' guarantees of workmanship.

For the merchant builder, Johns-Manville believes that its plan offers a good deal more than a prime slice of the postwar housing market. It also offers a highly practical way of evening out the recurring slumps that so far have stood as unalterable nemesis for

(Continued on page 136)



CINCINNATI TERMINAL. FELLHEIMER & WAGNER, Architects

TO THE ARCHITECTS
 who are now planning
 94% AIR, BUS and
 RAILROAD TERMINALS

Let the Leaders IN BRONZE AND ALUMINUM FABRICATION
help you with your Post-War Plans!

Close cooperation between the architect and our engineering staff has always been an outstanding feature of General Bronze service.

During the past 25 years we have worked closely with architects on many of the country's outstanding building projects. As a result, we know what features architects want in windows, doors and architectural metalwork—what kind of help they appreciate most—what makes their job run easier and smoother.

To you who are now busy with post-war building plans we suggest that you investigate General Bronze products now. Enlarged facilities and newly acquired techniques in mass production, will enable you to obtain new and finer aluminum windows in standard sizes *at greatly reduced costs*. We also suggest that you take full advantage of our helpful detailing service. There's no obligation.

For detailed information on General Bronze products, consult Sweet's or write for the name of our nearest representative.

**GENERAL BRONZE
 CORPORATION**

34-19 TENTH STREET

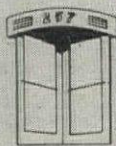
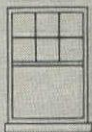
LONG ISLAND CITY, N. Y.



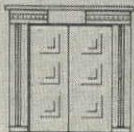
FIVE CONSECUTIVE ARMY-NAVY "E" AWARDS



WINDOWS



REVOLVING
 DOORS



ARCHITECTURAL
 METALWORK



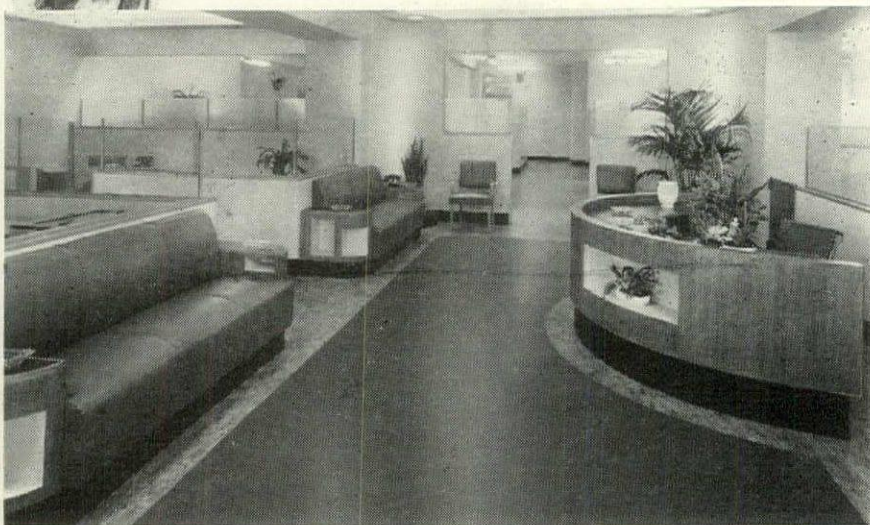
TABLETS

STATUARY





"That's a \$64 Question!"



... said the receptionist—when we asked how many people walk over this floor every day

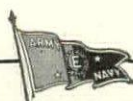
"IT'S my guess that about 220 people have walked over our Armstrong's Linoleum Floor every day for the past two years." That was the estimate of Miss Schwab, receptionist at Golding Bros. Company, Inc., noted New York textile firm. "I'm really no authority," she continued, "but it seems to me that's plenty of wear for any floor!"

Spurred on by Miss Schwab's statement, we put pencil to paper and found that more than 100,000 persons have tramped this office floor of Armstrong's Linoleum. Yet it remains just as you see it—colorful, bright, and ready for many more years of service.

Regular washing and waxing have done a lot to keep this Armstrong

Floor in tip-top shape. But the quality built into the floor itself is equally responsible for its resistance to wear and its "fresh" appearance today. That's why you can count on Armstrong's Linoleum to give your client a floor that will dress up an interior, take traffic, and prove economical to maintain. That's why so many architects have found that floor specifications carried out in Armstrong's Linoleum mean real client satisfaction.

For more details on Armstrong's Linoleum Floors, turn to your 1944 *Sweet's* file. And for samples and file-sized specifications, just write Armstrong Cork Co., Floor Division, 2307 State Street, Lancaster, Penna.



ARMSTRONG'S LINOLEUM



ARMSTRONG'S LINOWALL • ARMSTRONG'S RESILIENT TILE FLOORS

MONTH IN BUILDING

(Continued from page 134)

housebuilders. While deep-thought economists probe for methods of leveling the over-all cycle of house production, Johns-Manville suggests that the builder attack his own cyclical problems by intelligent merchandising in the neglected area of home maintenance and repair.

Some 3,000 dealers have already attended the schools where Johns-Manville preaches the doctrine of the complete housing package. Arthur Hood believes that stiff postwar competition for the consumer dollar will do more than anything else to force the housebuilder to introduce the service center scheme or a comparable constellation of housing skills and services, spearheaded by effective managerial and merchandising technique.

DAY-AFTER-TOMORROW

Building officials, more than a little weary of the now-routine motions of checking up on minimum war housing, were glad for a chance to flex their imagination. Reliable medicine ball was the postwar house. With plastic roofs and floors, combined kitchen-bath units, radio heating, and robot laundries all bouncing dizzily at a mid-June meeting in Boston, the Building Officials Conference got a brisk workout.

War-born miracles of a thousand laboratories can make homes dustless, draftless, noiseless, speakers promised. Harnessed by electronic engineers, the infra-red ray may tomorrow be used for baking pies. Now heating U. S. fighting planes, "vest pocket" heating units will be handy for houses. Year-round air conditioning is ready to hit the market whenever manufacturers get a WPB go-ahead. Since glass can now be cut, nailed and drilled almost as easily as wood, the glass house may conceivably be more than a proverbial matter. The precipitron principle would make dusting a forgotten chore, ignatron would speed production of prefabricated steel units, kinatron would paint surface wood in a way that will double its uses. Not for tomorrow, but for day-after-tomorrow, most counted these promises.

Agreeing that America's "new frontier" is rebuilding the cities, building officials urged teamwork between government, industry and labor to get the job done.

NEWS NOTES

Property Skids. Taking a look backwards, Milwaukee found its assessed property values had skidded by \$158,000,000 over a 12 year period. Reason: "Haphazard methods practiced in the layout and

(Continued on page 138)

G-E Wiring Material News

Flamenol Building Wire

Type SNW for Wet Locations

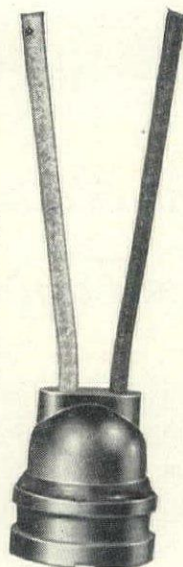
Type SN for Dry Locations

Both types are approved by the Underwriters'. Both are ideal for branch circuits, feeders or special wiring. Their thermo-plastic insulation has long life, is flame retarding and resistant to oils, acids, etc. Type SNW insulation, in addition, has low moisture absorption. Both these wires are small in diameter, too, permitting more conductors to be used in conduits.



NEW G-E Weatherproof Sockets

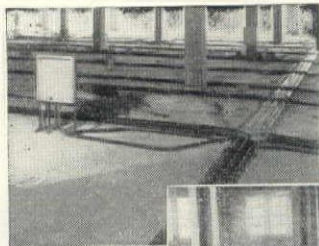
Specify these sturdy weatherproof sockets for new industrial plants, factory remodelling, shipyards and outdoor construction jobs of all kinds. They are made of a tough compound... resist breakage... have an improved waterproof seal around the lead-in wires. This seal is made with a heat-resisting wax in a liquid state poured into the top of the socket. It covers the whole top of the screw shell and lead-in wire assembly.



GE3482

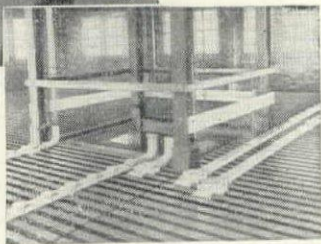
UNDERFLOOR ELECTRICAL DISTRIBUTION SYSTEMS

G-E Fiberduct and G-E Q-Floor Wiring—two different systems for different floors—provide complete electrical flexibility in offices, factories, shops, etc. Outlets can be opened at any time.



Specify G-E Fiberduct with masonry and wood type construction.

Specify G-E Q-Floor Wiring with Robertson Q-Floors



Mail This Coupon

Send this coupon for further information on G-E products described on this page.



General Electric Company
Section CDW-749-26, Appliance and Merchandise Dept.
Bridgeport, Conn.

Sirs: Please send me information on:

- Flamenol Building Wire
- Weatherproof Sockets, GE3482
- G-E Fiberduct
- G-E Q-Floor Wiring

Name _____

Address _____

City _____

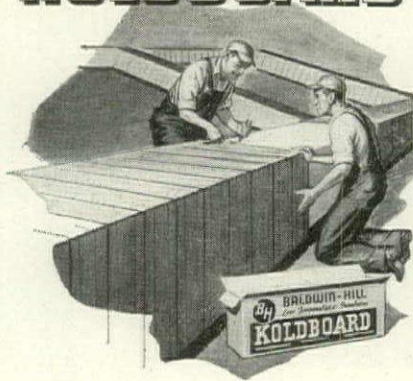
State _____

Hear the General Electric radio programs:
"The G-E All Girl Orchestra" Sunday 10 P.M. EWT, NBC. "The World Today" news every weekday 6:45 P.M. EWT, CBS.

BUY WAR BONDS AND KEEP THEM

GENERAL ELECTRIC

KOLDBOARD



A *Semi-Rigid* BLOCK FOR *Frigid* WORK



B-H Koldboard is a practical, all-purpose, low-temperature insulation, effective from -150° F. up to 300° F. Made from B-H black rockwool it possesses unusual characteristics, particularly desirable for cold-temperature installations.

Laboratory tests show B-H Koldboard to have a moisture absorption of only 0.68% at a relative humidity of 65% at a temperature of 75° F. It will not support combustion, nor will it even smoulder when flame is applied directly against its surface. Flexural strength is in excess of Federal specifications and thermal conductivity is exceptionally low.

In manufacturing B-H Koldboard, the long fibres of this special wool are felted and bonded together to form flat, semi-rigid blocks that are easy to handle and easy to install. Send for sample and full information. Baldwin-Hill Co., 591 Klagg Ave., Trenton 2, New Jersey. Plants in Trenton, New Jersey; Kalamazoo, Michigan; and Huntington, Indiana.

Baldwin-Hill
COMPANY
BH
HEAT & COLD INSULATIONS

IN BUILDING (Continued from page 136)

Schutz



PRODUCERS' COUNCIL, AMERICAN INSTITUTE OF ARCHITECTS work on technical problems. (l. to r.): Harry A. Plummer, James W. Follin, Theodore Irving Coe, James Edmunds, Jr., Abraham Levy, Raymond J. Ashton, Douglas Whitlock, Tyler S. Rogers, F. J. Plimpton. This joint committee, intended to speed technical collaboration between the two groups, held its first meeting last month in Washington.

handling of property in the entire Milwaukee vicinity." This diagnosis came from the newly-incorporated Milwaukee Metropolitan Plan Association, which represents the effort of planning-minded citizens to turn the city's random growth into new patterns. "Were Milwaukee an automobile, it would have to be scrapped—but one cannot scrap a city," the new Association observed matter-of-factly. The planners' philosophy: "Convenience must not entirely dominate a city's planning, for attractiveness, beauty and general interest must be provided to prevent the only too customary exodus from the city in quest of fresh air and living space."

Price Climb. A 50 per cent increase in selling prices of medium-bracket California homes is reported by the Los Angeles *Times'* veteran real estate editor, Charles C. Cohan. This is four times the average national increase which the National Association of Real Estate Board's recent survey found. Only 7 per cent of local buying has been in the hope of profitable resale, Cohan estimates.

Skyscrapers' Decline? Sponsored last month by determined Park Commissioner Robert Moses were zoning

amendments that might eventually mean more light and air for Manhattan dwellers. The proposals would cut down both height and bulk of future building. Present minimum requirements for building court areas would be doubled, occupancy of more than 75 per cent of an interior plot or 90 per cent of a corner lot forbidden. Maximum building height would be set at twice the street width, plus four feet for each foot of setback from the street. Most zoning-conscious New Yorkers endorsed the Commissioner's purpose, but almost nobody called the proposed zoning changes revolutionary.

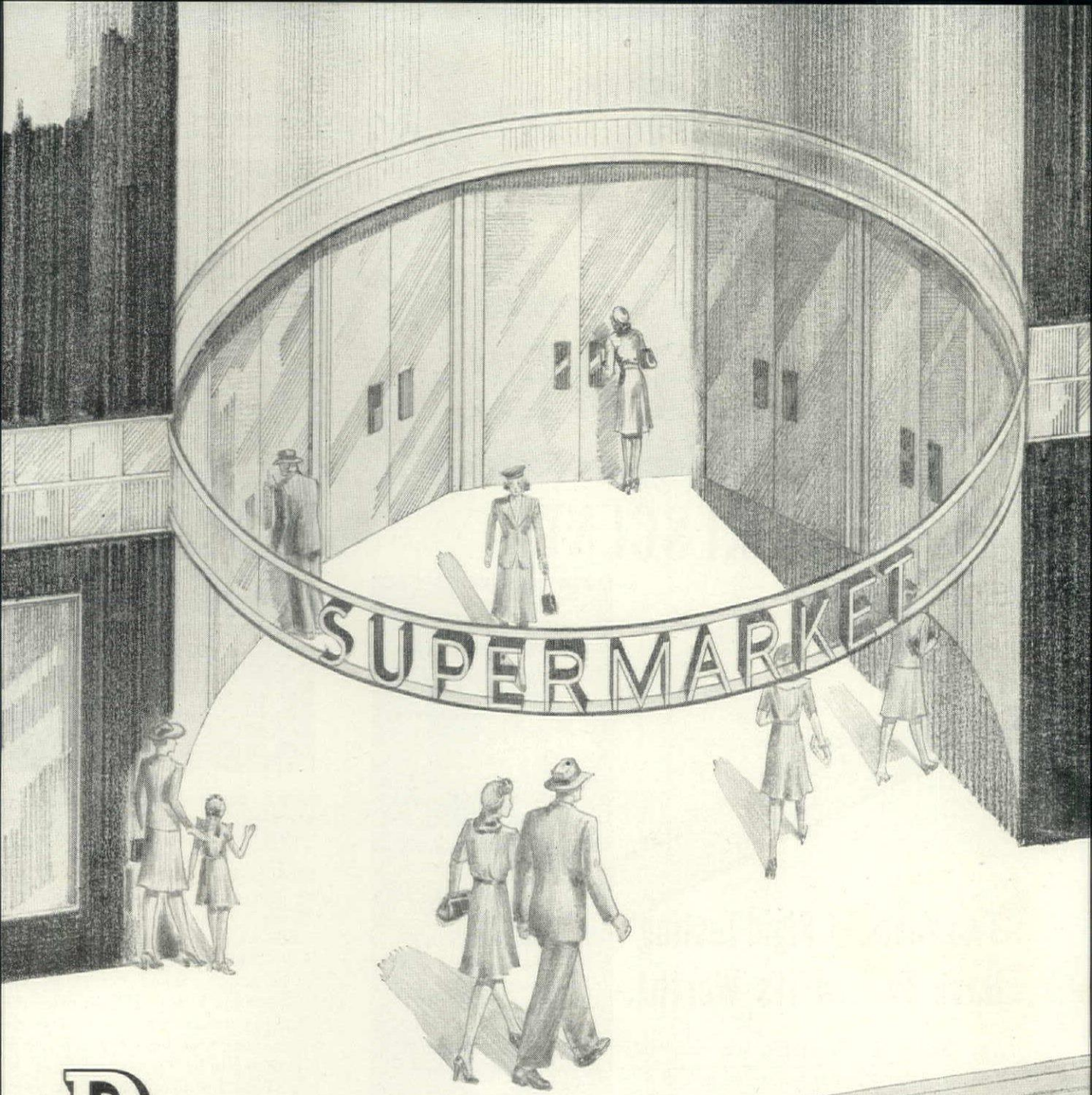
Jute Dilemma. British linoleum circles worried last month about floor covering for the half-million steel homes with which the government expects to meet emergency need. Some 15 million square yards of linoleum would be needed to equip the prefab houses, trade experts said, pointing out that the government will not now allow manufacturers any jute, necessary for backing. Emergency house floors might go bare, the manufacturers warned, unless more space for jute is allotted in homebound ships from India, which has immense supplies.

(Continued on page 140)

FPHA Photo



HOUSING GALAXY attends installation of Philip Klutznick as head of the Federal Public Housing Authority. Seated (l. to r.): FHA's Abner Ferguson, Herbert Emmerich, retiring FPHA head, NHA's John Blandford, Klutznick, FHLBA's John Fahey. Standing: Philip Mayer, David Krooth, Boris Shiskin, James Lee, George Williams, Earle S. Draper, Lee Johnson, William Seaver, Lyman Moore, Warren J. Vinton, Nat Keith, John Egan, Dorothy Rosenman, Leon Keyserling, Sam Beber.



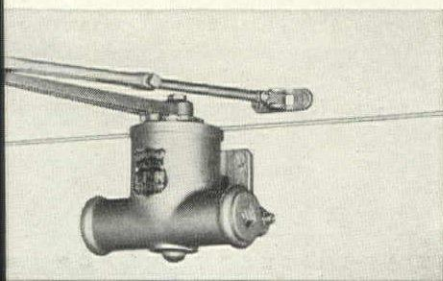
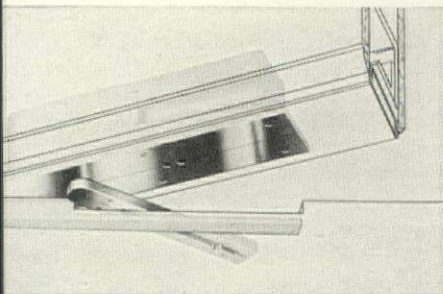
DOORS OF THE FUTURE...

Must close quietly, efficiently

Design and mechanism of
LCN Door Closers will set the
standard for the future, as they have in the past

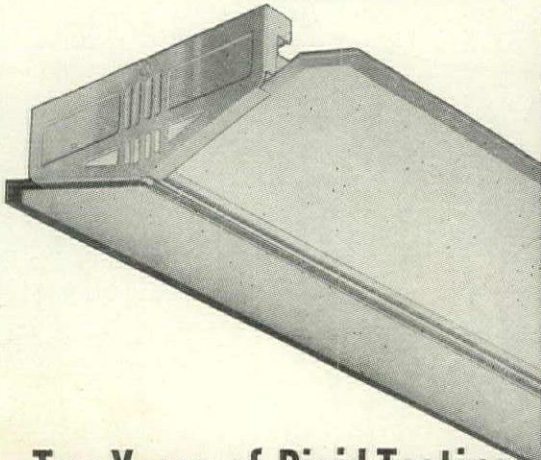
NORTON LASIER COMPANY
466 W. SUPERIOR STREET
CHICAGO

DOOR CLOSERS



Guth

In 1942 -- We Introduced
QUICK-LITER*
 The Original Starterless
FLUORESCENT!



**Two Years of Rigid Testing
 Have Proved Its Worth!**

The GUTH QUICK-LITER was originated for War Plants; where high maintenance costs due to Starter-Switch troubles, and variable line-voltage conditions, made Starterless Fluorescent desirable. Detailed performance records were maintained, so that every claim made for QUICK-LITER has been proved by use.

A valuable report on the results of these tests is now available. Write for your copy today.

Guth*QUICK-LITER
 TRADE MARK

No Starter Switches
 Maintenance cost is lower, and the problem of checking for "dead" Starters is eliminated.

Lights Instantly
 At the flick of the switch—there's light! No flickering, flashing, or waiting.

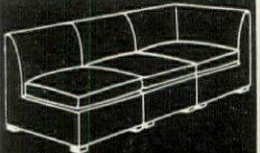

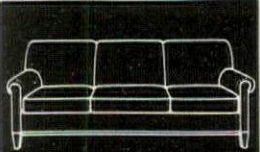

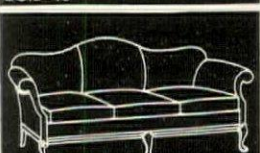

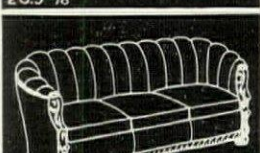

Long Lamp Life
 QUICK-LITER gets maximum usage from lamps.

Operates at Irregular or Low Voltage
 QUICK-LITER starts and operates at as low as 85 Volts.

Would Operate in an Ice Box
 QUICK-LITERS start and operate as low as 0° F. Temperature. Many are now in use in Alaska and the Aleutians.

Immediately Available
 QUICK-LITERS can be shipped at once on AA-5, or AA-2-MRO, or higher priorities.

MONTH IN BUILDING
 (Continued from page 138)

 46.9%	 62.6%
 28.5%	 27.9%
 20.5%	 8.1%
 4.1%	 1.4%

McCALL CONTESTANTS rated sectional sofa first, but did not like the modern armless posture chair much (see page 62).

Trend. Looking toward an active building and real estate market in 194X, Chicago's Title and Trust Co. last month bought from Marshall Field one of the Loop's largest office buildings for its postwar home. Putting up \$4,250,000 cash, Title and Trust made the biggest purchase Chicago real estate traders have seen for many a day, said it expected to be busy enough after the war to use five floors of its new property.

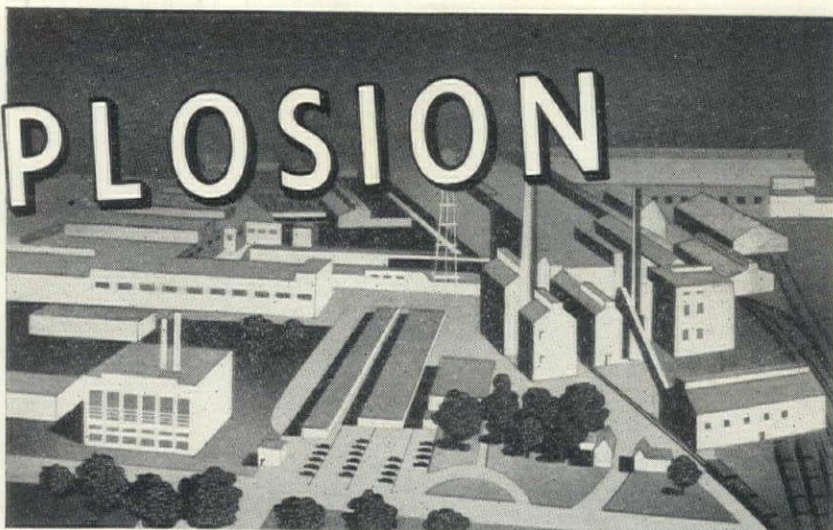
Housing Measure. A new index of the social cost of slums may come from the Pittsburgh Federation of Social Agencies' current survey of social characteristics of the population of the city's public housing projects. The Federation will gather facts on delinquency, crime, births, mortality, disease, etc.

Come into the Gold Room. A wartime flame-thrower, according to its British inventor Lieutenant-Commander Joseph William Hobbs, may be used to spray postwar house walls with an unbreakable metal finish. Now used to finish the insides of ships and submarines, Hobb's flame-spray can coat both walls and furniture with a two-thousandth of an inch film of bronze, aluminum, silver, gold, plastics or glass. Ferrolene

(Continued on page 142)

AN EXPLOSION

started this
great industry

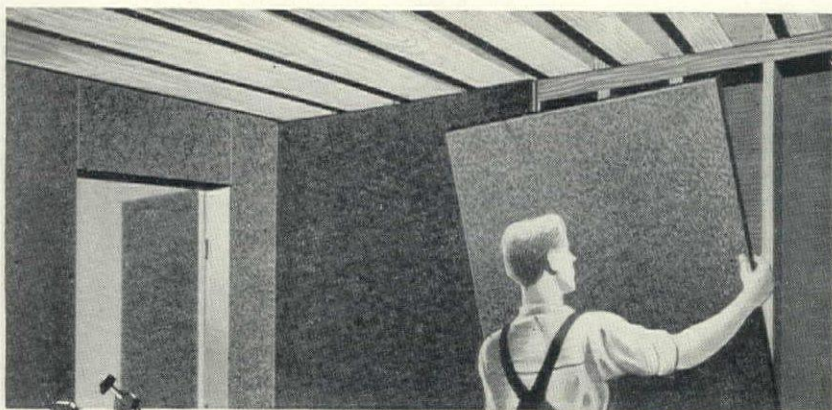


Eighteen years ago an explosion in a tiny factory founded a great industry. That explosion took place in a high-pressure steam "gun" which literally blew wood apart to separate its basic *cellulose fiber* and glue-like *lignin*. With varying heats and pressures, these elements were put back together. The result was Masonite* ligno-cellulose hardboards.

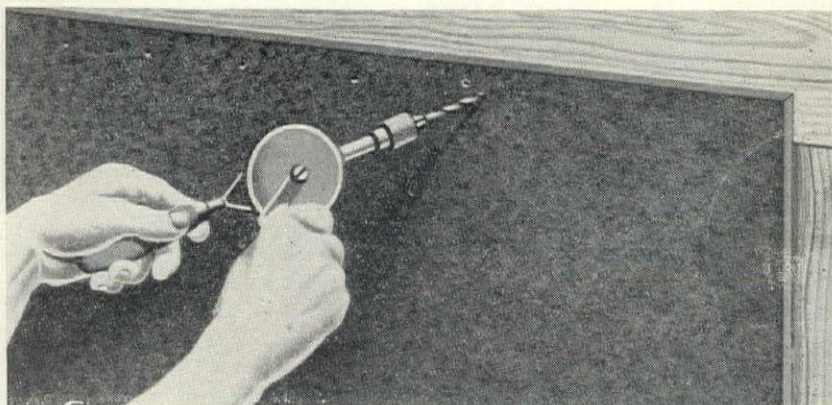


• Masonite Presdwoods and Masonite insulating materials are available for war-essential construction. Government Departments and Agencies are familiar with them. For full information regarding these versatile materials, write Masonite Corp., Dept. AF-7, 111 West Washington Street, Chicago 2, Illinois.

MASONITE PRESDWOODS



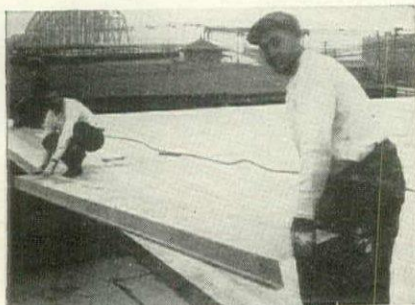
The war jobs these Masonite Presdwoods* have tackled are hundreds. The peacetime jobs of Presdwoods will be even more numerous. Lovely wall paneling of these large, quick-and-easy-to-install hardboards will grace many of tomorrow's homes. Tomorrow's kitchens and bathrooms will gleam with highly finished, enamel-like surfaces made of Presdwoods.



To home and commercial buildings, Presdwoods bring the advantages of unusual workability. Cut or work them with ordinary wood-working tools. They have no tendency to chip, warp or split. They resist moisture. And their smooth, hard surface is splendid for almost every kind of finish.

*TRADE-MARK REG. U. S. PAT. OFF.
COPYRIGHT 1944, MASONITE CORP.

STEELOX
panels are
fire-resistant



If you are looking for simple and inexpensive fire-resistant construction for your postwar buildings, consider the advantages of STEELOX panels. Laid as a continuous floor-ceiling unit, they provide a tight steel barrier from wall to wall. There are no gaps through which flames can spread.

This interlocking steel construction also prevents direct penetration of dust, dirt, termites, and rodents. When your plans include air conditioning you have another advantage, since STEELOX panels stop dust and moisture from getting through.

These strong, light-weight panels are also easy to erect, permitting wide freedom of design. Wiring is readily installed, and there is no settling or plaster cracking due to shrinkage.

Now is the time to get the complete story of STEELOX for your postwar plans. Just write to the Building Sections Dept., The American Rolling Mill Company, 1681 Curtis Street, Middletown, Ohio.

EXPORT: THE ARCO INTERNATIONAL CORPORATION



STEELOX

MONTH IN BUILDING

(Continued from page 140)

combines with coal-gas and oxygen to produce the spray's intense flame, Hobbs said.

Subway Snag. Chicago's slow-building municipal subway ran last month into an extra snag. Suing for \$2,000,000 damages, Commonwealth Edison said it had laid out that much to protect, remove, and relocate its myriad cables, conduits, transformers, manholes, and wires. The city, Commonwealth charged, had disregarded the company's franchises and property rights.

CELOTEX RIFT

Profitably entwined over the last six years, Certain-teed Products and Bror Dahlberg's Celotex last month reached a certain parting of the ways. The amorphous corporate amity which has existed between these two building manufacturers has never been without a threat of rift. When Celotex bought into Certain-teed in 1938, terms of the deal brought protests from those interested in Celotex debentures, but objections were quashed by Dahlberg's argument that he was acquiring the right to lease Certain-teed manufacturing facilities. But stockholders objections continued to smoulder, undampened by the fact that by 1942 Certain-teed had increased its annual earnings by more than six times and Celotex had doubled its profits.

This year gains for both firms leveled off with the drop in construction, and stockholders brought suit seeking cancellation of the contract which granted Celotex use of Certain-teed excess plant facilities and appointed each as the other's sales agent in certain instances. Finding that the contract had been administered to the advantage of both corporations, a Supreme Court referee found nothing to support plaintiff's contention that Dahlberg had used his position as a director of both firms to favor Celotex, called the charge "reprehensible." Dahlberg, said the referee, is a "man of great vision, experience and ability, possessing a most detailed knowledge of the building industry, and an uncanny ability to envision opportunities." Accepting the referee's report, the Court approved the questioned contracts, with some changes.

Meantime, insurgent Certain-teed stockholders were busy collecting proxies for a vote that would oust Dahlberg from the board of directors. With the vote postponed for lack of a quorum, the contesting stockholders, headed by Rawson G. Lizars of Chicago, went to court to force Celotex and the Certain-teed management to produce its proxies.

(Continued on page 144)

HAVE YOU HEARD
about

Optonics?

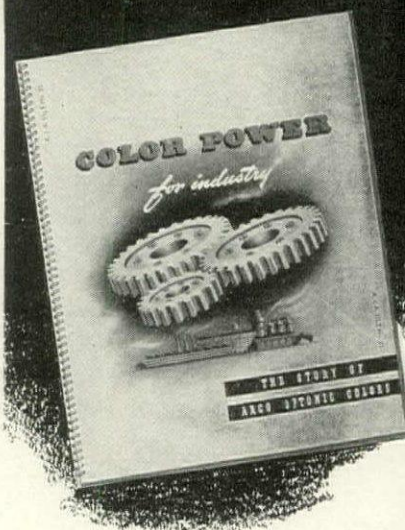
THE NEW SCIENCE

that puts

COLOR POWER

to work for

INDUSTRY



SEND FOR THIS BOOKLET

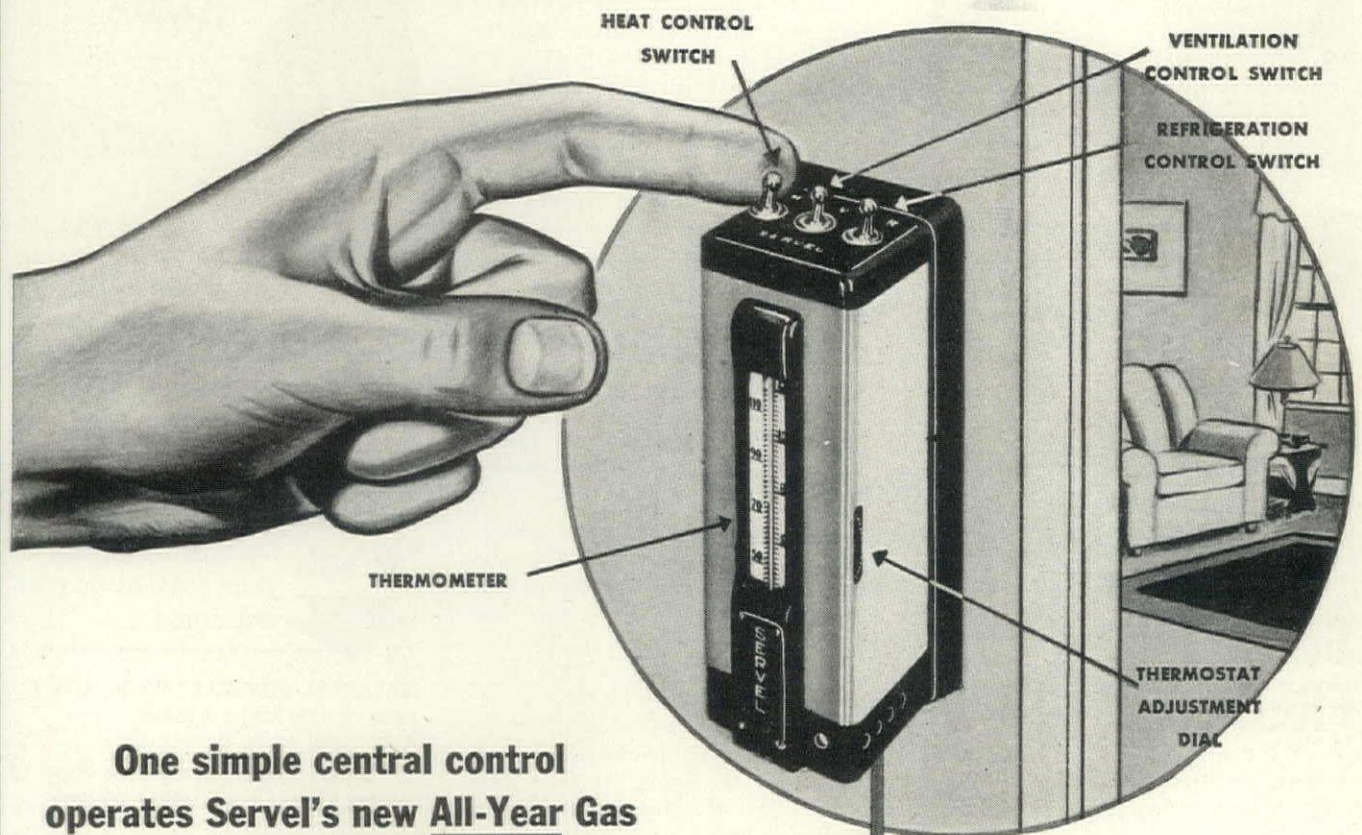
It contains the full story of a new development in the practical functional use of color in industry... outlines the new science of OPTONICS. A note on your business letterhead will bring you a copy of "Color Power for Industry" by return mail with our compliments.

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

ARCO
Paints for Industry

Summer Cooling... Winter Heating

...at the touch of a finger



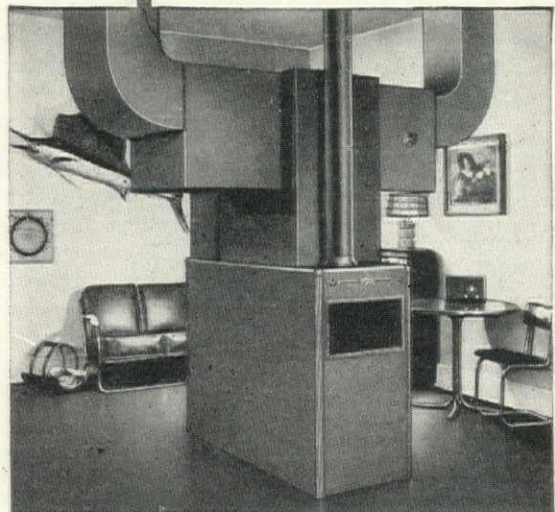
One simple central control operates Servel's new All-Year Gas Air Conditioner

● Yes, in homes of tomorrow you'll be able to offer your clients year-round comfort at the flip of a switch, with Servel's New *All-Year Gas Air Conditioner*.

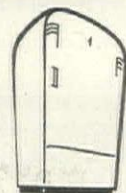
This new, simple system provides complete control of the basic elements affecting comfort and health. In winter you simply set the thermostat at the desired temperature and throw the heating control. Warmed, cleaned, humidified air is gently circulated through the home. In summer a touch of the refrigeration control sends cooled, cleaned, dehumidified air through the house.

Modulated step control provides required capacity to meet varying demands. In summer as in winter, Servel's "two step" modulation insures the proper air conditioning capacity to meet changing conditions. In between seasons, or whenever neither heating nor cooling may be desired, it is still possible to enjoy evenly circulated, cleaned air by turning on the ventilation switch.

The Servel *All-Year Gas Air Conditioner* has already been tested in more than 350 installations, and has won unqualified approval from satisfied users as "The next essential for the home of tomorrow." It will be available as soon as the war releases materials and production facilities. For information, write Servel, Inc., Evansville 20, Ind.



SERVEL

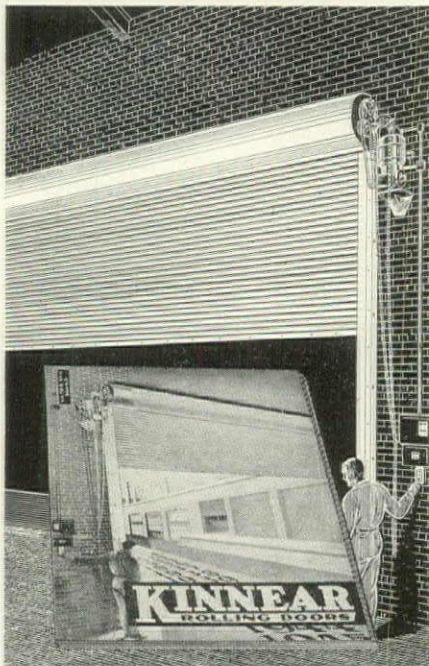


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Saving Ways in Doorways

KINNEAR
ROLLING DOORS

MONTH IN BUILDING

(Continued from page 142)

After much charge and counter-charge, all agreed to a show of hands. When the vote was counted, Lizars-backed directors showed a majority; Dahlberg and Certain-teed's president, Hector Dowd, were out. After further negotiations, Dowd was re-instated as president and named to the new board, now chair-manned by Lizars.

Celotex assured its customers that the hubbub would make no difference in its ability to supply roofing, gypsum and other products. Under Supreme Court approved contracts, these products would continue to be produced for Celotex in Certain-teed plants.

LETTER FROM BRITAIN

Aileen Tatten Brown, A.R.I.B.A., of the "Architect's Journal" until she made home-making a full-time job, reports from London on present steps toward a rebuilt Britain.

Whatever way one looks at the matter, and whatever motives one attributes to them, it's pretty clear that the government do not want to go in for planning legislation in a big way. Changes which are absolutely necessary to speed up house construction after the war will certainly be made. But changes needed to make it possible for housing authorities to plan the layout of these new houses as part of a comprehensive town planning scheme are not, on the whole, to be expected. In fact Mr. Churchill recently implied by his choice of words—"These people would rather postpone building homes for the returning heroes until they had planned out every acre to make sure the landscape is not spoiled"—that he has missed the point of the whole agitation.

Opportunity Lost?

No one is asking for the housing program to be postponed. What they are asking is that a central planning authority should be set up with power to act. There is some reason in the point of view that Scott, Barlow and Uthwatt raise issues which are too far-reaching to be settled without an appeal to the electorate. On the other hand there's no getting away from the fact that, unless some steps are taken at once, sites for maybe 1,000,000 houses will be bought and laid out before an appeal to the country is possible and a great opportunity will have been lost in spite of unmistakable signs that the country as a whole is very anxious to have it taken. A way of meeting the most urgent needs of the situation would be to confer greatly increased powers of compulsory purchase on local authorities

(Continued on page 146)

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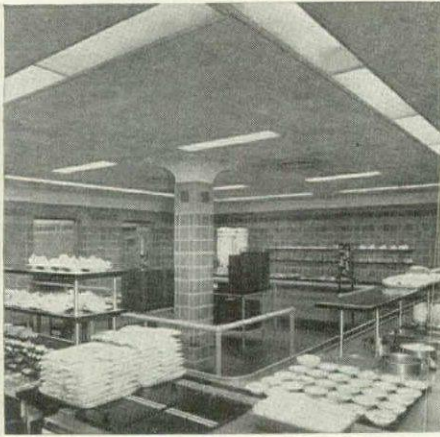


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Architects of projects that include provision for the preparation and serving of food will be obliged to familiarize themselves with epochal advances that have been made in this field since the outbreak of the war.

From the military point of view the most important improvements were in capacity, economy of floor space, simplicity and safety of operation and ruggedness of construction.

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Incorporates all these important features together with a refinement of lines and proportions never before attained. The use of better materials contributes materially both to durability and to eye appeal. The superiority of the improved Van Kitchen equipment has been proved by the most exacting, heavy-duty service in all branches of the armed forces and in war plants everywhere.

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MONTH IN BUILDING

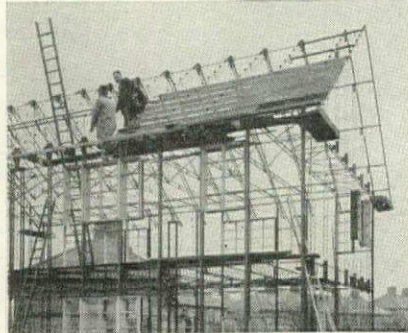
(Continued from page 144)

and back them by the necessary financial guarantees, so that they could work out their housing programs in terms of their own postwar development schemes.

Damp Squib

What is expected in the near future is a bill speeding up the process of compulsory purchase as recommended in the Uthwatt report and defining the purposes for which land may be bought. Mr. Ernest Willink, Minister of Health, recently said that the government do not intend to sanction acquisition of land needed for development beyond

British Combine

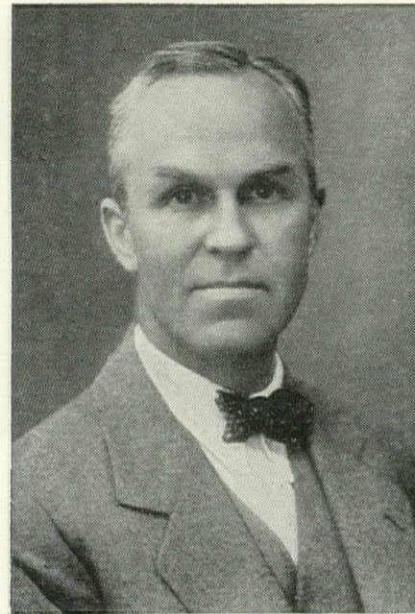


BIRMINGHAM develops a semi-prefabricated house. Steel frame can be temporarily covered with substitute materials.

the interregnum period i.e. the first two years after the war. If this is so the bill will be a very damp squib. It is predicted that a sop will be thrown to the public in the form of a White Paper outlining a long-term policy.

Meanwhile housing research continues to go ahead. The first report of the Burt Committee on House Construction has been published, also the report of the Scottish Housing Advisory Committee on housing standards (See ARCH. FORUM, June '44); the R.I.B.A. has debated the subject of prefabrication and Birmingham Public Works Committee has got its own system of construction to meet local needs estimated at 15000 to 20,000 houses.

Planning our New Homes (the report prepared by the Scottish Housing Advisory Committee on the design planning and furnishing of new houses) is a very well produced document. It's easy to look at and easy to read, and there's no trace in it of the dreariness that has till now surrounded the subject of state-aided housing. Its anonymous authors have been rewarded by seeing it sold out in a matter of days. It seems inconceivable after reading this report that we should ever go back to the bad old practice of regarding state aided housing as something to be rendered unattractive in order to avoid unfair competition with private enterprise.



Walter J. Armstrong, M.E. Cornell University, M.E.I.C. M.A.S.H.V.E., M.P.E.Q., Lic. P.E.O., Consulting Engineer, with Offices in Montreal, Que., and Toronto, Ont.

Walter J. Armstrong writes "Many Canadians sleep with their windows open, even when outside temperature is below 0° F. It is therefore, important for hotels, apartment houses, and hospitals to have a heating system which at 'getting-up time' and when desired, can immediately provide maximum heat... which, during sleeping hours, will provide the minimum heat required for safety and, thus, use the minimum amount of steam... and which at other times, provides only sufficient heat for comfort and to suit outside conditions of temperature and air movement. *Modern centrally-controlled, steam heating systems with proper zoning and intelligent operation, meet these requirements.*

Walter J. Armstrong has specified the Webster Moderator System of Steam Heating for the following buildings: Royal York Hotel, Toronto; Montreal Convalescent Hospital, Montreal; C.I.L. House, Montreal; Robert Mitchell Munitions Plant, St. Laurent; Armoury for the 17th Duke of York's Royal Canadian Hussars, Montreal. He has also specified the Webster Hylo Systems for the following buildings: Men's Residence & Dining Hall of Trinity College, Toronto Univ., Toronto; Residence for St. Hilda's College of Toronto Univ., Toronto; Fulford Home for Aged Women, Brockville; Transportation Bldg., Montreal.

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Architects can turn to clay masonry with complete freedom. It imposes no restriction on artistic conception. It is available in a wide range of colors and textures. And soon — it will be available in modular units, sized to eliminate designing and erection time.



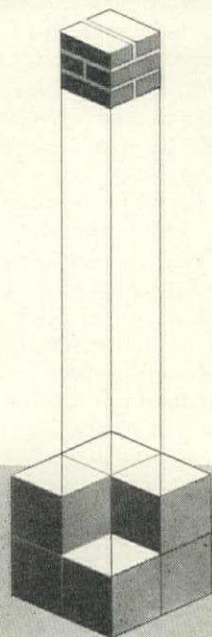
Photograph by Wurts Bros., N. Y.

Write for literature, including complete specifications for facing tile interiors. Structural Clay Products Institute, 1756 K Street, N. W., Washington 6, D. C.



After the war . . . it will be built of modular designed

BRICK AND TILE

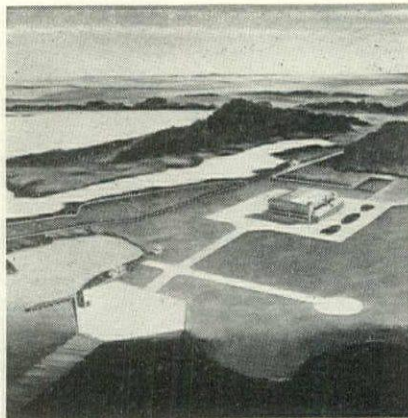


FORUM OF EVENTS

(Continued from page 6)

AIRPORT

Designed to speed the testing and delivery of the Navy's huge new flying boats, the PBM Mariner and the JRM Mars, is the new Glenn Martin airport at Cherry Point, Md. The hangar is of steel construction and can hold six Mariner or three Mars flying boats. It has a 200 ft. clear entrance and doors at either end. The two story building at the right provides office and storage space. The airport is also equipped with a concrete ramp, apron and com-



FIELD FOR MARTIN FLYING BOATS

pass compensating circle. The small dock is for the use of service boats. The first of the 70 ton Mars flying boats is expected to come off the production line early in 1945.

SCHOLARSHIP

Miss Olga Golben of Rochester, N. Y. was recently awarded a scholarship of \$1,000 by the Cooper Union. Miss Golben who is 22 years old and a 1944 graduate of the Art School, won the award for outstanding work in architecture. She will continue her studies at Harvard University Graduate School of Design.

GIFT

A classic example of Italian Renaissance architecture, believed to have been part of an altar constructed between 1575 and 1600, has been presented to the Cooper Union Museum

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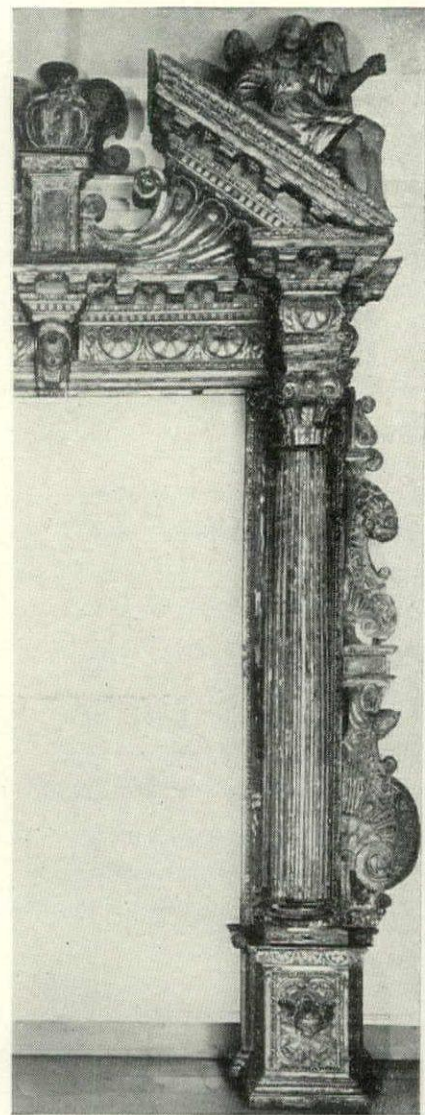
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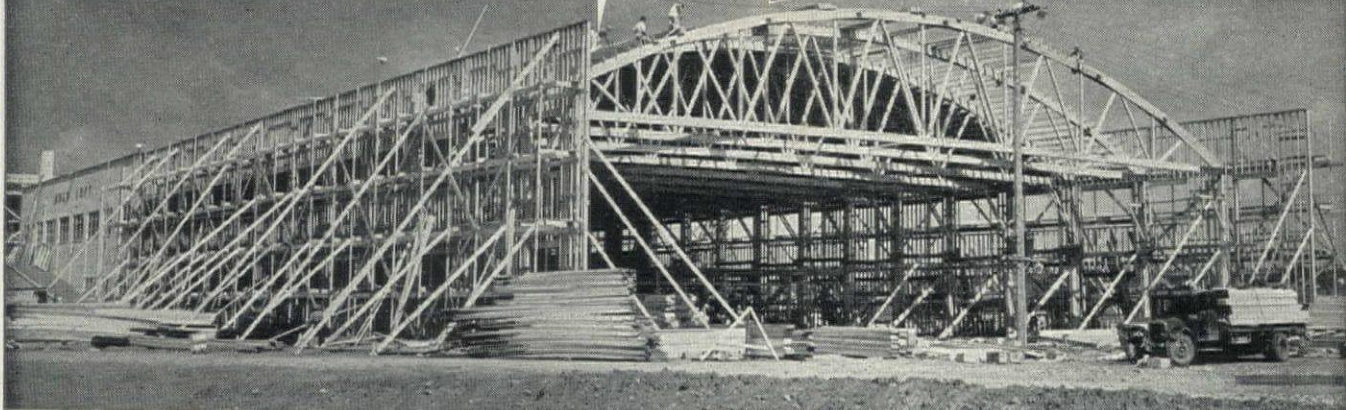
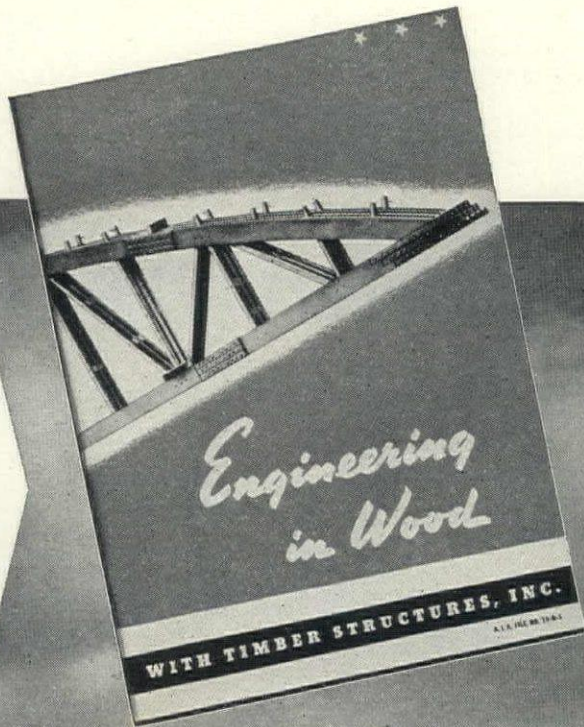


SIXTEENTH CENTURY ALTAR PIECE

for the Arts of Decoration by Whitney Warren Jr. The wooden structure, fourteen feet in height, came from the estate of the late Whitney Warren, ar-

(Continued on page 152)

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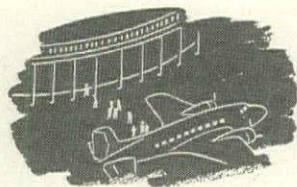
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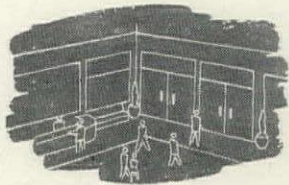


Interesting ways to use **GLASS** in public buildings

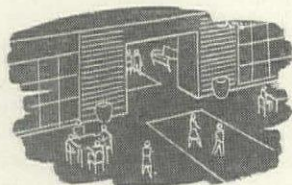
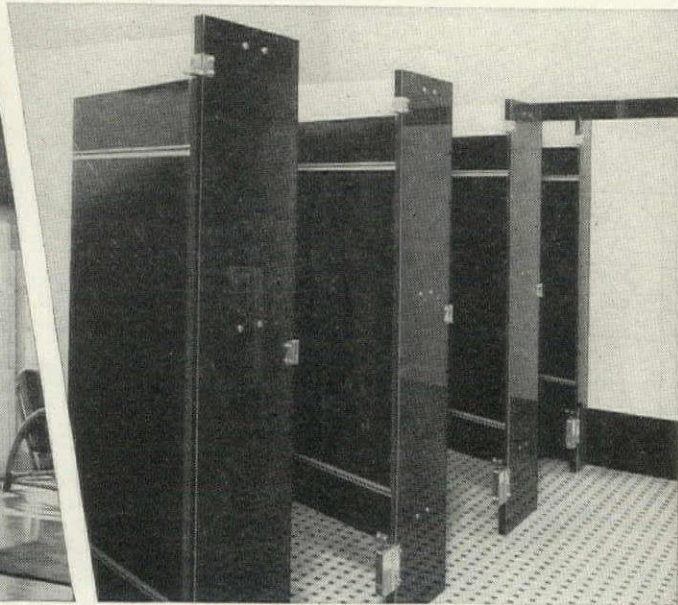
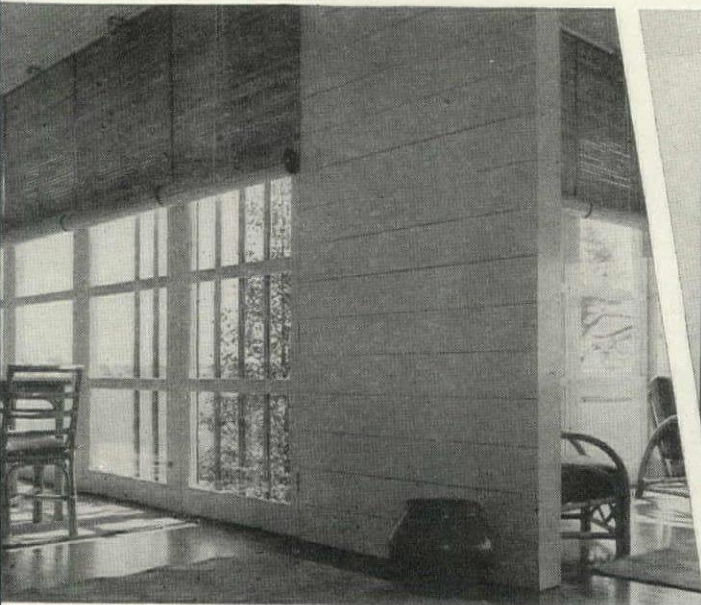
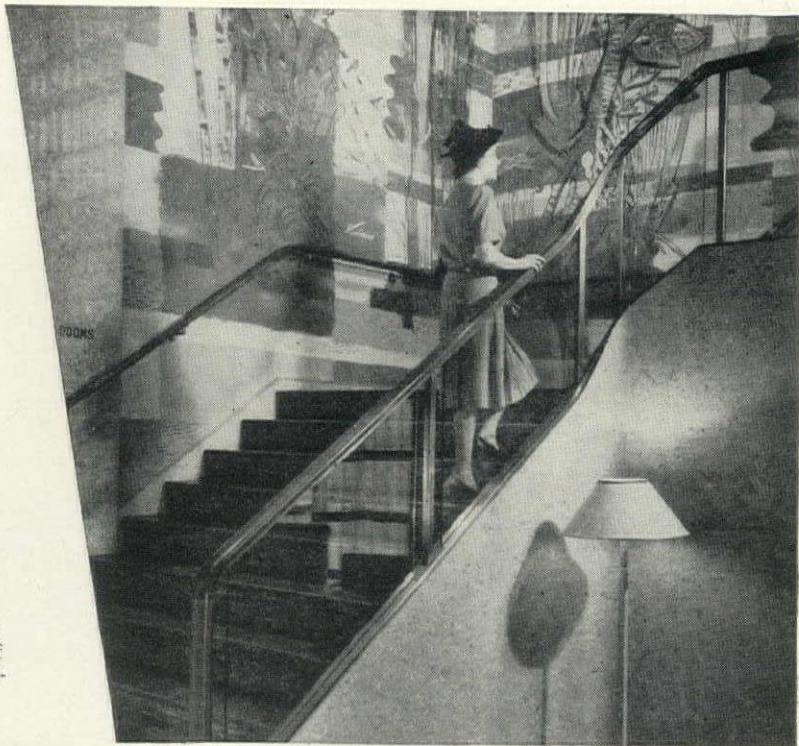


Perhaps an airport comes to your board very rarely. But as an architect, you'll be interested in the Solex Plate Glass which was used to glaze this airport control tower. Solex is a special heat-absorbing plate glass, cool green in color, which excludes 60% of direct solar radiation. Rooms exposed to direct sunlight are 10 to 20 degrees cooler if glazed with Solex. This glass can therefore be used with obvious advantage in many types of public buildings. Consulting architect: Howard L. Cheney.

New possibilities for the use of glass in architectural design unfold with every new building constructed. Among recent and effective ideas has been the use of Herculite Plate Glass panels to create a smart, modern balustrade. This tempered glass can withstand plenty of hard knocks in service . . . since it is four times as strong as regular plate glass of equal thickness. Architects: Holabird & Root.



In buildings designed for play and relaxation, such as this charming community Recreation Center, large light-transmitting areas help the architect to achieve the desired atmosphere of cheerfulness and gaiety. As window areas become larger, quality glass becomes more important. That's why many architects regularly specify Pennvernon Window Glass . . . because this glass consistently exhibits an unusual degree of clarity and surface beauty for a sheet glass. Architects: Victorine and Samuel Homsey.



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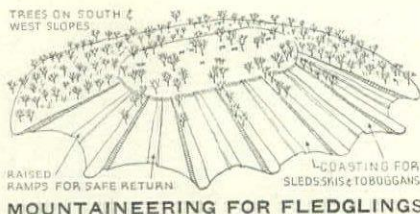
FORUM OF EVENTS

(Continued from page 148)

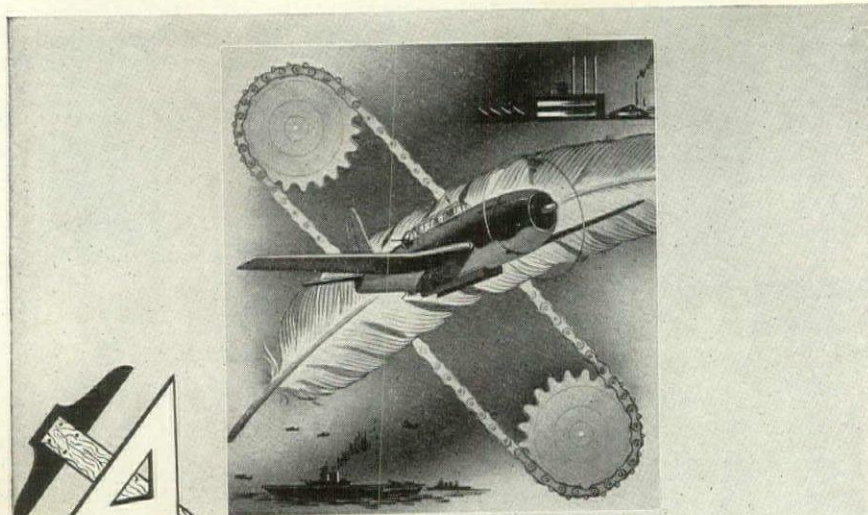
chitect, and was used as a doorway to his apartment. The embellishment of angels and liturgical motifs on the columns and arch indicate that it might have been used as a retable, the superstructure of an altar containing a painting, in a Renaissance cathedral. Despite the age of the arch, the original carving, gilding and paint remain intact.

ARTIFICIAL HILL

Handy for both dumping and sledding



is this design for an artificial hill in Detroit, an idea of Edward Eichstedt, landscape architect. The hill is 50 ft. high, contains 380,000 cu. yds. of ashes or earth and occupies twelve acres. The flat top is large enough for a picnic ground and allows for the absorption of rainfall. Runways, oriented to the north



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and east, remain frozen the maximum length of time. Even the lowly soap box is not forgotten. Surfaced runways with inverted crowns make good derby tracks and also serve as gutters. The south slope can be built as either an amphitheatre or a nursery school for junior members of the Alpine Club. Kublai Khan erected a similar hill in Peking in 1240 A.D. as one of his numerous pleasure park projects. However, it is practically safe to bet that the Chinese version is minus soap box facilities.

REQUESTS FOR LITERATURE

James G. Stuart, 373 Kingswood Road, Toronto, Ontario, Canada desires to be included on the mailing lists of manufacturers whose products would be useful in the practice of architecture, for lighting, heating, ventilation, etc.

G. W. Finn, A.R.A.I.A., 118 Vincent Street, North Perth, Western Australia, desires manufacturer's data and research bulletins pertaining to thermal expansion in buildings. Of particular interest is information dealing with the precautions necessary for expansion in steel or reinforced concrete framing and against movement in applied facings. Local temperature range is from 30° to 130° with a maximum of 150° sun temperature.

DIED

GILBERT ROHDE, well known New York industrial designer and technical consultant to numerous industrial firms. Born in New York, Mr. Rohde attended the Art Students League and the Grand Central School of Art. He was a member of the architectural committee that developed the general plan for the New York World's Fair and acted as consultant to the Hudson Motor Car Co., prior to the war. He was also consultant to the plastics division of General Electric, the Farnsworth Radio and Television Corp., and the Herman Miller Furniture Company. Mr. Rohde lectured at New York University and at the New School for Social Research, and was head of his own firm.

BENJAMIN H. MARSHALL, noted Chicago architect and amateur hotel operator. His work is represented by many of the city's largest apartment buildings and hotels including the Edgewater Beach, the Blackstone and the Drake. Mr. Marshall was educated at the Harvard School in Chicago and got his first job at nineteen as an office boy in an architectural firm. Characterized as "assiduously bohemian," wearer of a flowing black tie, he lived in a famous pink house on the shores of Lake Michigan. His particular joy was a huge dining table which would sink through the floor after the meal was over. He also tried his hand, not too successfully, at operating the Drake and Blackstone.



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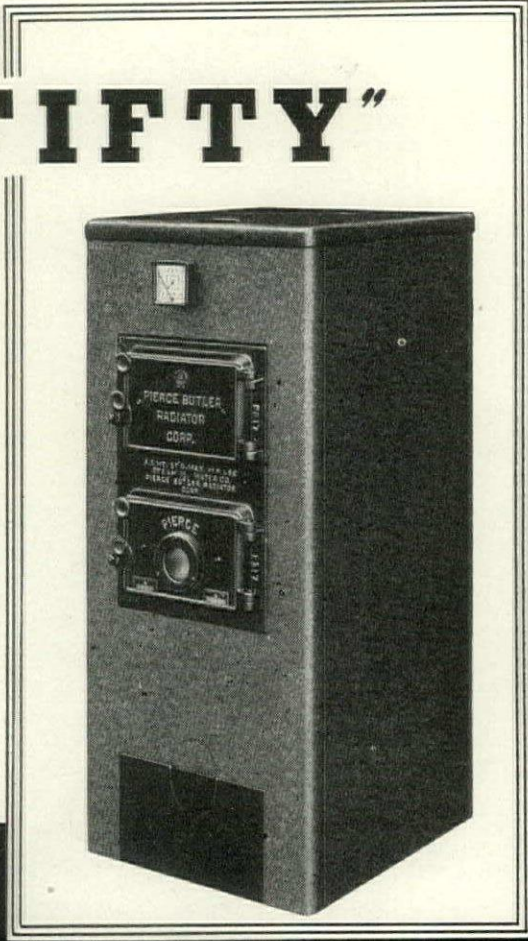
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... a designed-for-oil home boiler up to 10-room capacity

Product of extensive research and long experience with oil fuels, Pierce "Oil Fifty" stands high among today's leading boilers in heating efficiency and fuel economy. Size and shape of the heating surfaces are designed in relation to the flow of gases to give rapid absorption of the high heat production of oil fuels. The boiler is designed to accommodate a built-in domestic hot water heater for year-round use. Heavily-lined safe lock doors reduce heat losses. The inspection door is fitted with a Pyrex observation glass.

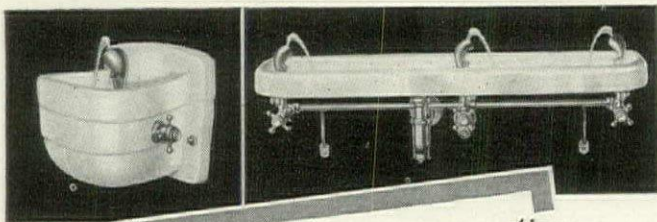
Five sizes of the Pierce "Oil Fifty" are scientifically scaled to the heat output needed by popular-size homes. Only a minimum space is required in your plan for this highly efficient heat machine. Specify for any system.



Write or wire for complete description and data.

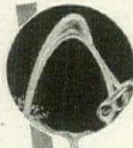
Pierce Butler Radiator Corp.
SYRACUSE 6, N. Y.

Member — Institute of Boiler and Radiator Manufacturers



It'll be the logical specification

In planning the buildings of tomorrow, whether they be public, industrial, hospital or school, there will be one logical specification for drinking fountains—HALSEY TAYLOR. With their many features that assure the utmost in hygiene and convenience, they will be, as in the past, the most modern available. Write for catalog.
THE HALSEY W. TAYLOR CO., Warren, Ohio



HALSEY TAYLOR
Drinking Fountains

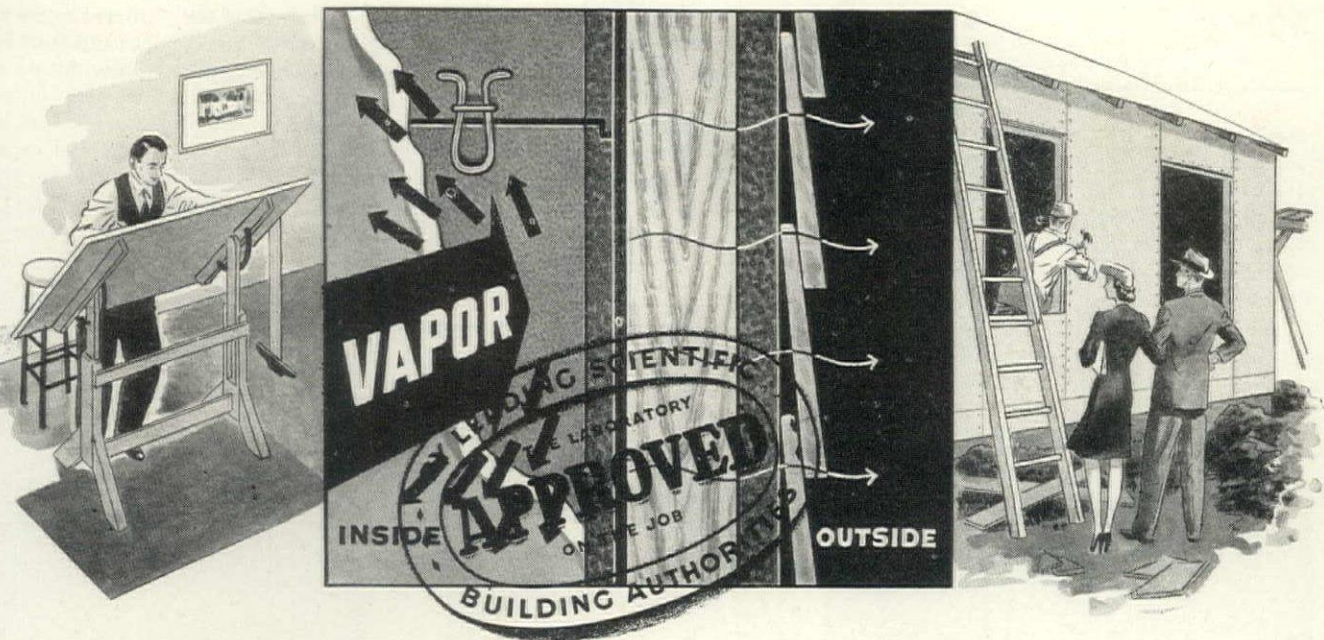
B&T

OFFERS THE
BRIGHT SPOT
IN GOOD
DECORATION

The permanence, protection and beauty of Metal Trims trademarked Chromedge is the preferred "highlight" for modern interiors.



The B&T Metals Company
COLUMBUS 16, OHIO



Here's a problem you must face "squarely" before building a modern home!

THE homes you build tomorrow will have new standards of heat control, and most of them will be air-conditioned.

The walls of those homes will have to be constructed to meet the problems these new factors create.

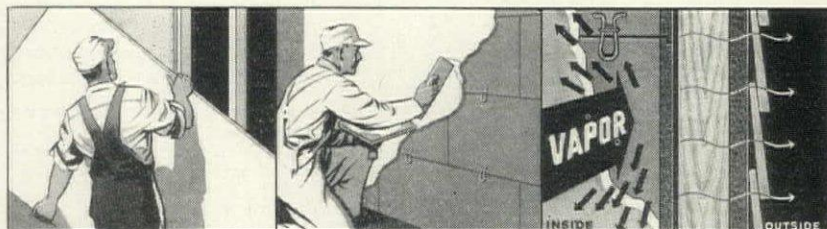
The walls of tomorrow's homes must have effective insulation. They must also be so constructed as to *reduce moisture condensation within the walls to a minimum.*

In the Approved Insulite Wall of Protection, you get these effective safeguards: *Double Insulation*, plus *Superior Bracing Strength*, plus *Protection Against Internal Moisture Condensation.*

The detail drawings below explain the reasons why architects should specify this method of construction. For specifications, refer to Sweets Architectural File, Section 10, or write for "Scientific Facts" booklet.



INSULITE
MINNEAPOLIS 2, MINNESOTA



INSULITE
Structural Insulation

MADE EXCLUSIVELY FROM WOOD

OUTSIDE THE STUDS

Insulite Bildrite Sheathing. The large boards provide a wind-proofed, weather-tight wall. Bildrite Sheathing has a bracing strength four times that of wood sheathing, horizontally applied. Easy to saw and apply—goes up in a hurry.

INSIDE THE STUDS

Insulite Sealed Lok-Joint Lath, furnishes a second wall of insulation. The patented "Lok-Joint" provides a strong, rigid plastering surface that prevents joints from opening under trowel pressure. Plaster bonds securely to "Lok-Joint" Lath.

How moisture condensation is effectively minimized in the Approved Insulite Wall of Protection. Sealed Lok-Joint Lath, with asphalt barrier against the studs, effectively retards vapor travel. Bildrite Sheathing, being permeable to vapor, permits what little vapor escapes to pass naturally towards the outside.

BOOKS

(Continued from page 28)

other early painters, and he includes a good bit of information about methods available to the painter today.

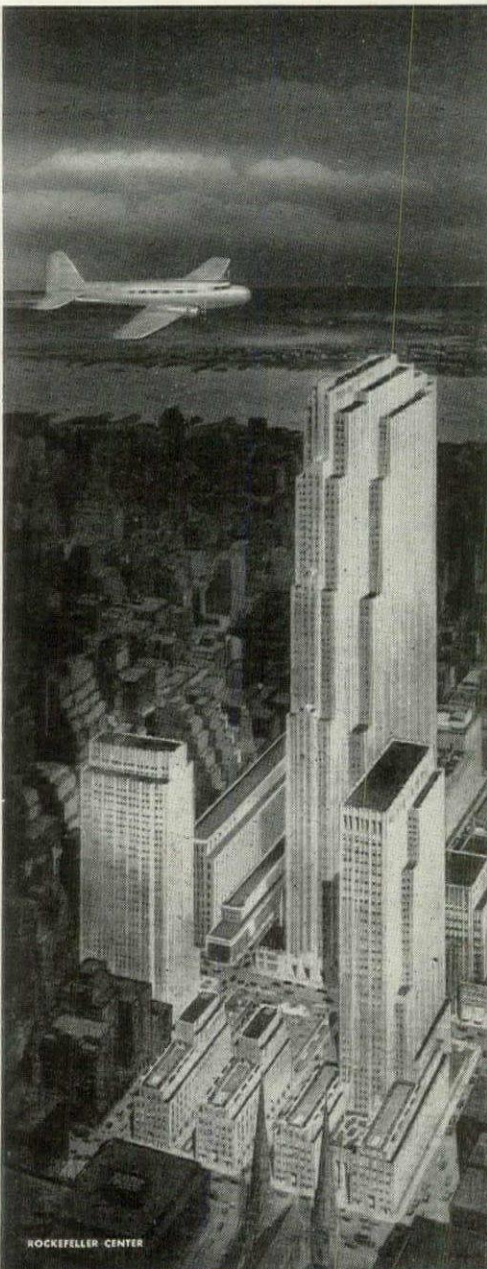
Few FORUM readers, in all probability, are concerned with learning how to make paintings that will last for centuries. However, the second section of the book, which deals with the making and finishing of picture frames, could be of the utmost value to architects, renderers, and the like. Anyone who has ever tried to find a picture

framer who had anything more than the most rudimentary knowledge of the art of presenting pictures effectively, will welcome this information on framing. The author covers the subject so completely that anyone equipped with some raw wood moldings and a few simple tools could turn out a very professional looking job. Techniques of gilding and application of gesso are described in detail.

THREE LECTURES ON ARCHITECTURE.
By Eric Mendelsohn. University of California Press, Berkeley and Los Angeles, Calif. 48 pp. Illustrated. \$2.50.

Three talks by Eric Mendelsohn de-

livered to the faculty of the University of California have been printed in book form. Like Lewis Mumford, Mendelsohn is seriously preoccupied with the necessity for a redirection of attitude in order to achieve a healthy and organic basis for postwar living. Unlike Mumford, he is at once aesthetic and factual, limiting his analysis of degenerative forces from the first World War until the present day. Social, economic and



ROCKEFELLER CENTER

High Altitude HEATING FOR BUILDINGS

A Dunham Differential Vacuum Heating System, by means of various "altitudes"—or more exactly, sub-atmospheric pressures—automatically raises or lowers the temperature of the steam being circulated, thus balancing the heat supply with the heat loss of the building. This results, not only in *unvarying* room temperatures regardless of weather changes, but in material saving of fuel which is so vital to the continuous transportation of supplies to our Armed Forces. Fuel conservation will be a dominant requirement after the "duration" and this is the moment to consider Dunham Differential Heating for post-war building. Vast housing projects are already "on the boards" of architects and engineers for release when Victory is in our hands. For such huge undertakings only Dunham High-Altitude Heating will prove satisfactory in economy, in performance, in low upkeep cost and in ease of maintenance. No large building management can justifiably ignore these factors.

MAY WE MAIL YOUR COPY?
May we send you a new Brochure on High-Altitude Heating which explains and describes the system together with performance data on outstanding buildings.

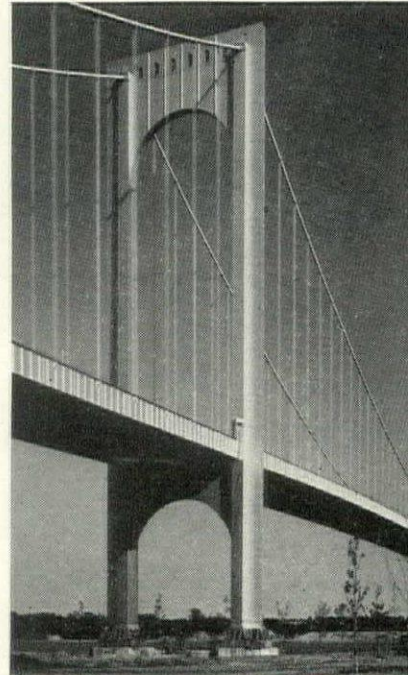
**BUY
WAR BONDS
AND
KEEP THEM**

DUNHAM
C. A. DUNHAM COMPANY
450 E. OHIO ST., CHICAGO 11, ILL.

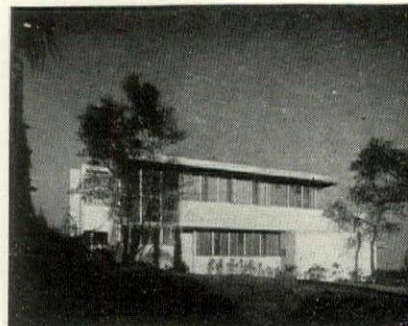
makes fuels go further

Toronto, Canada

London, England



New York's Whitestone Bridge



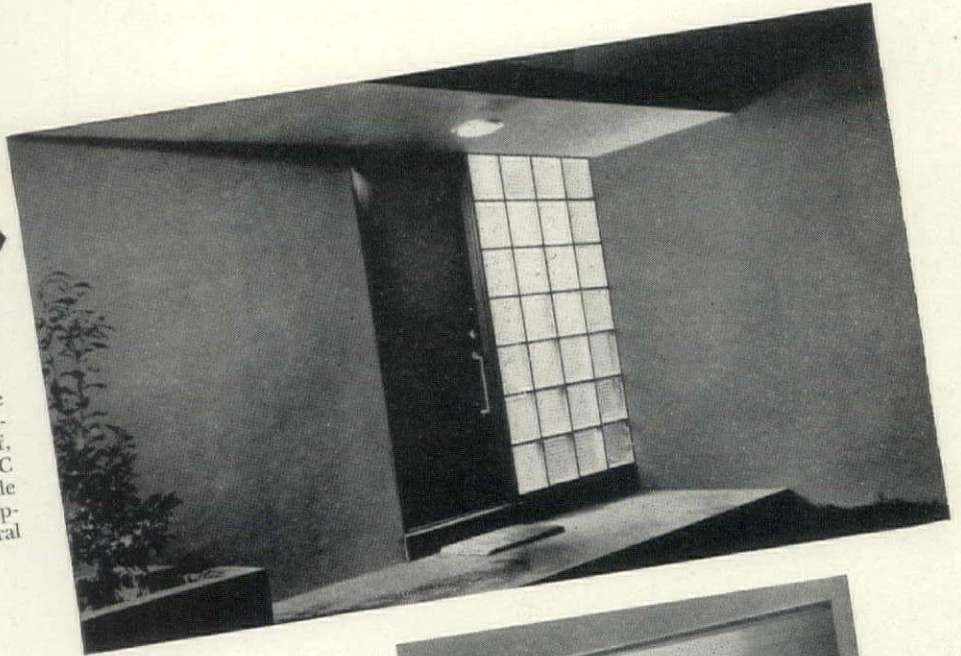
Residence by Richard Neutra

political trends translated into art do not constitute a new theme—the eternally convincing attribute is however that they at least offer physical and comprehensible evidence. But architect Mendelsohn does not limit his interpretation to architecture: he includes painting, sculpture, literature and music to the detriment of his ability as a critic. One sweeping inaccuracy can be found in one of the author's comments on sculpture and painting. They have, he says, "recognized, respectively, their three-and two-dimensional qualities and have bound themselves again to the fundamentals of architecture. To be part of a wall, as a mural painting, or to be part of a room, as a spatial accent

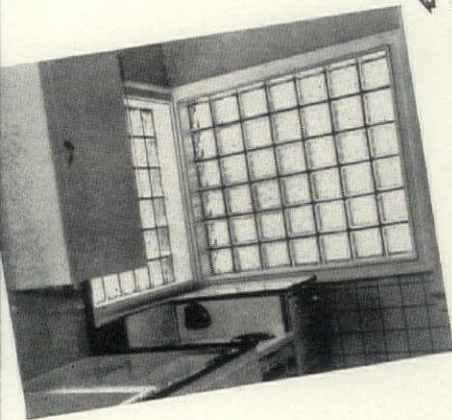
(Continued on page 160)

CORDIAL · GAY · WORKADAY PC GLASS BLOCKS MAKE MODERN HOMES MORE LIVABLE

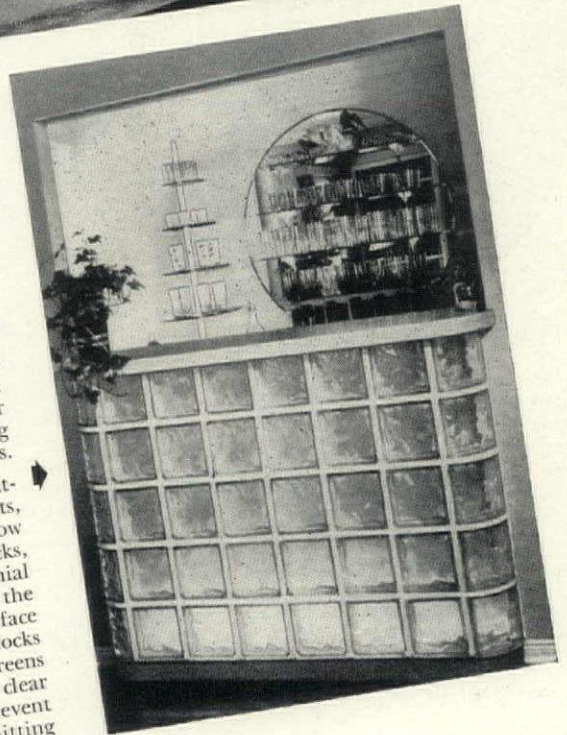
▶ **A gracious welcome** for evening guests streams from this distinctive entrance. By day, its panel of PC Glass Blocks brings cheerful floods of diffused light into the main hall. Practical too, less heat is transmitted through these impressive lighting areas, easing the burden on heating and air conditioning equipment. Dust-proof, easy to keep clean and bright, PC Glass Blocks can be had in a wide range of interesting designs, appropriate for many structural features.



◆ **In working quarters** ample diffused daylight eases the housewifely tasks of preparing maidless meals or company snacks. Handsome panels of PC Glass Blocks harmonize with the modern kitchen's appearance, enhance its efficiency. Insulating qualities eliminate condensation, help maintain comfortable temperatures. Privacy is assured, infiltration of dust and drafts are prevented, yet plenty of clear light is provided for working centers by PC Glass Blocks.



▶ **A center of gayety** is this attractive oasis. Colored lights, shedding a convivial glow through its PC Glass Blocks, add new zest to congenial gatherings. At all times the clean design and surface modeling of PC Glass Blocks in walls, partitions, screens and pantries make a clear division of space, yet prevent dark corners by admitting plenty of cheerful light.



GLASS BLOCKS

Distributed by

PITTSBURGH PLATE GLASS COMPANY

and by W. P. Fuller & Co. on the Pacific Coast

PITTSBURGH CORNING CORPORATION
2 DUQUESNE WAY - PITTSBURGH 22, PA.

● You can confidently recommend PC Glass Blocks to your most exacting clientele, for homes of all types, sizes and costs. They are produced by the Pittsburgh Corning Corporation, whose up-to-the-minute facilities and equipment, experienced personnel and specialized knowledge accumulated through years of research, combine to maintain leadership in the field of glass processing.

When you want authoritative information about PC Glass Blocks—construction data, sizes, patterns, figures on insulating and light transmitting characteristics—we shall be glad to supply them upon request.



"The storekeeper might get mad."

You're wrong there, lady. Good merchants appreciate customers who keep an eye on ceiling prices, who don't ask them to buy on the black market, who never ask for rationed goods without points, who share and play square with scarce goods.

*We asked
5 foolish women
why they don't
check
ceiling prices*



... "It's too much trouble"

It isn't a lot of trouble to do the little the Government asks—just remember to ask every time you make a purchase, "Is this the ceiling price?" And it's well worth the trouble—if it holds prices down, lessens the danger of inflation.



"We can afford to pay more"

Maybe you can, but how about the millions of soldiers' families who must live on Army allotments? Every time you pay black market prices or buy rationed goods without points, you're helping to send prices up—that's the way inflation comes. And *nobody* can afford inflation.



"My store doesn't display ceiling prices"

All retailers will if you keep asking them, "Is this the ceiling price?" It's the law. Ceiling prices must be displayed wherever goods under ceilings are sold. That's the system which has helped to keep prices so much lower in this war than they were in the last.



"I just don't want to do it"

No—and our boys don't want to fight! But they're doing it—magnificently! It's up to you on the home front to do your part to head off rising prices and inflation, help prevent producing a depression for our boys to come home to. Don't be a SABOTEUR on the home front!

Check and be proud! You should be proud if you're the kind of loyal, patriotic American citizen who never pays more than ceiling prices, who pays her ration points in full, who shares and plays square with scarce goods!

It is because of you and millions of women like you—cooperating with American merchants—that the cost of living has gone up only 7 per cent since your Government's price control started.

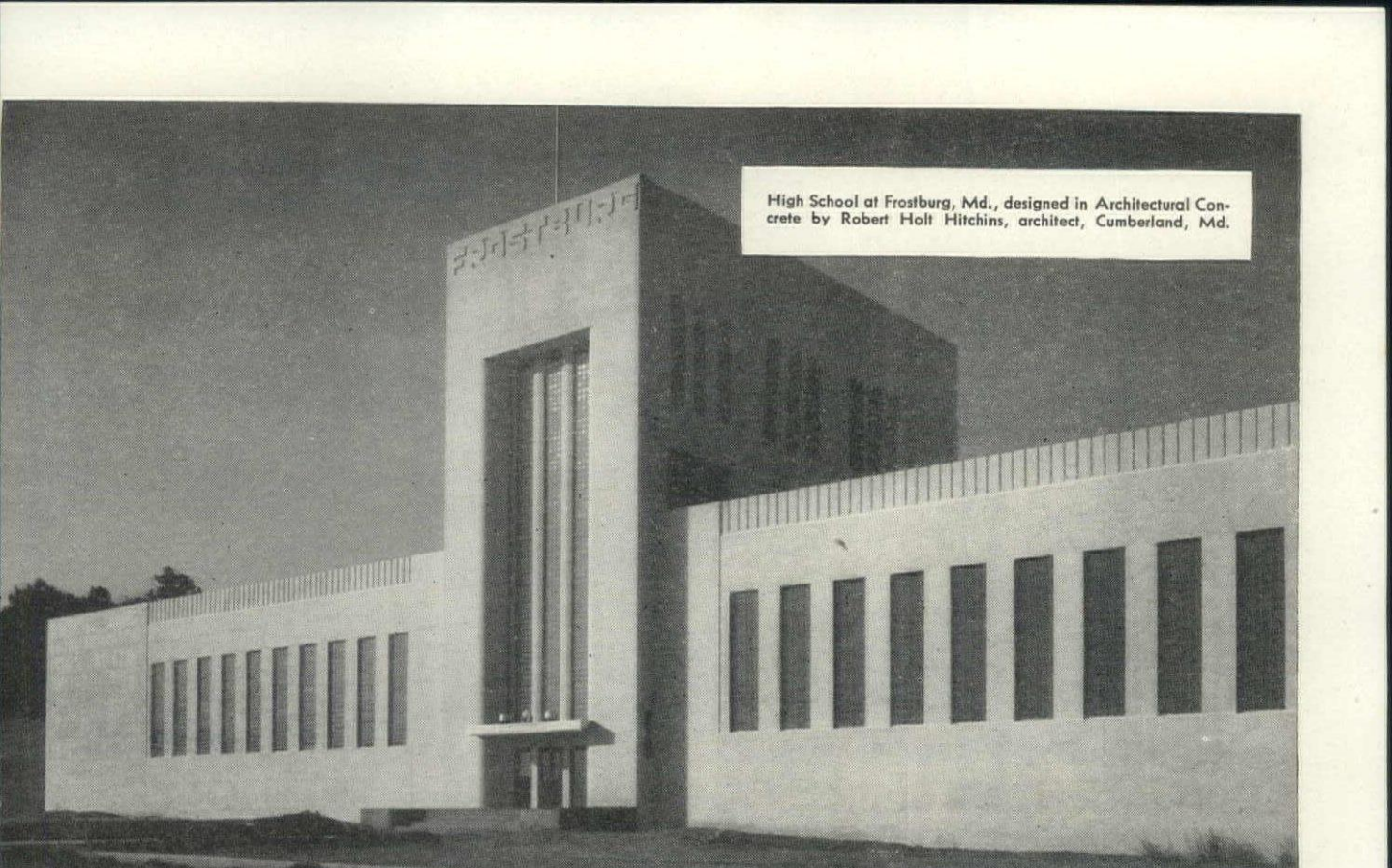
But the end is not yet. So keep up the good work. Ask *every time*—"Is this the ceiling price?" Never buy a single thing that you can do without. Save your money—in the bank, in life insurance, in War Bonds. When you use things up, wear 'em out, make 'em do, or do without . . . you're helping to HOLD DOWN PRICES!

**YOUR STORE WILL BE GLAD
TO HAVE YOU ASK:**

"Is this the ceiling price?"



A United States War Message prepared by the War Advertising Council; approved by the Office of War Information; and contributed by this magazine in cooperation with the Magazine Publishers of America.



High School at Frostburg, Md., designed in Architectural Concrete by Robert Holt Hitchins, architect, Cumberland, Md.

Glimpse of Future seen in these inspiring, firesafe schools of **ARCHITECTURAL CONCRETE**

Firesafety, strength, low annual cost and inspiring architectural appearance were the intensely practical considerations which led to the selection of Architectural Concrete for these schools.

Architectural Concrete has proved itself as an adaptable design medium through

which economies may be effected on large or small school buildings for post war construction.

Write for copy of "Concrete in Schools," a 36-page illustrated booklet on educational and architectural planning. Free in U. S. and Canada.

PORTLAND CEMENT ASSOCIATION, Dept. 7-7, 33 W. Grand Ave., Chicago 10, Ill.

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

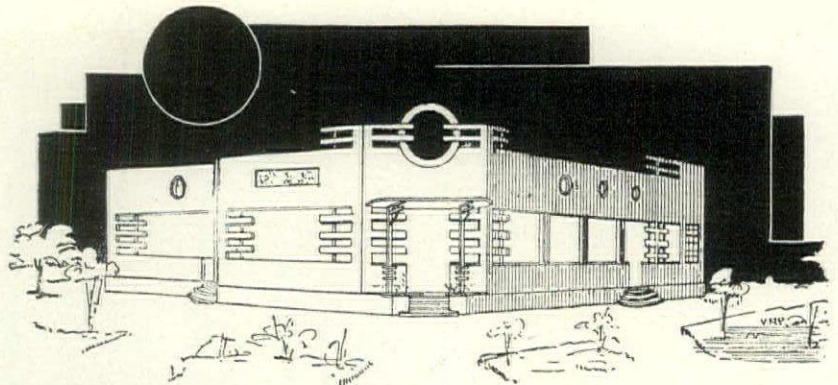
BUY MORE WAR BONDS



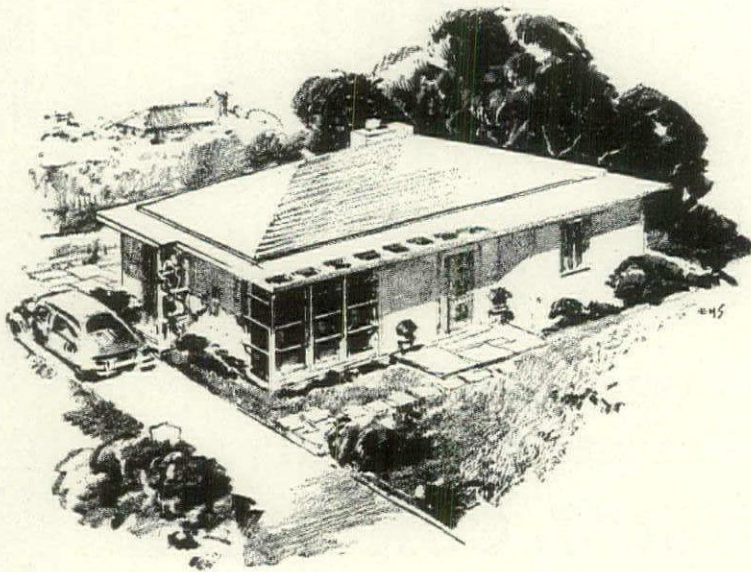
BOOKS

(Continued from page 156)

they gladly sacrifice their individual existence and serve entirely the architectural idea: a superior and collective conception." The only retort to this statement is, "Name three." But despite Mendelsohn's picturesque conception of the fine arts, his lectures are interesting and stimulating, principally because it is comforting to read once again of architecture free from the rigorous demands of war—a free and inspired profession.



"A Beautiful Modern Bungalow" Bombay version



The Shape of Things to Come

The PREFABRICATED House

• Though our plant facilities are now entirely devoted to manufacture of Government supplies, we are giving much thought to a smart, low-cost, prefabricated house for sale in the post-war period.

The house sketched above is one our planning department suggests might be adapted to the economies of prefabrication. This two-bedroom house can be adapted to two different front arrangements and combines smart styling with a livable floor plan that appeals to prospects interested in low-cost homes.

BUY
WAR BONDS
FOR
VICTORY

We invite your comments and inquiry as to floor plan. As soon as specific prices can be set and definite information as to production given, we will send this in the order that inquiries are received.

HOUSTON *Ready-Cut* HOUSE CO.

Prefabricators Since 1917

P. O. BOX 124

HOUSTON 1, TEXAS

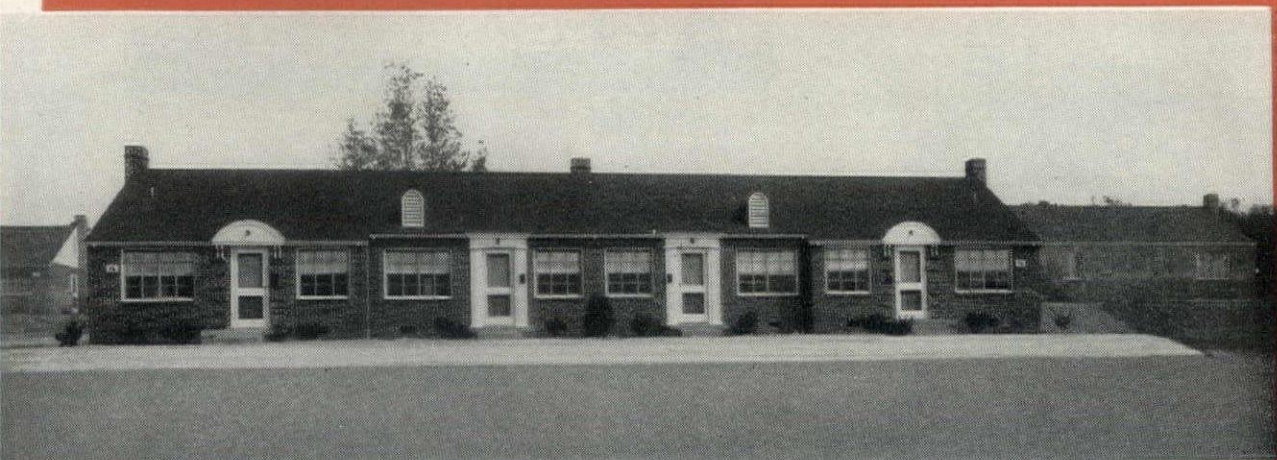
BUILD YOUR OWN HOME. By R. S. Deshpande. V. R. Sawant, Associated Advertisers & Printers Ltd., Bombay, India. 7½ x 10. 383 pp. Illustrated. \$2.20.

It is rather hard to figure out just why this book was published in English unless it was meant exclusively for potential residents of the Far East. If anyone is going to build a home according to Mr. Deshpande's theory, he had better be entirely certain that it is going to be built in India. The book starts out with ten "don't's," undeniably contemplative and oriental in feeling, but calculated to end private building for any reader of moderate means. There are numerous casual references to murum and mud floors, anti-reptile measures and the storage of such exotic items as dhoties, and a good deal of structural detail which has a certain old world charm but which conveys the impression that this, perhaps, is not the true picture of building practice in India. Unless the reader already has a sound knowledge of what goes on in that country, he will acquire little lore and a good many confusing notions about occidental influence.

ZERO STORAGE. By Boyden Sparkes. Doubleday, Doran & Co., Garden City, N. Y. 5½ x 8. 145 pp. Illustrated. \$2.50.

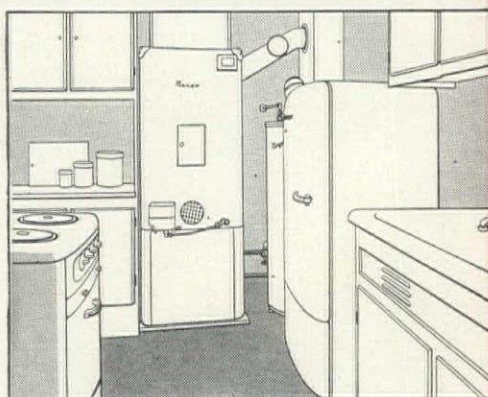
From this book it appears that the second ice age is just about ready to roll off the assembly line with results no less drastic than those of its predecessor. But if it is possible to inject human warmth into the impending infringement of world wide deep freeze, the author does it. The book is divided into two sections (preceded by a photographic series on the technique of preparing food for refrigerated storage), which cover 1) the significance of the invention and 2) its operation and maintenance, of as much interest to lessees of community lockers as to owners of individual units.

The first and most important section consists of the pioneer-author's experience with refrigerated storage stressing the profound change in living standards which result from it. If Mr. Stokes can help it, this is one revolutionary machine that is not going to catch tomorrow's users unaware.



23 BUILDINGS 100 APARTMENTS NORGE EQUIPPED

Additional evidence of the high regard in which Norge *products of experience* are held by successful architects and builders is found in Eau Claire, South Carolina, where each of 100 apartments owned by Colonial Village, Inc., is equipped with a Norge electric range, Norge Rollator refrigerator, Norge oil hot water heater and Norge oil furnace. Norge Division, Borg-Warner Corp., 670 East Woodbridge Street, Detroit 26, Michigan.



A Norge furnace and a Norge water heater fit snugly into the utility alcove of this compact kitchen. The 23 buildings comprising Colonial Village contain 100 apartment units which are occupied largely by Army personnel from nearby Fort Jackson. Architect: Charles W. Connelly. General contractor: F. N. Thompson.

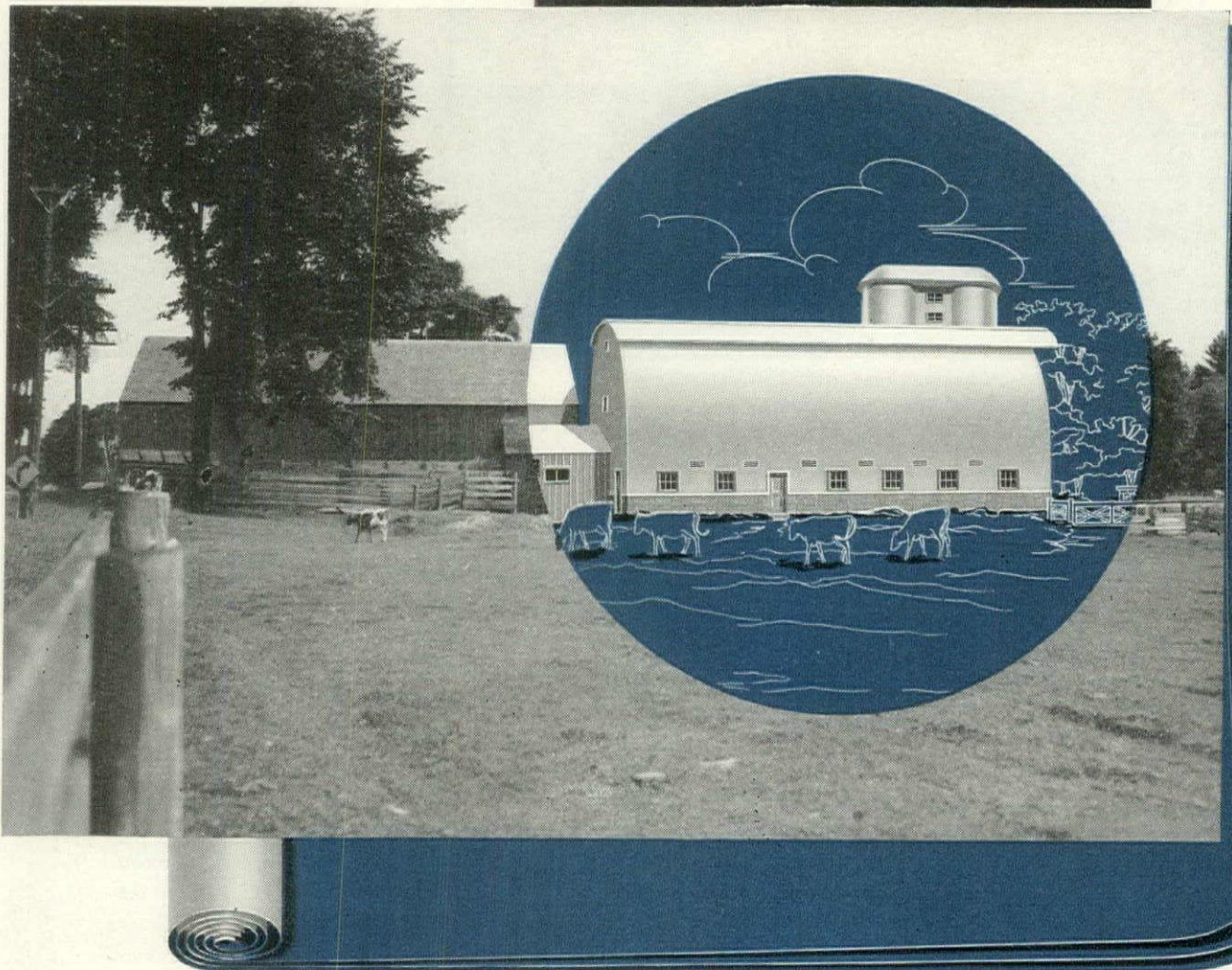
●
"SEE NORGE BEFORE YOU BUY"

NORGE HOUSEHOLD APPLIANCES

A B O R G - W A R N E R I N D U S T R Y

SEE NORGE BEFORE YOU RECOMMEND... MEANWHILE RECOMMEND MORE WAR BONDS

MODERNIZATION



STRAN STEEL

DIVISION OF GREAT LAKES STEEL CORPORATION
1130 PENOBSCOT BUILDING, DETROIT 26, MICHIGAN



Manufacturer of the U. S.
Navy's Famous Quonset Hut

Authorities agree that the aftermath of the war will witness an era of farm modernization and building unprecedented in history. The latest in building methods and materials will be utilized to attain a new high in profitable farming operations.

Stran-Steel light-gauge steel construction offers such desirable advantages as resistance to fire, termites, dry-rot, rodents; rigid framework which will not sag or warp; flexibility of building design and layout; ease of erection; speedy construction; savings in time, labor and materials.

Through wide experience in varied types of construction, and valuable know-how acquired in current volume production of military buildings, Stran-Steel is well qualified to serve in the forthcoming farm-building program.

UNIT OF NATIONAL STEEL CORPORATION

**OHIO
WHITE
FINISH**

**HAWK SPREAD
WHITE
FINISH**

**Two Finishing Limes
you can depend upon**

Always packed in
Red Zig Zag Bags

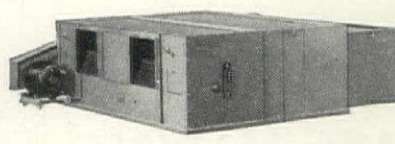


Write for free booklet telling about our 99½% pure dolomite deposit and how it is converted into the two famous finishing limes—"Ohio" and "Hawk Spread."

THE OHIO HYDRATE & SUPPLY CO., Woodville, Ohio

**4-Season
AIR CONDITIONING**

Available for
Essential Needs



- PRECISION MANUFACTURING
- FOOD PRESERVATION
- HOSPITALS..... LABORATORIES

★ The four seasons are as one where STREAMAIRE Air Conditioning Units are installed. Wide variations in outdoor temperatures and humidity are leveled off into a controlled uniformity that assures ideal research, manufacturing, processing and operating conditions.

Tolerances for precision tools and instruments on many government contracts require that they be manufactured under controlled temperatures and humidity. Priorities for equipment to correct excessive heat and contaminated air conditions harmful to the health of workers can also be obtained. Food processing plants (engaged in canning, dehydrating and freezing perishable foodstuffs), biological laboratories and hospitals may also install YOUNG Air Conditioning Equipment.

If you are not eligible for the cooling and dehumidifying features, you can install a STREAMAIRE Unit with the heating coil now and merely add the cooling coil when restrictions are lifted. Send for Catalog 75-41.

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SALVAGE SCRAP
WIN THE WAR

HEAT TRANSFER ENGINEERS

Manufacturers of Oil Coolers • Gas, Gasoline, Diesel Engine Cooling Radiators • Intercoolers • Heat Exchangers • Engine Jacket Water Coolers • Unit Heaters • Convectors • Condensers • Evaporators • Air Conditioning Units • Heating Coils • Cooling Coils • and a Line of Aircraft Heat Transfer Equipment.

YOUNG RADIATOR CO., Dept. 154-G, RACINE, WISCONSIN
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in
STAGE
SWITCHBOARDS ?**

New, Informative
Booklet Sent
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While our shops are fully occupied making Switchboards and Lighting Equipment for Army, Navy and Air Corps projects, our engineering staff is ready to help you plan post-war work. Why not submit your problems to us or the HUB Resident Engineer nearest you?

And send for our new booklet which describes latest developments in Stage Switchboards; and presents, for the first time in print, such features as HUB "DIAL SELECTOR" cross connection and HUB "REGULITE" system for remote control.

**CUSTOM BUILT
SWITCHBOARDS**

**STAGE
and
GENERAL
LIGHTING
EQUIPMENT**

HUB ELECTRIC CORPORATION

2223 West Grand Avenue

Chicago 12, Ill.

Thermopane

with the
BONDERMETIC SEAL

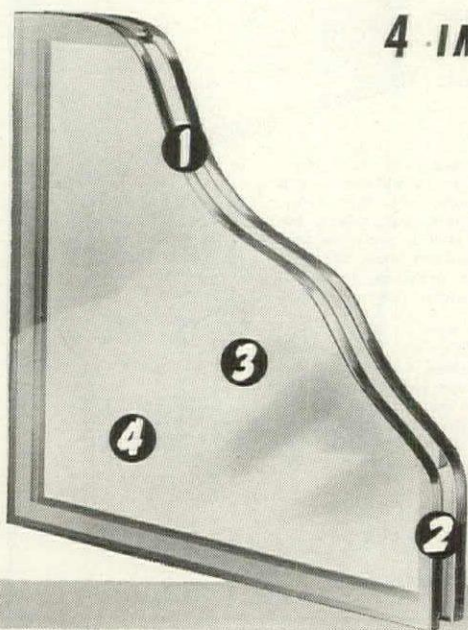
Here is one of those things you've always wished would happen.

You can now plan the windows for your postwar houses as large as you want them. Flood them with cheerful sunshine . . . provide rooms with exciting clear views of outdoor beauty. You can now have these benefits of *Daylight Engineering* without worry about excessive heat losses. Rooms also can be kept cooler in summer.

Thermopane—the revolutionary new Libbey-Owens-Ford windowpane that insulates—makes this possible. Thermopane fits into a modified single sash, just like an ordinary single pane of glass.

Thermopane comes in a wide range of sizes—from 8" x 8" up to 60" x 100". You can have it in a variety of thicknesses . . . with regular plate or sheet glass, Blue Ridge Patterned Glass, Color Clear Plate, Tuf-flex, Safety Glass, Colored Plate or Heat Absorbing Plate. For extreme conditions, Thermopane can be made with whatever number of panes the need requires. The benefits of Thermopane for cold weather insulation, and for air conditioning, are readily seen in its low coefficient of heat transmission—as low as .53 for double Thermopane and .35 for triple Thermopane.

Here is an important forward step in house construction—a step that can give the houses you design, build or finance more comfort, more efficiency, and more appeal. Get the facts about Thermopane now. Write to Libbey-Owens-Ford Glass Company, 974 Nicholas Building, Toledo 3, Ohio.



4 IMPORTANT THERMOPANE FEATURES

- 1 INSULATING AIR SPACE.** The layer of air inside the Thermopane units is scientifically cleaned, dried and hermetically sealed at the factory. This sealed-in air gives Thermopane its high insulating efficiency.
- 2 BONDERMETIC SEAL.** This patented, weatherproof, metal-to-glass seal bonds the two panes of glass into one unit to prevent dirt and moisture from entering the air space.
- 3 CLEAR VISION.** The dry air is sealed in with the patented bond to prevent frost or condensation from forming on the inner surfaces of the panes of glass.
- 4 ONLY TWO SURFACES TO CLEAN.** The glass surfaces inside a unit are specially cleaned at the factory . . . and stay clean!

Copyright 1944, Libbey-Owens-Ford Glass Co.

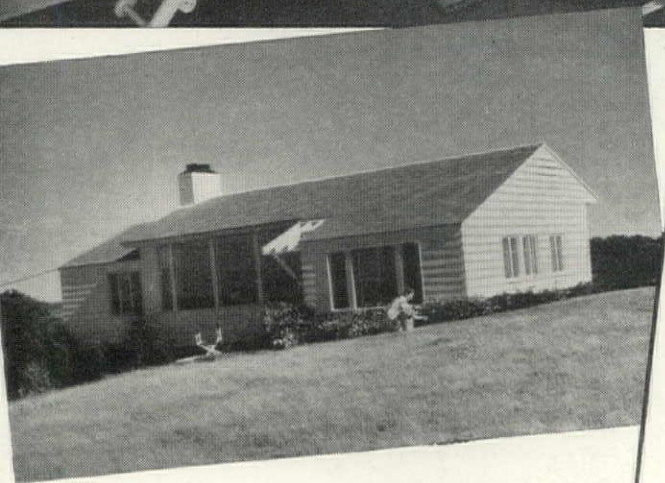
New L·O·F insulated windowpane
makes *Daylight Engineering*
thoroughly practical in every climate



Architect Carl Koch recommended Thermopane for the home of well-known radio commentator Imogene Wolcott, on Cape Cod. In writing of this installation, Miss Wolcott reports:

"My house is on a hill where it gets all the Cape Cod breezes (gales), and the three windows that have Thermopane face north.

"I never feel a draft from these windows, they save all the bother of storm windows, and I find them exceedingly satisfactory. I was a little hesitant when Mr. Koch wanted to put them in because I felt that perhaps some dirt or particles might get down between the two panes of glass, but this has not happened at all, and it is impossible to tell that there are two panes."



WHEREVER VISION IS IMPORTANT
USE L·O·F Polished Plate GLASS



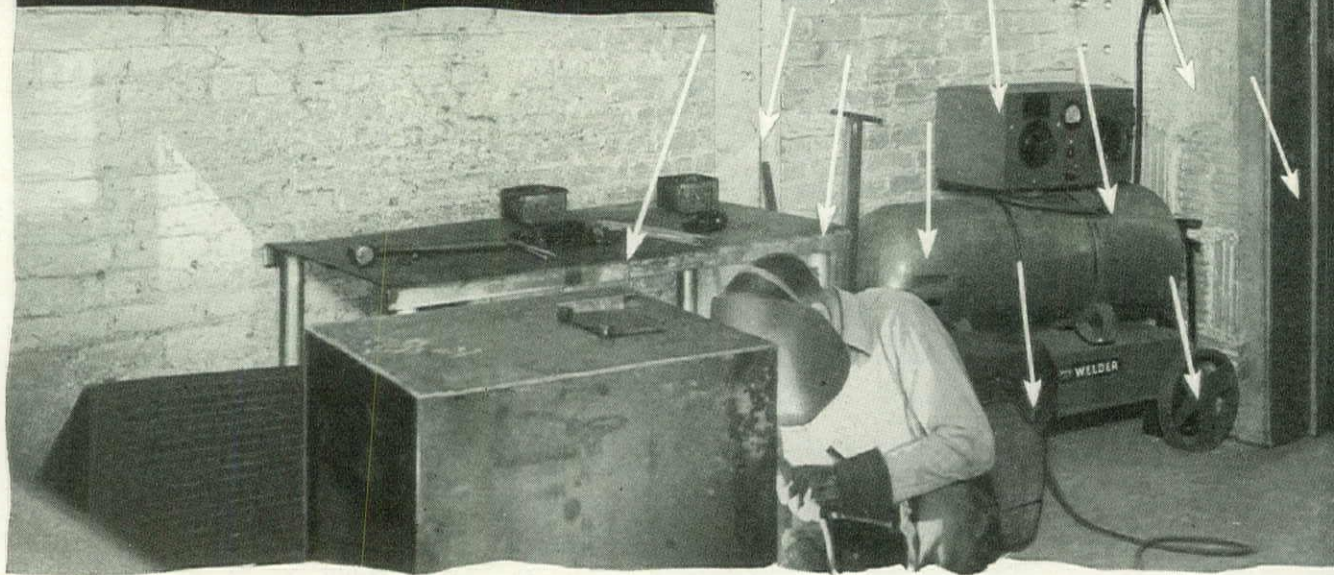
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a Great Name in **GLASS**

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WHAT YOU GET: Push-button "on the spot" heat . . . equalized distribution in the "Vital Zone" . . . high efficiency . . . low cost operation . . . safety.

WHAT YOU SAVE: Cost of piping . . . installation time and trouble . . . critical materials . . . manpower used to build and maintain heating plant.



STEADILY growing in popularity since ILG originally pioneered electric coil unit heaters back in 1916. . . Then came World War II . . . tremendous increases in electric current output . . . widespread demands from mushrooming industry and the armed services for safe, automatic, quickly installed heat, particularly for periodic, temporary or auxiliary heating of isolated or remote areas and buildings. Today, you'll find ILG Electric Unit Heaters in industry, army cantonments, naval bases and airports providing heat for drying

processes, warehouse offices, recreation halls, gas station radio rooms, telephone centers, underground fortification in combustible surroundings. Tomorrow, with lowered electric rates and surplus power available, the applications will be unlimited for heating all types of buildings . . . for cold weather utilization of the load developed in summer for air conditioning apparatus. Get free bulletin for your files!

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2899 N. CRAWFORD AVENUE ☆ OFFICES IN 38 PRINCIPAL CITIES

GET FREE BULLETIN NO. 802
Call nearby ILG Branch Office
(consult classified directory) or
write today for free bulletin pictur-
ing complete range of Electric Unit
Heaters now available.



ILG

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ALSO MODELS FOR STEAM, HOT WATER, GAS-FIRED



Your clients will thank you
for specifying **KIMSUL**
INSULATION

Here's the reason: KIMSUL* makes dwellings far cooler in summer, warmer in winter . . . because it is one of the most efficient insulations known. Moreover, it stands the test of time. It will not settle, sag or pull away from its fastenings even in structures subject to extreme vibration. It resists fire, moisture, vermin, insects and fungus.

KIMSUL (trade-mark) means Kimberly-Clark Insulation

KIMBERLY-CLARK CORPORATION
Established 1872
BUILDING INSULATION DIVISION • NEENAH, WIS.



**MORE SPACE
FOR LIVING**



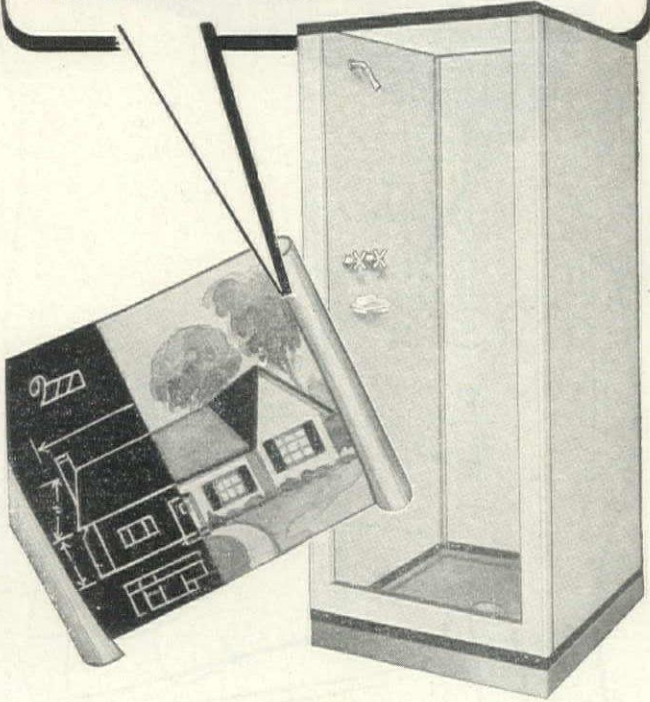
... with "the wall that moves"
In the home of tomorrow you'll want to make the most of available space . . . specify more room for living. With the Modernfold Door, "the wall that moves," you get just that. Accordion-like in its opening and closing, Modernfold eliminates swing area . . . makes available every inch of floor and wall space. Quick, easy room division is another important Modernfold advantage. And Modernfold is beautiful, too. With its variety of colors and fabrics, it blends perfectly with any general color scheme. Have Modernfold beauty and utility in our plans for the homes of tomorrow. Write for our helpful literature.



NEW CASTLE PRODUCTS
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Export Dept.: Utility Bldg., Fort Wayne 2, Ind.

**YOUR BEST NEW-BUILDING PLANS
DESERVE *Bathe-Rite*
SHOWER CABINETS**



SHOWER FACILITIES will be on the "must" list of one out of three new-home builders! This *known* demand, plus *taken-for-granted* shower needs on public, commercial and institutional buildings, makes **BATHE-RITE SHOWER CABINETS** an important factor in your new-building plans.

So, for your own future benefits, and for the satisfaction of your clients, you'll want to check the reasons why **BATHE-RITE** is the *quality standard* in modern prefabricated shower convenience. Their popularity has always been based on superior strength and durability, greater beauty of design, and a wealth of features that speeds up installation. This combination of advantages recommends **BATHE-RITE** Shower Cabinets for all your new-building plans.

Learn how Bathe-Rite Shower Cabinets can help you in designing bathing facilities. Write for bulletins, specifications and prices.

MILWAUKEE STAMPING COMPANY
827-S South 72nd Street
Milwaukee 14, Wisconsin

Snyflanked factories
with frailbanks will sweep
the country!

Are you double-talking or straight-thinking about the building-boom?

INDUSTRIAL building men in the know say: "Most postwar-building-boom talk is just double-talk."

And, in a recent booklet, the staff of Architectural Forum sighs: "These are the days when anyone who discusses postwar markets has to get up in the stratosphere not to be a piker. The magazines have been full of fascinating ideas on houses, including such models as the disposable or Kleenex house, the all-glass or Gypsy Rose Lee house, the foxhole or World War III house, and the circular or Hamburg Heaven house, to say nothing of the fabulous factories some people have been dreaming about."

Buildings and booms never grow out of dreams. They grow out of an understanding of industrial needs and the formulation of plans that can work.

To make sure your down-to-earth plans show up in steel-and-stone plants, they must be *sold* to people who can help put them across: America's top industrial executives, plant owners and managers.

These are the businessmen that builders think of when they think of the readers of TIME.

For the readers of TIME are the top of the management market. Nearly half the businessmen who read TIME are executives or department heads, proprietors or partners.

And TIME is voted their first-choice magazine by the men who can directly do the most for building—by federal, state, and city planning commission members—by leading realtors in 60 cities—by architects—by members of the Mortgage Bank Association—by industrial research engineers.

What's more, advertising figures show that TIME, The Weekly Newsmagazine, is the medium in which business and industry prefer to tell their own product stories.

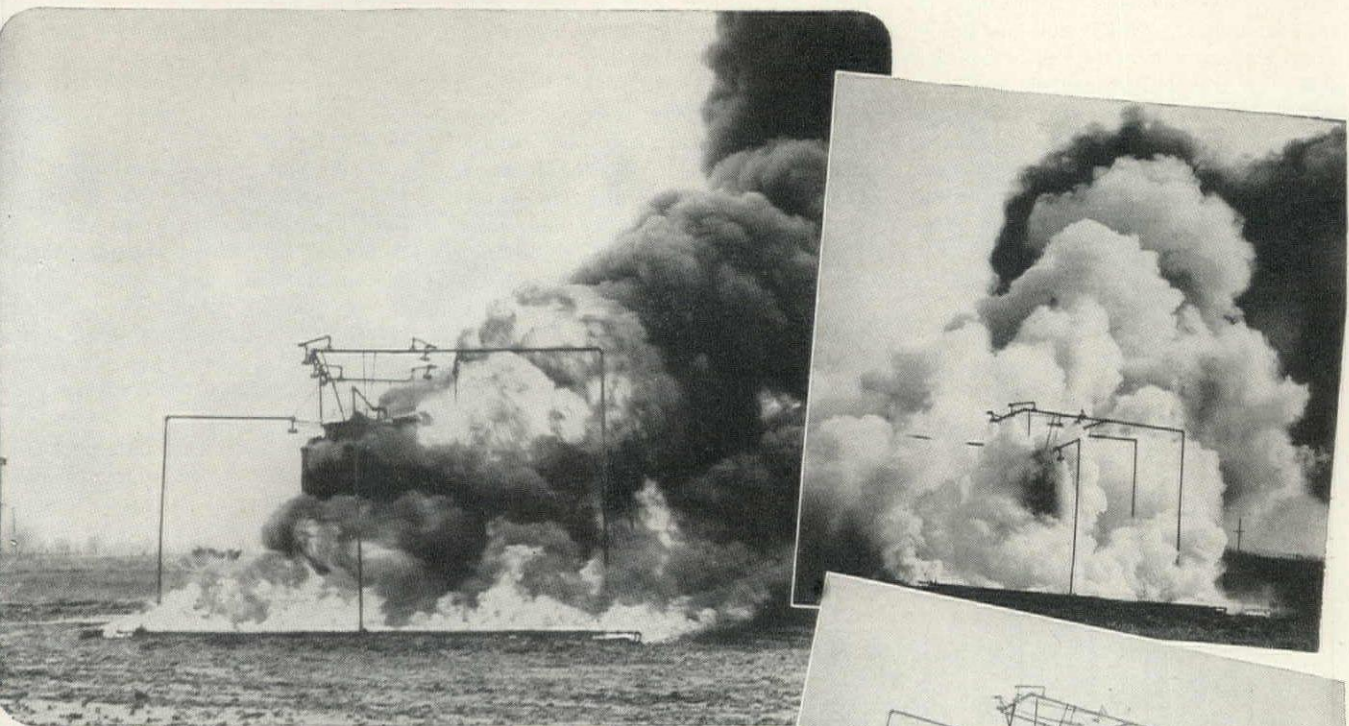
GATEWAY TO THE BUILDING MARKET

Joe Kaufman

TIME
THE

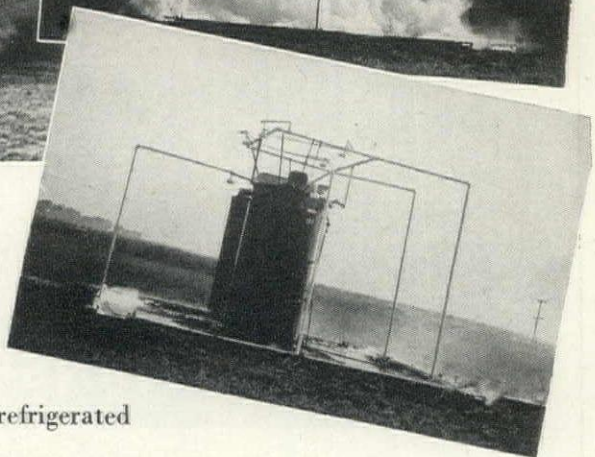
NO PLACE FOR

Too Little... Too Late



(A) Test transformer fire. 450 gallons of transformer oil, caused to overflow tank at approximately 20 gallons per minute. Fire allowed to burn 1 minute, 40 seconds before extinguishment was begun. (B)

Cardox CO₂ being released. Fire extinguished in seconds. Oil and metal cooled below re-ignition period in 1 minute. (C) Fire out. Note CO₂ snow on surface of cooled oil at base of transformer.



● Outdoor Transformer fires aren't frequent. But they are plenty tough. Large quantities of highly inflammable oil get the fire off to a fast start. Metal temperatures soar. Extinguishment and cooling must be swift, or costly equipment becomes junk. Cardox Fire Extinguishing Systems are engineered to meet just such difficult requirements.

Transformers represent only one of the many tough hazards given protection by Cardox Fire Extinguishing Systems. Engineered applications of Cardox Systems provide quick extinguishment of both large and small fires involving "A", "B" or "C" hazards, or a combination of all three types of flammables.

TONS FOR LARGE FIRES POUNDS FOR SMALL ONES

A Cardox System—engineered for the specific hazards it covers—extinguishes fires by a timed mass discharge of Cardox CO₂, stored at

0°F. in a mechanically refrigerated storage unit.

Enhanced extinguishing performance is possible because, as controlled and applied in Cardox Systems, Cardox CO₂: (1) Has uniform extinguishing characteristics regardless of plant or atmospheric temperatures; (2) Applications can be engineered to the requirements of each specific hazard covered; (3) High CO₂ snow yield provides increased cooling effect (carbon dioxide released at 0°F. yields 45% CO₂ snow); (4) Effective projection through relatively great distance is achieved—even outdoors.

If you would like more information for use in solving current war plant fire protection problems . . . or in formulating fire protection plans that will prevent dangerous delays in getting post-war production in high gear . . . write on company letterhead for Bulletin 674.

CARDOX CORPORATION
BELL BUILDING • CHICAGO 1, ILLINOIS

District Offices in
New York, Boston, Washington, Detroit, Cleveland,
Atlanta, Pittsburgh, San Francisco, Los Angeles, Seattle



PRODUCTS AND PRACTICE

(Continued from page 14)

this lamp is especially designed for mounting in high bay areas where a minimum number of light sources is desired. Its widest use will be in steel mill foundries, yards and assembly floors in heavier industries where its 2,000 hr. life will reduce maintenance costs. Unlike most electric discharge lamps, it is single-walled and operates at medium pressure. A brilliant arc stream approximately 48 in. long radiates the characteristic blue-green mercury light. Used in combination with

ordinary filament lamps, a more nearly white light is produced and stroboscopic flicker is cut down.

Hot cathode fluorescent, already practically universal for industry and business, will branch out into home lighting after the war. The ordinary white fluorescent will be used everywhere, but a new, flattering, soft white will be most popular for the home. The original daylight color will still be used for display and special purposes. In addition, all the colored fluorescent lamps, out for the duration, probably will be back after the war.

Newest developments in fluorescent lamps are circular tubes in addition

to the familiar straight tubing. Approximate outside diameters are 8 in., 12½ in. and 16 in. They can be used in ordinary stand lamps, around the edges of mirrors, for indirect lighting around curves. Home owners who wish to try out fluorescent lighting for these purposes need not think that the whole lighting system must be converted. When fluorescent is used in proper combination with incandescent lighting, the color of light is actually improved.

In the past, one of fluorescent lighting's main faults was that it did not light up immediately when turned on. A ballast for instant starting was invented, but was found to curtail the life of the ordinary lamp. This disadvantage has been completely eliminated in the new 40 w. instant starting fluorescent lamps which are already available in limited quantities.

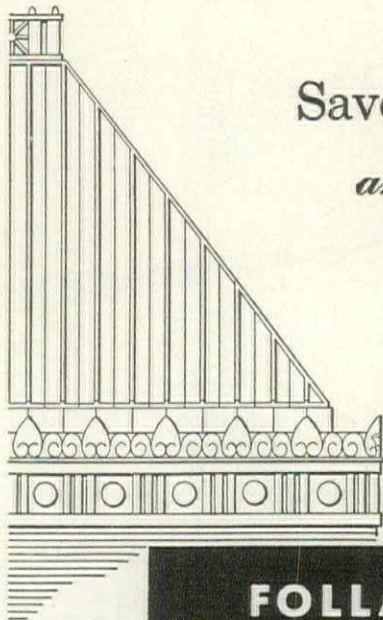
Cold cathode fluorescent lighting has always had the instant starting advantage, but certain of its features have so far limited it to industrial and business uses. The fact that it operates at high voltage has kept it out of the home, but this is the very factor which gives it instant starting. An arc is struck immediately, in contrast to the heating period necessary before hot cathode fluorescent lights up. After the war, however, home use is expected. One unit has already been made in standard size, and new lengths have been planned—5½ ft. and 7½ to 8 ft. Transformer and auxiliary parts will be engineered along with the new unit to accommodate proper voltage, thus eliminating the special engineering job heretofore required. There is some talk that cold and hot cathode will not be distinguished by name after the war, but will both be classed under the general term of fluorescent.

INCANDESCENT LAMPS

The familiar incandescent lamps will also find an enormous use in both postwar industry and the postwar home.

Infrared drying and heating lamps are one of the most important incandescent types, already being used to speed up war production. These lamps are similar in construction to ordinary incandescent bulbs, but a special filament wire produces more infrared heat and less light. Hundreds of them, placed to form a tunnel, can quick-dry the enamel on anything from small automobile parts to complete tanks. This tunnel system is used for conveyor belt production, a bank of lights for spot drying. Processes that formerly required as much as 15 or 20 hrs. normal drying time can now be completed with infrared in 15 to 20 minutes. The reason for this is simple: infrared radi-

(Continued on page 172)



Save time
and
materials

FOLLANSBEE

Seamless Terne Roofing

Furnished in 50 and 100 foot rolls, Follansbee Seamless Terne Roofing is easily cut to desired lengths and laid without any cross-seaming. This means substantial savings in time and materials—which mount when larger areas are involved—and provides the most durable roof ever developed. Follansbee Seamless gives all the advantages of Terne roofing—plus four important, exclusive features.

FOUR EXCLUSIVE FEATURES:

1. Easier to Handle
2. Saves Time and Materials
3. More Durable, Less Maintenance
4. Smooth, Improved Appearance

Now available for essential maintenance and repair in 8 pound coating. Write for complete data for use in preparing specifications.

FOLLANSBEE STEEL CORPORATION

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Toronto, Ohio

ELECTRICAL SHEETS & STRIP * ALLOY BLOOMS, BILLETS, BARS, SHEETS
& STRIP * COLD ROLLED SHEETS & STRIP * POLISHED BLUE SHEETS
SEAMLESS TERNE ROLL ROOFING

Prevent Shock!

Accidental contact with live parts is impossible with these



PANELBOARDS

for LIGHT and POWER
FEEDER DISTRIBUTION

In these panelboards, the switch and fuse are combined in one unit — the current is OFF when the door is open, or the fuse carrier removed. This arrangement also renders replacement of fuses safe — quick — and easy.

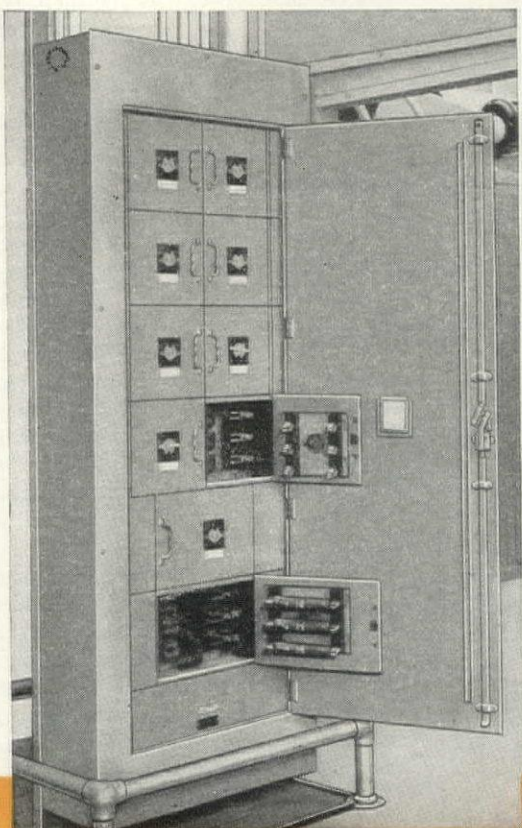
Both the FA Klampswitchfuz and the FA Pulfuzswitch Panelboards are assembled from standardized units. In each, the switch blades make *pressure contact* with the fixed switch parts, assuring full current-carrying capacity. This, with the silver-plated contact parts, insures low resistance to current flow, and reduces heating.

Below: A Klampswfuz Panelboard with 30, 60 and 100 Amp., 575 volt units. FA Klampswfuz capacities are 30 to 1200 Amp., 250 volt AC or DC, and 575 volt AC in 2, 3 or 4 pole types, single or double throw.

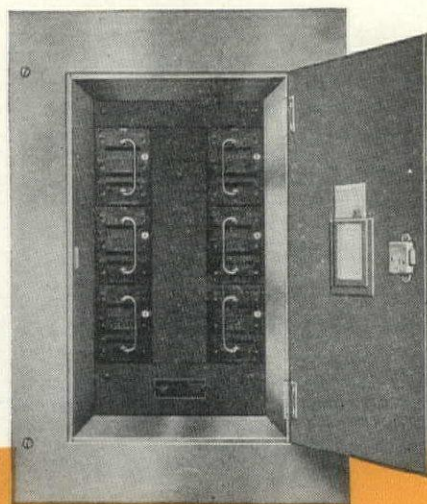
FA Solderless Type Pressure Connectors on switch units and mains, and generous wiring space, expedite connection . . . Boxes are treated to prevent rusting and trims are finished in attractive pearl gray enamel . . . Approved by Underwriters' Laboratories, Inc.

Ask the FA Sales-Engineer

how this equipment can be applied to your requirements. His long experience is at your service, without obligation. Write for the name of the one nearest you — or see listing in Sweet's, Electrical Buyers' Reference, or Thomas' Register . . . Frank Adam Electric Company, Box 357, St. Louis (3), Mo.



At right: A Pulfuzswitch type Panelboard with 60 Amp. branch circuits. FA Pulfuzswitch capacities are 30, 60 and 100 Amp., 250 volt; 30 and 60 Amp., 575 volt, 2 and 3 pole.



Frank Adam
ELECTRIC COMPANY
ST. LOUIS

PRODUCTS AND PRACTICE

(Continued from page 170)

ation is absorbed *within* the object being treated, so that a coating of paint dries from the inside out rather than from the outside in as with oven drying. These lamps have been used successfully for industrial and automotive finishes, photographic prints, food products, surface moisture, tobacco, pottery, latex, paper and paper finishes, metal parts expansion and precipitation of silver on mirrors etc.

The infrared heat lamp, with a

slightly lower color temperature, also has many uses. Because of its reduced glare it is a comfortable heat source which will be used after the war for quick bathroom heat in hotels and homes. It can be installed under a desk to warm a person's feet while he works. Doctors are already using similar lamps for deep therapy treatments. Because of its penetrating powers, infrared generates heat deep in the body tissues, soothing bruised and strained muscles or ligaments. The infrared radiation in all these lamps is produced by either carbon or tungsten filaments. The most popular type lamp, made in the 250 w. size, has its own

built-in reflector. Others, ranging from 80 to 1,000 w. have separate reflectors.

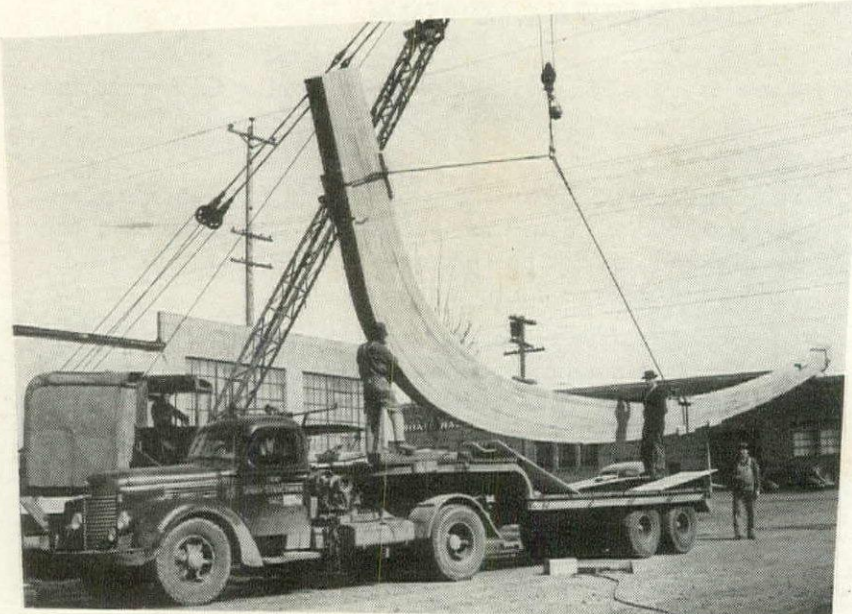
Lamps with built-in reflectors are important news in incandescent lighting for industries. Since their reflecting surface is hermetically sealed within the lamp, it cannot be affected by dirt, moisture or vapors, and does not deteriorate. Reflector spot lamps of this type project narrow beams for use where light of high intensity is required over a small area. Projector spots are similar except that they are made of hard glass for outdoor use. Reflector flood lamps are similar in construction to the reflector spots but their more deeply frosted bulbs provide a wide beam suitable for floodlighting displays and operations. This type is also made in hard glass for outside use. Reflector lamps come in 150, 200 and 300 w. sizes, projectors in 150 w. If and when a smaller size is made, these lamps would be excellent in the home for reading, their beam directed from a concealed installation in the ceiling.

The third type of reflector lamp is a showcase lamp, of the same physical dimension as the standard, tubular screw base lamp. A high efficiency re-coiled filament operating in a gaseous atmosphere, combined with a metallic reflector applied to somewhat more than half the inner surface of the bulb, provides a light source of maximum efficiency with minimum size. It is available in both the 25 w. and 40 w. ratings.

Silvered bowl lamps in ordinary bulb shapes are of particular interest for home as well as commercial lighting. A coating of mirror silver protected from oxidation and chipping by a layer of copper and a coat of overlapping aluminum flakes, frosts the bowl. When these lamps are used in the normal base-up position, the silvered surface directs light toward the ceiling where it is redirected down to the working plane as soft, glare-free illumination. They are available in sizes ranging from 25 to 1,000 w. and can be used in existing lighting apparatus.

The opposite of this silvered bowl lamp is the silvered neck type which is used for direct lighting. The reflective coating on the neck of the bulb directs light downward in a concentrated beam. It is used above work areas, promoting uniform illumination and an even distribution of light.

These lamps are but a few of the many types available now or soon after the war. Thousands of new ones have been developed for war use—200 are used in one airplane alone. Those discussed, however, are considered most likely to succeed in the postwar struggle for survival.



Photo, Courtesy Boeing Aircraft Company

**WOOD AND
LAUCKS GLUES**

Engineered for PERMANENT Construction

This is no "for the duration" job.

These big arch sections, engineered from wood and Laucks glues by Timber Structures, Inc., are going into a \$750,000.00, permanent brick-veneered cafeteria for employes at Boeing Aircraft's big main plant in Seattle.

Twenty sections like this will make up ten arches, each with a span of 92' 4" and a rise at the center of 28' 3 1/2". Over 1600 employes will be fed at one time in the 24,640 square feet spanned by the arches.

In war or *postwar* construction, wood and Laucks glues can fill many jobs *better* and *more economically* than other structural materials. For

more information on the many interesting possibilities of laminated arches and beams... plywoods... and the use of construction glues in stressed cover structures and dry-built construction... write or wire the world's largest manufacturers of water-proof and water-resistant glues.

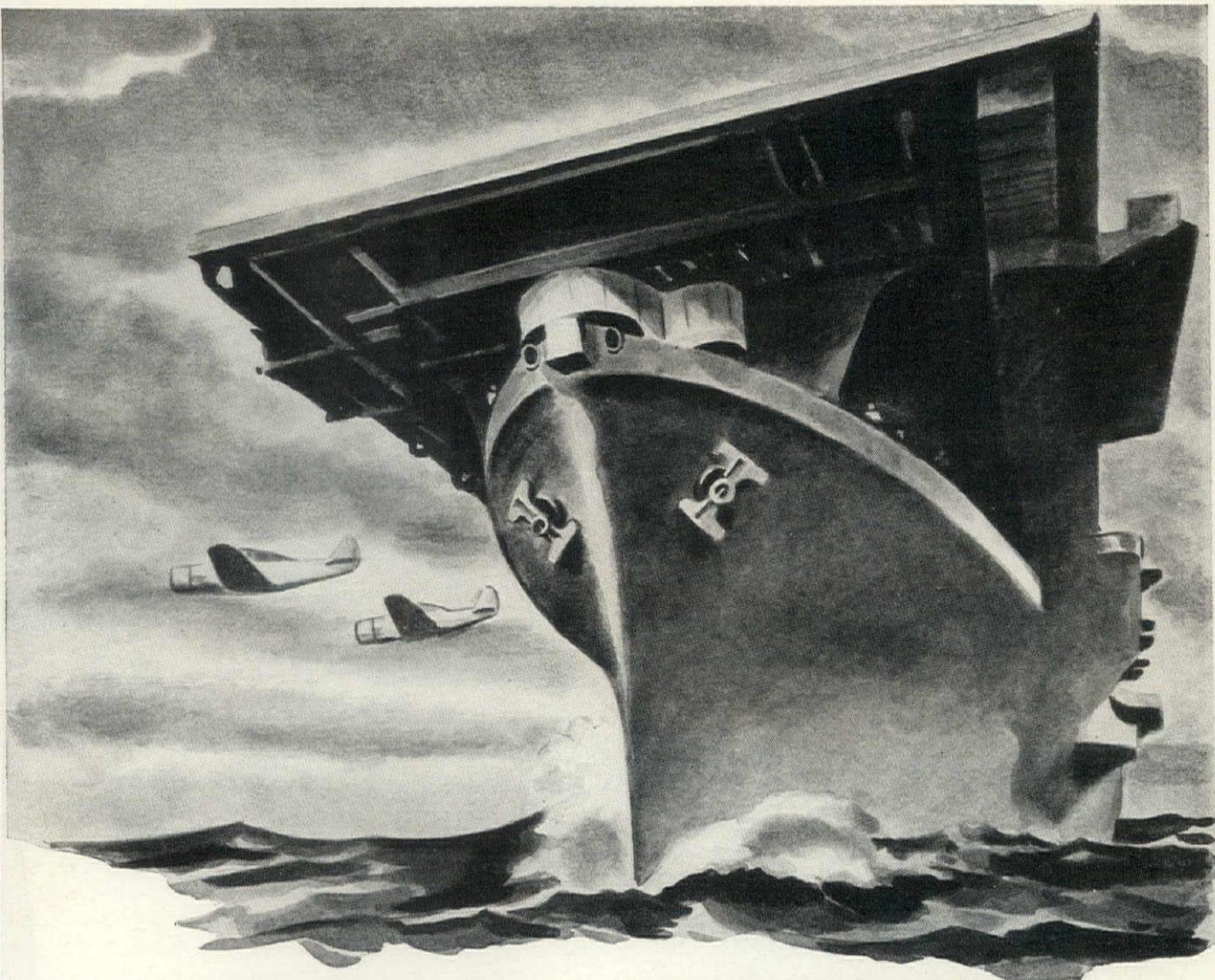
I. F. LAUCKS, Inc.

A Subsidiary of Monsanto Chemical Company
LAUXITE RESINS **LAUXEIN GLUES**

CHICAGO (2)—6 N. Michigan Avenue, SEATTLE
(4)—911 Western Avenue, LOS ANGELES (1)—
859 E. 60th Street. Factories: Seattle, Los Angeles,
Portsmouth, Va., Lockport, N. Y. In Canada, address:
I. F. Laucks, Ltd., Granville Island, Vancouver, B. C.,
or Hercules-Laux-Merritt Ltd., Stanbridge, Quebec.

CONSULT LAUCKS

AMERICA'S GLUE HEADQUARTERS



PROTECTION *by* FITZGIBBONS

for the man behind the gun —

To ward off shell splinters and bomb fragments, the AA guns on many of the Navy's new Essex class aircraft carriers will be protected by Fitzgibbons-built gun shields. Fitzgibbons is also supplying gun platforms, armored vent and exhaust trunks, walkways and galleries on these splendid ships.

And they *are* splendid ships. The new Bennington is typical, with her 27,100 tons of sleek steel poised to loft enemy-hunting planes from a flight deck as large as several city blocks, and towering over the sea at a height of over four stories. Ships of this class carry 80 planes and a crew of approximately 2000. To aid in her defense is a privilege of which Fitzgibbons is proud.

Whether it's protecting the floating homes of Uncle Sam's planes from flying steel, or protecting the homes and institutional buildings of America from winter cold, Fitzgibbons has an enviable record.

FITZGIBBONS BOILER COMPANY, INC. • 101 Park Ave., N. Y. 17, N. Y.

Works: OSWEGO, N. Y. • Branches in Principal Cities

FITZGIBBONS

STEEL HEATING BOILERS SINCE 1886

A STAR HAS BEEN ADDED

to Fitzgibbons' Army-Navy "E" flag, evidence of continued excellence in wartime production.



BUY U. S. WAR BONDS and STAMPS

**INDIVIDUAL
APARTMENT**
TEMPERATURE CONTROL
Keeps Tenants Satisfied

Say Managing Agents

OGDEN & COMPANY, Inc.
REAL ESTATE

110 E. Wisconsin Ave. Phone DA 4, 5285

Selling
Renting
Management
Mortgages
Appraisals

Milwaukee, Wis.
January 8, 1944

Minneapolis-Honeywell Regulator Company
Minneapolis 8, Minnesota

Re: 1609 North Prospect Avenue
Milwaukee, Wisconsin

Gentlemen:

The owners of the above apartment building purchased your individual controls with the original heating installation. These controls have proven most satisfactory and economical for both tenants and owner.

The building was completed in July 1940, is nine stories high, and the 217 rooms are divided into 55 apartments. The fuel cost for 1943 was \$1,780. This means a fuel cost per apartment per year of \$32.00, and per room per year of \$ 8.12.

The building has had a most satisfactory service with your individual controls and the tenant finds it an advantage to be able to control the temperature in his own apartment according to his own personal desire.

Maintenance has been negligible and some fuel economy has resulted. As managers, we feel that individual controls not only help sell apartments, but also keep tenants more satisfied, therefore less moving which means a saving to the owner.

Very truly yours,

OGDEN & COMPANY, Inc.

W. H. Ogden

emor:ek

INDIVIDUAL, or personalized, apartment temperature control not only helps rent apartments, but keeps tenants satisfied. This means less moving expense to the owner. And because it eliminates waste that comes from opening windows when overheating occurs, it actually saves fuel . . . Now, with fuel saving controls

available, virtually every apartment owner or operator will be interested in individual temperature control . . . Write for our booklet, "Personalized Apartment Heating Control" . . . Minneapolis-Honeywell Regulator Company, 2740 Fourth Ave. S., Minneapolis 8, Minn. Branches and distributors in all principal cities.

MINNEAPOLIS
Honeywell
CONTROL SYSTEMS



INVESTIGATE
THE ESSENTIAL FACTS ABOUT

ASARCO ROOFLOY

THE MODERN ROOFING MATERIAL

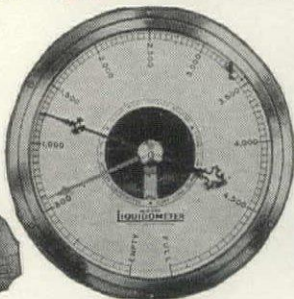
IN 1708, Sir Christopher Wren wrote, with reference to roofing, that lead, properly laid, would last many hundreds of years, and was unquestionably the most preferable.

TODAY, the world's finest roofing is still composed largely of lead. Roofloy sheets are rolled from an alloy of lead, magnesium, calcium and tin. The physical characteristics of lead, the principal component of Roofloy, have been so materially improved by the introduction of carefully controlled percentages of the forgoing elements that lead's utility has been considerably expanded and increased.

ADDITIONAL INFORMATION on cost, application, installation, etc., will be sent on request.

AMERICAN SMELTING and REFINING COMPANY
LEAD PRODUCTS DIVISION • 120 BROADWAY, NEW YORK 5

TODAY OR POST-WAR!



*It Is Important to Measure Valuable
Stored Liquids Accurately With -*

LIQUIDOMETER Tank Gauges

"THEY'RE ALWAYS DEPENDABLE"

100% automatic.

No pumps, valves, or auxiliary units needed to read them.

Models available for either remote or direct readings.

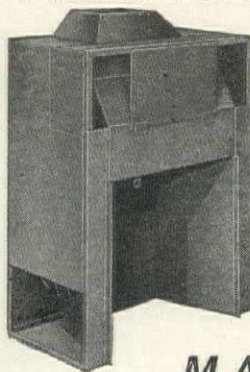
Accuracy unaffected by specific gravity of tank liquid.

Approved by Underwriters' Laboratories for gauging hazardous liquids.

Write for complete details.

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

FIREPLACES SHOULD HEAT!



More and more families will demand heating efficiency as well as "cheery appeal" in open fireplaces—fuel-rationing has taught them a *lasting* lesson! That means bigger demands than ever for

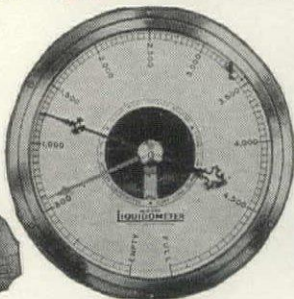
MAJESTIC Circulator Fireplaces

Production is limited now, but Majestic Circulator Fireplace units will be ready in full force for post-war building. Get full details today on Majestic's "Radiant Blades" that nearly *double* fireplace heat radiation . . . the insulation-sealing angle irons at front . . . the adjustable frame that fits any mantel design . . . and many other special features. Write! The Majestic Co., 928 Erie Street, Huntington, Ind.

Majestic
Building Necessities



TODAY OR POST-WAR!



*It Is Important to Measure Valuable
Stored Liquids Accurately With -*

LIQUIDOMETER Tank Gauges

"THEY'RE ALWAYS DEPENDABLE"

100% automatic.

No pumps, valves, or auxiliary units needed to read them.

Models available for either remote or direct readings.

Accuracy unaffected by specific gravity of tank liquid.

Approved by Underwriters' Laboratories for gauging hazardous liquids.

Write for complete details.

THE **LIQUIDOMETER** CORP.
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A FIRST-RATE STAIN FOR A FIRST-RATE JOB!

Architects are extra careful because their reputation's at stake each time they choose materials. That's why leading architects specify Cabot's Shingle Stains—a standard of top quality for over half a century. They know they can count on Cabot's to stand up through the years, giving *extra* protection *longer* without peeling or flaking off. Today, for hurried wartime construction, for use on green lumber, Cabot's Stains give the same complete satisfaction.

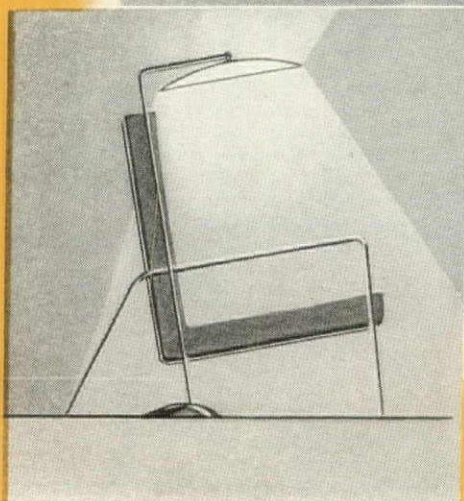
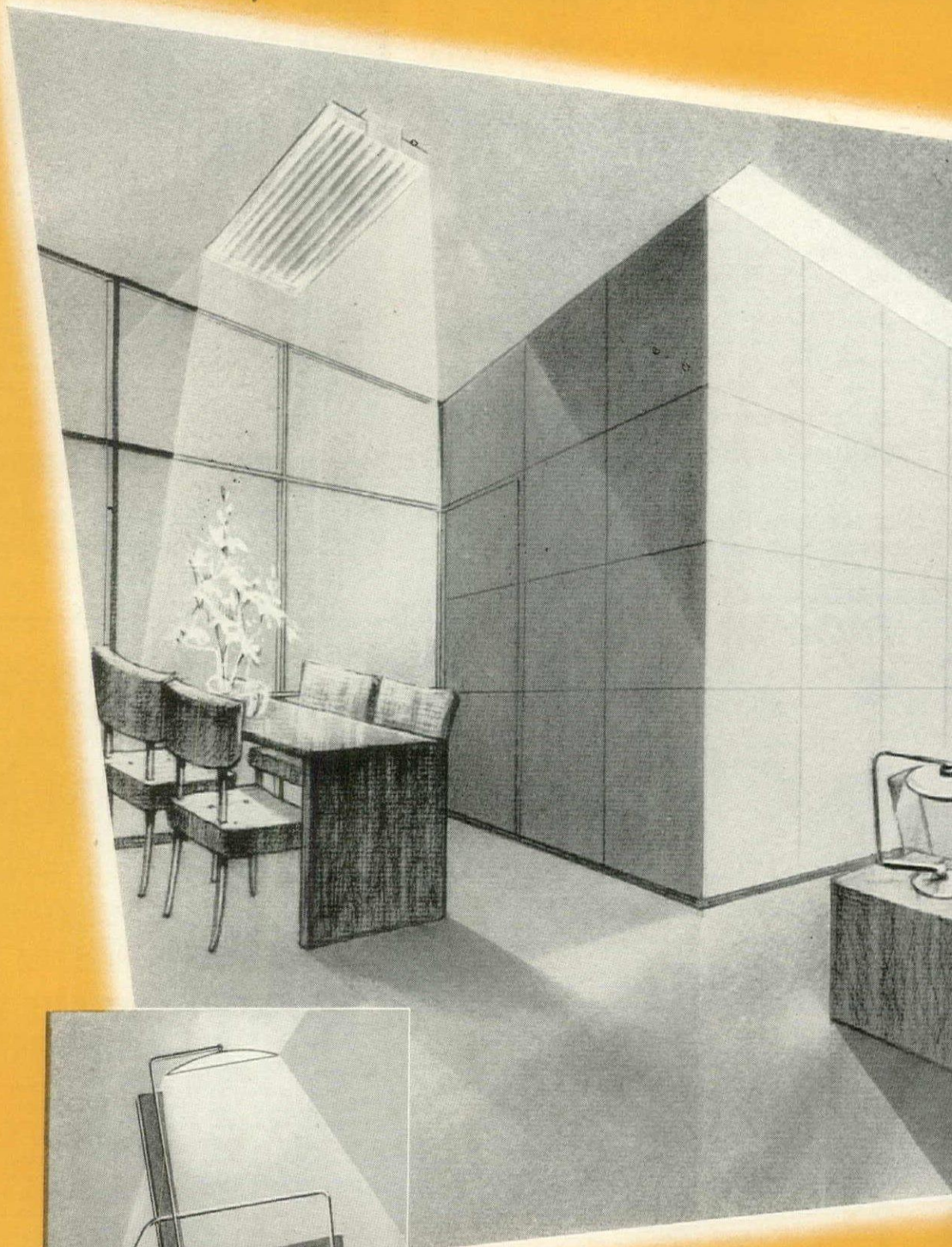
WRITE US for color samples and free illustrated booklet on "Stained Houses." Samuel Cabot, Inc., 1271 Oliver Bldg., Boston 9, Mass.

Cabot's SHINGLE STAINS

Creosote

Heavy-bodied

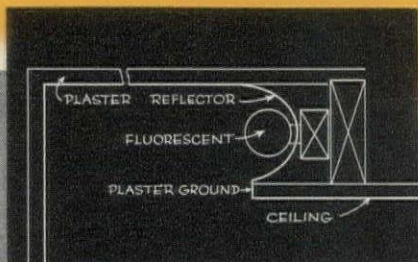
THE WHOLE HOUSE



This suggested all-plastic floor lamp, left, would utilize circular fluorescent lamps, in a nested arrangement, to provide generous, smooth, low-brightness light.

A Lighting Fixture!

Detail on ceiling cove.



That's the fresh approach to postwar home lighting of **NATHANIEL A. OWINGS**, Skidmore, Owings & Merrill, Chicago.



To help stimulate creative thinking on lighting for the postwar world, **GENERAL ELECTRIC** brings you another in its series of perspectives by outstanding architects and designers.

Says Mr. Owings:

"For the home of the future, even in the \$5000 class, we have a structural concept of lighting. Ultimately, the surfaces on which light falls tend to determine lighting. Therefore, why not start with that and design a house as a lighting fixture?"

"To accomplish this, we suggest broad luminous surfaces for general illumination. Reading or shaving and other specific functions should have special lighting. Decoratively, light should emphasize textures or objects rather than to be ornamented itself. No light source should be visible to the eye.

"To fit these ideas into low cost mass production, we suggest the use of a few basic prefabricated lighting units . . . readily obtainable, as hardware items instead of construction items . . . with long life and easy replacement.

"We believe that such a concept will lead to greater satisfaction and comfort for tomorrow's home owner."

A new booklet: "The Whole House a Lighting Fixture" reveals Mr. Owings' fresh approach to home lighting, shows lighting in other rooms. A copy will be sent you on request. Write General Electric, Dept. 166 AF-7, Nela Park, Cleveland 12, Ohio. (Available about August 1st.)



G-E MAZDA LAMPS

GENERAL  ELECTRIC

THE CONSTANT AIM OF
G-E LAMP RESEARCH IS
TO MAKE G-E LAMPS
Stay Brighter Longer

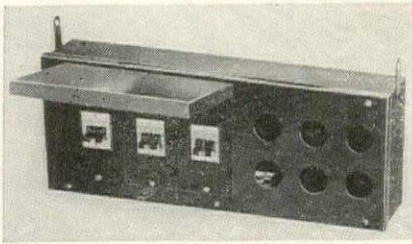


BUY WAR BONDS AND HOLD THEM

For the General Electric radio programs: "The G-E All-Girl Orchestra", Sunday 12 p. m. EWT, NBC; "The World Today" 6:45 p. m. EWT, CBS.

BUILDING REPORTER

(Continued from page 16)



CIRCUIT BREAKER SCATTER BOXES for temporary power control.

Name: Scatter Box.

Features: The newly designed "Scatter Box" controls temporary power and light circuits through a central unit protected by circuit breakers. Built for from 4 to 8 circuits with or without neutral, the box provides complete circuit protection with 15 amp., 115 v. single pole circuit breakers. Twenty or 25 amp. breakers may be substituted. Hinged cover of the box can be padlocked, and openings for plug receptacles are provided, although receptacles or internal wiring are not included. Originally designed for ship yards and aircraft plants where a number of temporary circuits must be set



BUILT TO LAST

For more than a century this sturdy little house has sheltered a family. Over the long years it has housed four generations, through birth, and life, and death. It has witnessed hardship and sorrow, happiness, contentment, and the joyous conquest of the wilderness.

It was built to last!

So it is with Von Duprin Victory Model fire and panic exit devices. They, too, have the stout character which comes from enduring materials and honest workmanship. Made of tough, malleable iron, they are reliable under every emergency. They will let the people out of your buildings—safely, quickly, surely!

They are built to last!



Von Duprin

TRADE MARK REG.

DIVISION

VONNEGUT HARDWARE CO., INDIANAPOLIS, IND.



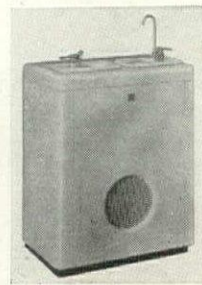
up and torn down quickly, possible future applications may include housing project construction, commercial and industrial building, and other places where temporary distribution of comparatively light loads is required.

Manufacturer: Square D Co., 60 Rivard St., Detroit 11, Mich.

WATER COOLER eliminates water in refrigerant lines.

Name: Strata-Flo.

Features: This cooler, designed to eliminate warm-up and "wet" systems in refrigerant lines, features a simplified method of control. The shell



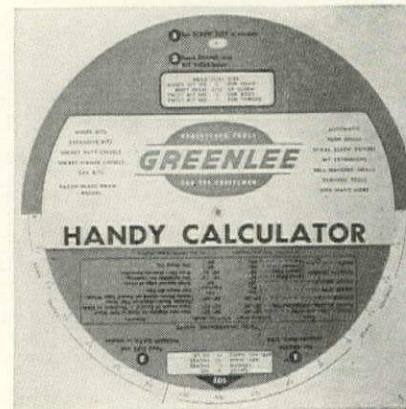
the storage tank is between vertical interior fins and external refrigerant coils. Continuous cooling action on the water in the storage tank is transmitted from the refrigerant coils

through the shell to the fins. Since refrigerant can never come in contact with water, danger of wet systems is eliminated and control is non-critical. Simple controls consisting of an automatic expansion valve and external adjustable thermostatic switch are used. Cabinets equipped with interchangeable alternate faucet units in bubble hand-lever glass filler and push-button glass filler styles are available in 37 and 12½ gal. capacities.

Manufacturer: Drayer & Hanson, Inc., 738 E. Pico St., Los Angeles 21, Cal.

CALCULATOR solves woodworking problems.

Name: Greenlee Handy Calculator.



Features: Designed for the home worker, this calculator solves many puzzling problems. By adjusting the dial, readings convert linear to board feet, determine slope per foot in degrees, find comparative hardness weights, shrinkage, warping and ease of working of various woods. Also in

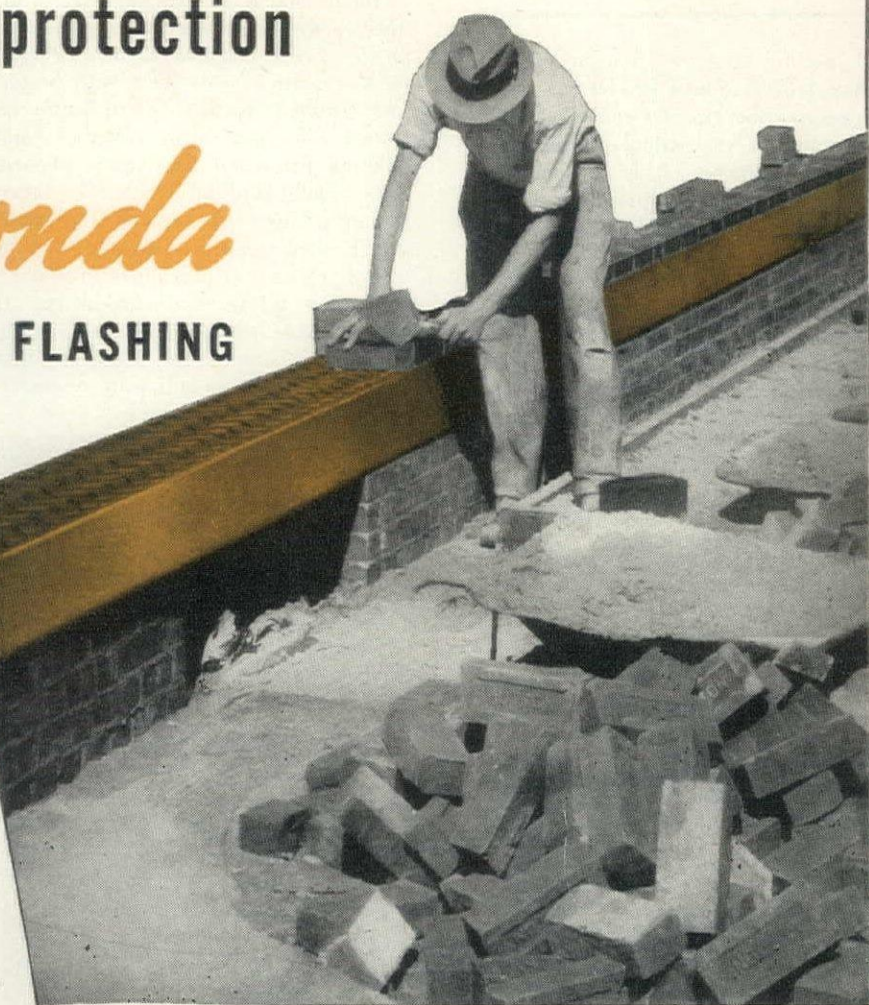
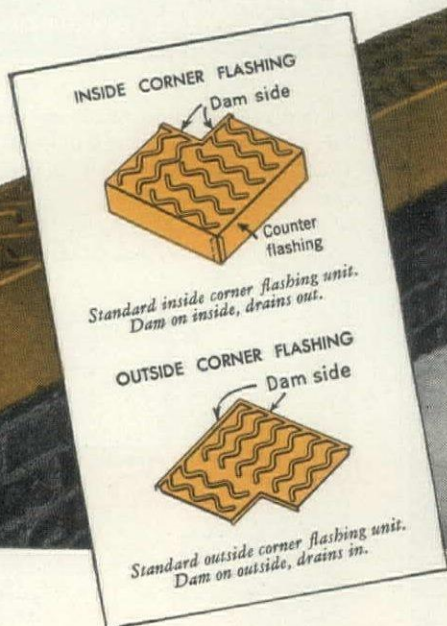
(Continued on page 180)

Plan for extra protection

with

Anaconda

THROUGH-WALL FLASHING



Anaconda Through-Wall Flashing is easily and quickly installed. Specially designed for the purpose, it offers extra protection advantages, and is adaptable to practically every masonry condition and through-wall flashing requirement.

Anaconda Through-Wall Flashing is made of 16 oz. copper—in 5 ft. and 8 ft. lengths—in a range of standard and special widths—including one-piece corner flashings. Bending and cutting can be done on the job.

Although not available today, Anaconda Through-Wall Flashing should be on your list of post-war construction necessities. Send for Publication C-28 or refer to Sweet's Catalog.

ANACONDA THROUGH-WALL FLASHING

—provides drainage in any direction, by means of an integral dam. *Drains dry on a level bed.*

—Zig-zag corrugations, 7/32" high, provide positive bond with mortar in all lateral directions.

—Flat selvage permits neat, sharp bends for counterflashing or locking to adjacent sheet metal without distorting the flashing or interfering with free drainage.

—Is easily locked endwise, even with edges bent, merely by nesting one or two corrugations. Such joints are watertight because of raised corrugations.

4433



Anaconda Copper

THE AMERICAN BRASS COMPANY—General Offices: Waterbury 88, Connecticut

Subsidiary of Anaconda Copper Mining Company • In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.

BUILDING REPORTER

(Continued from page 178)

cluded are bit sizes for head, body and thread of standard screws, nail specifications, and tips on tool sharpening. In addition the calculator is an accurate protractor. It is constructed of heavy, varnished, soilproof cardboard 6 in. in diameter, and should fit into any tool kit.

Manufacturer: Greenlee Tool Co., 2136 12th St., Rockford, Ill.

PLASTIC PATCH for repairing damaged walls before painting.

Name: Plastic Patch.

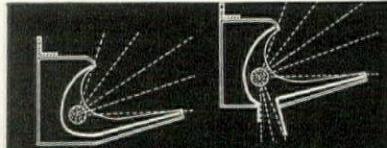
Features: This plastic material is used to repair and re-surface damaged walls and woodwork before painting and enameling. The compound, when brought to a smooth consistency with water, and applied with a putty knife or trowel, does not shrink or crack, and adheres firmly to plaster, wallboard, brick, metal and all painted surfaces. It may be used satisfactorily for patching broken areas in plaster, or for filling cracks and nail holes in plaster, wallboard joints, and woodwork. It can be made water-resistant for patching around sink or tub areas, by first mixing the compound with a water-

resisting varnish or enamel. Available in 1, 2½ and 5 lb. packages.

Manufacturer: Sherwin-Williams Co. Cleveland, Ohio.

GERMICIDAL FIXTURE for schools.

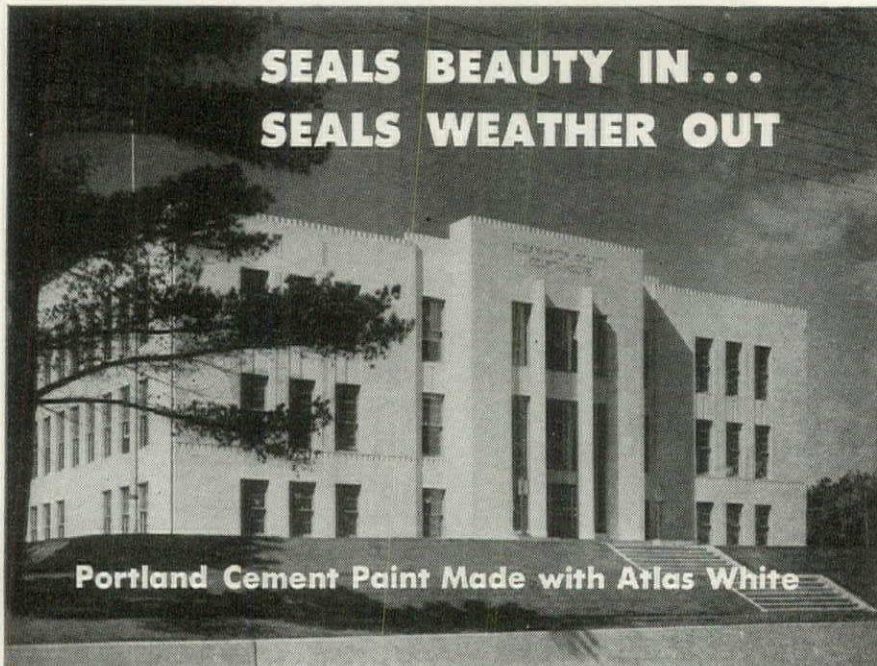
Features: To protect pupils and teachers against air carried disease, combination G.E. UVIARC tube and



special reflector-unit has been designed for safe effective irradiation of ultraviolet rays. It is available in two types, each type in two sizes.

Manufacturer: Edwin F. Guth Co. 2635 Washington Ave., St. Louis 3, M

SEALS BEAUTY IN... SEALS WEATHER OUT



Portland Cement Paint Made with Atlas White

Clearwater County Courthouse, Bagley, Minnesota. Architect: Foss & Co., Fergus Falls, Minn. General Contractor: A. Hedenberg, Duluth. Effectively shielded against weather with a decorative finish of factory-prepared portland cement paint made with Atlas White cement. (Photo courtesy Portland Cement Association)

PORTLAND CEMENT paint made with Atlas White cement is prepared by a number of manufacturers in a wide range of colors. It is furnished as dry powder in conveniently sized packages ready for mixing with tap water on the job.

Penetrating the pores of masonry, this paint forms a lasting bond with concrete, concrete masonry, stone, hollow tile and brick which effectively seals out weather and moisture. It provides a surface which resists dirt and dust, and can be easily cleaned. Frequent repaintings are unnecessary.

Portland cement paint is available in a wide range of colors

which are as lasting as its protective armor. When other than natural white is desired, the base of Atlas White assures full color value to the pigments used.

It is economical in first cost and easy to apply. One pound covers from 15 to 25 square feet of area for the first coat. Second coat covers about 30% more area per pound. Manufacturer's directions for mixing and applying should be followed.

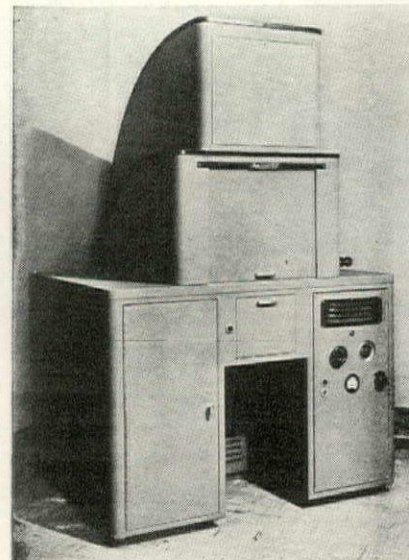
For further information, see Sweet's Catalog, or write to Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, New York.

Factory-prepared paint is preferable

AF-P-3



ATLAS WHITE CEMENT
for PORTLAND CEMENT PAINT



INDUSTRIAL X-RAY UNIT for internal flaw examination.

Name: Norelco Searchray, Model 150

Features: A quick accurate means for non-destructive internal inspection, this industrial X-ray unit discloses flaws, cracks, or foreign matter in aluminum, steel, copper, plastics, hard rubber parts, small electric parts, die castings etc. Easy to operate, the unit is ray proof, shockproof and self-contained. Objects to be examined are placed in specimen compartment and positioned by means of a built-in fluoroscopic screen, before making the radiograph. This eliminates the trial and error method, saves film and time. Other features include a storage cabinet for exposed and unexposed negatives, push

(Continued on page 184)

When You Specify

copper or brass piping
specify

Silbraz* joints

MADE WITH

walseal

VALVES, FITTINGS
AND FLANGES

Wherever you use brass or copper pipe or tubing, specify Silbraz joints made with Walseal bronze valves, fittings and flanges. Silbraz joints assure strong, threadless connections. All Walseal products are made with a ring of silver brazing alloy incorporated in each port. After the pipe has been fluxed and inserted into the Walseal valve or fitting, this alloy ring is melted by heating the bead of the valve or fitting with an oxyacetylene torch. The alloy penetrates both pipe and fitting, making a one-piece pipe line. The Silbraz (silver-brazed) joint is the strongest part of the line — leak-proof, permanent, and resistant to any shock, vibration or corrosive action that the pipe itself can withstand.

In hundreds of applications ranging from severe naval service to building installations, Walseal valves, fittings and flanges have proved their ability to withstand severe punishment.

*Registered Trade Marks

For details on Walseal valves, fittings and flanges, as well as Walworth's complete line of products, write on business stationery for a copy of Catalog 42. Address your request to Dept. 722.



BOSTON WORKS
KEWANEE WORKS

WALWORTH
valves AND fittings

60 EAST 42nd STREET, NEW YORK 17, N. Y.

DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD



VALVES — Walseal bronze valves are made in gate, globe, angle, and check types.

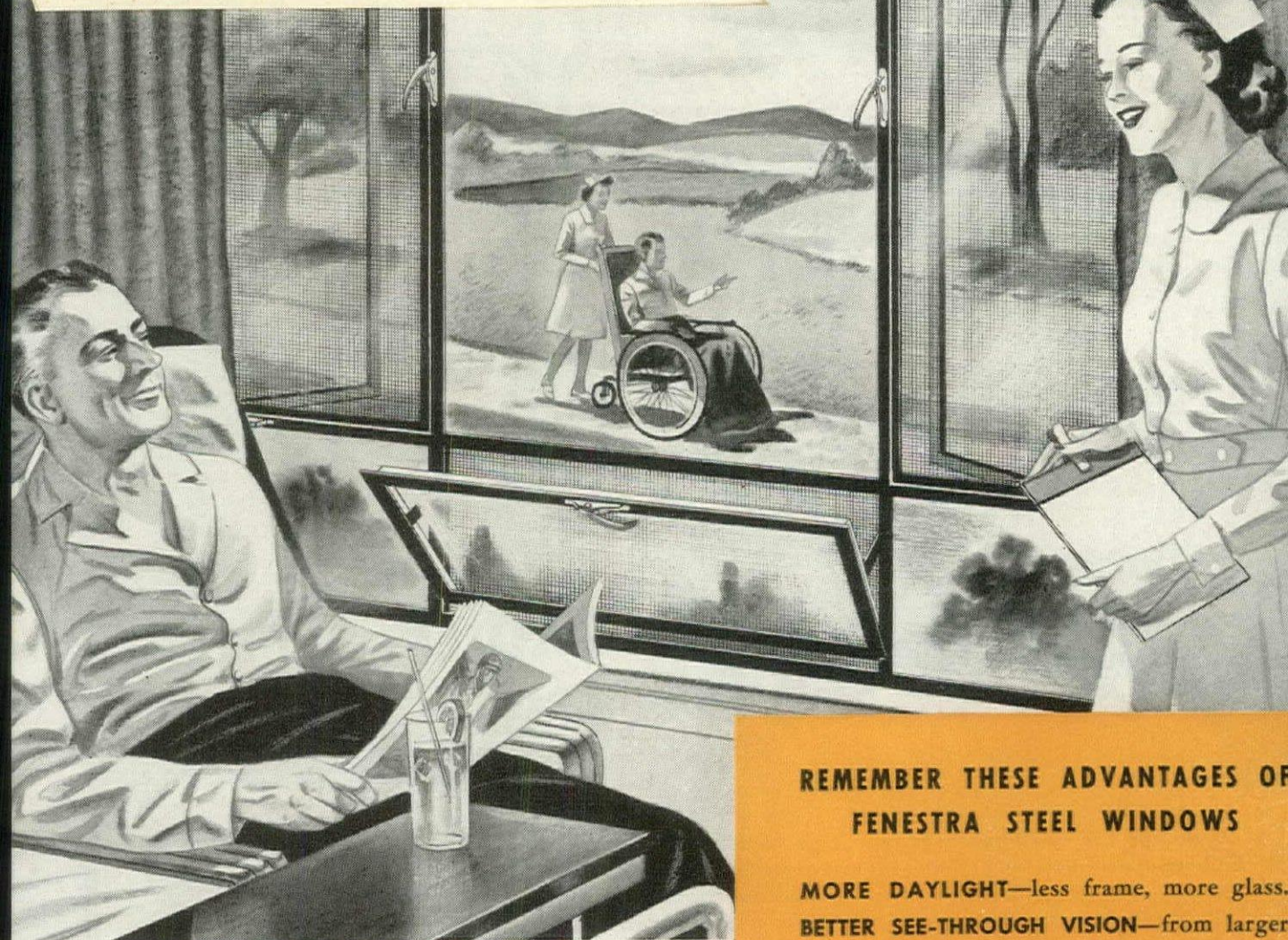


FLANGES — Walseal bronze flanges are made in sizes from 1/4" to 40".



FITTINGS — Walseal bronze fittings are made in all standard types of pipe fittings.

Greater Comfort for Patients ... Through Better Windows



You can count on windows for major help in satisfying your postwar hospital clients.

Use them to provide the cheerfulness, comfort and convenience that mean so much to patients and to the hospital staff—to make your hospital a more efficient, more beautiful building.

Listed at the right are a few benefits of modern windows—factors of real value to anyone who is planning better hospitals. May we have a Fenestra engineer discuss these and many other advantages with you? He'll gladly help you choose the right type of window to fit your particular requirements.

DETROIT STEEL PRODUCTS COMPANY

Now Chiefly Engaged in War Goods Manufacture

Dept. AF-7 • 2252 East Grand Blvd. • Detroit 11, Mich.
Pacific Coast Plant at Oakland, California

REMEMBER THESE ADVANTAGES OF FENESTRA STEEL WINDOWS

MORE DAYLIGHT—less frame, more glass.
BETTER SEE-THROUGH VISION—from larger glass areas.

BETTER VENTILATION—Side vents catch the breezes. Sill vent deflects air upward—provides protection from direct drafts.

EASY OPENING—steel ventilators never warp, swell or stick, and they swing instead of slide.

INCREASED FIRE SAFETY—steel does not burn.

SAFER WASHING—both sides of glass washed from inside the room.

SUPERIOR WEATHER-TIGHTNESS—precision-fitted by craftsmen, they *stay* tight.

GREATER BEAUTY—architectural beauty is accentuated by the neat, narrow lines of the steel frames and by fine hardware appointments.

Fenestra

**HOSPITAL
WINDOWS**

Sakes alive!

NOBODY SEEMS TO KNOW WHEN THIS HOUSE IS COMFORTABLE...



Grandma's complaint will have a familiar ring to Architects and Builders. Central heating cannot satisfy all members of the family. But, after the war, you can specify PAYNE ZONE-CONDITIONING.

Pioneered by PAYNE, improved for tomorrow, Zone-Conditioning is *flexible*. Healthful circulation of filtered fresh air, gas-heated in winter, controlled by *zones or individual rooms*. ★ Not available now; we're concentrating on war production. But PAYNE Dealers have the facts for you. Remember *Zone-Conditioning*.

PAYNEHEAT

NEARLY 30 YEARS OF LEADERSHIP

HELP BATTER THE AXIS . . . WITH BONDS



BACK THE ATTACK



WANTED MANUFACTURERS' AGENTS

In anticipation of postwar building activity, many progressive manufacturers of building specialties are seeking new representatives, domestic and foreign.

THE ARCHITECTURAL FORUM will be pleased to act as intermediary; agents are invited to register their interest.

Address George P. Shutt, Advertising Manager
THE ARCHITECTURAL FORUM
19 West 44th Street
New York 18, N. Y.

BUILDING REPORTER

(Continued from page 180)

button control, stepless kilovoltage selector with 3 direct reading penetration scales, electric timer having a range of from 1 to 20 minutes with 10 second intervals, and a variable filament control with a range of from 5 to 10 milliamperes.

Manufacturer: North American Philips Co., Inc., 100 E. 42nd St., New York 17, N. Y.

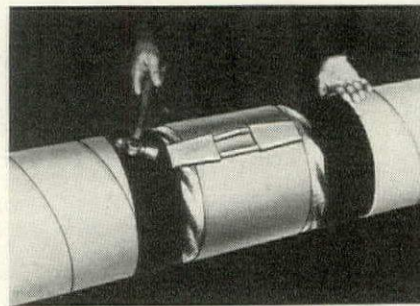
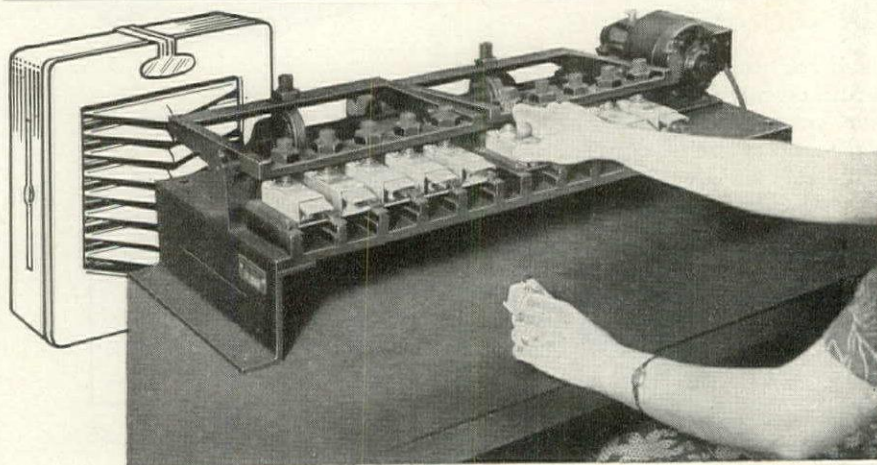
BASIC RESIN for limited commercial and experimental use.

Name: Duralon.

Features: Duralon, a furane derivative, is made from waste agricultural products. It is characterized by the lowest water absorption of any organic resin, insolubility (after activation) in any solvent or combination of solvents, high electrical resistivity, absolute stability in storage and handling, and by ease of workability. A heavy, viscous liquid in its pure form, on incorporation of catalysts and application of mild heat it reverts to an extremely hard, dense substance. With many indicated uses, Duralon's immediate importance is as an impregnant, as a laminating and bonding agent, or as a protective coat-

ing material. It is especially suited for the latter because of its resistance to moisture, insolubility, and versatile surface characteristics ranging from a high gloss to a crinkle finish. Duralon coatings after baking are hard, and while somewhat brittle, show excellent abrasion resistance and utter lack of aging characteristics.

Manufacturer: The United States Stoneware Co., Akron, Ohio.



"RUN IN" LIKE A QUALITY MOTOR CAR . . .

8 EXCLUSIVE FEATURES OF WHITE-RODGERS HYDRAULIC-ACTION TEMPERATURE CONTROLS

1. May be mounted at any angle or position, above, below or on level with control point.
2. Hydraulic-Action Principle incorporating solid-liquid filled bulb and capillary provides expansion force comparable to that of a metal bar.
3. Diaphragm motion uniform per degree of temperature change.
4. Power of solid-liquid charge permits unusually sturdy switch construction resulting in positive contact closure.
5. Heavier, longer-wearing parts are possible because of unlimited power.
6. Dials are evenly and accurately calibrated over their entire range because of straight-line expansion.
7. Controls with remote bulb and capillary are not sensitive to change in room temperature. Accuracy of control is not affected by temperature changes in surrounding area.
8. Not affected by atmospheric pressure. Works accurately at sea level or in the stratosphere without compensation or adjustment.



to assure accurate performance
the moment it is installed

Hour after hour this specially designed cycling machine breaks in White-Rodgers control-switch mechanisms. Each is operated for not less than five hundred cycles to assure smooth, uniform contact action.

Just another reason why White-Rodgers Controls are accurate when you install them—need no recalibration due to flexing of moving parts or seating of bearing surfaces.

Specify White-Rodgers to assure dependability and freedom from trouble.



WHITE-RODGERS ELECTRIC CO.

1292G Cass Ave.

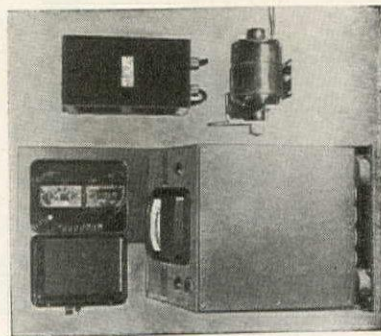
St. Louis, Mo.

Controls for Refrigeration • Heating • Air-Conditioning

COUPLER speeds field assembly of prefabricated insulating conduit.

Features: A drive coupler for making field connections on Ric-wiL prefabricated insulating pipe conduit eliminates the need for skilled workmen, and reduces installation time. The coupler is adaptable to either mechanical or welded closures. For a mechanical connection, after pipe has been coupled or welded and insulation applied, ends of the helical corrugated conduit are coated with waterproof cement. A heavy gauge split connector sleeve is applied over the opening and clamps are driven onto wedge shaped channels over the lapped joint, making a strong watertight mechanical coupling. For a welded closure, cement is omitted and ends of sleeve are lap-welded to conduit after clamps are applied. Clamps are then removed and longitudinal seam lap-welded.

Manufacturer: Ric-wiL Co., 1572 Union Commerce Bldg., Cleveland, Ohio.



CRANE STABILITY GAUGE for use on boom-type cranes.

Features: This crane-stability gauge has been designed to safeguard boom-type cranes and similar equipment by continuously and accurately measuring

(Continued on page 186)

TAME WILD FLAME



SHEETROCK *Fireproof WALL AND CEILING PANELS*



Fire is a monster. Every minute—every hour, it seeks more homes to devour—Every day it stalks its prey—Tinder-wall materials are tender morsels marked for the kill. But what may be deadly fire risks with some materials are dangers that can be overcome by using Sheetrock*, the fireproof wallboard... a product made from gypsum that cannot burn... the one mineral best qualified to "Tame Wild Flame."

With Sheetrock, a fire-armor is formed that protects the building framework and fights a "delaying-action"—

holds fire at bay until help arrives.

So when you build or remodel with Sheetrock, you specify greater safety and beauty too, because the surface of Sheetrock processed wall and ceiling panels will take any form of decoration or may be purchased already finished in pastel shades or wood grain effects.

Sweeping, unbroken surfaces are produced with joints welded and concealed by Perf-A-Tape*—or beveled edges matched to produce joints that form part of the decorative scheme.

Many advantages are all combined in one board and said in one word, "Sheetrock," the best known name in Gypsum Wallboard.

*Trademarks Reg. U. S. Pat. Off.



UNITED STATES GYPSUM

Manufacturers of Building and Industrial Products Since 1901

GYPSUM • LIME • STEEL • INSULATION • ROOFING • PAINT

BUILDING REPORTER

(Continued from page 184)

their stability against handling loads in excess of the rated capacity at a given radius. It also insures against extending the boom to an excessive radius for a given load. Its use eliminates dependence on the operator's judgment, and permits maximum use of the crane. The complete gauge consists of a strain gauge and an accompanying balancing unit, an indicating unit, a constant-voltage transformer, and a boom-angle com-

pensator. The gauge measures degree of crane stability by deterring the amount of deformation in the structural member of the crane upon which a strain gauge is mounted. Any variation in the member changes all air gap in the strain gauge, and this change causes a deflection to register on the indicating panel. Instruments mounted on the sloping of the indicating unit signal when power is on, and when crane reaches unsafe limits of operation.

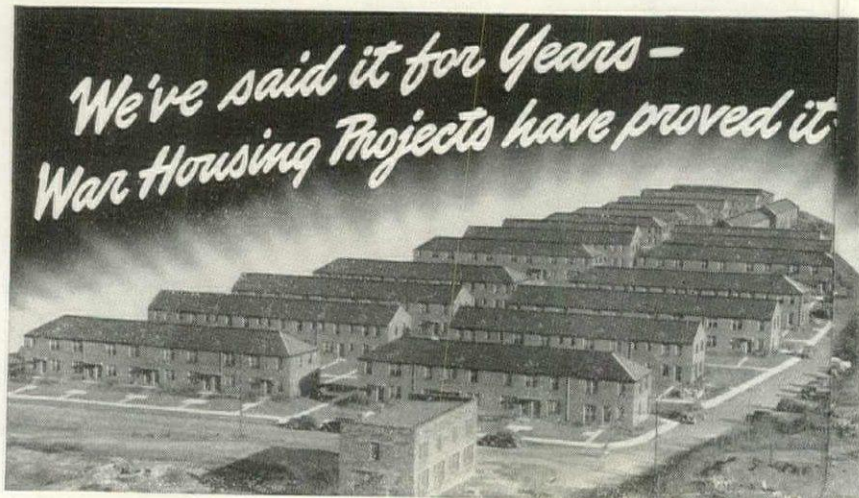
Manufacturer: General Electric, Schenectady, N. Y.

OXIDE SOLVENT removes rust and scale.

Name: Rozene.

Features: Effective for cleaning all metals, this solvent simultaneously dissolves oxides and loosens rust scale by rapid penetration. It can also be used to loosen frozen bolts and nuts. A non-inflammable material, Rozene is safe to use and handle, leaves surfaces chemically clean, increases paint bond, and does not harm rubber or bakelite. Most plastics or painted articles are not affected unless immersed for a long time.

Manufacturer: M. B. Price Assoc., Empire State Bldg., New York, N. Y.

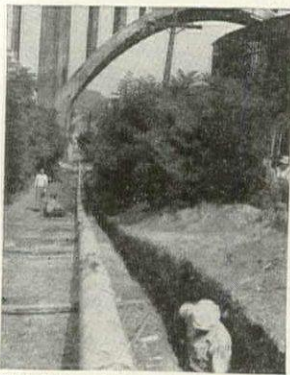


*We've said it for Years -
War Housing Projects have proved it*

CENTRAL HEATING IS THE IDEAL SYSTEM FOR THE MODERN COMMUNITY

Mark up another contribution of the war toward better living in the future! Intelligent post-war community planning now fully recognizes the advantages of central heating: making it possible to purchase heat as a commodity like gas, electricity, or city water at savings of 15% or more: A powerful impetus has been given to this movement by the experience of central heating in war housing developments. The Elizabeth Park Housing Project in Akron, illustrated above, is a case in point.

RIC-WIL CONDUIT CONNECTS DWELLINGS TO CITY STEAM MAINS 2000 FT. AWAY



Welded into a single piece 700 feet long, this pipe was lowered into the shallow trench beside it, a section of the 2000 foot connection to the city main.

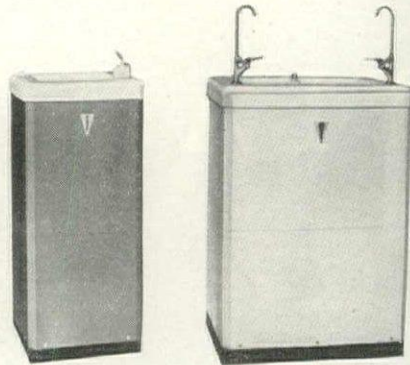
This project, comprising 276 family units is heated by steam supplied by Ohio Edison Company, Akron, Ohio utility. In addition to the 2000 feet of Ric-wil Insulated Pipe Units connecting the project to the city mains, another 7000 feet are used for steam, return and hot water lines on the project itself. Conduit was furnished complete with prefabricated field accessories and installed in record time—with minimum interference with other construction. The completed piping system is efficient, dependable and maintenance-free, enabling the utility to serve the project with steam at rates considerably under the cost of individual heating plants.

ANY COMMUNITY CAN ENJOY THESE ADVANTAGES:

- Savings of 15% or better in overall fuel consumption.
- Elimination of furnace or boiler tending by consumer.
- Promotes cleanliness in buildings heated.
- Provides extra room in building basements.
- Decreases fire and explosion hazard.
- Reduces smoke and soot, provides cleaner, healthier community.
- Eliminates private coal delivery and ash removal.
- Gives uniform, clean heat quickly, whenever needed.

For information about Ric-wil Conduit for central heat distribution get in touch with your nearest Ric-wil agent or write to us direct.

RIC-WIL INSULATED PIPE CONDUIT SYSTEMS
THE RIC-WIL COMPANY · CLEVELAND, OHIO
AGENTS IN PRINCIPAL CITIES



WATER COOLERS for commercial and cafeteria uses.

Name: Oasis Model VLP-10B (lft), Oasis Model RC-20 (rgt).

Features: These electric water coolers of the pressure bubbler and the cafeteria glass filler types are ruggedly constructed, have quick cooling capacity and large reserve storage space. Cabinets are fabricated of rust and corrosion resisting steel and the lower half of the front panel is removable for servicing. Their completely sealed precoolers are of the efficient counter flow type. Liquid refrigerant is controlled by an automatic adjustable expansion valve, and water temperature is maintained by an adjustable automatic thermostatic switch. The bubbler valve on Model VLP-10B is a combination self-closing push-button type. A removable plastic cap on this model provides for quick field installation of the glass filler. Cabinet dimensions of the bubbler model are: width 17 in., depth 17 in., height 40 in. It has a capacity exceeding 10 gals. per hr. cooled from tap temperature of 90°F. to drinking temperature of 50°F. in a 100°F. ambient room temperature. Storage capacity is 15 qts. The cafeteria model is 28 in. wide, 24 in. deep and 42 in. high. Its supply capacity exceeds 40 gals., of 50°F. drinking water in two hrs., when operating under the same conditions as the bubbler type. Storage capacity over 10 gals.

Manufacturer: The Ebco Mfg. Co., 401 W. Town St., Columbus 8, Ohio.

(Technical Literature, page 188)

HI-FIRBOX TYPE "C"

KEWANEE

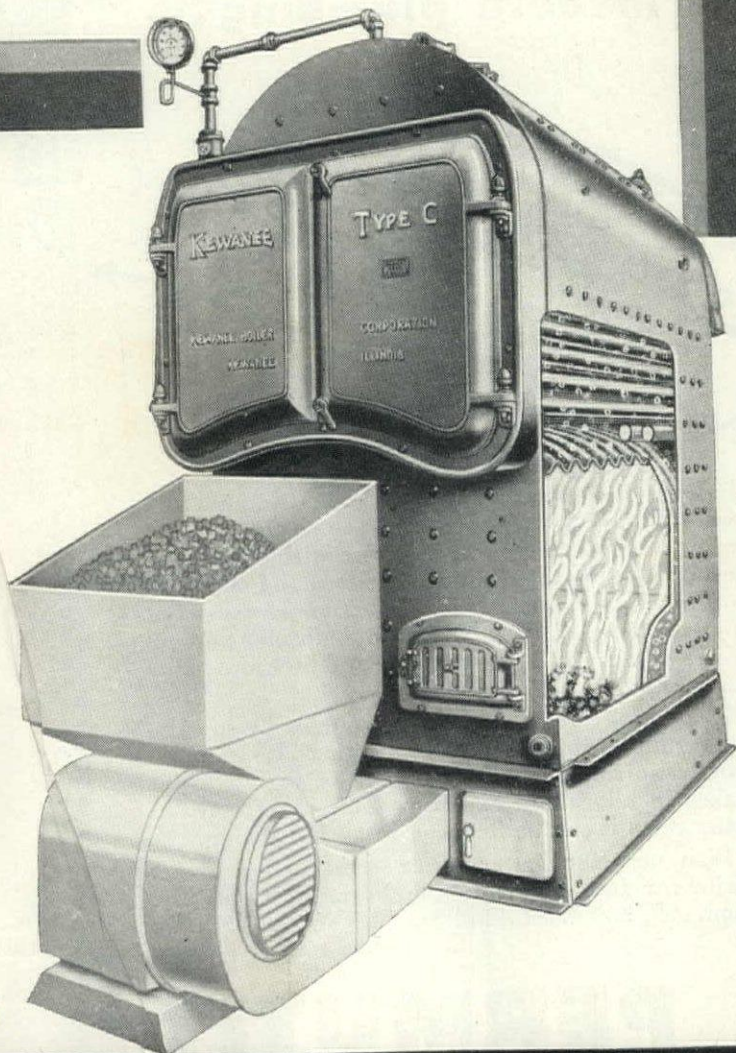
Gets the best From Any Good
STOKER, OIL & GAS BURNER

SPECIALLY DESIGNED for Stoker or Oil and Gas Burning or fitted with grates for Hand Fired Coal conversion. With extra height in the firebox, the blazing fuel has ample room to mix with air and burn. Combustion is complete *before* any hot flame can impinge on the comparatively cooler water surfaces.

THE CORRUGATED CROWN SHEET... right-side-up and self draining... adds strength and provides *extra heating surface* directly over the hottest part of the fire.



75 YEARS BOILERMAKERS



KEWANEE BOILER CORPORATION

KEWANEE, ILLINOIS

Branches in 60 Cities—Eastern District Office: 40 West 40th Street, New York City 18

Division of AMERICAN RADIATOR & Standard Sanitary CORPORATION

TECHNICAL LITERATURE

INSULATION. *Insulation News*, 6 pp., 3½x6¼. Concise folder gives advantages, characteristics and application data for "Lo-K" cotton insulation. Resistance to moisture and combustion and practical, economical uses are also discussed. A chart compares the high insulating value of cotton insulation with various other insulation materials. Lockport Cotton Batting Co., Lockport, N. Y.

AIR CONDITIONING. *Carrier Air Conditioning Has Been a Production Tool for Industry Since 1902*, 8 pp., 8½x11. A wide range of equipment for temperature and humidity control, refrigeration, and industrial heating is presented for easy reference in handbook style. The discussion covers temperature control for heating and cooling, humidity control for humidifying and dehumidifying, air circulation and air cleaning and purifying. The necessary and auxiliary equipment required for a given job

is listed. Specific units are explained both illustrations and text. Carrier Corp., 205 E. St., Syracuse, N. Y.

DOORS. *Kinnear Rolling Doors*, 40 p., 11x11. Complete booklet describes the types, electric operation and controls, action features, types of installations and accessories, operating methods, specifications, etc. steel rolling service doors, fire doors and window shutters, Rol-Top sectional overhead and rolling metal grilles. How these solve unusual problems is also discussed illustrated. The Kinnear Mfg. Co., 320 E. Ave., Columbus, Ohio.

MODELS. *How to Make Patterns and Models With Gypsum Cement*, 47 pp., 8½x11. Pictorial step-by-step description tells how gypsum cements are being used in production patterns and models for the aircraft metal

industries. The several stages in the period of plasticity of gypsum cements that make them suitable to pattern and model work are illustrated, and equipment required for pattern shops is shown and explained. The five basic methods of making patterns are described and the procedures by which patterns and models are made with gypsum cements are illustrated. Various types of Hydrocol gypsum cements are also explained. United States Gypsum Co., 300 W. Adams St., Chicago 6, Ill.



WASHERS. *Display Can Do a Better Job*, 10 pp., 22x14. Folder of attractive, colorful, architectural drawings shows backgrounds and floor layouts for improved display of Easy Washing Machines. The drawings, aimed at the storeowner, show him how best to play up the advantages of these washers. Space saving methods, convenience of use, etc., as applied to the home laundry are illustrated. The drawings are also helpful in showing how store demonstrations can be given with proper facilities, and how sales of allied merchandise can be a part of the washer sale when all merchandise is presented and demonstrated together. Easy Washing Machine Corp., Syracuse 4, N. Y.

ROOFING. *Asarco Roofloy*, 4 pp., 8½x11. An informative and useful presentation on Roofloy, the lead alloy roofing material. It illustrates methods of application and handling, and contains detailed drawings of common installations. American Smelting and Refining Co., Lead Products Div., New York 5, N. Y.

CAULKING. *Weatherproof Caulking with Minwax Caulking Compound—Weathercap*, 8 pp., 8½x11. Bulletin contains comprehensive and valuable information on Minwax Caulking materials and Minwax Weathercap. Types of compounds are listed with recommendations for their use. Shapes, sizes, and installation of Weathercap are also explained. This product is a formed strip of lead which overlaps the masonry joint to provide a seal for joints in copings, etc. Buildings where products have been used are illustrated, as well as types of Weathercaps and installations. Minwax Co., Inc., 11 W. 42nd St., New York 18, N. Y.

WINDOWS—DOORS. *Bayley—Windows—Doors—Operators*, 31 pp., 8½x11. An informative catalog which covers the features, specifications and installation details of pivoted, projected, security, casement, continuous, guard and psychiatric window types. Detailed drawings show installations, ventilation, etc. Layouts for the different types of windows are also included. A utility guide illustrates the different models and offers recommendations for their use. Hardware, glazing, screens, operators, etc. are also illustrated and explained. Different types of industrial steel doors are also illustrated with layouts and details. The William Bayley Co., 1200 Warder St., Springfield, Ohio.

PLYWOOD. *Beautiful Wood for Beautiful Homes—With Weldwood*, 15 pp., 8¼x10½. This elaborate brochure is illustrated with full-color reproductions of wood-walled rooms. Advantages, descriptions, and illustrations of various kinds of plywood, together with room designs by prominent architects are included. Illustrations trace Weldwood panels from the tree through manufacture and installation of panels to the finished room. The Mengel Co., Louisville, Ky.

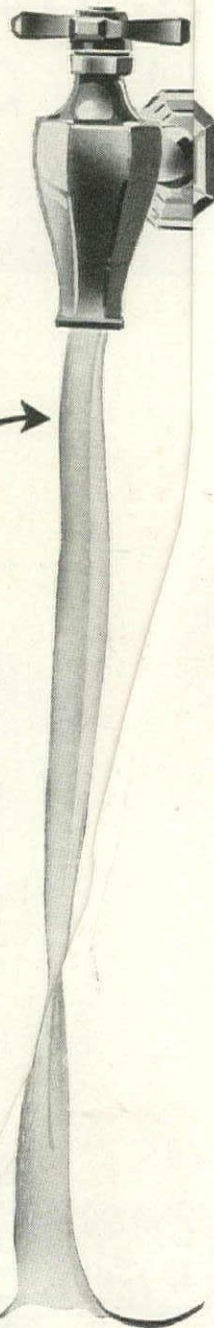
CATERPILLAR PRODUCTS. *The Complete Line of Caterpillar Products*, 20 pp., 8¼x10½. This manual illustrates the complete line of "Caterpillar" diesel engines, tractors, and road machinery for earthmoving, agriculture, logging, mining, oil fields, and other power jobs. The important jobs these machines are doing are illustrated and described. Caterpillar Tractor Co., Peoria 8, Ill.

REQUESTS FOR LITERATURE

Technical Div. of the Metal Lath Manufacturers Assn. would like to receive data, catalogs, and samples for a complete A.I.A. file.

When you specify modern plumbing...

SPECIFY MODERN WATER TOO!



Modern conveniences and hard water simply don't mix well. Hard-water scale will soon ruin the best piping and heating coils, interfere with the operation of household equipment, hasten the depreciation of house values. Hard-water homes must put up with unsanitary deposits in bathtubs and on dishes, skimpy suds, wasted soap and fuel, and many other discomforts.

Architects can prevent these troubles by specifying Permutit* Home Water Conditioner. It's a simple unit, requiring little attention. The big saving it makes in household expenses soon pay for it. In many cases it can be financed in an FHA loan.

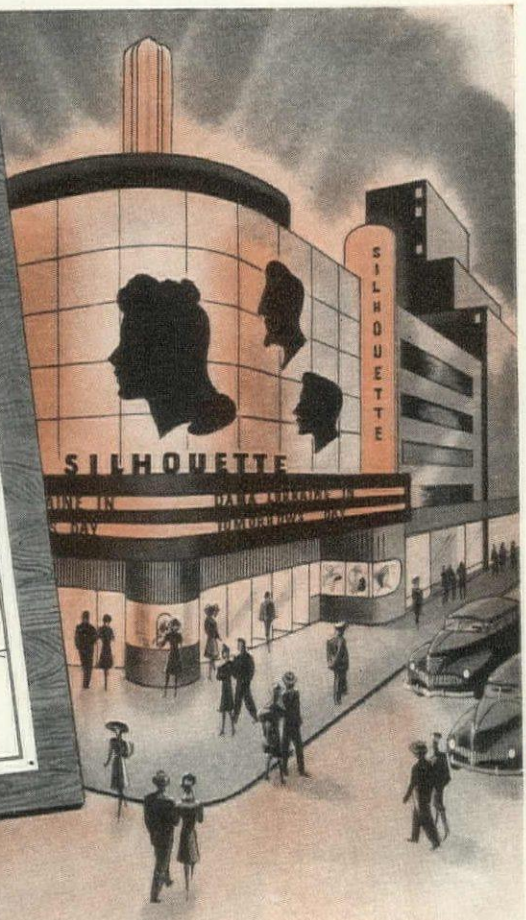
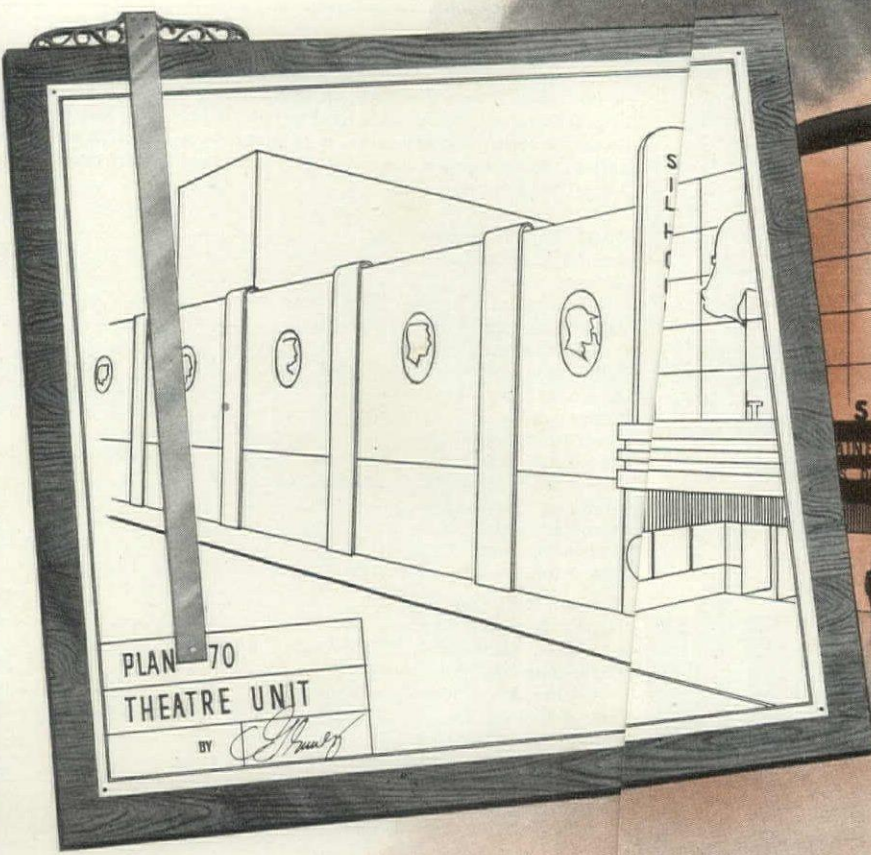
Plan now for better water—and better living. Write for full details to the Permutit Company, Dept. AF, 330 West 42nd St., New York 18, N. Y.

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The Home appliance that turns hard water into SOFT WATER!



Tomorrow's "Box-Office" Appeal is on Architects' Drawing Boards *Today*

Theatre management knows that "box-office" appeal depends almost as much on the theatre-goer's comfort as upon the film itself. They know, too, that postwar theatres without air conditioning will be as unpopular as silent films—and patronized as little.

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SPECIFICATION A

The advertising pages of THE ARCHITECTURAL FORUM are the recognized market place for architects and all others engaged in building. A house or any building could be built completely of products advertised in THE FORUM. While it is not possible to certify building products, it is possible to open these pages only to those manufacturers whose reputation merits confidence. This THE FORUM does.



All great projects were first conceived in the mind of some individual and then translated to paper in terms of mechanical drawings, specifications and engineering data.

The planning of window assemblies on line installation, for prefabricated homes or contractors requirements, can well begin now.

And in such planning the Grand Invisible Sash Balance, due to its many commendable features and war-proved satisfaction and dependability, should be a definite part.

Engineering
Service



To assist manufacturers of window assemblies with the speedy, economical and dependable installation of window and sash hardware, Grand Rapids Hardware Company offers a trained and competent engineering service to work with them right on the spot — to detour the pitfalls of inexperience and to speed production in busy plants. These men can be of assistance to all who are beginning their window planning now. Their services are offered without charge or obligation.



Sash pulleys will be available as soon as materials are released.

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SIX STEPS OF PROTECTION IN THE PUBLIC INTEREST

... (2nd of a Series)

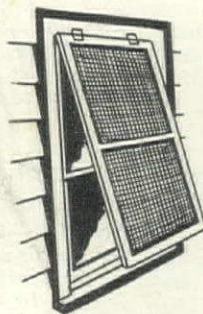


“Gentlemen . . .
these standards
will endure!”

There was nothing dramatic or spectacular about that meeting of the NDMA Advisory Committee in 1937. But the standards which the committee set up were designed to benefit generations of architects, builders and home owners. For these standards established, for the first time, minimum specifications for the toxic preservative treating of building woodwork . . . treatments which supplement the natural lasting qualities of wood products such as windows, doors, frames, screens and storm sash.

Ever since this country was founded, wood—warm, lasting, durable wood—has been a chosen building material. Today, the toxic preservative standards set up by the NDMA—based on the recommendations of leading technological authorities—provide public assurance that wood will continue to demonstrate its long life, its enduring value, in the homes of America.

The NDMA Seal of Approval—available by license to all manufacturers and distributors who conform to the toxic preservative standards of the NDMA—represents these six steps of protection:



1. An efficient test for measuring effectiveness of toxic preservatives
2. Minimum standards governing the toxic preservative treating of woodwork products
3. A seal identifying products treated in conformity with NDMA Toxic Preservative Standards
4. Mill inspection of treating equipment and practices
5. Laboratory check-tests of preservative solutions
6. Educational effort in the public interest

NATIONAL DOOR MANUFACTURERS' ASSOCIATION
McCORMICK BUILDING - CHICAGO, ILLINOIS



Information Please!

QUESTIONS AND ANSWERS ABOUT
DOUGLAS FIR PLYWOOD
—your most versatile building material

QUESTION—What are the Standard Types of Douglas fir plywood?

ANSWER—Douglas fir plywood is manufactured in two standard types—moisture-resistant and Exterior.

QUESTION—What is the basic difference between these two types?

ANSWER—In the moisture-resistant types plies are held together almost always by protein glues; in the Exterior type the veneers are bonded together with a synthetic resin that is completely and permanently waterproof.

QUESTION—Where should Exterior types be used?

ANSWER—For all permanent outdoor uses, such as for house siding, marine construction, or garden furniture; and for interior uses where conditions of extreme humidity may apply, as, for instance, in a shower room.

QUESTION—Are moisture-resistant grades intended only for interior uses then?

ANSWER—In general, yes. However, certain grades of this type may be used for wall and roof sheathing, or sub-flooring, which are not strictly interior uses. Furthermore, a special grade of moisture-resistant type (see below) is made for use as concrete form material.

QUESTION—Within these types, how many grades are offered?

ANSWER—Moisture-resistant type plywood is available in four grades—Plypanel (in two appearance grades) for paneling cupboards and other built-ins; Plywall for walls, ceilings and partitions; Plyscord for sheathing and sub-flooring; Plyform for concrete forms. Exterior type is available in several appearance grades similar to those offered in the moisture-resistant type. Sound 2 Side and Sound 1 Side are the most popular.

QUESTION—How can I be sure of getting a particular type or grade of Douglas fir plywood?

ANSWER—All standard types of Douglas fir plywood are "grade trade-marked." Every panel is stamped for easy identification. The various official grade trade-marks are pictured at the right.

QUESTION—What are the performance tests for Douglas fir plywood?

ANSWER—All Douglas fir plywood must meet the rigid performance tests outlined in Commer-

cial Standard CS-45-42, published by the Bureau of Standards of the U. S. Department of Commerce.

QUESTION—What is the test for Exterior type Douglas fir plywood?

ANSWER—Random samples taken from production runs are subjected to the boiling test described in CS-45-42. Briefly, they are boiled in water for four hours; dried for 20 hours at high temperature; boiled another 4 hours. While still wet samples are mechanically pulled apart in a glue-line testing machine. Examination of the specimen must show that the bond between the plies is stronger than the wood itself.

QUESTION—What about tests for moisture-resistant types?

ANSWER—Naturally they are less severe. They require that samples must retain their form and most of their strength when occasionally subjected to cycles of thorough wetting and drying.

QUESTION—What technical data concerning Douglas fir plywood is available?

ANSWER—The Engineers Handbook, "Technical Data on Plywood," is available without charge from the Association. Issued as a loose leaf binder, the Handbook now contains 7 sections. Additional sections are in preparation and will be mailed subsequently to all mailing lists. A handy Wall Chart showing standard Douglas fir plywood thicknesses, lengths and widths by types and grades is also available upon request. See Association catalog in Sweets Architectural files.

QUESTION—What other sources of information are there?

ANSWER—Specific technical questions about Douglas fir plywood will be answered by the engineering and research staff of the Douglas Fir Plywood Association.

QUESTION—Is Douglas fir plywood available now?

ANSWER—Because of its many advantages, Douglas fir plywood is being used extensively in all types of war production. For the present, Douglas fir plywood is allocated by the War Production Board only for direct war uses. When the need is less urgent, Douglas fir plywood will again be available to help you build better structures—faster.

DOUGLAS FIR PLYWOOD ASSOCIATION
Tacoma 2, Wash.

Official
Grade Trade-Mark

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These words appear on the edge of every genuine PLYPANEL grade panel.



This stamp appears on the face of every genuine PLYSCORD grade panel.



This stamp appears on the face of every genuine PLYFORM panel.



This mark is stamped on the back of every genuine PLYWALL panel.

EXT. - D.F.P.A.

TRADE MARK REG. U. S. PAT. OFF. PEND.

These words appear on the edge of every panel of genuine EXTERIOR type Douglas Fir Plywood indicating that it is suitable for permanent exterior use.

