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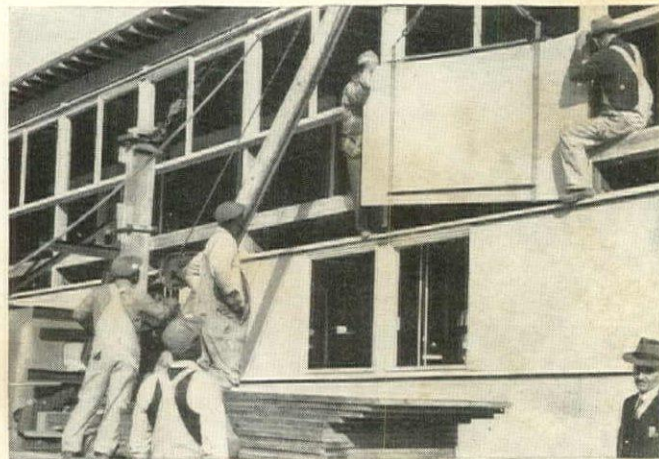
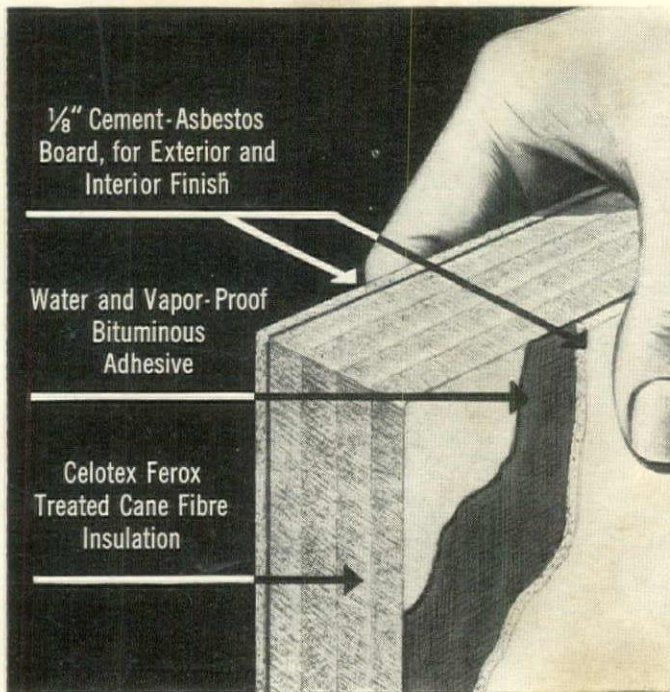
THE ARCHITECTURAL FORUM

FEBRUARY 1944

AVAILABLE NOW!

CEMESTO...

**The Proved New Multiple-Function Building Material
That Meets All Today's Needs for Faster, Lower Cost Construction**



A typical example of Cemesto units used for exterior walls. Cemesto is also used for interior partitions, for conditioning rooms, and for roof decks—truly a multiple-function material of many applications.

STRUCTURAL STRENGTH!

INSULATION!

VAPOR-SEAL!

PERMANENT!

ECONOMICAL!

► CEMESTO, the revolutionary building material, has proved its efficiency in more than 50 million dollars' worth of completed home, war-housing and factory construction.

Now it is available for general essential construction! And 12 years of research plus actual wartime use has proved that Cemesto is ideal for use in any climate, under every kind of weather condition.

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SEND COUPON FOR NEW CEMESTO BOOKLETS

These booklets on Cemesto and Cemesto construction are now ready. They contain full information and illustrations for use of Cemesto in today's building plans. Send for your copies, today.

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☐ Cemesto with wood framing. ☐ Cemesto with steel framing.

Name

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Since January 1, 1943, TIME, LIFE, FORTUNE and THE ARCHITECTURAL FORUM have been cooperating with the War Production Board on conservation of paper. During the year 1943, these four Time Inc. publications used 14,600 fewer tons (580 Freight-car Loads) of 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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VOLUME 80—NUMBER TWO

MICHAELS

"Time-Tight"

EXHIBIT CASES

**COMBINE STYLE,
DISTINCTION AND
UTILITY!**



The Military Museum in the State Archives and History Building, Montgomery, Alabama, is illustrated above. This picture shows various types of Michaels Time-Tight Cases with exclusive inner-locking frames. There are many other styles, too. Michaels Cases not only combine style, distinction and utility, but display exhibits to the best advantage. ¶ At the present time, Michaels' entire resources are devoted to war work, but it is not too soon to be thinking about and planning for the time when Time-Tight Exhibit Cases will again be available. Fully illustrated literature will be sent on request.

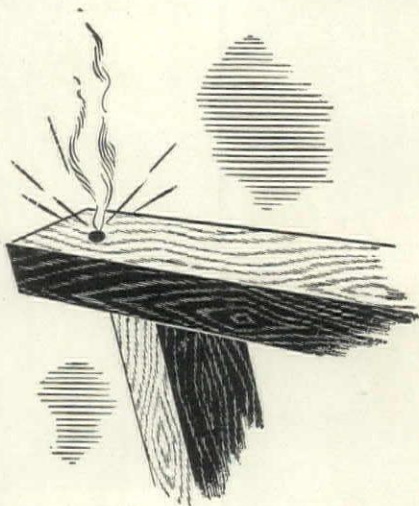


MUSEUM CASE DIVISION OF

THE MICHAELS ART BRONZE CO., Inc.

Manufacturers since 1870 of many products in Bronze, Aluminum and other Metals

COVINGTON, KENTUCKY



THE SPARK THAT GOT A COLD SHOULDER

This spark was a persistent little guy, glowing around just looking for a place to light and start trouble. It came to rest on a certain wood beam . . . but here it got the cold shoulder. Discouraged, it finally flickered out, leaving nothing to be remembered by.

Behind this small episode is the big story of an advantage Du Pont Chromated Zinc Chloride holds over one of wood's enemies—*fire*.

A certain amount of resistance to fire has always been known as a

characteristic of "CZC"-treated wood. It has only been recently, however, that standards have been developed that make it possible to determine the degree of fire resistance which can be imparted to wood by this chemical treatment. This information, developed by the Underwriters' Laboratories, is available in report form to those who are concerned with specifying materials of construction.

Of course, "CZC" possesses other advantages that make it the

all-round wood preservative for modern construction. It resists decay, repels termites. It is paintable, odorless and clean to handle.

You'll do well by your buildings and clients when you investigate "CZC" treatment for all wood that is expected to give long service and low maintenance cost. Write E. I. du Pont de Nemours & Co. (Inc.), Grasselli Chemicals Department, Wilmington 98, Delaware.

Let's All Back the Attack!

DU PONT CZC

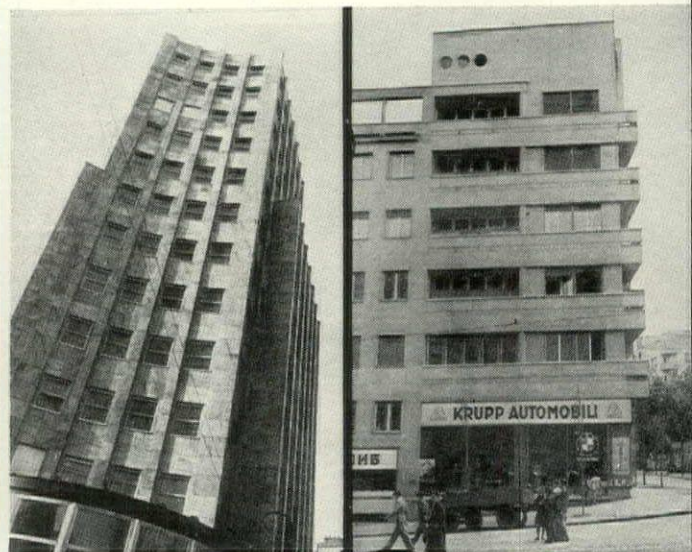
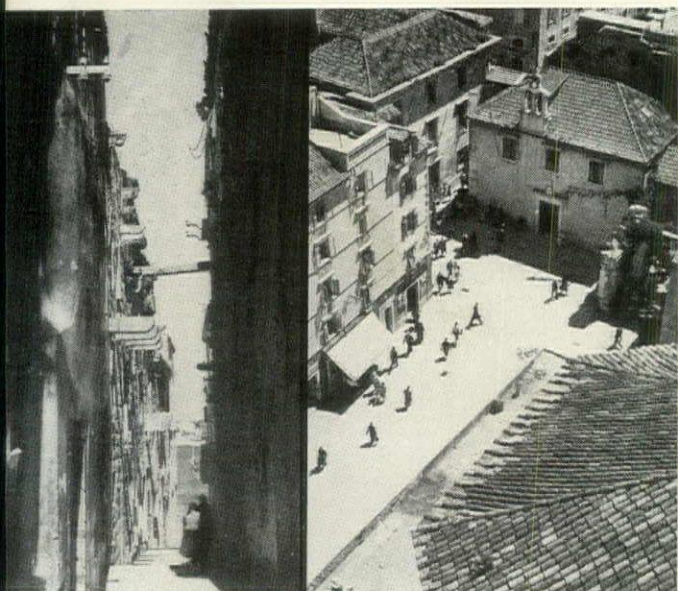
CHROMATED ZINC CHLORIDE

Makes Wood Resist Decay—Repel Termites—Retard Fire



BETTER THINGS FOR BETTER LIVING...THROUGH CHEMISTRY

FORUM OF EVENTS



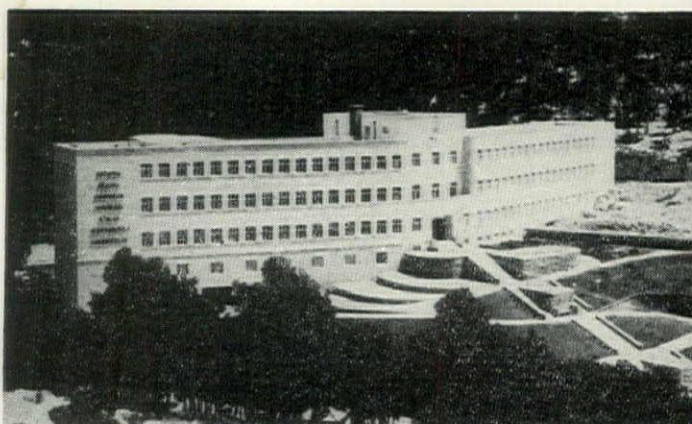
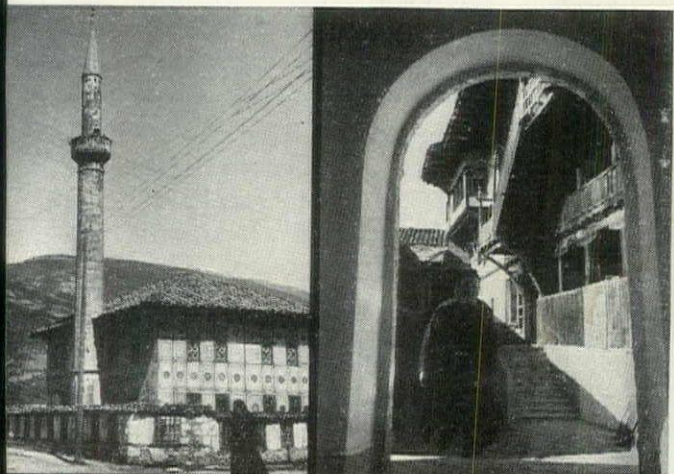
BELGRADE HAS MODERN SKYSCRAPERS AND APARTMENTS

ARCHITECTURE'S MELTING POT

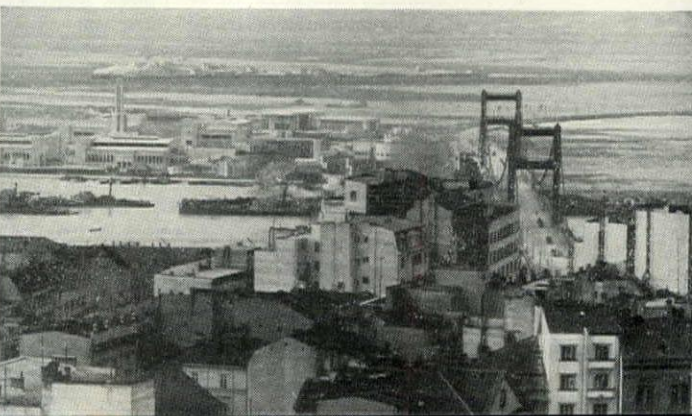
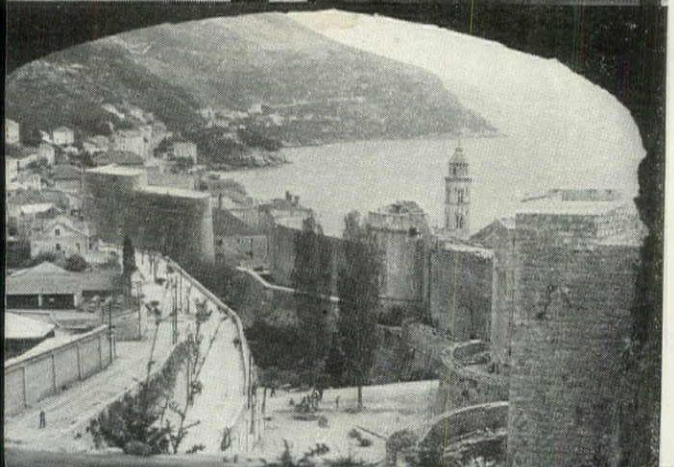
Of all the Nazi occupied countries, Yugoslavia is most in the news and least known as a place. When American troops land there many will wonder that geography books ever classed it as a European country. Veiled women, bearded priests, towering minarets contribute eastern flavor. But that isn't all. In crumbling old towns held to the hillside by fortress-like retaining walls are some of the most modern schools and office buildings in Europe. No record could express more vividly Yugoslavia's contradictory political, social and cultural currents than does its building pattern.

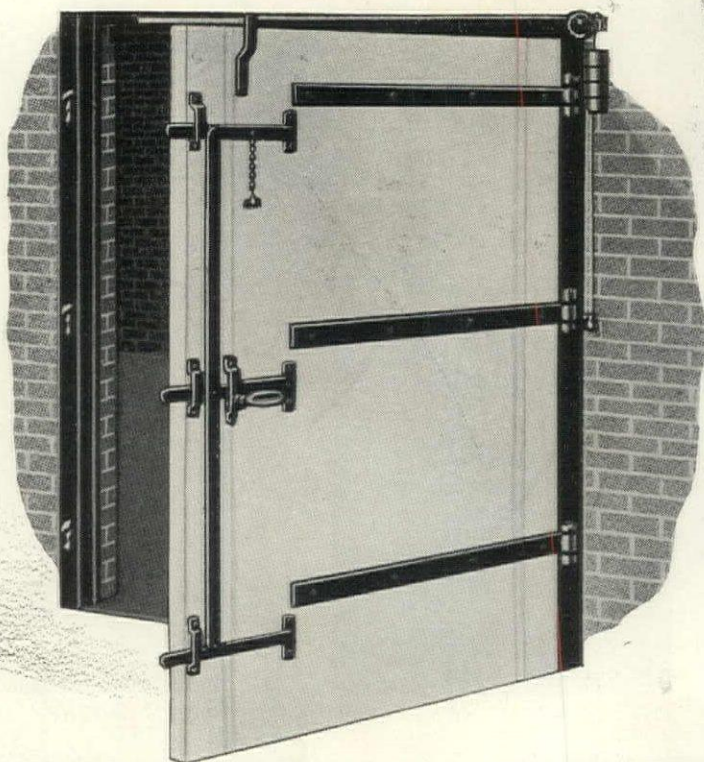
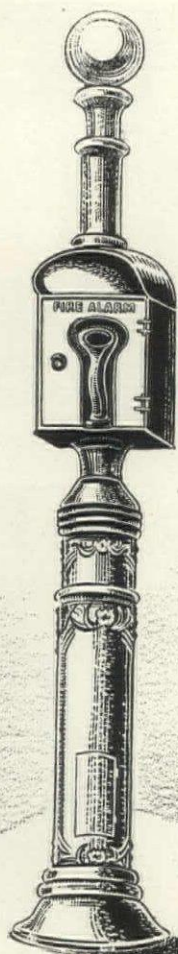


POSTOFFICE IN BELGRADE BUILT JUST BEFORE THE WAR



MODERN SCHOOL AT SIBENIK BUILT ON RUGGED HILLSIDE





Ready to Act when Fire **STRIKES**

The NEW Richmond Fyrgard Door goes into action immediately

Millions of dollars go up in flame each year through spreading fires . . . precious man hours, vital to victory, are lost while repairs are made. Take no chances with this threatening menace. Protect all interior areaways with the NEW Richmond Fyrgard Door.

Designed to fit any specification, they meet the strictest Underwriter and Building Code laws. Can still be obtained in single or double automatic

swing doors and level or inclined track sliding doors. Heavy #24 gauge galvanized steel with vertical cap seams of #22 gauge steel covers 3-ply white pine core — tongued and grooved. Flush galvanized sheets of the NEW Richmond Fyrgard Door eliminate all horizontal seams, — make a sturdier, better looking door.

Use this safe, economical way of protecting your property and production against spreading fires. Write today for further details of the NEW Richmond Fyrgard Door or see our catalog in Sweet's.

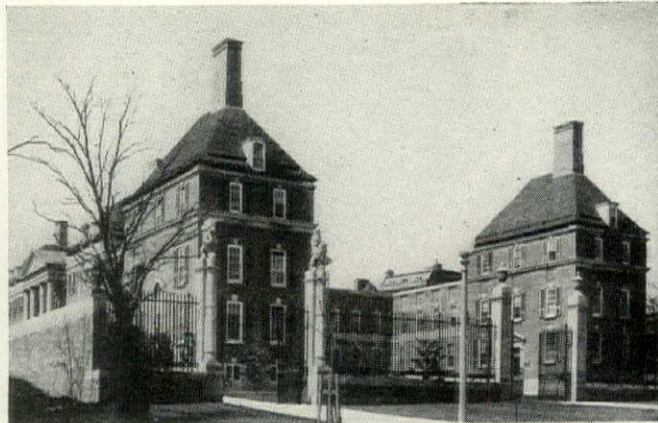
The Richmond FIREPROOF
DOOR COMPANY

(Affiliated with the Peelle Company, Brooklyn, N. Y.)

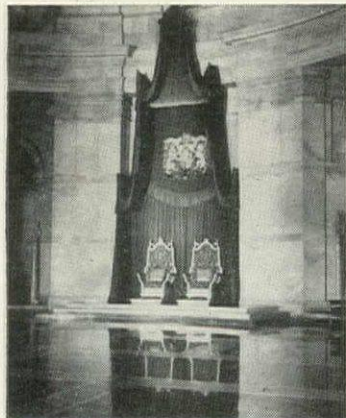
RICHMOND, INDIANA



BRITISH GOVERNMENT BUILDING, NEW DELHI, INDIA



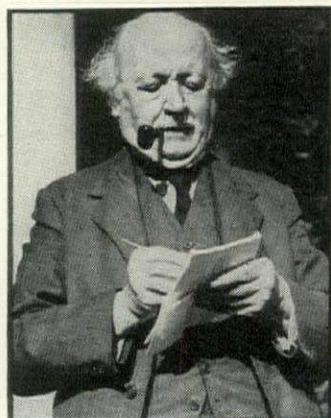
THE BRITISH EMBASSY BUILDING, WASHINGTON D. C.



THRONE ROOM, NEW DELHI



THE CENOTAPH IN LONDON



A.P.

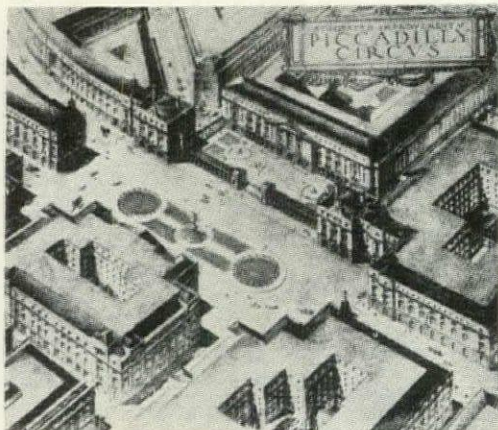
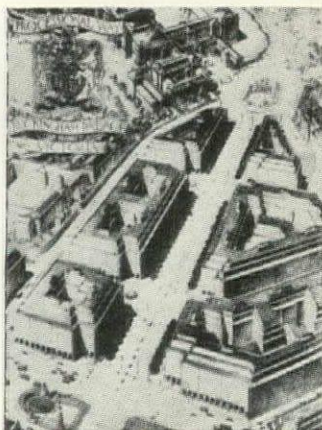
SIR EDWIN LUTYENS

England's foremost architect and president of the Royal Academy, died in London on New Year's Day. He was 74 years old.

Through many years of practice he expressed in his work the lofty tradition of the British Empire, carrying on Sir Christopher Wren's approach to English architecture. This dignified conservatism was officially justified by the fact that Sir Edwin's work was largely comprised of government buildings and memorials. Steeped in the sumptuousness of imperial government, he nevertheless retained the respect of most contemporary artists. Simplicity of line and lack of ornamentation gave to his designs a character which cannot be catalogued as belonging to one era or another. His approach was direct, his expression, orthodox.

Known in many countries, Sir Edwin was presented by the British press as the greatest architect in the world, as well as the most popular. When he was elected president of the Royal Academy in 1938 only two architects had been previously honored by such an appointment. Sir Edwin was well known as a raconteur and famous for smoking an endless chain of thimble-sized pipes. He invariably carried a glass cane. Once asked how Trafalgar Square might be

(Continued on page 126)



PART OF SIR EDWIN'S PLAN FOR THE RECONSTRUCTION OF LONDON

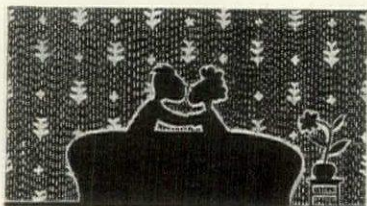
POST WAR IDEA OF THE MONTH*

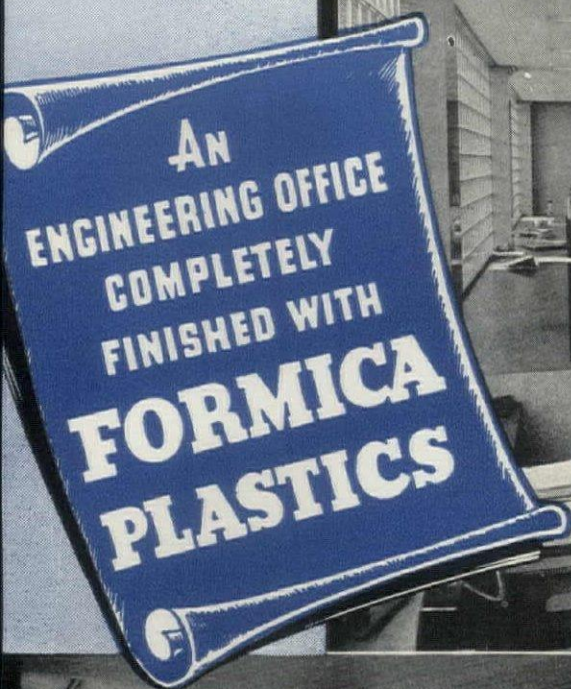
"To enable necessary vision, door knobs, light switches and other objects should be coated with luminous paint. Moreover, if all bedrooms, corridors and stairways were provided with guide lines or designs of appropriate size coated

with luminous paint, the civilian demand after the war would be substantial. Luminous window shades, luminous table oilcloth, luminous linoleum, and luminous floor coverings will be developed.

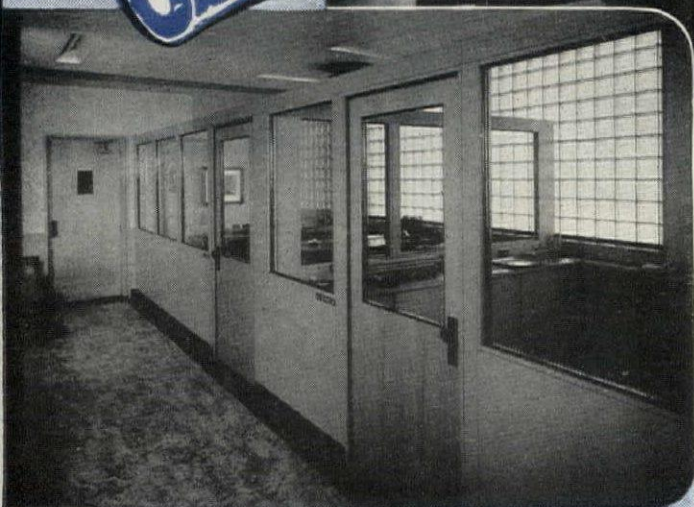
"... Families with marriageable daughters would be justified in using black light to illuminate walls and furnishings of the family parlor painted with fluorescent paint. Many a husband might be snared without a shotgun."

*From the 1943 convention by mail of the National Paint Varnish & Lacquer Assn.

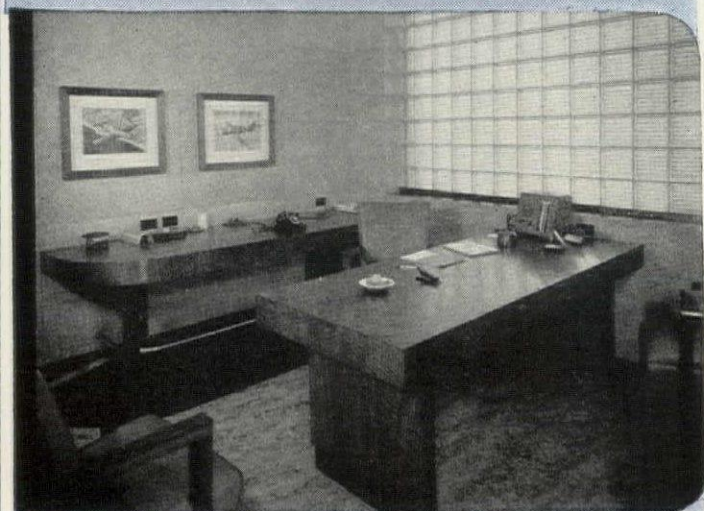




General Drafting Room, Desk Tops, Counters, Walls of Formica.



Partitions and Doors for Executive offices, Grey Formica.



Chief Engineer's Desk is Formica Realwood.

YOU would get a thrill from the business-like modernity of this engineering office which is completely finished in Formica plastics—walls, ceilings, desks, partitions.

Everything is done in restrained work-a-day colors with grey and black predominating, but the dense, smooth surfaces give a most modern, efficient atmosphere.

It is highly practical, too. Easy to keep clean and shining because Formica can be cleaned with a damp rag or with soap and water. Horizontal areas are cigarette-proof, so refinishing will not be necessary because of cigarette burns.

The surfaces will retain their color and resist checking and crazing indefinitely, so it is very unlikely that anything will ever be spent for repairs or maintenance. After the war many offices will be finished in this way.

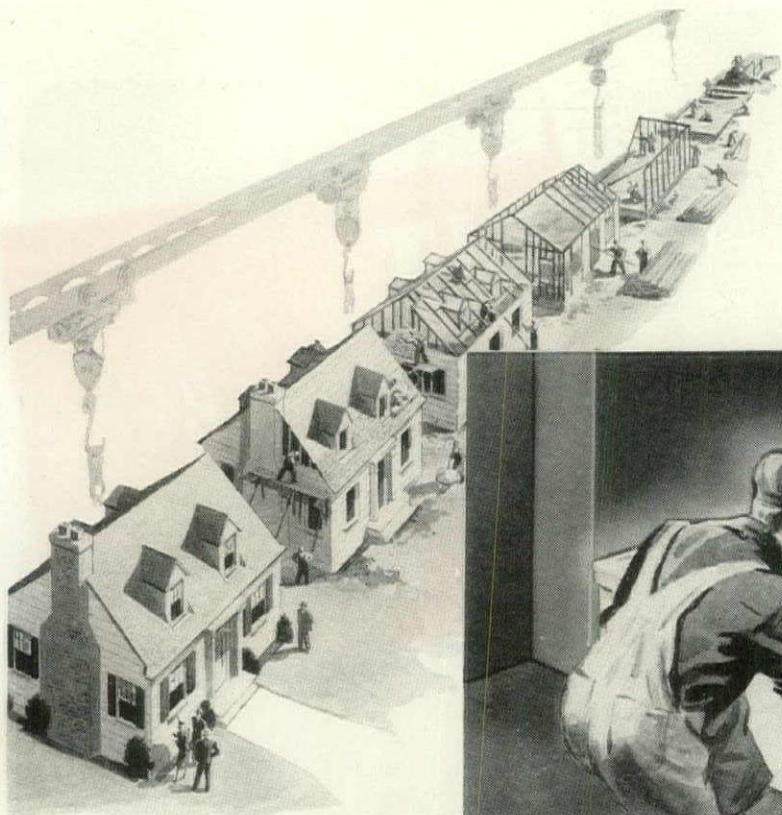
"The Formica Story" is a sound moving picture showing the qualities of Formica, how it is made, how it is used. It is available for professional meetings.

THE FORMICA INSULATION COMPANY

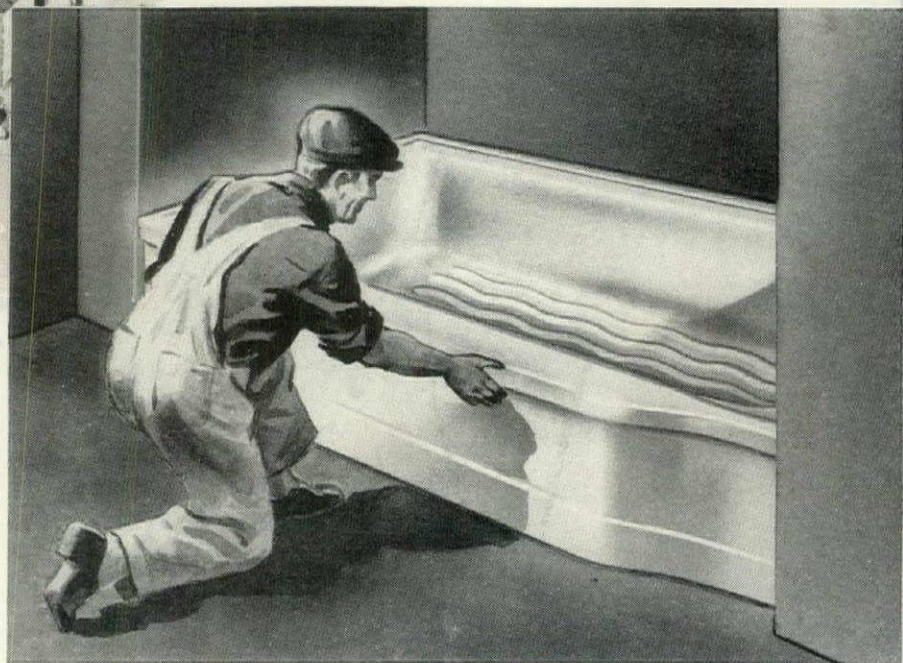
4620 Spring Grove Avenue

Cincinnati 32, Ohio





MASS PRODUCTION
DEMANDS PRECISION



If it's Briggs it fits!

OTHER MODERN FEATURES OF BRIGGS BEAUTYWARE

- Smartly styled functional design.
- Color—in a wide range of pleasing pastels.
- 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.
- Integral one inch flange permits waterproof flashing of tub to wall.

With the application of mass production principles to home building, new precision is demanded of many products.

Such precision must be reflected in plumbing fixtures if full advantage of mass production is to be realized. Dimensions of all Briggs Beautyware fixtures are exact because they are die-formed.

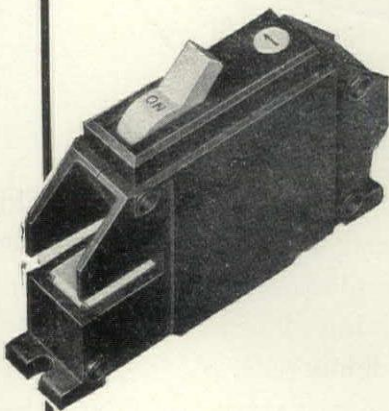
Typical of such exactness is the smartly-styled Briggs Beautyware bathtub, engineered to save the builder time and effort . . . keep construction costs down.

BRIGGS MANUFACTURING COMPANY, DETROIT, MICHIGAN

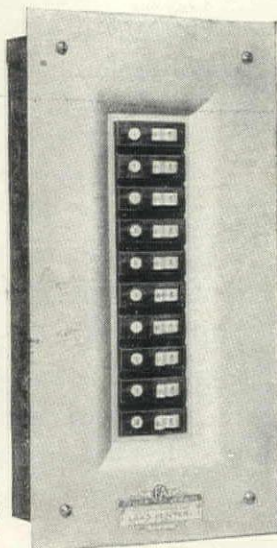
BRIGGS *Beautyware*
PLUMBING FIXTURES



On the wall is **FA** Load Center, with D. P. 35 Amp. AC Thermag Circuit Breaker for range circuit, and 4 S. P. AC Thermag Circuit Breakers for light and appliance branch circuits.



At left is the **FA** Type AC Thermag Circuit Breaker unit. It combines the time-delay action of the proven THERmal trip with the fast MAGnetic trip. It prevents interruption of service on momentary overloads, but trips quickly on short circuit or dangerous overload.



At right: **FA** Load Center, with 10 S. P. **FA** Type AC Thermag Circuit Breaker Branch Circuits, for light and appliance. The circuit breakers are made in individual pole units, but can be furnished with a double pole cross bar (as shown on wall above) to make it possible to operate a double pole main breaker or branch circuit breaker with one operation, but with individual trip per pole on overload or short circuit.

FIT for the Post-War "MIRACLE HOUSE"

Homes of tomorrow, as well as those of today, will be equipped with



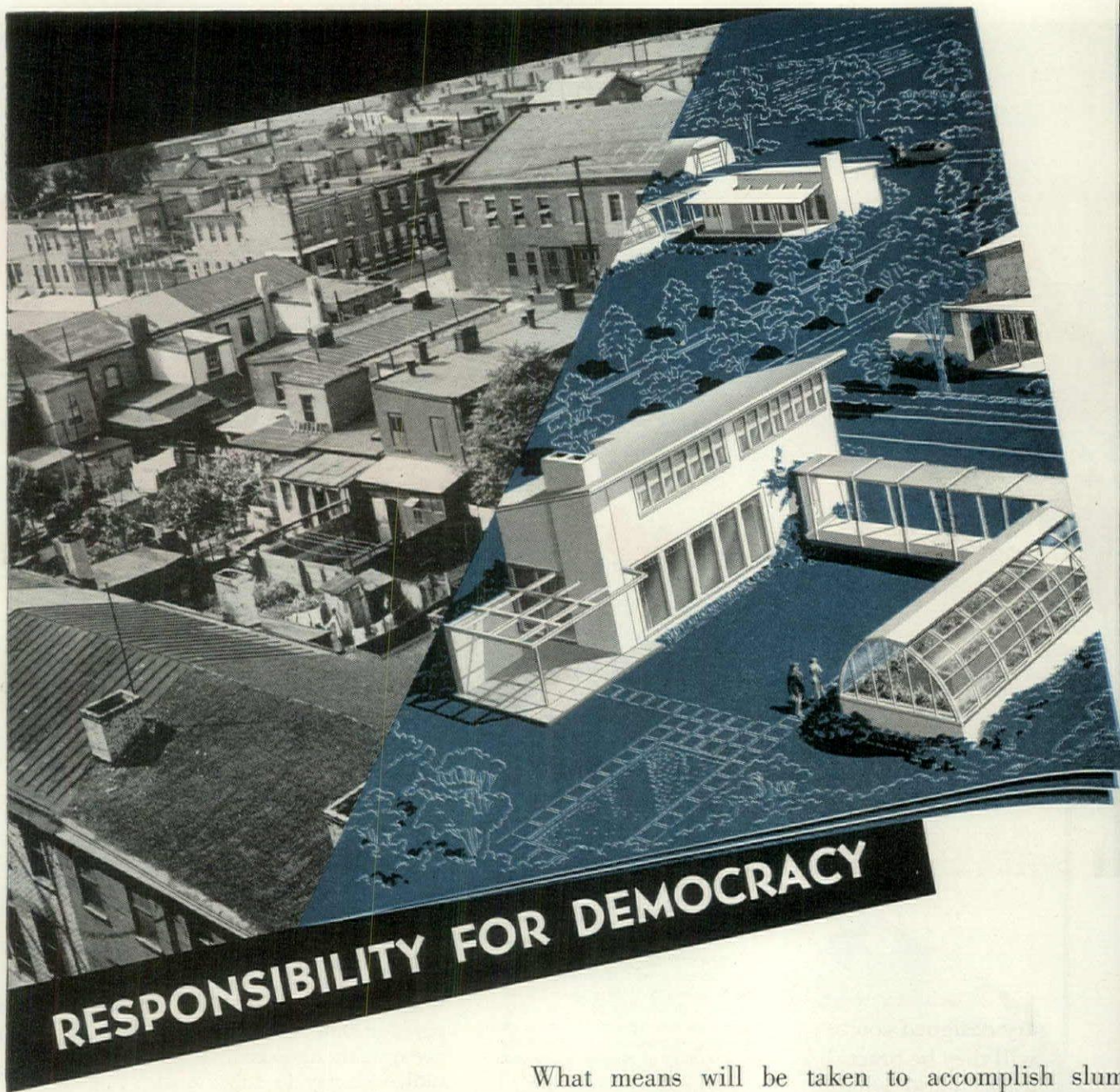
TYPE AC CIRCUIT BREAKER LOAD CENTERS and SERVICE EQUIPMENT

Wide gutters and ample knockouts make them popular with contractors and builders. They are quickly and easily installed — affording real economy in labor costs . . . The home owner likes them because of their attractive pearl gray finish, natural brown Bakelite base units and ivory toned operating handles; and because they afford modern protection and safety, with ease of operation . . . That's why many architects and contractors recommend or specify **FA** Equipment . . . Fully approved by Underwriters' Laboratories, Inc.

Write for Bulletin 63

It contains complete descriptions, dimensions, capacities, prices, wiring diagrams and suggested specifications. Ask, too, for booklet on maintenance. Both are free — and you'll find them helpful . . . Frank Adam Electric Company, Box 357, St. Louis, Mo.





RESPONSIBILITY FOR DEMOCRACY

Manufacturer of the U. S.
Navy's Famous Quonset Hut

STRAN STEEL

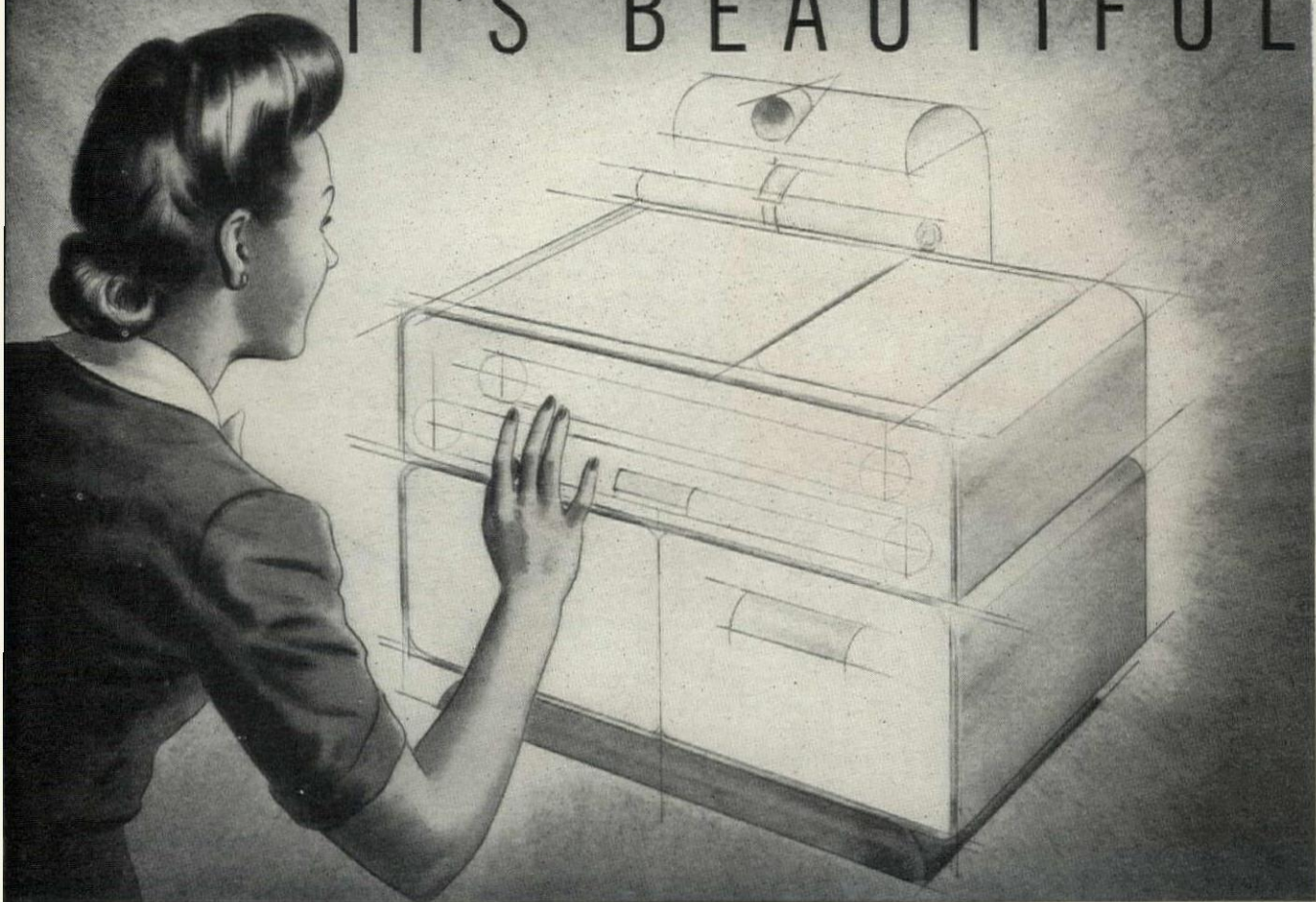
DIVISION OF GREAT LAKES STEEL CORPORATION
1130 PENOBSCOT BUILDING, DETROIT 26, MICHIGAN

What means will be taken to accomplish slum clearance in the post-war world have not yet been determined. Yet accomplished it must be, for on a decent standard of living depends much that is vital to the future of democracy.

Versatile and efficient, Stran-Steel framing systems provide the building industry with an effective medium of construction for all types of housing developments. They speed erection, safeguard the building investment, and lend themselves to the application of modern methods and materials. Stran-Steel's engineering experience, greatly increased by large-scale wartime assignments, will be at the service of architects and contractors.

UNIT OF NATIONAL STEEL CORPORATION

IT'S BEAUTIFUL



—BUT WILL IT BAKE CAKES?

● You are hearing a lot about revolutionary designed cooking appliances. But . . . will they be practical? How will they perform? Those are the first questions clients and buyers will ask when they see the completely equipped kitchens in the homes you design for postwar living and postwar selling. That's one more reason why you will want to specify and install pre-tested Gas Ranges bearing the famous CP Seal of Certified Performance. For, as 85 million Americans know, the CP Seal certifies tops in cooking perfection, low cost operation, trouble-free service, the most

advanced automatic controls PLUS big savings in time, fuel, food and money.

CP Gas Ranges are made by America's leading Range manufacturers to meet the highest performance standards created by engineers and home economists of the entire Gas industry. The CP Seal will be the symbol your clients and buyers will look for in kitchens of tomorrow.

★ ★ ★

For complete information on CP Gas Ranges, write to Association of Gas Appliance and Equipment Manufacturers, 60 East 42 St., New York 17, N. Y.

Gas Ranges bearing the CP Seal are manufactured by:

A. B. Stoves, Inc.
American Stove Co.
Caloric Gas Stove Works
Clare Bros. & Co., Ltd.
Cribben & Sexton Co.
Detroit-Michigan Stove Co.

The Estate Stove Co.
Glenwood Range Co.
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Hardwick Stove Co.
Moffats, Ltd.

O'Keefe & Merritt Co.
Roberts & Mander Stove Co.
Geo. D. Roper Corp.
Standard Gas Equip't Corp.
The Tappan Stove Co.
Western Stove Co., Inc.



Gas Range

AMERICA'S SYMBOL OF CERTIFIED PERFORMANCE

HEATING CONTROLS

for postwar homes may match big building performance at small building cost.

Always a challenge to architects and manufacturers, improved temperature control for houses and apartment buildings is now a postwar certainty. The discomforts of existing systems of manual and automatic control are so familiar that they are accepted as necessary evils; to everybody except the occupants of the most luxurious homes and apartments, the new developments will appear as a welcome surprise.

With most of the problems of humidity and temperature control already solved for expensive industrial and residential installations, the most urgent problem facing the industry in recent years has been the development of inexpensive small scale applications of the principles perfected for large scale control. At present, the inadequacy of heat control in houses and apartment buildings stems from the necessity of determining the heat supply for the entire heated space by a temperature reading at a single point. This is obviously an unsatisfactory solution to the problem; variations of exposure cause some parts of buildings to cool more rapidly than others during one period and perhaps less rapidly at another time. Moreover, it is often desirable to have different temperature levels in various rooms at the same time. Off and on control of heat supply in residential buildings is also an age-old nuisance. Such control is the cause of over-shooting, the familiar annoyance of "too hot or too cold." In houses we should be able to divide the space into sections and produce heat that is constantly within our comfort range; in apartment buildings we

must no longer oblige all families to endure the heating tastes of the most "cold-blooded."

Zoning

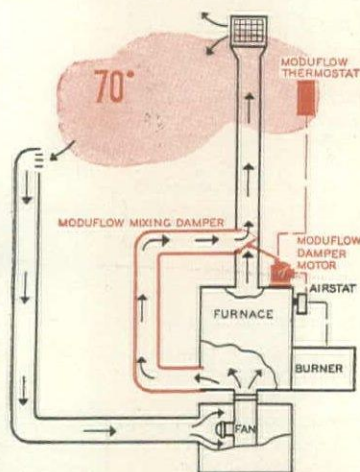
By dividing the piping layout of a building into zones, it is possible to correct the effects of rapid heat loss through walls exposed to high velocity wind, or other unusual conditions of exposure. Greater occupant activity may reduce the demand for heat in one part of a building only, and hours of use may vary between several portions of the same building. Recognizing the greater comfort and economy obtained through zoning, schools, hospitals, office buildings and other large structures have applied the idea for many years, sometimes even to the extreme of individual room control. In high buildings the pressure differential between the warm inside air and the cold outside air produces a chimney effect which is corrected by dividing the structure into sections of a few stories each. These divisions are an important step towards delivering heat in just the right amount when and where it is needed, but without accurate thermostatic controls in each zone, this goal cannot be achieved. In the past, zoning has seldom been applied to small scale heating, but cheaper improved controls now make zoning as applicable to houses as to larger buildings.

Modulation

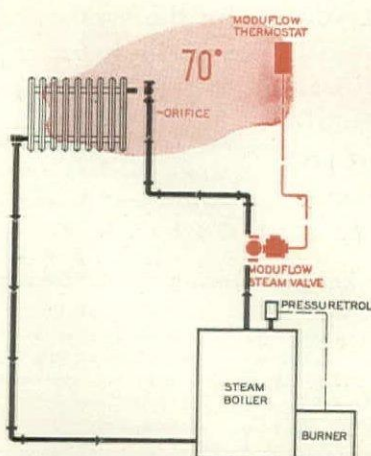
Outside temperature constantly varies. Therefore, to maintain a steady level of heat inside a building, the rate of heat supply must be modulated, so that

it is continuously equal to the heat loss. Our oldest and still most common type of control is the intermittent or off-and-on thermostat. This device is essentially nothing but two strips of metal brazed together, each having a different coefficient of expansion. With a temperature variation of about two degrees the unequal expansion of the metals produces a deformation of the strip which, by means of an electrical circuit or pneumatic line, stops or starts the flow of heating medium. If heated spaces began to cool off or get warm at once, this conventional type of control would be adequate. The catch is, no heating system is without thermal inertia. Because of this inertia, the response to the thermostat is sluggish and before the heating medium actually begins or ceases to heat the air, the temperature goes outside the normal comfort range.

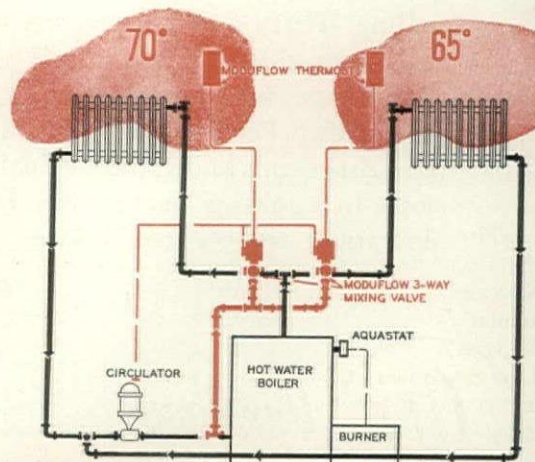
From this it is evident that some form of graduated control is necessary in order that the supply of heat may be modulated to meet variations in the heat loss. The thermostat in a modulated system must be so designed that its every movement, however slight, will produce a proportional change in the heat supply. This change of heat supply is usually effected by means of motor driven valves or dampers which by adjusting the temperature of the medium, or controlling its rate of flow, provide a continuous control of the heat supply. In a modulated system, the advantages of a steady flow of heat are fully realized. When the flow is intermittent, the air in the building may stand still for a long time and, as the



MODULATION and continuous flow may be effected in a conventional system of warm air, two-pipe steam, or hot water, as



shown in these diagrams of the Minneapolis-Honeywell Co. Only additions needed are shown in color. Zoning for the



average house is obtained by making similar additions for each zone. Inside thermostats regulate the systems.

ot air naturally rises toward the ceiling, it becomes quite cold near the floor before the temperature at thermostat level is low enough to call for more heat. This is called stratification and is inevitable when the supply of heat is not continuous. Heretofore on a luxury level, modulated controls for expensive installations now make the greater comfort of steady controlled heat available to all houses.

Houses

In order to provide residential structures with the advantages of zoning and modulation, manufacturers are developing motor-driven mixing valves and dampers, and thermostats for modulated control at a cost within the budget of the average home owner. In homes, recreation rooms heated to the level of living rooms, and bedrooms unnecessarily warmed during the day are common examples of wasted heat. Cold north rooms and over-heated rooms on sides exposed to solar radiation are everyday discomforts. Houses should be divided into at least three sections on the basis of usage. One section would include only rooms intended for living and dining. Sleeping rooms are another division, while the service rooms of a house—kitchen, laundry, etc., comprise the third zone. These divisions may be added to, or joined together, if the necessity is indicated by severe conditions of exposure.

Controls which will bring zoning and modulation to homes at a reasonable cost have begun to appear and the end of the war should find several more types available. These new controls are already developed for warm air, hot water, and two-pipe steam systems.

Particularly important to home owners is the ease with which these controls may be installed in existing systems. To convert a conventional circulating hot water system, a mixing valve, a short by-pass line and a new thermostat are the only necessary additions. These simple devices are capable of producing water of the proper temperature which circulates continuously throughout the system. Everything is accomplished that could be done by constantly reading a thermometer and adjusting the controls manually. In the converted system the boiler temperature is held constant by the usual aquastat which controls the burner. The mixing valve adds water from the boiler to the circulating water, bringing it to the temperature required by the thermostat. If the house does not need heat, a switch on the mixing valve shuts off the circulator. For each zone added, a short extension of the by-pass and a thermostat and mixing valve are installed with the piping for that zone.

Similarly, in warm air systems, a

thermostat may be added which will provide graduated control for a motor operated damper. This damper mixes warm air from the furnace to circulating air. The damper functions for the warm air system just as the mixing valve does in the hot water system. A short by-pass duct is necessary to prevent reheating the circulated air.

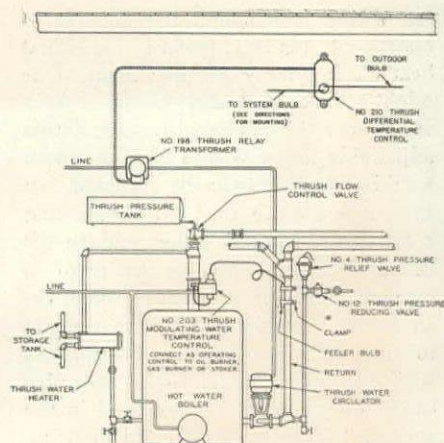
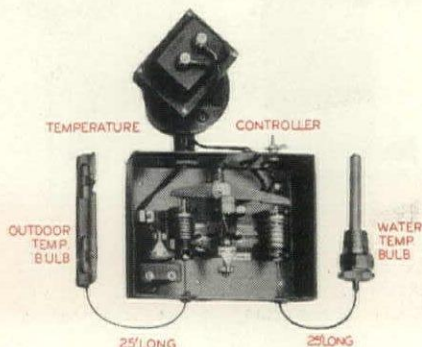
The conversion of a two-pipe steam system of conventional layout for operation as a modulated system is even simpler, because by-pass lines are not needed. The new accessories include only the thermostat, a modulating steam valve, and orifices (small discs with special sized holes) for the inlet connection of each radiator. The cost of converting any of the three systems should amount to no more than about \$100 per zone.

Some manufacturers, recognizing the tendency of inside thermostats to be too greatly affected by localized temperatures, have designed systems which are controlled by an outside thermostat. This outside device, operating through a balancing unit with a bulb which measures the temperature of the heating medium, anticipates the inside requirements, since these always follow outside variations of temperature. A more elaborate system incorporates a control panel and inside thermostat which automatically corrects for unusual inside conditions that do not affect the outside thermostat. This inside-outside control has all of the advantages of both systems, and should soon be simplified for marketing at a low price.

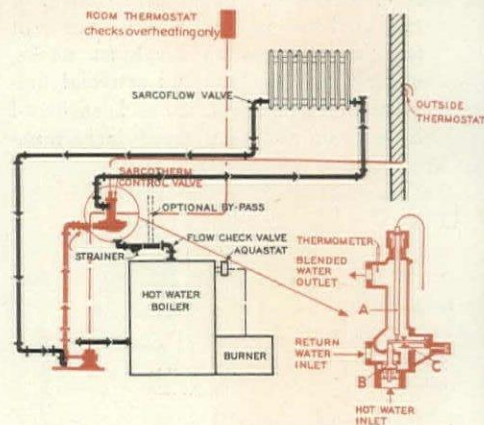
Apartment Buildings

For many years it has been customary to heat entire apartment buildings to the level demanded in the apartment whose occupants desire the most heat. This means that all of the other apartments are overheated and their occupants must either shut off their radiators or open their windows. In most cases the windows are opened, because the thermal inertia of the radiators causes an output of heat for some time after their inlet valves are closed. This common practice results in an enormous waste of fuel.

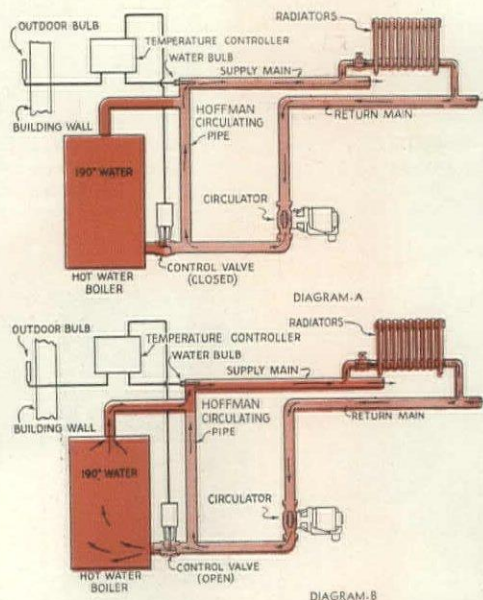
Recently, an independent survey for one manufacturer revealed a lot of



INDOOR-OUTDOOR control by H. A. Thrush & Co. An outdoor bulb and a system bulb are attached to the control by capillary tubing. The control instrument varies the heat output in proportion to the difference of these temperatures.



OUTSIDE THERMOSTAT, in this system of the Sarco Co., controls a valve which mixes water from the boiler with returned water in a proportion which varies with outside temperature changes.



INDOOR-OUTDOOR system by Hoffman Specialty Co., circulates hot water continuously. Outdoor bulb and water temperature bulb operate through the Temperature Controller which opens and closes the control valve in proportion to differential temperature indicated by system and outside bulbs.

interesting facts about the attitude of apartment tenants toward individual heat control for each apartment. One might think that any device which would provide temperature regulation adjustable to the wishes of each tenant would enthusiastically be accepted, but this is not quite true. It seems that a few people would rather endure the discomforts and inconvenience of a conventional system than assume the slight duty of adjusting a thermostat to suit their own needs. Fortunately such reactions proved to be rare, because, of the people interviewed in the survey, 84.5 per cent stated that individual apartment control was either desirable or necessary. Moreover, 48.2 per cent indicated that they would be willing to pay an average of five dollars additional monthly rent for the privilege. Improved temperature control of this kind was preferred by 61 per cent to such features as breakfast nooks, electric dish washers and artificial fireplaces. In addition, it has been found by tests on a comparatively large num-

ber of buildings that proper thermostatic control saves an average of 18 per cent in fuel.

Within the apartments, even greater control may be achieved by dividing the space into sections or individual rooms, with separate thermostatic control for each division.

Individual control may be used with any type of apartment heating system, and either electrical or pneumatic thermostats may be used with either intermittent or modulating action. In addition to the individual thermostats, a central control panel is desirable in order to manually control any part of the building and prevent unnecessary waste of fuel.

The relative importance of the primary boiler control increases with the size of the building. The function of a boiler control is to provide, with as much accuracy as possible, the exact amount of heat required by the total demand of the thermostats. An exact balance is not yet possible, but the best controls attempt to anticipate the thermostatic variations. To date this anticipation is best achieved by an application of the outdoor bulb idea. In its most highly developed form, the outside apparatus consists of a small chamber with a rate of heat loss adjusted to equal that of the building. This chamber is electrically heated by a supply controlled through a thermostat within the chamber. This thermostat also controls the boiler output. When used in connection with a timing mechanism which compensates for varying hours of occupancy, the burner and boiler operate very efficiently. In new apartment buildings, improved control would probably offset higher initial cost through the greater efficiency and rentability which result.

Controls for Radiant Heating

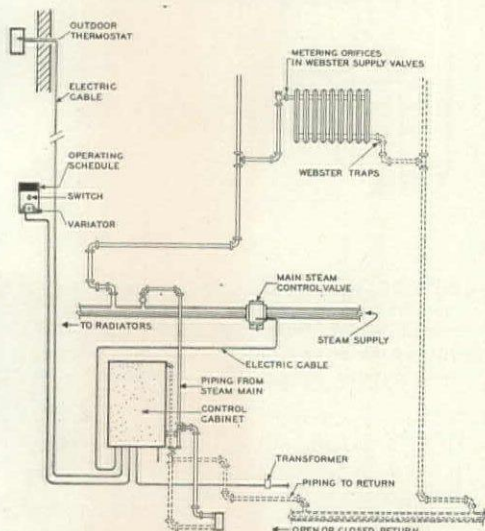
Radiant heating systems and their control are much more similar to the usual convective systems than is gener-

ally realized. Radiant heat is a large component of the warming effect produced by any radiator, and in part heating the difference is only a question of degree rather than total dissimilarity. Although measuring radiant heat and measuring convective heat are basically different operations, systems heated by the two different means may be controlled by the same kind of instruments. In a radiant heating system the comfortable air temperature is somewhat lower than it is in conventional systems, but it varies with the radiant heat and may be used as an index. An ordinary thermostat which operates with changes in air temperature may be set for the lower levels required by radiant heating and the heat supply controlled by this means only. An instrument called a eupatheostat measures the actual radiant heat present and may be used to control the system, but it is more complicated than a thermostat and has the same disadvantage of causing overshooting.

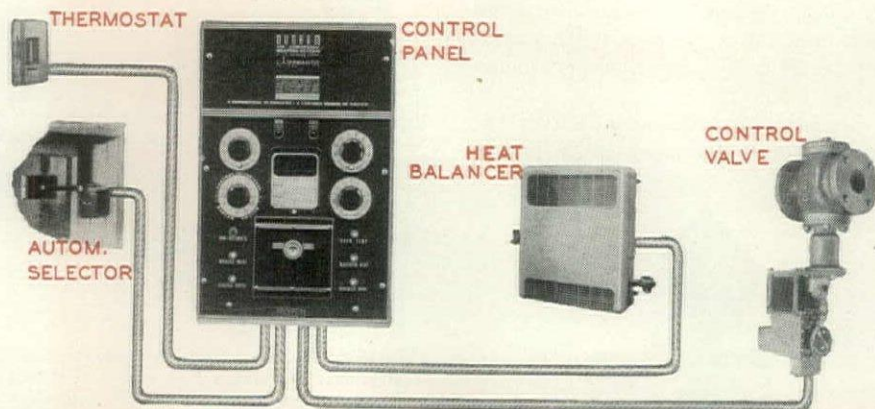
Most common use of radiant heating today is the warming of houses by hot water pipes set in concrete floor slabs. The slabs have a very high thermal inertia and react sluggishly to demands of inside thermostats. The best control for such systems probably would use an outside thermostat to enable the supply changes to precede the inside demands, keeping an inside thermostat for unusual conditions not reacted to by outside controls.

With the progressive trends in architectural design, many new and interesting problems occur which are peculiar to buildings designed to exploit the potentialities of present-day methods and materials. One example of this is the effect of cold earth under a radiant heating floor slab. The ground absorbs heat at a steadily decreasing rate early in the heating season until a level is reached at which its rate of absorption is almost constant. This process takes

(Continued on page 130)



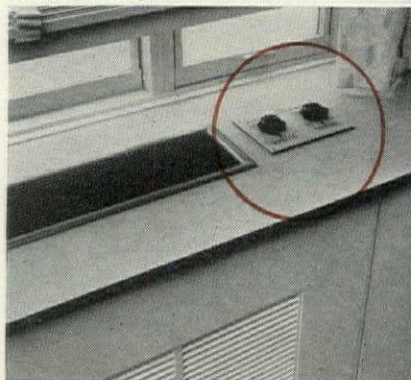
OUTDOOR thermostat controls this Warren Webster & Co. system for two-pipe steam installations. A manually controlled Variator modifies action of thermostat.



HEAT BALANCER, a control radiator, in this C. A. Dunham Co. system measures actual heat supply from control valve. Heat supply is balanced through a con-

trol panel to meet the demand indicated by an Automatic Selector, a resistance thermometer against a window pane. Room thermostat checks overheating.

Hedrich-Blessing



ROOM TEMPERATURE is controlled by amount of hot or cold water supplied to this Weathermaster unit by Carrier Corp. Any desired temperature may be dialed.

Did you know how BYERS

RADIANT HEATING

is solving the

"Cold Bathroom"

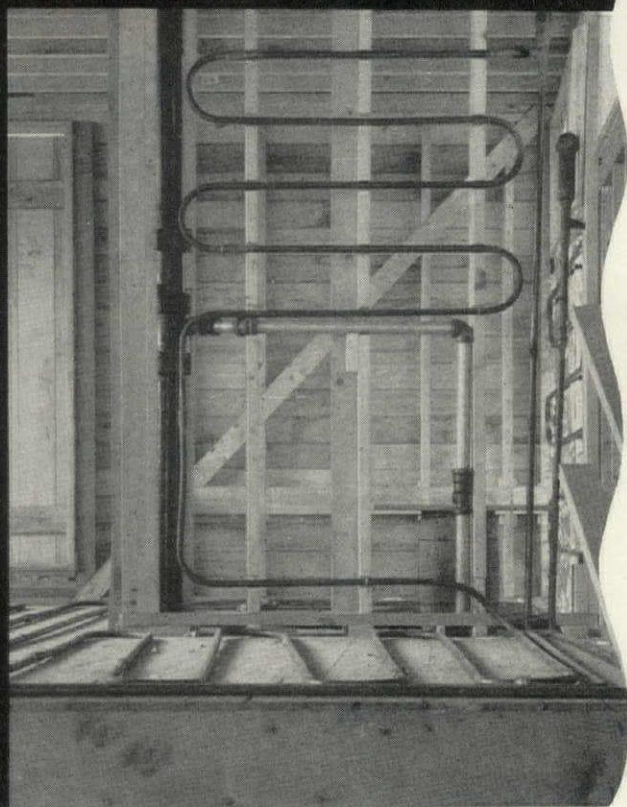
problem?



COMFORT ...

NO WASTED SPACE ...

NO SAFETY HAZARD ...



One problem that has for years plagued everyone in the building field both professionally and personally is the cold bathroom. By no means the least of the achievements of Byers Radiant Heating is in banning this bugaboo.

The embedded coils, by converting large areas of the room into a mild and temperate heat-source, create ideal comfort conditions without demanding precious space . . . and without introducing a safety hazard. Bathroom coils may be used satisfactorily with cement, plaster, or tile walls.

Often the regular floor or ceiling coils are adequate, but if extra warmth is desired a supplementary wall coil can be easily installed. The picture above, taken during construction, shows such a coil in the home of an enthusiastic radiant heating user. By this means, the temperature of the bath can be maintained at any desired point above that of adjoining rooms.

This is only one of the many advantages that have won so many friends for radiant heating, and that recommend it to the serious attention of everyone concerned with either current or post-war home planning.

An important point to remember is that there is no necessity for experiment in design or construction. The hundreds of systems already successfully operating provide an answer to almost every problem. And the same well-charted course exists when it comes to selecting materials, for Byers Wrought Iron is a veteran in this service.

Byers Wrought Iron has unusually good forming and welding properties, which facilitates both shop and field fabrication. Its coefficient of expansion is almost identical with that of concrete and plaster, which protects against cracking of the covering material, loss of bond, or noise. Its high heat emission can be verified by consulting an engineering handbook. And its exceptional corrosion resistance has been tried and proven over periods of many years, in radiant heating applications and in others where corrosive conditions were identical in character.

In any preliminary thinking and planning you may be doing on radiant heating, you will find our technical bulletin "Byers Wrought Iron for Radiant Heating Installations" both interesting and helpful. We will be glad to send a complimentary copy. And of course our Engineering Service Department stands ready to extend all possible assistance at any time.

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

BYERS WROUGHT IRON

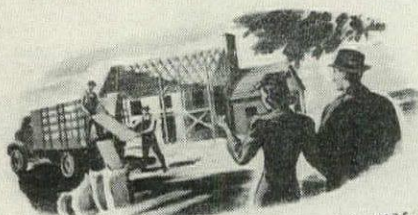
FOR EXTRA SERVICE

IN CORROSIVE APPLICATIONS

CORROSION COSTS YOU MORE THAN WROUGHT IRON

A Message Today

"These times have certainly taught us the value of copper and brass"



"When John and I built our home back in 1935, thank goodness we didn't skimp on tried-and-true materials like brass pipe plumbing and copper gutters. Our home has been a joy, especially during this war period when it's been so hard to replace things."



"Just take plumbing—something a housewife lives with 24 hours a day. We've never had a worry with our brass pipes . . . no rust-clogging . . . no rusty-red water. I can't help but realize how fortunate we are when I compare our experience with the Ralston's next door who have had so much trouble with rust."

LOOK HOW FAR A WAR BOND WILL GO IN MAKING YOUR HOME RUSTPROOF!
In building an average 6 or 7 room house, a one-hundred dollar bond will more than cover the extra cost of:

COPPER tubes for both hot and cold water pipes.	COPPER flashing around chimney.
COPPER gutters and leaders.	BRONZE screens for all windows and doors.

What better investment for one of your bonds? Save today to make your postwar home rustproof.

"John says our copper gutters and leaders and chimney flashing are still as good as new. We haven't spent a nickel on upkeep, except for clearing out leaves. And I can vouch for the way bronze screens last—ours are still in excellent condition."



"And now, we are thinking of building a new home when the war's over—one with a little more ground. We're collecting ideas and laying aside war bonds. One thing sure—there's going to be plenty of copper and brass used. After all, the upkeep we've saved helped pay for plenty of our bonds."



When the red metal gets the green light . . .

Today war needs get first call on all production of copper and copper alloys. But with victory, Anaconda Copper, Brass and Bronze in many forms of usefulness and durability will be waiting for architects and builders. The same type of research that pioneered brass pipe plumbing, that paved the way for low-cost copper tubing, is carrying on now to serve postwar home owners.

THE AMERICAN BRASS COMPANY
General Offices: Waterbury 88, Connecticut
Subsidiary of Anaconda Copper Mining Company
In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.

Anaconda Copper & Brass

...for use Tomorrow

Emphasizing the security of **COPPER** and **BRASS**

ADVERTISEMENTS such as this one, appearing in Better Homes and Gardens and in American Home, will be read and remembered by those people in your community who will be seeking the aid of architects . . . people who are eagerly planning, not just a house, but the perfect home.

When such people turn to an architect for guidance, they will expect a great deal from him. They will expect comfort, beauty, durability, freedom from excessive repairs and maintenance. Above all, they will appreciate the *security* that is typified by copper and brass.



4429

Anaconda Copper & Brass

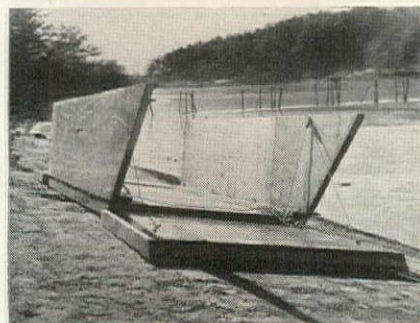
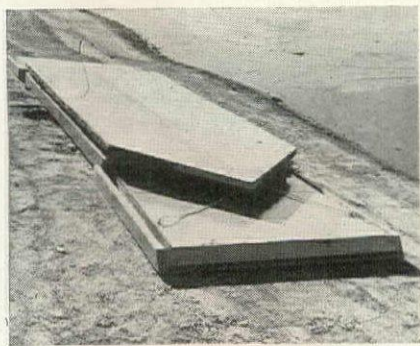
THE AMERICAN BRASS COMPANY

Subsidiary of Anaconda Copper Mining Company

General Offices: Waterbury 88, Connecticut

In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ont.

BUILDING REPORTER



COLLAPSIBLE ASSAULT BOAT



VECTOGRAPHS, or depth illusion pictures, are now being used as a new technique in training military navigation students. By presenting lifelike pictures of models of the heavens and the earth in three dimensions, this new technique eliminates the need for training students to interpret depth in flat charts and diagrams. This new technique of teaching by Polaroid three dimensional pictures known as vectographs, was recently perfected by Professor John T. Rule, Chairman of the Section of Graphics at the Massachusetts Institute of Technology. The vectograph process is the invention of Edwin H. Land, President of Polaroid Corp., and Joseph Mahler. A three dimensional vectograph is a specially treated plastic sheet. On it, two pictures occupy the same space at the same time. Polarization of three dimensional viewers unscrambles the superimposed pictures to recreate the normal condition of effortless three dimensional seeing. Prepared as slides for projection on a classroom screen, the vectographs are so strikingly realistic that an instructor walking into the beam of a projected vectograph of the earth appears actually to be walking into the center of the earth.

TECHNICAL NEWS

AN ASSAULT BOAT using a continuous hinge around the bottom of the boat, allowing it to be folded flat for convenient packing one on another, has been developed by The Travelodge Corp. of Lynchburg, Va. The photographs demonstrating the principles are of a rough half size model, the finished boat will be 10 ft. wide and 24 ft. long. The bottom and sides will be single pieces of marine plywood nailed and glued to wood studs. The bottom forms an air pocket which enables the ship to be heavily loaded with water, yet stay afloat. Several of these boats can be carried in the same space required by one ordinary built-up type now in use. The transformation from a flattened package to a boat ready to go, takes only about three minutes. It is proposed to power the boats with out-board motors.

COMPRESSED AIR TOOLS in the hands of wood carving experts, are putting pattern making on a new schedule in today's wartime production. According to the Compressed Air Institute, many



new and remarkable achievements are being recorded through the application of air tools to wood pattern making. For saving time, lowering costs and in many respects improving the quality of the workworker's art, these light and compact hand-held air operated tools are in operation in many foundries and pattern shops doing both light and heavy jobs of routing, carving, logging and chiseling.

NEW PRODUCTS

PLASTIC from scrap fabric.
Name: Kacelite.

Features: An impregnated plastic paper for high pressure molding into laminates that can be sawed, drilled or punched, is being made from quantities of reclaimed fabric scrap that possess high phenolic resin content. Among the products made from this new plastic are aircraft floors and ammunition boxes. It can also be applied to plywood surfaces of various types in the home building field.

Manufacturer: Kimberly-Clark Corp., Neenah, Wis.

SPLASH PROOF MOTOR has two way ventilation.

Features: The cooling air is drawn in through baffled openings in the bottom of the end brackets by a fan on each end of the rotor. It is then blown through and around all parts of the motor, and exhausted through louvered openings in the side of the frame below the center line and at the bottom. This construction protects the vital parts of the motor during plant wash down or for outdoor operation. Motors are available in sizes 1½ to 15 h. p. with two way ventilation.

Manufacturer: Century Electric Co., St. Louis 3, Mo.

INFRA-RED LAMPS with heat-proof construction.

Features: This new construction for permanently locking base and bulb against the terrific temperatures of drying tunnel use includes a base lining made with special protrusions fitting tightly into indentations in the neck of the bulb and locked in position by special crimping of the metal base. A ceramic heat reflector disc replaces the mica disc formerly used. Conventional construction of cementing and strapping bulb to base has not held up against continuous high temperatures developed by banks of infra-red lamps as used in industrial baking, drying, preheating and dehydrating, but with this new construction the result is a permanently sealed, locked base that is impervious to this heat.

Manufacturer: Birdseye Div., Wabash Appliance Corp., 335 Carroll St., Brooklyn, N. Y.

(Continued on page 130)



A POSTWAR APARTMENT HOUSE ALREADY BUILT

Although erected six years ago, this apartment house is of such advanced design that it can be considered a postwar project already built.

First, and only, completely air conditioned structure of its kind in New York, it presents a glimpse at postwar designs for better living. It's a preview of what future apartment buildings will be, for it offers what tenants want . . . year-round comfort. And that's what they'll demand after the war. So will owners and agents who want to keep buildings fully rented and operating at a profit.

Individual air conditioning units permit each tenant to control both temperature and humidity. One family may prefer 62°; another 85°. Both can be satisfied. So, too, the family that likes 20% relative humidity or 45%. Summer and winter thermostats and a humidistat maintain individually desired conditions within each apartment.

The refrigeration plant servicing the building of 1,100,000 cubic feet consists of two compressors with capacity of 140 tons and includes water cooler, condenser refrigerant pump and generators. "Freon-12" is the refrigerant. Operation costs are reasonable. Architect Frederick L. Ackerman estimates that the operating cost of this system averages the same in summer as a comparable heating system in winter.

Here you have a picture of a postwar project already built and occupied—one that will provide modern living comfort throughout its lifetime. Keep pace with air conditioning, for while it is demanded today . . . it will be a must tomorrow. Kinetic Chemicals, Inc., Tenth and Market Streets, Wilmington, Delaware.

LET'S ALL BACK THE ATTACK!

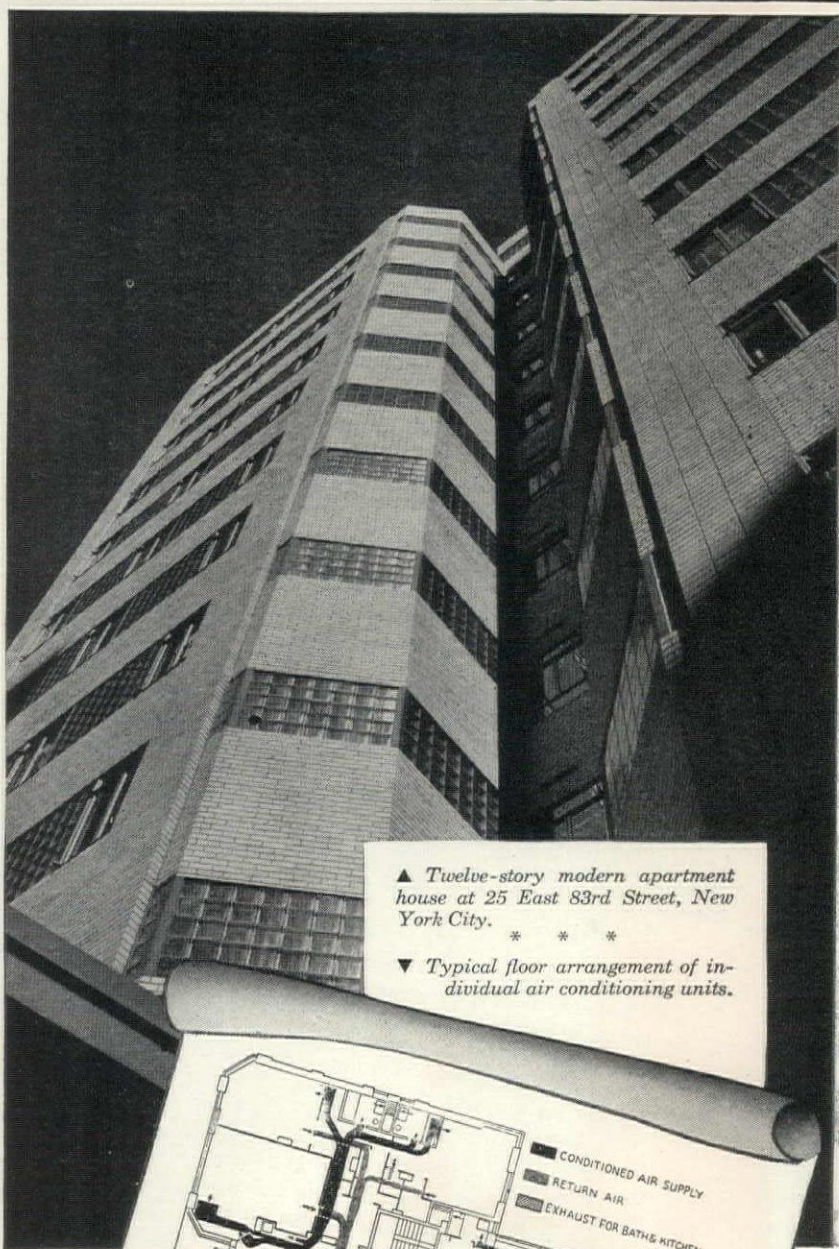


FREON

REG. U. S. PAT. OFF.

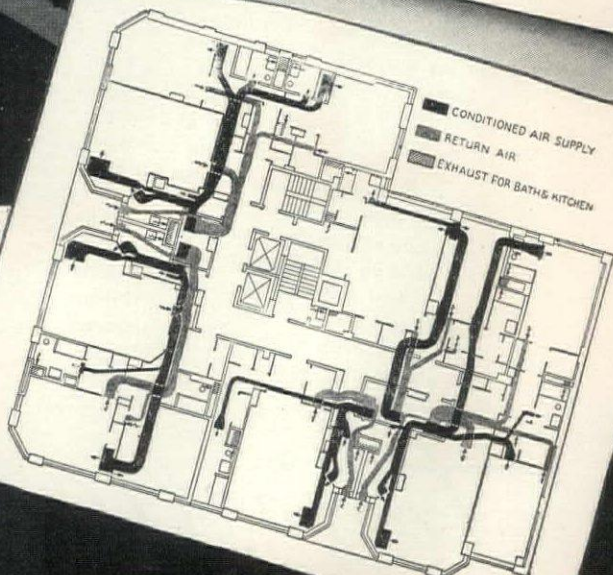
safe refrigerants

"Freon" is Kinetic's registered trade mark for its fluorine refrigerants.



▲ Twelve-story modern apartment house at 25 East 83rd Street, New York City.

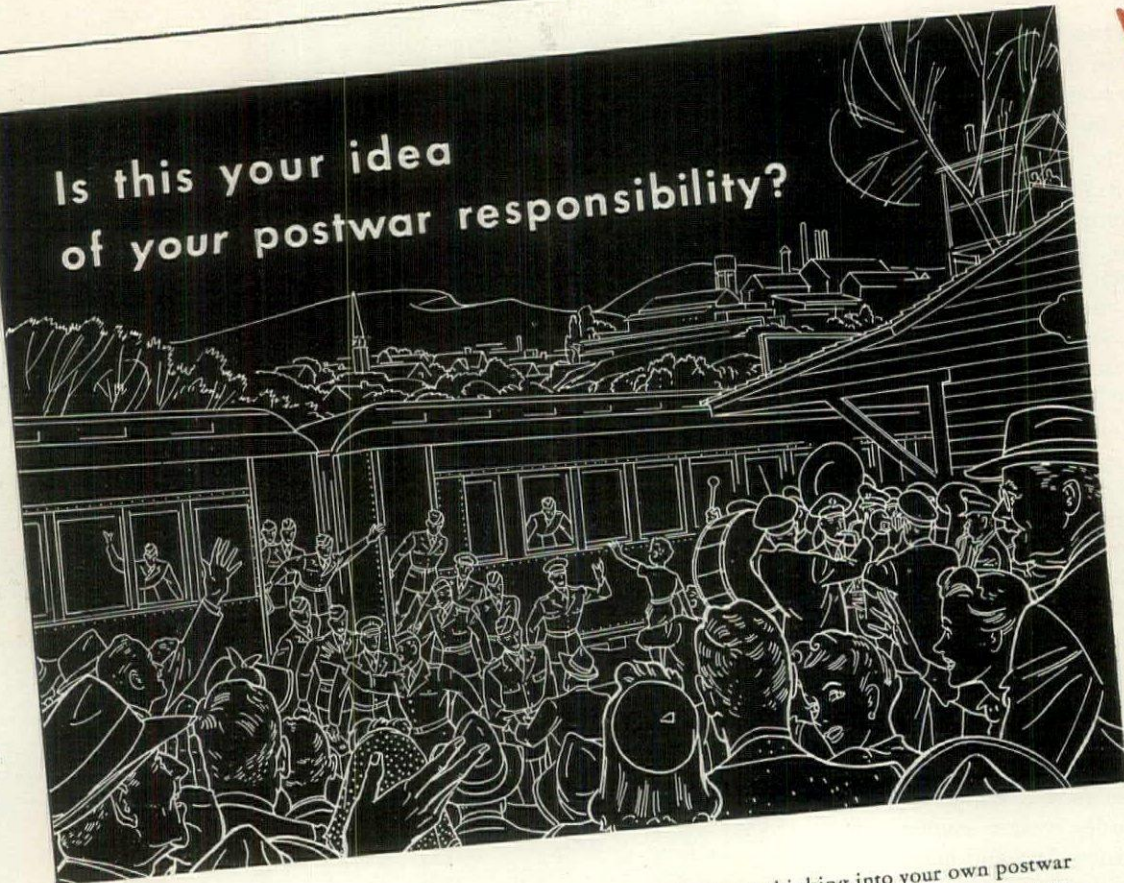
▼ Typical floor arrangement of individual air conditioning units.



Your Future Clients

are seeing this FENESTRA message

Is this your idea
of your postwar responsibility?



The boys expect something better this time. Not just cheers and bunting . . . but jobs. And they have a right to expect them.

Quite naturally, your question to this may be "What can I do about it? I'm not an employer. It's not my business to make plans."

But look at it this way. Every one of us is an employer—for it is our buying that makes jobs. And we must realize that in order to have millions of jobs ready for our fighting men when the shooting stops, we've got to plan our postwar buying now.

A big share of those millions of jobs will be in the building industry—America's No. 1 Employer. And this industry can have those jobs ready to start right after Victory, if plans are made now, with the blueprints completed and waiting on the shelf.

Project your thinking into your own postwar future. Will it include a new store, a new warehouse, or a new home? Does your community need new schools, hospitals, auditoriums or any other public buildings? If so, there is a lot you can do to welcome the boys home with jobs waiting.

Get those plans started now. Talk it over—in your family, in your business, in your community. And be sure that your government officials who must start plans for public buildings understand the need for action now.

Let's greet the boys with jobs.



DETROIT STEEL PRODUCTS COMPANY
Now Chiefly Engaged in War Goods Manufacture
Dept. NW-1 • 2270 East Grand Blvd. • Detroit 11, Mich.
Pacific Coast Plant at Oakland, California

Fenestra SUGGESTS



WINDOWS • DOORS • ROOF DECK • FLOOR DECK • METAL SIDING • AND OTHER BUILDING PRODUCTS

every month in



★ Newsweek

THE MAGAZINE OF NEWS SIGNIFICANCE



The advertisement shown on the opposite page is the eighth in a campaign conducted by Fenestra in the interest of getting postwar planning out of the dream stage and into blueprints. It is directed to 550,000 readers of *Newsweek*—among them businessmen, school and hospital authorities, civic leaders and government officials—men who must make the decisions to build before plans can be started.

We hope that this advertising in *Newsweek*, as well as our similar advertisements in school, hospital and building trade magazines will stimulate immediate action in postwar planning and direct that planning to your drawing boards *now*.

DETROIT STEEL PRODUCTS COMPANY

Now Chiefly Engaged in War Goods Manufacture

Dept. AF-2, 2252 East Grand Blvd., Detroit 11, Michigan
Pacific Coast Plant: Oakland, California

Bombs for Hitler: The Air War Goes All Out



WORKING FOR TODAY

Many and varied are the activities of those who serve their country and their community in the smart uniform of the A.W.V.S. (American Women's Voluntary Services). Norge joins the nation in saluting the members of this permanent organization which is working for victory today and planning to continue its usefulness to soldiers and civilians in the post-war era.

NORGE

HOUSEHOLD APPLIANCES

..PLANNING FOR TOMORROW



Norge, too, is exclusively *at war* in all of its plants, producing more than forty items of utmost importance to our armed forces. And Norge appliances are likewise doing their part by conserving and preserving food, lightening household tasks and adding generally to the efficiency of war-busy families. But as Norge works for today, Norge plans for tomorrow. Because of the new skills and new techniques acquired as the result of war assignments, Norge post-war Rollator refrigerators, gas and electric ranges, washers and home heaters will be better designed, better engineered, better built. Look to Norge for real *products of experience*—better products for a better world. Norge Division, Borg-Warner Corporation, Detroit 26, Michigan.

A BORG-WARNER INDUSTRY

BETTER PRODUCTS FOR A BETTER WORLD



★ ★ ★ ★ ★ ★ ★ ★

When it's over—see Norge before you buy... meanwhile BUY MORE WAR BONDS

"...for outstanding production of war material."

NATIONAL APPLIANCE CONSERVATION PROGRAM
"BETTER CARE—LESS REPAIR"

★ ★ ★ ★ ★ ★ ★ ★

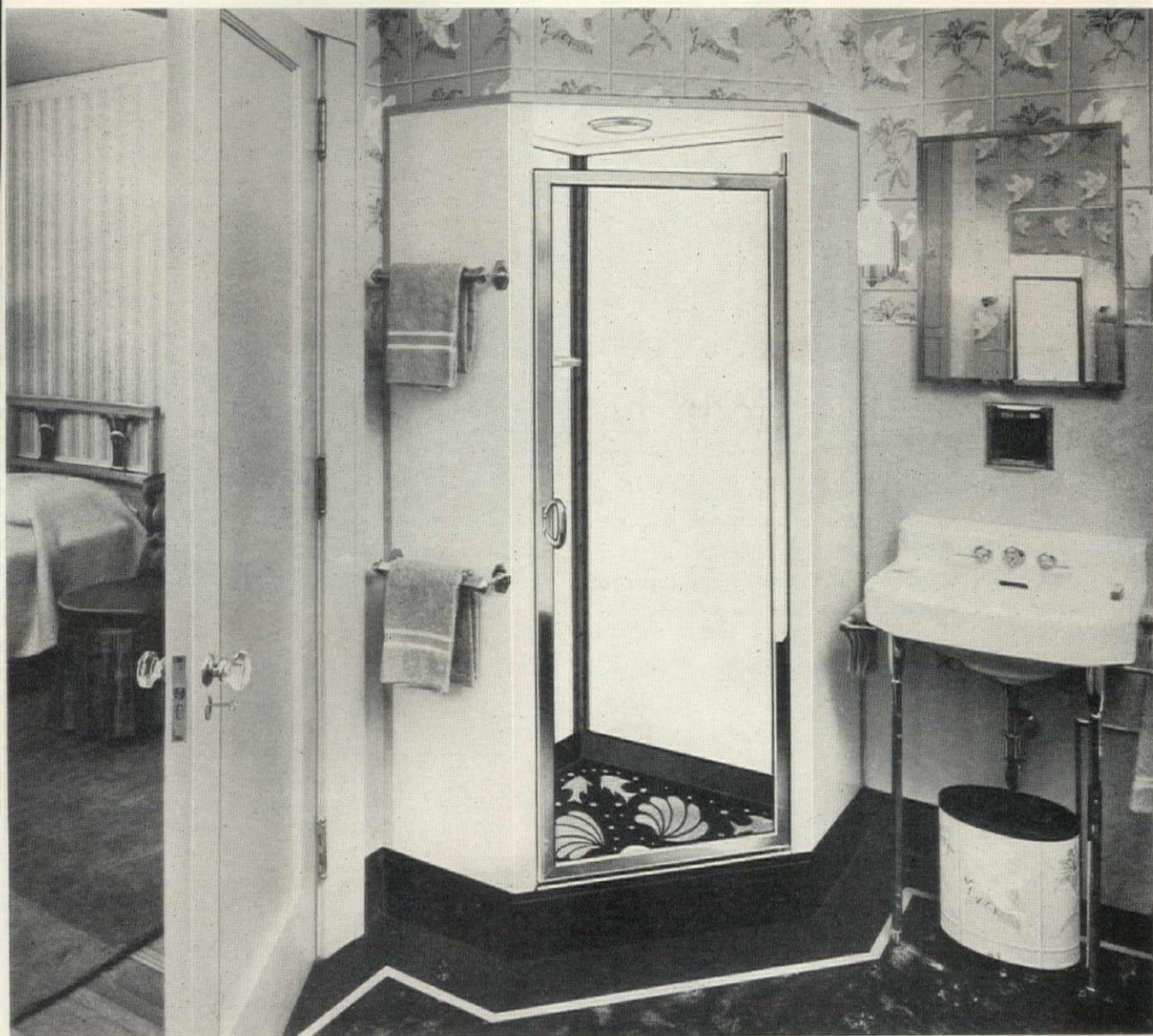
WEISWAY PIONEERED THE *Modern Trend* IN BATHROOMS

When the first Weisway Cabinet Shower was presented in 1922 the idea of a complete and self-contained bath in a 6-foot square or less, was utterly new. Since then this space economy, as well as Weisway's exclusive features and structural details, which adapted these leakproof cabinet showers to modern building techniques, have given a big boost to the growing demand for more baths in homes of every size and price class.

War emergency has given further striking proof of Weis-

way adaptability. Besides, thousands are learning to prefer the cleanliness and healthfulness of shower bathing. It all adds up to unprecedented demand for Weisways when production for civilians is again unrestricted.

Weisway will be ready, with a complete range of models, all reflecting our experience in modern design, accurate prefabrication, and the use of most suitable and highest quality materials for each particular purpose. Henry Weis Mfg. Co., Inc., 202 Oak Street, Elkhart, Indiana. (Est. 1876.)



Weisway CABINET SHOWERS



This door is always open . . .

YES, the door to the Westinghouse Better Homes Department is *always open* to assist the building profession in the planning of postwar housing.

The Better Homes Advisory Staff is ready and eager to give authoritative technical advice on the *proper applications of electricity* in 194X homes.

SIX-POINT ADVISORY SERVICE

The Better Homes Department offers a *Six-Point Advisory Service* on the following subjects:

1. Selection of correct types of electrical equipment for various classes of postwar homes.
2. Location and arrangement of fixed equipment, for conserving space and attaining maximum efficiency in arrangement of work cycles.
3. Accurate dimensions and clearances of equipment to insure proper installation and efficient operation.
4. Access for servicing of equipment—so necessary for periodic inspection and repair.
5. Location of lighting outlets and controls, for greater enjoyment, comfort, and safety in the home.
6. Utility service connections—including location and size of electric wiring, water supply, and drainage.

Westinghouse Better Homes Department welcomes the opportunity of giving constructive assistance to those interested in postwar housing.

If you have any problems relating to the selection, installation, and use of home electrical equipment, write: Better Homes Department, Westinghouse Electric & Manufacturing Company, Pittsburgh 30, Pennsylvania.

"ELECTRICAL LIVING IN 194X"

The Better Homes Department is preparing a new and unusual book—"Electrical Living in 194X"—which explains the urgent need for *better wiring for better living* in postwar homes.

This new book will be very helpful to the building profession and allied interests . . . in explaining to prospective home owners the importance of better wiring in their 194X homes.

"Electrical Living in 194X" will be made available to architects, engineers, contractors, builders, public utilities, housing authorities, electrical inspectors, building management, and investment institutions.

Watch for further announcements regarding this colorful, easy-to-understand, 64 page book!

Tune in John Charles Thomas,
NBC, Sundays, 2:30 p.m., E.W.T.

Westinghouse
Plants in 25 Cities Offices Everywhere

Here's your post-war market

AMERICAN families by the thousands the country over are pasting up scrap books—starting files—gathering ideas for their homes of tomorrow.

Plumbing and heating rank high in their consideration, as evidenced by the amazing response to a nation-wide survey conducted by Crane in 1943. The results of this survey indicate a keen appreciation of the importance of plumbing and heating in the post-war home.

The wealth of information on consumer preference developed by this survey is in the hands of Crane designers and engineers who are already past the experimental stage in planning the plumbing and heating equipment for the Crane line of tomorrow.

Crane Co. will work with you on any plans you may have for the homes you intend to build after the war. By including Crane plumbing and heating in those homes, you are assured of instant recognition of quality by your prospects, and, furthermore, you will know that the equipment has been designed to meet the expressed desires and wishes of Mr. and Mrs. America.

To further the desire for home ownership—to translate that desire into action, Crane Co. has prepared a valuable "Step Planning" portfolio filled with ideas for tomorrow's home buyers. This portfolio is being widely advertised in national magazines and distributed to your prospects of tomorrow. If you would like to have a copy for your files, mail the coupon.

CRANE

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BOOKS

The story of public housing is told with frank partiality by the ex-administrator of the USHA.



STRAUS USES THIS BEFORE AND AFTER SHOT TO PROVE WHAT HOUSING ACCOMPLISHED UNDER THE USHA



"A GRAND JOB WELL DONE"—F.D.R.

THE SEVEN MYTHS OF HOUSING. By Nathan Straus. Alfred A. Knopf, New York. 5 1/2 x 8 1/2. \$2.75.

It was inevitable that Nathan Straus would write a book on housing. Having laid most of the early public housing bricks and finding them now tossed around in a most unfriendly fashion, the ex-administrator comes to the defense of his work and his convictions.

In these days of wholesale abuse people, big and little, are making no exception of public housing. They point accusingly at the huge sums of taxpayer's money which were poured into "purely experimental" projects with the consent of the federal government. They bemoan the apparent intention of government housers to willfully destroy city real estate values. This, however is only the beginning. The heavy

artillery is being saved for the engagement which will determine the survival of housing as part of a federal works program in the postwar years. It is no secret that many influential sections of the American public have never looked on government housing with any great favor. No one is better aware of these facts than Nathan Straus who was personally the subject of violent criticism for his determination to build only on cheap land which meant placing the new projects in outlying, non-slum locations.

Contrary to the implication of the title, Mr. Straus does not merely select the most obvious fallacies of the anti-housing doctrine and then refute them. He goes on to propose a postwar building program of no small proportions. This should prove the dream of every believer in public housing. In spite of antagonism to government financed dwellings, public housing has its many friends and is certain to be vigorously supported in Congress when appropriations are being dealt out for postwar works. Recent opposition, much of it more violent than informed, will be met by arguments in three dimensions—the products of public housing's first U. S. decade. Many of the criticisms used against the housing division of PWA during the thirties were inherited intact by the USHA. Much was expected of this pioneer effort, perhaps too much. Its implications as a fledgling program were too often ignored.

While Nathan Straus' book will undoubtedly help to dislodge a lot of

fence sitters, to those familiar with the field, it does not constitute news. Such points of policy as that of building housing on slum property in urban areas or on vacant land in outlying sectors remain just about where they were before. The original controversy arose, not over the desirability of building on low cost land, but over Mr. Straus' theory of siphoning off slum dwellers as a means of deflating urban land values. Everyone agrees that low density makes for pleasanter living conditions and that it can be achieved only on low cost land. However, the deliberate destruction of city realty values which results from such practice is something which many people and many housing experts will oppose to the bitter end. In this connection, it is interesting to remember that Alfred Rheinstein resigned as chairman of the New York City Housing Authority because Nathan Straus blocked the construction of a city project by the arbitrary limit of \$1.50 per square foot placed on all USHA sites regardless of locality or prevailing prices.

Obviously, the ex-administrator has no sympathy or use for real estate groups and slum owners. He hammers at them mercilessly throughout the book, blames them for political lobbying which resulted in public disinclination to accept government housing, blames them for the few admitted shortcomings of the USHA. The real difficulty lies, as always, in the views of the extremists. Actually, the failures

(Continued on page 28)

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• Here is information you'll want to have at your finger-tips. The sections on ARMCO Stainless Steel in the "Sheet Metal Specification Guide" give general specifications, cost comparisons, and outline the advantages of this rustless metal for various architectural purposes.

• The characteristics of ARMCO Stainless make it an ideal material for many post-war applications. It has high resistance to corrosion and abrasion. It cannot be stained by most food or fruit acids. It is considerably more ductile than mild steel—and can be readily welded,

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send you a copy without charge. The American Rolling Mill Company, 671 Curtis St., Middletown, Ohio.

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WITH WAR BONDS



SPECIAL PURPOSE STEELS
FOR TOMORROW'S BUILDINGS

of public housing have been no more dismal than those of private enterprise in the multiple dwelling field.

Along with everyone else, Nathan Straus favors a planned program of public works to maintain economic balance in the postwar years. Where he distinguishes himself from much current opinion is in championing public housing as one of the most important measures. To back up this claim, he produces some astonishing figures: while the building of roads, schools and airports gives a dollar for a dollar return in industrial activity, one federal dollar put into housing subsidies produces forty dollars worth of new construction.

At the prospects of postwar construction left to the mercy of private enterprise alone, Mr. Straus is morbid. He foresees wartime housing erected under the Lanham Act as the number one slum problem of tomorrow. He warns that on the day peace is restored those enemies of humanity, the slum owners and real estate operators, will be prepared to take on another, smaller war. By blocking public housing in favor of drastic slum razing (with community funds) they will be able to cash in on their own properties at inflated values. If the country is prosperous the public will hear that before long everyone will be able to afford a comfortable home. In the grip of depression they will point to the vacancies in slum districts as the reason for delaying an extensive housing program, regardless of the fact that such vacancies exist only because poorer families are forced to double up. For these groups, Mr. Straus claims, it will never be the time to launch a public housing program.

Mr. Straus' answers to the arguments most frequently used against government housing are:

1) *There are no slums in my town.*

This statement, usually heard on the right side of the tracks, is based on complete ignorance of existing conditions. Slums are to be found everywhere—in large cities, in small towns, on the farms. One third of the nation comprises the population of urban and rural slums, constituting the great, unsatisfied housing market.

2) *Public housing does not clear the slums.*

"The slums of America had been growing each year for 100 years. Under the USHA program they began to shrink."

3) *The Government should buy up the slums.*

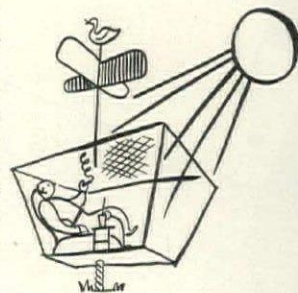
(Continued on page 122)

IN THE FORUM

Paul Laszlo, whose houses get a portfolio (page 77), has gone all out for beauty. When he used to rave about prewar Vienna (where he spent a precocious boyhood), we had a notion that architecture wasn't

the only kind of beauty that had him captivated. Further incriminating evidence turned up in some correspondence about a house he designed in California. Rapturously, he announced that each tree was named something like "Gloria" or "Mary" and even the black widow spiders were called "Honey." The truth will out. Laszlo is now designing movie sets where he can enjoy an uninterrupted view of all the stars and starlets. He says the movies are colossal and will get better any day.

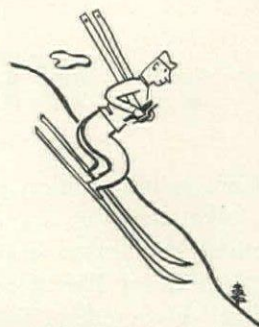
In an inspired moment some years ago Gerald Loeb, author of *A Layman Looks at Building* (page 67), considered becoming an architect. However, he turned down inspiration for investment and settled for a partnership in E. F. Hutton & Co. While we admire this down-to-earth decision we sometimes worry about Mr. Loeb's psyche. He simply doesn't add up to our version of the typical broker. Every time we get ready to sink a bonus in General Motors, he turns up with something like the nifty suntrap for his country house (FORUM July 1939). This trait certainly doesn't indicate the conventional oak-paneled, Wall Street mind. As potential capitalists ourselves, we will settle for a war bond and continue to encourage Mr. Loeb's architectural philandering.



Had H.Q. known what a break they were giving the boys when they ordered Captain Joseph Roberto to MacDill Field, Florida (page 59), they would probably have kept him in Washington. We refer not to Mrs. Roberto's looks but to the flowering of the Field. The architect-captain's wife is a singularly smart young woman who does his presentation work for him and whips up a mean casserole to boot. When they arrived at the base the Robertos flushed

a fine covey of dormant talent and teamed them up to produce all sorts of non-regulation amenities. The buildings in this issue are only the most recent additions. Other camps are now angling for the Captain complete with wife, but feathering one Army nest is a big enough job for anyone.

Fritz Dillman, who designed the Snow Valley ski lodge (page 95), now spends practically all of his time executing christiana and telemark turns on a Colorado mountainside. This isn't precisely the conduct one would expect from an architect, but who called that soldier an architect? In uniform Dillman handles his skis as agilely as he used to flourish a T square. He performs for the benefit of saucer-eyed student soldiers who then try to imitate him. Dillman thinks it's a pity that he can't treat the platoon to a snack at the ski lodge but the going isn't all downhill from Colorado to Vermont.

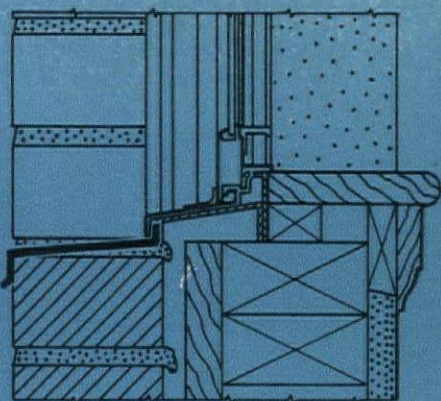


Like his distinguished father for whom he was named, Nathan Straus has tenacity. Some will remember that when the late philanthropist attempted to sell pasteurized milk to the poor of New York, he was clapped in jail—a clap that was heard 'round the world and resulted in routing his dubious opponents. The present Nathan, one time U. S. Housing Administrator, has not allowed opposition and discouragement to sour his milk of human kindness. His interest in public housing remains ardent and articulate and now takes form in a 313 page book, *The Seven Myths of Housing*. Nor is he content merely with writing. Recently he acquired control of radio station WMCA. Rumor has it that Mr. Straus lined up the elevator and page boys for inspection the day he took over. Verdict: clean uniforms and a ritual of hand washing every two hours, "Clear that slum" eh, Maestro?

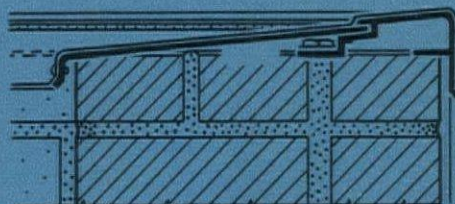




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This coping is a combination of an extruded shape and formed aluminum sheet.

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The booklet, "Window Sills & Coping of Alcoa Aluminum", shows many of these standard shapes, together with construction design details. For a copy, write ALUMINUM COMPANY OF AMERICA, 2166 Gulf Building, Pittsburgh, Pennsylvania.

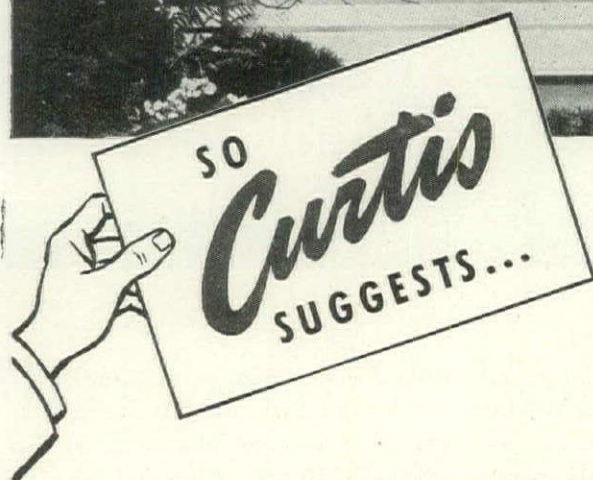


ALCOA ALUMINUM



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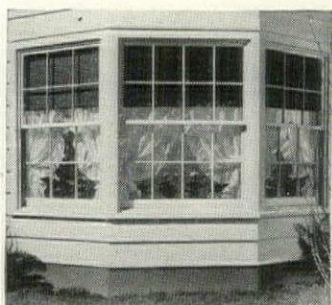


More windows! That's what you and your clients want in post-war homes.

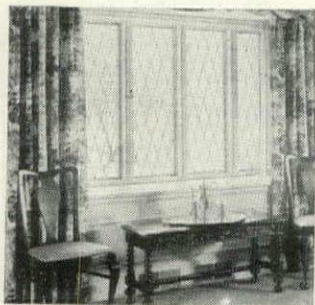
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You'll want windows that are truly weather-tight—windows that are easier to operate—economical to install—simple to maintain. Beautiful windows that will *keep* their beauty through the years.

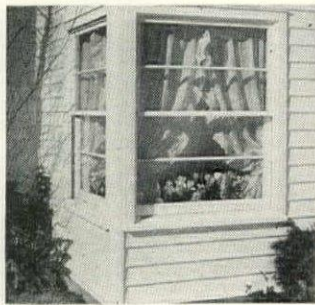
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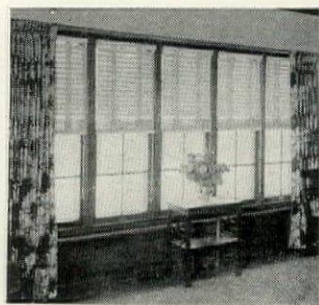
For adding useful living space to a small room—for enjoying a view—for greater interest—it's hard to surpass a Curtis bay. Notice the streamlined beauty of the narrow mullions. Made up of pre-fit stock window units, Curtis bays are economical to install.



These Curtis Silentite casements may be combined in endless variety to provide charming window groups. Silentite casements are easier to operate—no swinging, slamming or rattling—readily cleaned from inside. Several sash styles are available.



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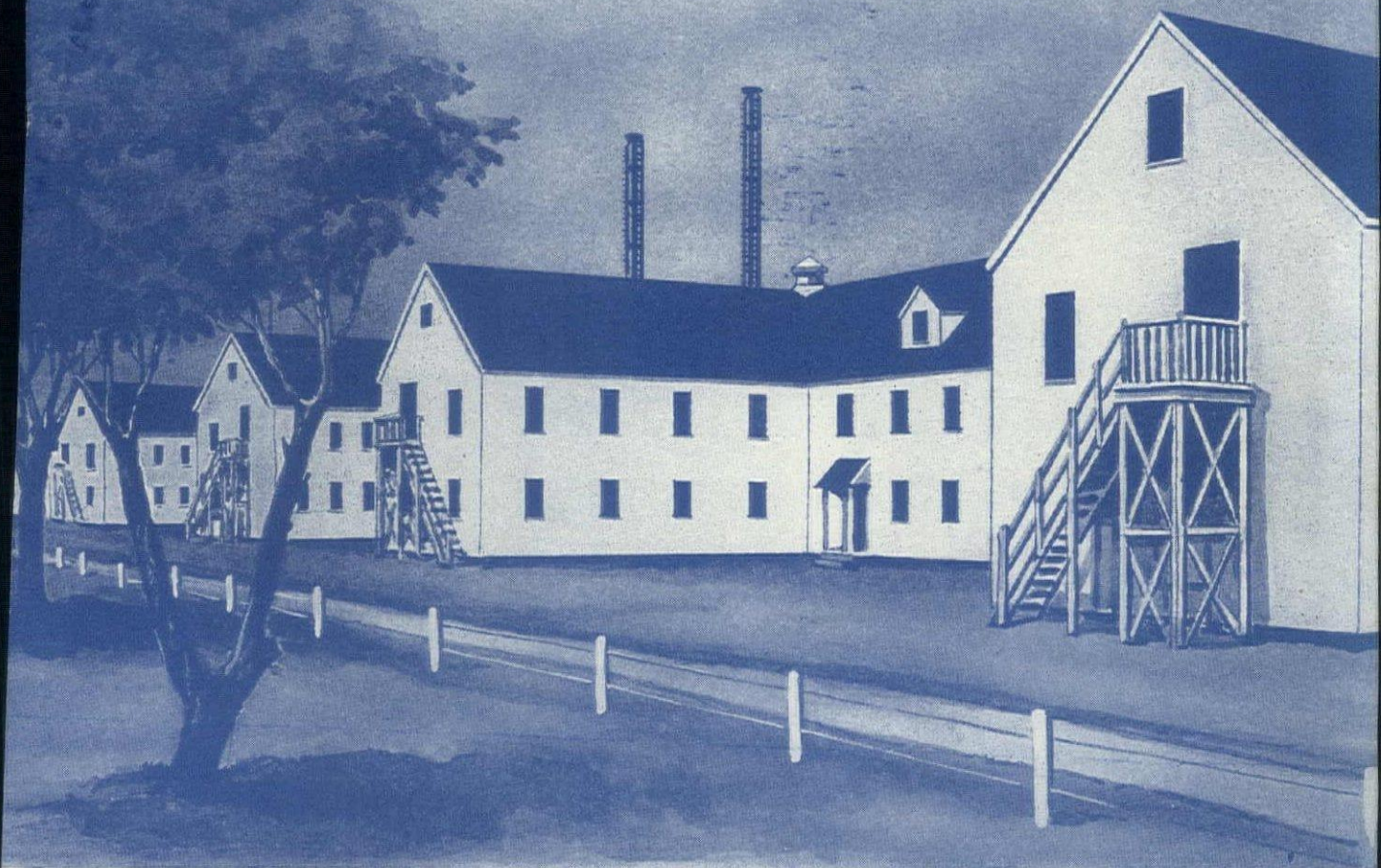
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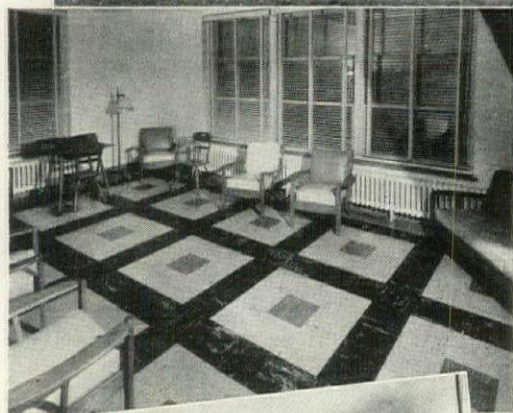
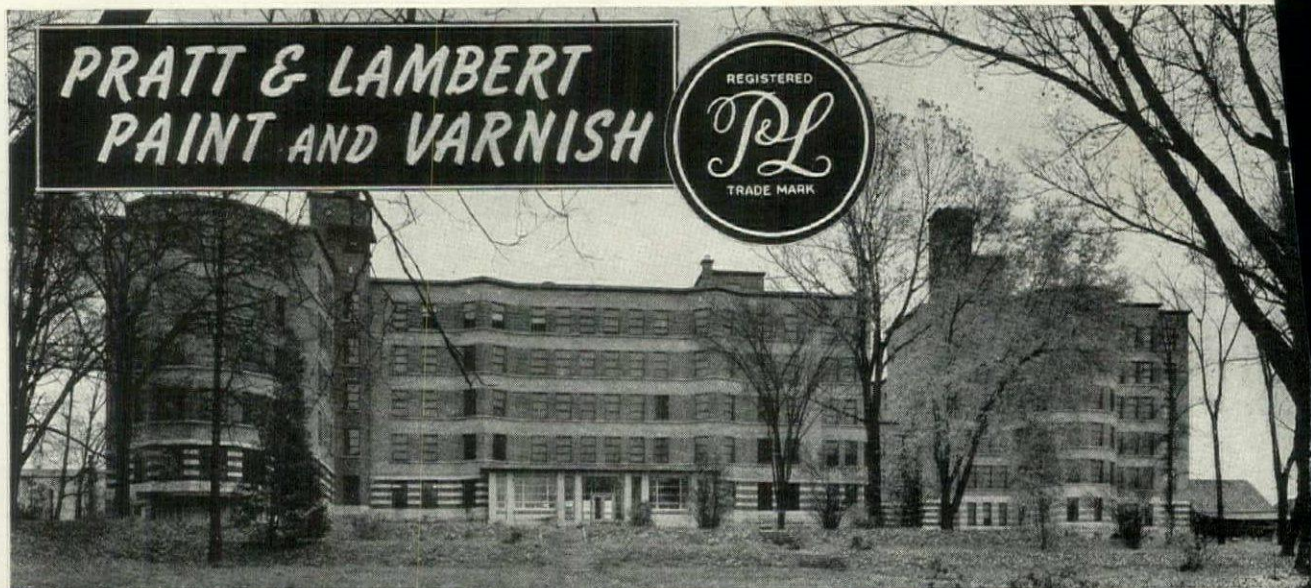
will *custom-cut* tomorrow, too!



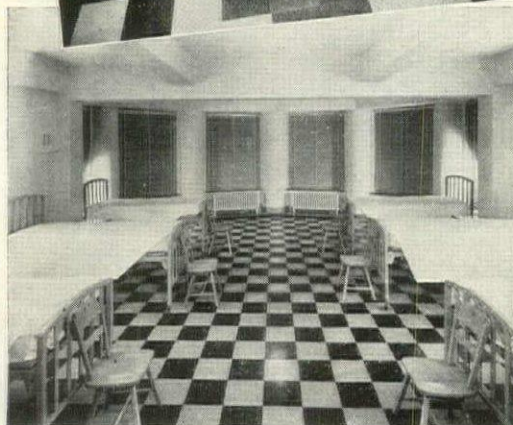
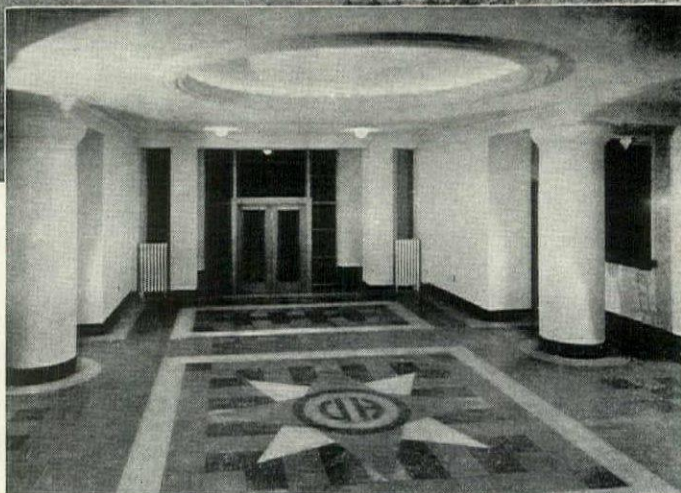
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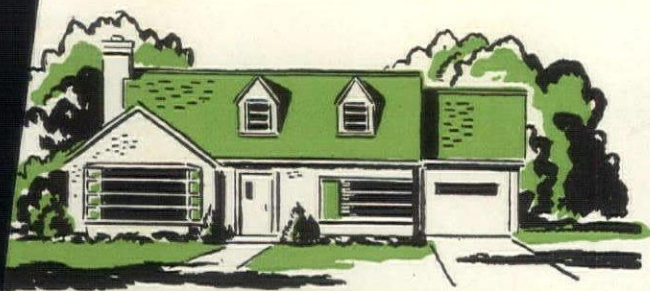
HOTEL DIEU DE SHERBROOKE, SHERBROOKE, QUEBEC
BEAULÉ & MORRISETTE, Quebec City; LOUIS N. AUDET, F.R.A.I.C.,
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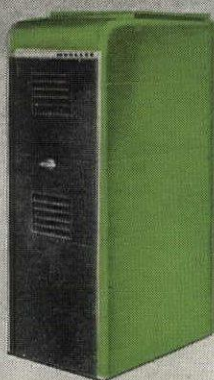
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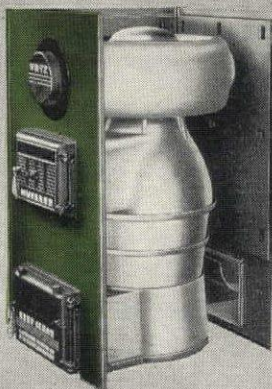
B-15



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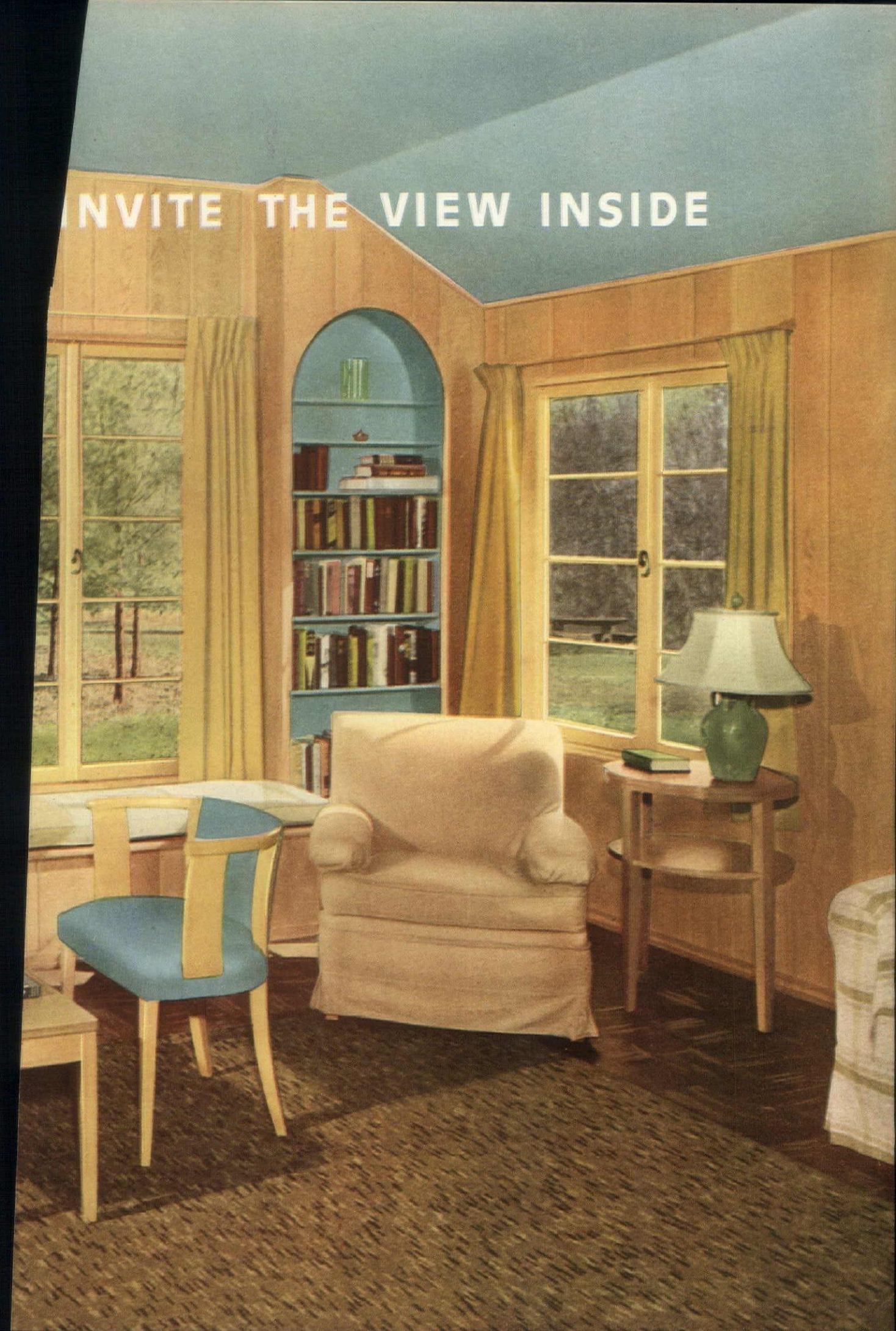
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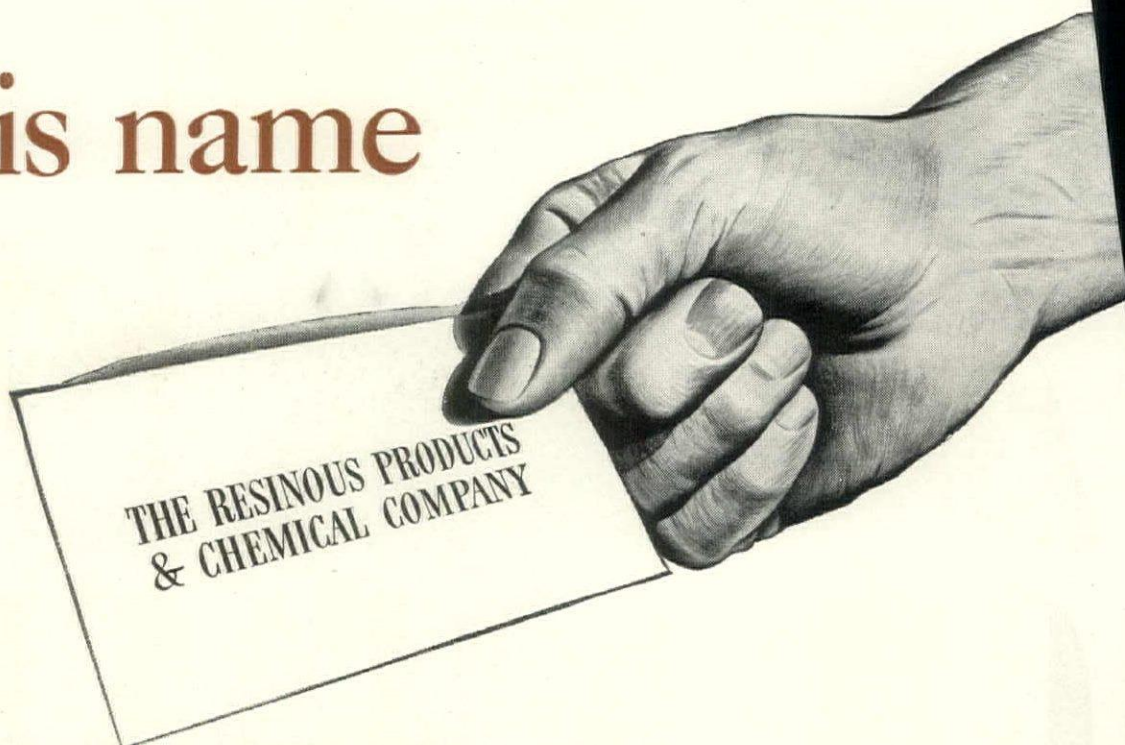
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"NEAT, IF NOT FORMAL"

Forum:

As a designer I would like to read more about the following home subjects: 1) solar heating of day-use rooms; 2) improved designs in kitchens, bathrooms and closets; 3) a quiet, positive, and easily operated door-latch; 4) a window design where both sash and screen may be independently rolled away into a recess, and again tightly closed with ease; 5) outdoor "living rooms" for fair-weather use. (This subject is especially interesting to us of the southwest where the open air is comfortable the greater part of the year.) Elaborating on number five—within the past third of a century many persons spent hours of leisure, especially early evening, on a cramped front porch beneath ornate "gingerbread" work with noisy street traffic clattering by. The rear of the home oftentimes took on a shamefully neglected appearance. Now we prefer to spend leisure hours in the privacy and quiet of the REAR, within a broad screened porch or on a leveled lawn amid trees and flowers. A high enclosure of masonry and/or shrubbery creates a quiet little world all our own, while the front presents a plain but neat, if not formal appearance."

WILLIAM H. MILLS

Tucson, Ariz.

BRISTOL, VA.-TENN.

Forum:

I wish to express the sincere appreciation of the City Planning Commission of Bristol, Va. for the splendid write-up of Bristol appearing in the December FORUM. . . .

A few weeks ago there was a meeting of all Virginia counties and city Planning Commissions in Richmond, sponsored by Virginia State Planning Board. I had the pleasure of telling the assemblage about our Bristol Plan with emphasis on the effort we have made to arouse public interest in what we are doing. I took the opportunity to show a scrapbook of all our material and, of course, *THE ARCHITECTURAL FORUM* booklet, "Planning With You," was one of our most important exhibits. I am sincere in saying that I con-

sider this booklet to be the soundest bit of writing regarding planning, from a layman's point of view, that I have discovered to date. . . .

In connection with the article in your magazine and without, in any sense, finding fault, I would like to draw your attention to what I consider to be an extremely important point that was not mentioned. I refer to the fact that without the excellent assistance and constructive suggestions of Mr. Hayden Johnson and Mr. Robert Burlingham of the Upper East Tennessee Office of the Tennessee State Planning Commission, it would have been impossible for us to have accomplished anywhere near the amount of detail work that we have chalked up.

In Richmond I was repeatedly asked "How in the world were you able to complete so many studies, down to the last detail of mapping and blueprinting," and of course, the answer simply is that we have been able to draw on the wide knowledge and technical abilities of the gentlemen mentioned above.

LYMAN SEVIER, *Chairman*
City Planning Commission of
Bristol, Va.

EDITORIAL BLINDSPOT?

Forum:

For the past two years I have conscientiously perused your publication from cover to cover in the vain hope that someone would mention the attitude of our ever present trade unions in regards to prefabrication, not only for homes but for all the other prefabricated items earmarked for construction.

As several thousand union contractors like ourselves can only postwar plan *after* we have their decision, I sincerely hope that you will use your far-flung resources to garner some information on this very pertinent topic.

L. C. GREENGROVE

Yuenger Corp.
Nutley, N. J.

IF THE FORUM has failed to shed light on this important subject, it has not been through lack of desire but through lack of authoritative information on this \$64 question.—Ed.

PROF. KILLAM ON HOUSING

Forum:

Urban housing is likely to constitute an important part of postwar activity. Before proceeding with great additional expenditures the public should be informed of the relative costs to the taxpayers of different methods of providing housing. New York City, because of its great size, is not typical, but it gives the best opportunity to study alternative approaches to housing.

In general, reports of housing authorities are not likely to be up-to-date. An inquiry as to results should be carried out by some unprejudiced person not in government employ and should consider the results obtained by projects conducted on the prewar basis.

We need to know how much of the field has been covered, how much it has cost, is costing, and will cost when the last interest is paid. We need to know whether any of the present methods of financing can be continued so as to supply any significant portion of the need or whether the burden on self-supporting taxpayers will force either a reduction in the number of projects or changed financing methods.

For each project we need to have a clear and definite statement of the financing so that we can tell just how much the city, state or federal government is contributing. In each project we need to know what the assessed value, tax levy and tax collection amounted to in the year before acquisition, the total development cost, the assessed valuation after completion and the amount paid in lieu of taxes, if any. Have such projects led to private development on adjacent land? If it is claimed that disease and delinquency have been reduced the comparison should be made between the accepted project tenants before and after their experience in the project rather than a comparison of the new tenants with the pre-project tenants.

Many people assume that a project replacing a slum greatly reduces the cost of city services. Some service costs are not reduced at all: schools, welfare, free hospitalization, debt service, sub-

(Continued on page 36)

Is this going to happen in your homes?

ever again," many builders are saying.

beautified ceilings and dry-built full-wall construction have ended the necessity of using materials which often crack, even before woodwork is applied . . . and which can be an endless source of annoyance and expense to builder and home owner alike.

Strong-Bilt Panels in full-wall size have solved the problem which has puzzled thinking architects and contractors for years.

FAST—by eliminating joints.

COND—by making available a strong, rigid, crackproof material, with a beautifully pebbled surface.

STURD—by providing a method of application employing Upson Floating Fasteners which anchor the panels securely from the back and compensate for normal structural settlement.

Highly successful use in over 50,000 homes, and endorsement by prominent builders attest the value of dry-built full-wall construction.

Strong-Bilt Panels are available now only for housing jobs carrying priority ratings. For booklets and detailed information, phone, wire or write The Upson Company, Lockport, New York.

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



**UPSON
STRONG-BILT
PANELS**

**THE CRACKPROOF BEAUTY SURFACE
WITH EFFICIENT INSULATING VALUE**

Cuts Down Construction Time! One Panel covers entire wall of average size room. Applied with Upson Floating Fasteners which anchor panels securely from the back and compensate for normal structural settlement. No face nailing. No joints. No time-consuming system of filling and taping. No nails to countersink. No nail holes to fill.

Moisture Troubles Licked! Entirely dry-built. No waiting for plaster to dry. Eliminates the 1000 pounds of water which may be used in plastering a 6-room house.

Efficient Insulating Value! Up to 3½ times that of plaster.

Crackproof! Positively will not crack, splinter or chip. Does away with annoying and costly repairs.

Tough and Strong! Withstands impact up to 6 times heavier than needed to shatter boards with a brittle core.

Finest Painting Surface On Any Wall Material! Pebbled and presized at the factory. No fuzziness. Can be painted immediately after application.

LETTERS

(Continued from page 34)

sized carfare, for instance. Tenant's wages are not increased by a housing project. Theoretically fire and police protection is made simpler by the improved planning and construction of a project, but do the New York records show any reduction in the number of policemen and firemen in project areas? To give a rough idea of the adequacy of any payment in lieu of taxes we can check just one item of city service, the maintenance cost (not the capital cost) of public school education. This cost can be computed approximately by multiplying the number of project children attending the public schools by the average annual cost per pupil.

As to Parkchester and Clinton Hill, developed respectively by the Metropolitan and the Equitable, we should like to know what the returns have been and how much they pay in taxes.

The question of the allowable density of population per acre is often raised. One of the criticisms of the proposed Stuyvesant Town project was based on its population density. There are now enough completed projects in New York City to give information as to the disadvantages of densities which have been criticized as too high by some people.

Housing, as well as other phases of urban rebuilding, must be carried on with a clear understanding of the conditions which will exist in this country after the war and will lack realism if based on prewar European experience. Housing reformers will not be the only ones to ask for public money. In order to get their share, and to deserve it, they must present well-considered plans.

CHARLES W. KILLAM

*Professor of Architecture, Emeritus
Harvard University*

APPROVAL LIMITED

Forum:

I am an architectural student. In case you are not already aware of the meaning of the term "architectural student" as applied to Australians, let me explain it to you.

At about the age of sixteen or seventeen years, the Australian youth has a fair idea of the profession he intends to follow on leaving college. In fact there are many boys and girls that make up their minds to follow a particular calling at a much earlier age. I for one had always wanted to be an architect since the age of nine or ten. So, at college, you were encouraged to take subjects that would be of assistance to you later on when embarking upon your career.

At the age of eighteen or nineteen

A LETTER FROM THE PUBLISHER

Dear Reader:

With a demonstration of will power matched by few magazines, the editors of THE FORUM have thus far disobeyed that impulse to run an editorial page.

Editorials are the time-honored outlet for journalists who wish to flex their muscles in public and display the power of the press. Result, a terrifying surfeit of verbiage which, if omitted, would cure the paper shortage and force more citizens to form their own opinions.

But because some FORUM readers may see in our restraint a fence-sitting, evasive attitude, this seems as good a time as any for THE FORUM to underline its position on a number of current controversies.

Thus, THE FORUM:

— **hopes** for the day when private enterprise can do the whole housing job but emphatically does not believe that day is here

— **believes** that modern architecture has passed through a long evolution to emerge now as the only acceptable approach to present day problems, but that there are proportionately as many deplorable modern buildings as traditional

— **insists** that our cities must be rebuilt but has yet to find a completely satisfactory solution to the major stumbling block in the way of their reconstruction: urban land prices

— **holds** that community and regional planning is realistic (the Hon. Robert Moses notwithstanding) and that implementing such planning right this second is mandatory if the much yearned-for better America is to appear

— **urges** that the greater unification of the building process which the war produced be retained in the even more exacting future

— **champions** prefabrication as greater standardization as positive means toward lower cost and higher quality

— **plugs** for revision of building codes, modern zoning and real estate taxation based on income not fantasy, along with the elimination of restrictive practices, whether by labor or industry, as reforms needed for a healthy industry

— **longs** to see a scientific appraisal of new ideas replace the sentimental and ultra-conservative attitude which has for years inhibited Buildings' thinking and doing

— **works** for integrated, blight-protected neighborhoods as units large enough to support the proper amenities for 20th century living and small enough to be digestible as a planning problem with the interests of the individual family uppermost

— **demands** that Government policy give maximum encouragement to private Building but equally that Government function at those times when and in those essential fields where private Building cannot do the job unaided.

These are some of the ideas on which FORUM editors have strong convictions. Perhaps one reason we do not run a page labeled "editorial" is that every page (except "news") in every issue is calculated to further these ideas by making it impossible for those who control Building to forget them.

Finally, the Editors do not expect universal agreement with these positions. The following THE FORUM has won has not come through any attempt to lift itself by its bootlicks.

H.M.

most students leave college. On leaving college, those intending to take architecture must sit for an entry examination before being allowed to commence the university course. This course extends over a period of from five to seven years according to the student's ability. The first two years consist of the rather more dry type of work such as history of architecture, building construction, perspective drawing, modeling and

many other subjects. In the third year one begins to apply one's knowledge to various problems. It is then that one commences upon design work in conjunction with more modern forms of construction. It is here that we find THE ARCHITECTURAL FORUM a great help, in fact, a dire necessity, for, it is from this source that nearly all our examples of good design principles are

(Continued on page 110)

STARTING IN MARCH! Full page advertisements, in color, will feature Weldwood Plywood in *Better Homes and Gardens*, *American Home*, *House Beautiful*.



What? No Plaster!

No sir, *no plaster!*

Just the sheer loveliness of Weldwood Plywood Paneling — charming, luxurious, beautiful and absolutely practical for the *small cost*, soon-to-be-built home.

A wonderful *fact*, isn't it?

Think of the design possibilities!

Think of those clients of yours who've "always wanted wood-paneled rooms" but couldn't have them before.

Now, for those 194x homes, you can offer them rooms superbly done, partially or wholly, in mahogany, walnut, oak, gum, knotty pine or other fine hardwoods for little more than the cost of ordinary walls.

What's more, Weldwood Plywood Paneling is guaranteed for the life of the building!

Crack-proof and permanent, it goes right on furring strips attached to studding.

A few big, $\frac{1}{4}$ ", 4' x 8' panels are raised into place, and presto! . . . the walls are ready for trim.

No waste of material . . . no waiting for walls to dry . . . no plaster damp to cause cracks and warping.

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

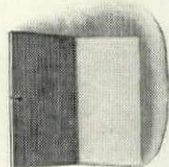
Forever smooth, they do not develop

rough grain-lines to show through costly wall paper or paint.

One-quarter inch in thickness, they are available in 6' x 4', 7' x 4', 8' x 4' size panels. (Grain runs short way.)

Write for complete information.

The Mengel Hollow-Grid Flush Door opens up new, low-cost design possibilities.



Plastics and Wood Welded for Good

Waterproof Weldwood, so marked, is bonded with phenol formaldehyde synthetic resin. Other types of water-resistant Weldwood are manufactured with extended urea resins and other approved bonding agents. Back of these Weldwood Products are unmatched facilities and experience in Plywood production and fabrication. Available also are the services of qualified engineers, chemists and wood technologists.

WELDWOOD Plywood

Weldwood Plywood and Plywood Products are manufactured and marketed by
UNITED STATES PLYWOOD CORPORATION **THE MENGEL COMPANY**
 New York, N. Y. Louisville, Ky.

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

**Tough Fire Hazards
"Engineered"
this CARDOX
Fire Extinguishing System**

Hazards in this plant involve the extensive use of flashy flammable liquids. Unless extinguished in a few seconds, fire could mean the total loss of precious materials and skilled man-hours.

Protection for these hazards is provided by a Cardox System . . . individually engineered to give the most effective application of Cardox CO₂ for the specific hazards protected by the system.

How This Cardox System Performs

Fire in any of these hazards is detected visually or automatically.

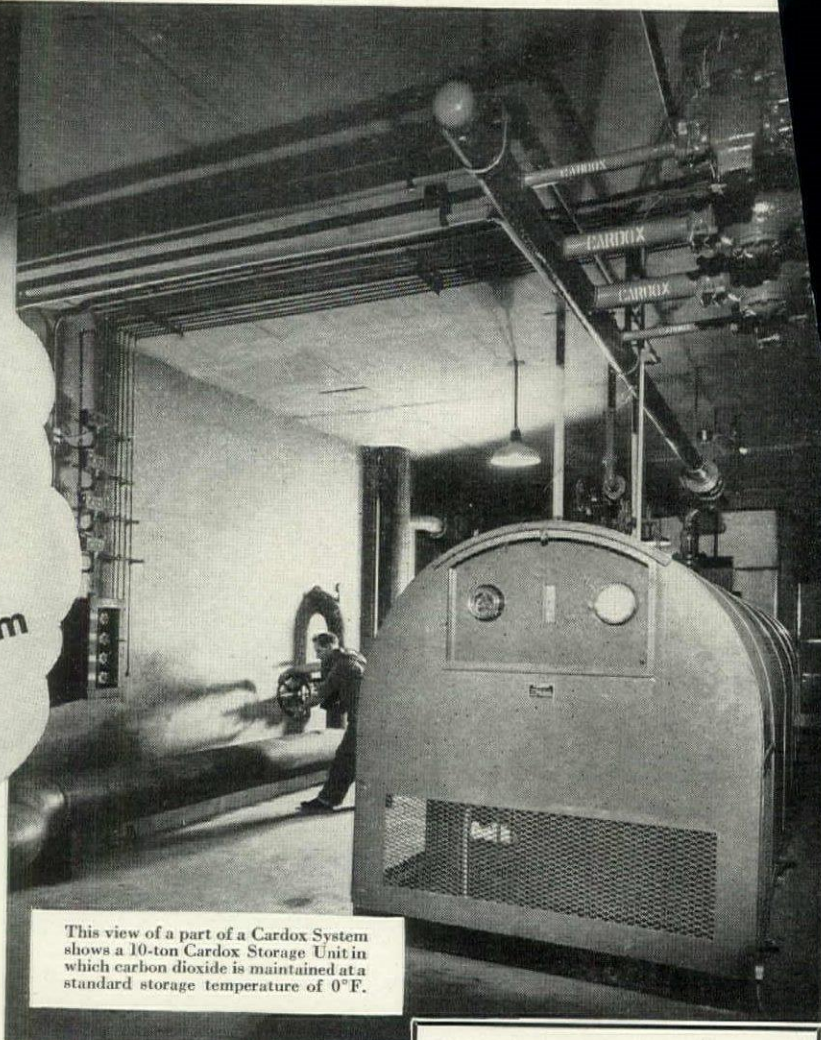
An alarm sounds, giving personnel notice to leave the fire zone. Time is allowed for complete evacuation of personnel.

A timed mass discharge of cold Cardox CO₂, released into the fire zone, reduces oxygen content of the atmosphere below combustion requirements and cools out the entire fire. So rapidly is the Cardox CO₂ discharged into the fire that burning time is usually cut to a very few seconds.

Since Cardox CO₂ is a non-damaging, non-contaminating inert gas, there is no damage or production delay caused by the extinguishing medium.

**How Cardox Systems
Provide Uniform Performance**

Extinguishment of this kind is possible with a Cardox System, through engineered application of carbon dioxide maintained at a standard storage temperature of 0°F. Cardox CO₂ extinguishing performance is uniform, regardless of weather or plant operating temperature.



This view of a part of a Cardox System shows a 10-ton Cardox Storage Unit in which carbon dioxide is maintained at a standard storage temperature of 0°F.

The advantage of uniform extinguishing performance can thus be provided in small or large systems, whether engineered for one or a number of hazards—indoors or out.

Convenient hose reels can be included in the system for fire that would call for local direct application of Cardox CO₂. For example, loading or unloading volatile and flammable liquids.

If you would like more information to help solve war plant fire protection problems of today . . . or in perfecting post-war plans for reducing loss of property and life by fire—write for Bulletin 1424.

★ ★ ★

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Protect War Industries**

- Timed discharges, as needed, through built-in piping systems . . . supplied instantly from a single storage unit holding tons (if required) of liquid Cardox CO₂.
- Mass discharge of Cardox CO₂ "knocks out" fire, by . . .
- Reducing oxygen content of the atmosphere below the concentration necessary for combustion, and . . .
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**CARDOX—CO₂ Systems with
Enhanced Fire Extinguishing
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- Uniformity of CO₂ characteristics.
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MASS DISCHARGE OF CO₂
ENHANCED COOLING EFFECT
CENTRAL STORAGE UNIT
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MANUAL OR AUTOMATIC CONTROL

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NON-DAMAGING FIRE EXTINGUISHING SYSTEMS

"Right now Frigidaire Dependability Counts More Than Ever"

*Typical of expressions from
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Frigidaire, busy with war production, today is no less proud of the millions of Frigidaire products, made in peacetime, now serving their users so well, so dependably, in so many helpful ways. To continue to make Frigidaire products America's first choice is our goal for the future, when victory is won.



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

For Excellence



in War Production

FRIGIDAIRE

Division of

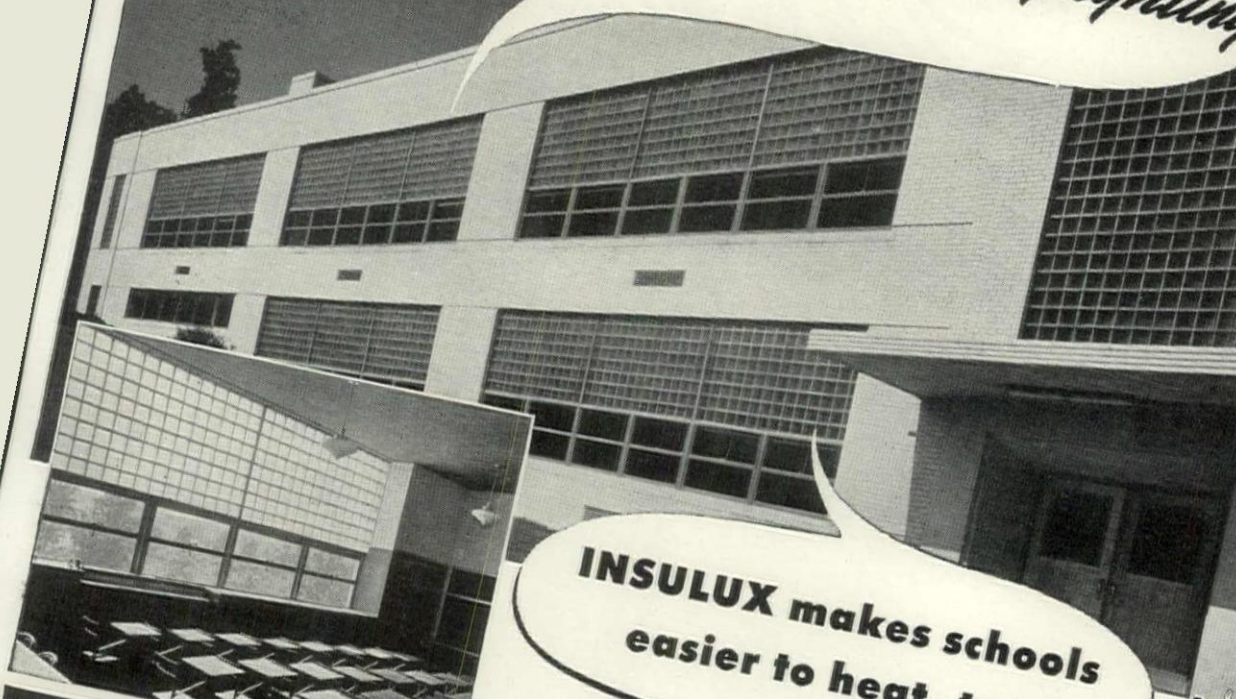
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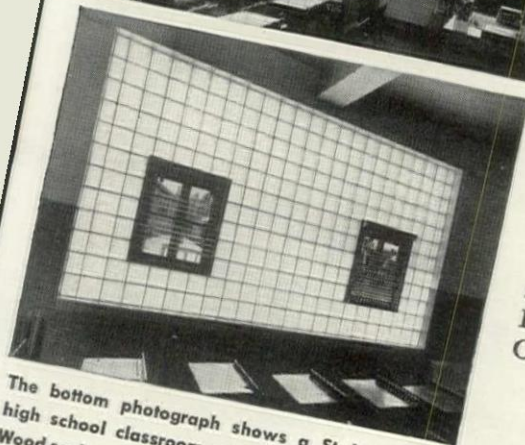
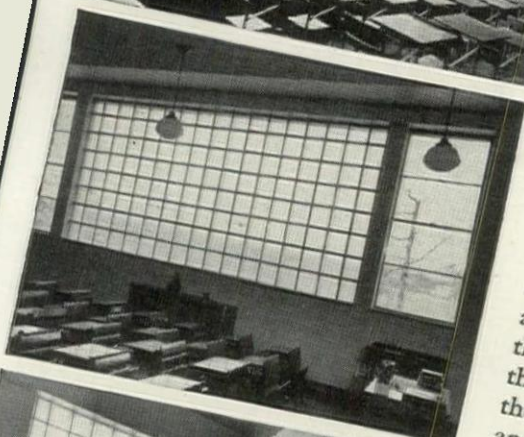
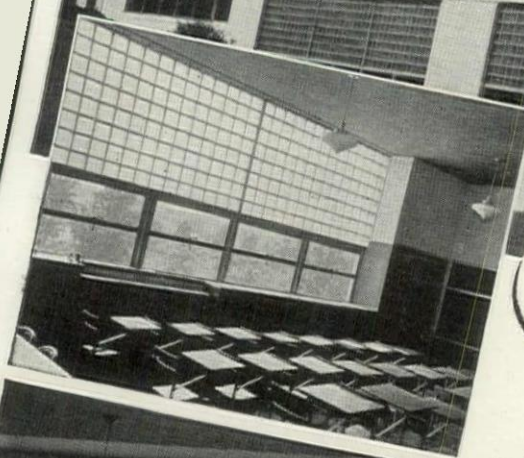
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ELECTRIC REFRIGERATORS • RANGES • WATER HEATERS • HOME FREEZERS
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BEVERAGE, MILK, WATER COOLERS • FROZEN FOOD MERCHANDISERS
AND LOCKER EQUIPMENT

INSULUX GLASS BLOCK
will give post-war schools the
advantages of *Controlled Daylighting*



**INSULUX makes schools
easier to heat, too**



The bottom photograph shows a St. Louis, Mo., high school classroom remodeled with INSULUX. Wood sash can be replaced with metal after the war.

INSULUX Glass Block panels provide ideal light-transmitting areas for schools. Architects who specify INSULUX Light-Directional Glass Block can control the amount and distribution of natural light entering classrooms, libraries, halls, stairways, cafeterias.

Glass Block panels can be used in various combinations with windows for ventilation and vision, as shown in the three small photographs. Probably the most ideal combination is the one with windows below the panels. Light-Directional Glass Block in the panels above the windows direct the major portion of the light for all sun angles upward to the ceiling, which reflects this light downward, deep into the room.

Walls of INSULUX Glass Block not only flood interiors with natural daylight, but provide insulation which reduces heating costs. INSULUX is easy to clean ... highly resistant to damage ... fireproof.

For technical data, specifications, and installation details, see our section in Sweet's Architectural Catalog, or write: INSULUX Products Division, Dept. 111, Owens-Illinois Glass Company, Toledo, Ohio.

OWENS-ILLINOIS
INSULUX
GLASS BLOCK





A clerk in Milwaukee asks:

Is the production of bituminous coal keeping pace with America's war needs?

The answer is truly inspiring! In 1943 our mines produced 585,000,000 tons of bituminous coal—the greatest amount of coal ever mined in one single year in the United States or any other country.

The only year that approached it was 1942, and 1943 beat that by more than 5,000,000 tons.

This showing is all the more remarkable when you consider that more than 70,000 trained mine workers are in the armed services or in other war-essential industries—and that, during the year production of more than 65,000,000 tons was lost because of strikes, slowdowns and unwarranted absenteeism.

One thing that made this vast volume of production possible was the investment of \$400,000,000 in mechanical safety and operating equipment during the past twenty years. This investment was made, for the most part, in the depression years. The foresight of the bituminous producers in making so heavy an investment in new equipment at a time so critical is now finding its reward in today's production records.

Nearly everybody has ideas and opinions about bituminous coal and the men who mine it. Doubtless many have questions they'd like to ask about the industry.

We are eager to answer such questions, because we are glad to tell you about our industry. Its practices and policies are an open book.

You will find, as we answer your questions, that the operators are taking their responsibilities seriously,

We welcome your **QUESTIONS** *about our* **Industry**



A merchant in Baltimore asks:

Can miners' children get a good education?

They certainly can. Miners' children have as good a chance to acquire an education as have children anywhere in the United States. State school laws and Federal child labor laws apply equally to all children of school age. In fact, miners' children often have educational and recreational advantages above the average. Many mine companies encourage and support playgrounds, summer camps, libraries, elementary schools, training schools, child-care and home guidance programs. When a miner's children grow up they are as free and well-qualified as any other children to choose their own occupations. Thousands of miners' children go on to college and technical institutions or take extension courses offered by State Universities.

and that the men who work in the mines live pretty much the same kind of lives as workmen everywhere.

The bituminous producers gladly accept this assignment to keep you informed and up to date on their business. They consider it a part of their duty as good citizens, good employers, and producers of America's No. 1 source of heat and energy.

BUY MORE WAR BONDS

BITUMINOUS COAL

Institute

60 East 42nd Street, New York 17, N. Y.



SISTERS UNDER THE SKIN!



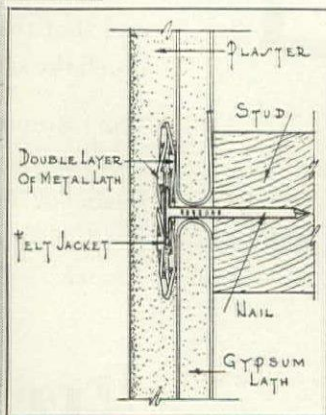
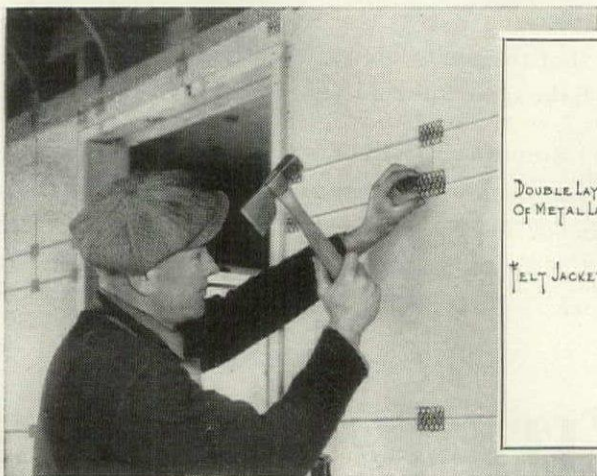
THERE'S no more difference between these homes than the people who live in them. Structurally they are sisters under the skin! For, when you come right down to it the chief advance in house building during the last hundred years has been in better design and the use of new methods and materials.

Take the Gold Bond Floating Wall System. This improved method of construction—an exclusive National Gypsum system—eliminates the chief reasons for cracks in walls and ceilings that sometimes occur even in new homes. So simple that it adds nothing extra to the cost.

As shown in the diagram this system is built around a new type, extra-sturdy lath nail used *between* panels of Gold Bond Gypsum Lath which builds "free floating

action" into the walls and ceilings. The plastering is then done in the usual way and the finished appearance is the same as other plaster jobs. But what a difference in performance—sound transmission is effectively reduced—one-hour fire protection is automatically provided and repair expense all but eliminated.

The Gold Bond Floating Wall System is just one of National Gypsum's contributions to better construction. Another system designed especially for apartments, hotels, and hospitals is the Gold Bond 2" Solid Partition System with *Simplified Base*. Conserves space besides providing fire-safe partitions with room-to-room noise appreciably checked. Full details of these systems or any of the 150 Gold Bond Products will gladly be mailed upon request.



BUILD BETTER WITH

Gold Bond

Everything - for walls & ceilings

More than 150 different products for
MODERN CONSTRUCTION
AND WAR PRODUCTION

WALLBOARD...LATH...PLASTER...LIME
METAL PRODUCTS...WALL PAINT
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NATIONAL GYPSUM COMPANY . . EXECUTIVE OFFICES, BUFFALO, N. Y.

20 Plants from Canada to the Gulf . . . Sales offices in principal cities

THE MONTH IN BUILDING . . . NEWS

Slim chance for civilian home building before 1945 (this page) . . . Wounded soldiers move out of Palm Beach's swank Breakers Hotel (page 44) . . . Public housing backers open fight from Washington (page 46) . . . Defense Homes Corp. will unload \$70,000,000 holdings (page 46) . . . Small business to get first chance at surplus materials (page 47).

REVIEW

As the world held its breath for D-day, the day that would mark the beginning of the end of the European war, the Army realistically clamped down on optimistic talk of wholesale reconversion for Building and for many another industry. Reason: invasion needs could not be precisely charted; war production cutbacks could not be accurately foreseen; even limited go-ahead for reconversion would have a damaging effect on both civilian and soldier morale. But with equal realism, many a WPB administrator and many a business man knew that plans had to be made, mechanisms readied for the realignment of production that certainly was ahead. Trial formulas would soon be quietly tested in a few places, and here and there architects and engineers were already busy figuring out redesign solutions for plants no longer needed in war work. Small business, first to suffer from the exigencies of war production, would get the first chance to produce for piled-up civilian needs. New Washington watch-dog for the small businessman was fighting Maury Maverick, one-time home builder, appointed to head the Smaller War Plants Corp.

But while many looked ahead to the new and better day that lay beyond D-day and its triumphant climax, there were plenty of reminders that Old Man Building's war job had not yet come to a full-stop. As usual, the National Housing Agency was in need of money. In its last encounter with Congress, NHA had come off with only \$50,000,000, was busy whittling its program for publicly-financed conversion of older homes to the size of its diminished pocketbook. This was bad news to architects, who, with the bulk of war building over, had found conversion jobs a small but welcome windfall. With a new appropriation bill soon to be written, NHA was at work on another bid for funds, but chances were

that the impoverished agency would this time have to content itself with a slender \$30,000,000. Los Angeles and San Francisco remained the national housing sore-spots. NHA said last month that each would get another 1,000 publicly-built family units, all to be furnished for quick occupancy.

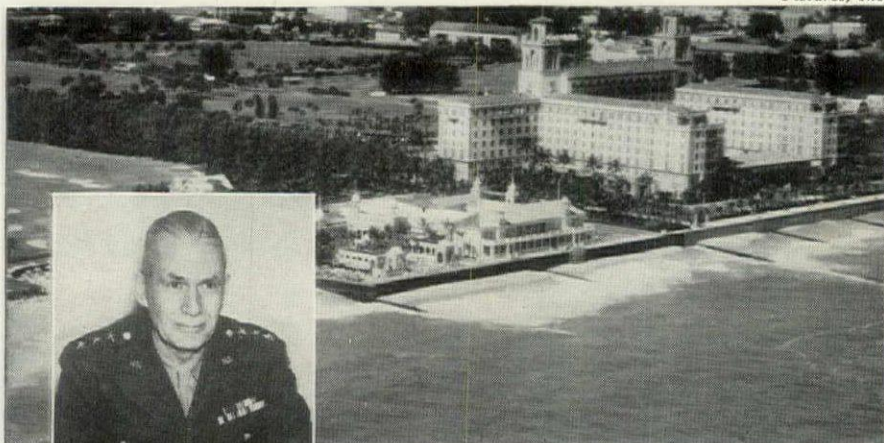
In Illinois, a circuit court judge took a pot-shot at a Neighborhood Redevelopment Act which failed to safeguard the public interest, focusing attention on the need for workable legislative mechanism to draw private enterprise into urban rebuilding. A move from Governor Thomas E. Dewey promising reduction of New York City's punishing real estate tax also served as a reminder that here, too, was a problem that would have to be faced and solved. But Dorothy Rosenman, earnest chairman of the National Committee on Housing, saw the real impediment to rehousing for the 10,000,000 American families who now have substandard homes and for the uncounted families who would like to have better ones. Precious time is being lost in fruitless squabbling, she reminded. Old Man Building will need both his private and his public arm to do the job.

TIMING UNCERTAIN

How soon and how fast reconversion would come for Building depended, like many graver issues, on how soon and how fast United Nations forces could break through Hitler's European wall. The War Department had put a lid on hopeful talk of more civilian production, and no conscientious citizen would oppose this reasonable caution. But it was clear to everybody that war material controls would not suddenly be withdrawn on V-day. Plans for gradual relaxation of restrictions were needed and were already in the works. Up to WPB was the job of safely steering production, little by little, back to the goods of peace.

To the men trying to see ahead,

Pictures, Inc.



Graphic Photo Union

BREAKERS OF PALM BEACH will open again to vacationers, under Gen. Somervell's recent order. The hospitalized soldiers who until now have enjoyed its sunny beach will go to other hospitals.

there were two probable pictures:

1) After the fall of Germany, war production will drop sharply, but stabilize itself almost immediately at a new plateau about 35 per cent below present levels.

2) After the fall of Germany, war production will drop sharply and keep on dropping. Period of adjustment to production needs of the war with Japan will be prolonged. Some economists guess this would mean severe unemployment and strongly favor a go-ahead for quick-starting building jobs to take up the slack.

While the timing was uncertain, easing of wartime controls for building would probably take a pattern like this: Clearance for more hospitals, schools, needed public works. Gradual lifting of restrictions on price and location of new housing and on needed building repairs. Discard of the requirement that two-thirds of all new housing be held for rent for an initial period. All in all, there was small reason for Building to be optimistic about any wholesale let-up of restrictions in 1944.

The improved materials outlook was, however, back of WPB's move to cut some of the present strings on application for housing priorities. By pledging to conform to general material limitations, a builder will be able to get a blanket rating covering the whole job.

FISCAL FORECAST

President Roosevelt's budget request was admittedly a guess. But as an informed one, it held important clues as to 1944-45 tempo of home building. Not counting additional allowances for overtime pay, all federal housing agencies will have less money for housekeeping

expenses in the next fiscal year.

Budget forecast: "The war housing program should be practically completed during 1944 (fiscal year), but it will be necessary to provide some private housing in 1945 in scattered areas."

The budget assumes that during the year starting July 1 the Federal Housing Administration will have to pass on 50,000 applications for refinancing and 50,000 applications for new housing—about one-sixth the volume of new building handled by FHA in an average prewar year. Since insuring authority for war housing (Title VI) expires June 30, this estimate contemplates resumed operations under Title II. If the materials situation permits such building to pick up at a faster rate, FHA can, of course, ask for a deficiency appropriation to cover additional administrative expenses.

BOOM IN FLORIDA

New York's crusading *PM* was hopping mad. Back to its anxious owners went Palm Beach's swank Breakers hotel; to other Army hospitals would go some 800 hospitalized soldiers who in recent months have sunned themselves on the Breakers' luxurious beach. Charged *PM*: "Real estate interests of Palm Beach, Fla. have succeeded in a long campaign to throw wounded American soldiers out of that famous resort."

With the Truman committee planning to investigate, the Breakers affair looked for a while like enough to burst the bubble of Florida's current boom. The Army had spent nearly \$300,000 equipping the hotel as a hospital, would, after only a few months use, spend more than half as much again to put it in shape to turn back to the Florida East Coast Hotel Co.

But Florida was having its best season since 1929. Coastal lights were bright again, and race tracks were jammed. Even the press agents had their feet up on their desks. Army fliers, sent to Miami for rest, were paying as high as \$40 a day for a room. Hotels released by the Army were selling at a pace and a price that brought real estate old-timers wistful memories of 1925.

When Lt. Gen. Brehon B. Somervell signed the order revoking the Army's lease on the Breakers, many a plain citizen throughout the U. S. joined conscientious Palm Beach socialites in wondering why. Mrs. George Emerson, mother of Alfred Gwynne Vanderbilt and a long-time Palm Beach winter resident, termed the decision "out-rageous", signed a petition.

Badgered by *PM*, General Somervell said there was "no use paying high rentals when space was available elsewhere." The Army was paying a reported \$250,000 a year for the Breakers; its owner had asked \$1,000,000. A few days later the Army had a more cogent reason for its abandonment of the hotel: more hospital space was needed; it was cheaper to find it elsewhere than to enlarge facilities at the Breakers.

TAX PLANK

With New York City property tax assessments at the highest point on record, New York owners beamed enthusiastically at news from Albany that the tax rate may slide down six points. While the discerning saw the move as an inspired part of the Dewey-for-President push, tax-burdened New Yorkers were in no mood for looking a gift horse in its political mouth.

In recent years, New York's tax rate has steadily climbed toward its legal ceiling and, while total assessed valuation has dropped, rate of assessment has mounted. In spite of the slump in assessed value from \$20 billion in 1931 to \$16½ billion in 1940, real estate men can show a wealth of evidence for their contention that New York's assessed valuation is still far above the actual market value of property. Even the State Tax Commissioner believes that the city's 96.6 rate of assessment represents 100 per cent of property value.

Because of the tax rate ceiling, New York City assessments have come to reflect maximum use value rather than capital value of property. While too-high assessments penalize the owner of run-down property not paying off through maximum use (e.g., a typical

York brownstone might be assessed \$10,000, would have to rent to about 10 families to earn a significant profit (its \$50-a-month tax bill), New York's blighted areas stand as mute evidence that most owners feel rebuilding for better use would be an even worse gamble with the tax collectors. On this troubled scene, Governor Thomas E. Dewey's promise of tax relief fell soothingly. Dewey's plan: the state legislature would grant financial relief to all municipalities. New York City could look forward to aid amounting to about \$10 million. What form the aid would take, the Governor did not say. But everybody was quick to see that the resulting reduction in real estate taxes in many New York cities would go a long way toward putting New York State's 47 electoral votes in the Governor's pocket. Only New York's Mayor LaGuardia wondered if the promise would remain a promise.

ENOUGH ROAD

The 34,000 mile nation-wide highway network proposed by President Roosevelt as the backbone of postwar public works may also come to the aid of many a city grappling with the familiar problem of what to do about blighted areas. Recommending enough road to go around the world and then some, the President, who obviously isn't betting high on helicopters, told Congress that such a project would cost \$750 million annually, with construction to be spread over a ten to twenty year period. The four-lane express highways would be free of cross-traffic, provide four different ways to travel from the Atlantic to the Pacific.

The road building plan, now being prepared by the Public Roads Administration, puts new emphasis on unobstructed routes through cities and recommends condemnation of obsolete properties in blighted areas to provide

space for off-street parking. Since the proposed system would touch almost every U. S. city over 100,000, the federal funds involved would give a much-needed lift to municipal effort for bringing blighted areas back to efficient use.

But while this aspect of the PRA program is likely to get the enthusiastic support of those concerned with the future of cities, it is also likely to be a focus for Congressional controversy. Still stuck in the mud of yesterday's rural roads, some Congressmen were more interested in putting federal money in mileage than in realistic action to rid urban streets of traffic clots. Undismayed, PRA Commissioner Thomas H. MacDonald said the blueprints would be ready to put 2,000,000 men to work in 194X.

KAISER WORLD

In the postwar world of Henry J. Kaiser, whose giant-sized imagination has already paid off in war production, highways will hum with \$400 light-weight cars, airplanes will be crowded with helicopters, housewives will choose their groceries by television, there may even be a 55-pound plywood bathtub. But to horizon pusher Kaiser, it seems that the American city "has a long way to go" to fit into his bright new world.

Jogging the "no-blight-in-my-town" point of view, Kaiser told the U. S. Conference of Mayors, meeting last month in Chicago: "When the war-torn cities of Europe are rebuilt, as they will be, under modern planning and design, a new Europe and a new Russia may well challenge our complacency." That the federal government can and will provide a national program to create postwar employment, Kaiser is convinced. But he hopes the Mayors will have the courage to launch boldly into a municipal improvement program.

"There are thousands of miles of nar-

row streets, now wholly inadequate to carry the normal traffic of the day," he said. "All too often there is dangerous and menacing congestion when the commuter traffic moves in out of the suburbs. Our hospital facilities are wholly inadequate. Many of our schools

Life photo



KAISER: giant imagineer

belie the assertion that our educational system is close to perfection, and there are factory areas so drab and forbidding as to merit the denunciation which Charles Dickens heaped upon industrial England a century ago."

NEW CEILING?

One leak in the national dike against inflation is the mounting and unregulated prices of urban and farm real estate. Interest of Office of Economic Stabilization and Federal Reserve Board economists in putting a ceiling on these climbing prices has been blocked chiefly by the obvious difficulty of applying a price ceiling to a property which may not have sold for the last

(Continued on page 46)

THAT MAN IN THE WHITE HOUSE

"It has always been my opinion, and so I have expressed it, that the proprietors (landowners) of the city of Washington, with some exceptions, are, by their jealousies and the modes they pursue to promote their local interests, amongst its worst enemies."

—GEORGE WASHINGTON

"The working men are the basis of all governments, for the plain reason that they are all the more numerous . . . I am for those means which will give the greatest good to the greatest number. . . In so far as the government lands can be disposed of, I am in favor of cutting up the wild lands into parcels, so that every poor man can have a home."

—ABRAHAM LINCOLN



N. Y. Public Library



Wide World

ten years. But enactment of a capital gains tax, to take the profit out of speculative resale, would have almost the same effect as a real estate price ceiling.

Sometime soon Congress will have to nerve itself to extend the Price Control Act (expiring next June 30), and there are hints that an amendment to regulate real estate prices may be offered. But it will certainly not be presented by Representative Jesse P. Wolcott (Rep., Mich.), who intends to press for an amendment that will strip OPA of its power to require a down-payment of 20 per cent in the sale of rented homes in war areas.

ISSUE JOINED

Challenge to the well-publicized efforts of pressure groups anxious to see the end of federal housing came last month from the National Public Housing Conference. Naming veteran houser Lee F. Johnson as its executive vice president, the Conference said it would be on the job in Washington as soon as it finds a place to hang Mr. Johnson's hat. With funds swelled by a \$5,000 contribution from CIO's United Automobile Workers plus large gifts from AFofL unions, the Conference plans to

Rent Newsphoto



JOHNSON will champion public housing

launch an educational program on behalf of slum clearance and low-rent housing that it hopes will be enlightening both to Congress and to the public.

Once a crusading country editor, popular, smart Lee Johnson has been an ace trouble shooter for the Federal Public Housing Authority and its predecessor, the United States Housing Authority, for the last six years. As assistant FPHA commissioner, he turned in a management record on some 600,000 publicly built war housing

units that the most expert private operator might envy.

NO AUCTION TODAY

First government-owned war housing to go on the market are the \$71,000,000 holdings of the Defense Homes Corporation. Late in January Federal Public Housing Commissioner Herbert Emmerich let it be known that the Corporation was in a mood to consider reasonable offers. Before the bait was officially spread out, seller Emmerich got a few nibbles.

Unnamed but obviously big-time buyers were reported interested in Washington's \$11,000,000 McLean Gardens group of apartment buildings and residence halls. But chances were that the Corporation would have to look far to find a buyer for giant Fairlington, also in Washington, whose 2,253 apartments and 322 acres cost the government more than \$30,000,000. Single-family homes built by DHC will probably find a ready market among the occupants, and financing could be aided by FHA insurance. Hope was that private capital would take over mortgages on the large apartment projects, but if none was forthcoming DHC would settle for some cash down and the rest on installment. Buyers must agree to observe National Housing Agency regulations as to tenant eligibility—immigrant war workers must get first choice.

Anomaly in the federal war housing program, the DHC was set up in 1940 to build self-supporting housing for war workers in areas where need was expected to be permanent. Operating like a private management company, the Corporation has maintained rents that meet operating expenses, including interest and amortization of financing loans supplied by the RFC.

DHC said asking prices would be based on "fair market values." Interested buyers guessed the Corporation might not try too hard to get back high wartime construction costs. On the other hand, DHC made it clear that this would be no dumping auction.

HOUSING CATALYST

Happily unconcerned is Mrs. Samuel I. Rosenman by the welter of controversy which obscures for many the question of how to get better housing for more Americans. Anxious to make things as clear to everybody as they seem to her, she has for several years functioned as an effective catalyst in the American housing scene. That New York State was the first to approve state aid for low-rent housing may be attributed in



ROSENMAN: unconcerned by controversy

part to the Rosenman method, which inspired tours of New York City slum for incredulous up-state legislators. Through her National Committee on Housing, Mrs. Rosenman has helped to unite public and private efforts back of the war housing job and to lay a solid groundwork for the same kind of teamwork in the larger job ahead.

Last month Mrs. Rosenman's urge to reconcile housing controversialists showed up in the *Survey Graphic*. Misunderstanding, nurtured by the "housing expert's tendency to hustle the public out of the office", accounts for much of the prevailing opposition to a sound public housing program, she believes. Citing popular misconceptions, she offers unequivocal answers:

►Public housing competes with private endeavor and is intended as a substitute for privately produced homes. "I do not know a single responsible advocate of public housing who would recommend spending one dollar of public funds for housing if private enterprise can build sound structures for low income families with profit."

►Rehabilitation of second-hand housing is an adequate substitute for public building. "No one has taken the trouble to explain that rehabilitation is usually expensive and rarely practical. I have found out for myself that while it often provides gadgets it seldom provides essential space, light and air."

►Public construction is more costly than private construction. "Neither group today has the data to substantiate or disprove this accusation."

Nor is Mrs. Rosenman more impressed by the newest argument of the organized opponents of public housing—that subsidy be given as rent relief and paid to private landlords. "Thousands of tenants, victims of the unbridged chasm between housing production costs and wage scales, would be revolted at the idea of applying for rent relief. Renting a house known to have a public subsidy is in the class of farm aid, which carries no stigma because

cause behind the need has been recognized as being beyond the farmer's individual responsibility."

Housing Faults. But on the public housing side of the fence, Mrs. Menman finds plenty of room for improvement. With notable exceptions, projects have been built too big. No uniform national policy on payments in the form of taxes has been worked out. In some cases, tenant relations are poor, methods of establishing eligibility embarrassing. And, more importantly, local housing authorities have frequently failed to grasp the broad-gauge

role they might effectively play in local communities. "A housing authority should not be merely a group of government employees who administer public housing. On the one hand, the housing authority should explore ways and means enabling private production to meet the housing needs of families farther and farther down the income ladder. To this end it should work with members of the real estate, building, and financial professions. On the other hand, the authority should plan and present public housing as a complement to that program."

MIGRANT MEASURE

First Census Bureau check of population bulge, hitherto measured only by sugar rationing figures and unofficial surveys, will soon be underway in nine booming war centers. Expected to be useful to municipal planning for next year's public service load, the Census spot check will also seek data as to the number of workers per family, states of origin, whether the migrants came from farm or nonfarm areas. Nobody will be asked if he plans to go back home after the war; Census experts feel this decision will be made mainly on the basis of factors beyond the worker's control.

Cities in which doorbells will soon be ringing: Detroit, Mobile, San Francisco, San Diego, Los Angeles, Portland, Seattle, Charleston, S. C.; Hampton Roads, Norfolk area, Va.

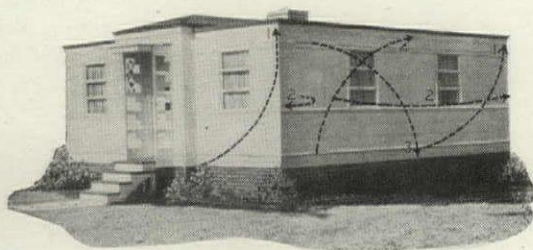
STEPCHILD'S FUTURE

Agency that almost nobody loves, the Smaller War Plants Corp. by last month had both a new job and a new head. Set up through Congressional determination to come to the rescue of small business, the SWPC got a lukewarm reception from its reluctant parent, WPB. Army and Navy procurement men also at first shared the prevailing administrative tendency to look upon this stepchild of the war program as a relief agency rather than an effective arm for speeding production by encouraging subcontracting. When General Robert Johnson, head of Johnson & Johnson, surgical dressings manufacturers, was appointed to chairman SWPC, its most enthusiastic Congressional sponsors promptly saw the move as a conspiracy contrived by the big business men of WPB to smother the Corporation. That the agency was being used as a political football was charged by others. While small business proved lustier than many had supposed, small business men were as loud as anybody else in denying that SWPC had much to do with their survival.

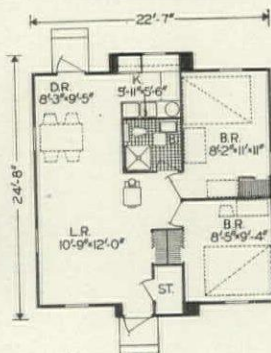
Notable among the SWPC assailants was the American Contractors War Advisory Committee, which, speaking for 30 building trade employers' associations, bluntly suggested that the Corporation be abolished as a "waste of public funds." To Senate and House committeemen studying small business problems, the contractors' committee said: construction contracts amounting to hundreds of millions of dollars were awarded to a few large contractors, "while the small contractor was left out in the cold."

When General Johnson took off his army uniform and began looking for

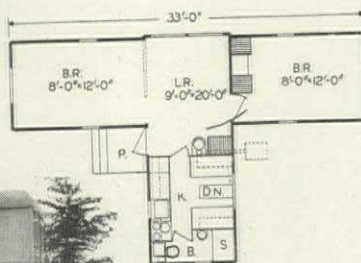
(Continued on page 98)



EXPANSIBLE models built by Palace Corp. are factory-equipped with kitchen and bath, provide as many as four bedrooms. Palace says it takes only one hour to unfold side wings and erect house on prepared foundations.



BOLTED together at the job-site, two - and - three - unit portables like this model built by Travelcar Co., Inc. offered more space.



TALE OF THE TRAILER

Since its early heyday as a vacationer's delight, the trailer house has turned up in many variations, been repeatedly offered and rejected as a cure-all formula for war housing. The Federal Public Housing Authority has been fairly cool to portables, convinced that few of them meet minimum livability standards. One step to equip the portable with enough space for reasonably comfortable family living was joining several units at the site, a formula developed and used effectively for TVA housing. But it was the expansible design invented by William B. Stout that seemed to have finally captured FPHA's eye. Recently ordering 12,000 fold-up houses from Palace Corp., FPHA said more orders may follow. Main advantages: little labor at the site; use of scattered vacant lots where utilities are already installed.



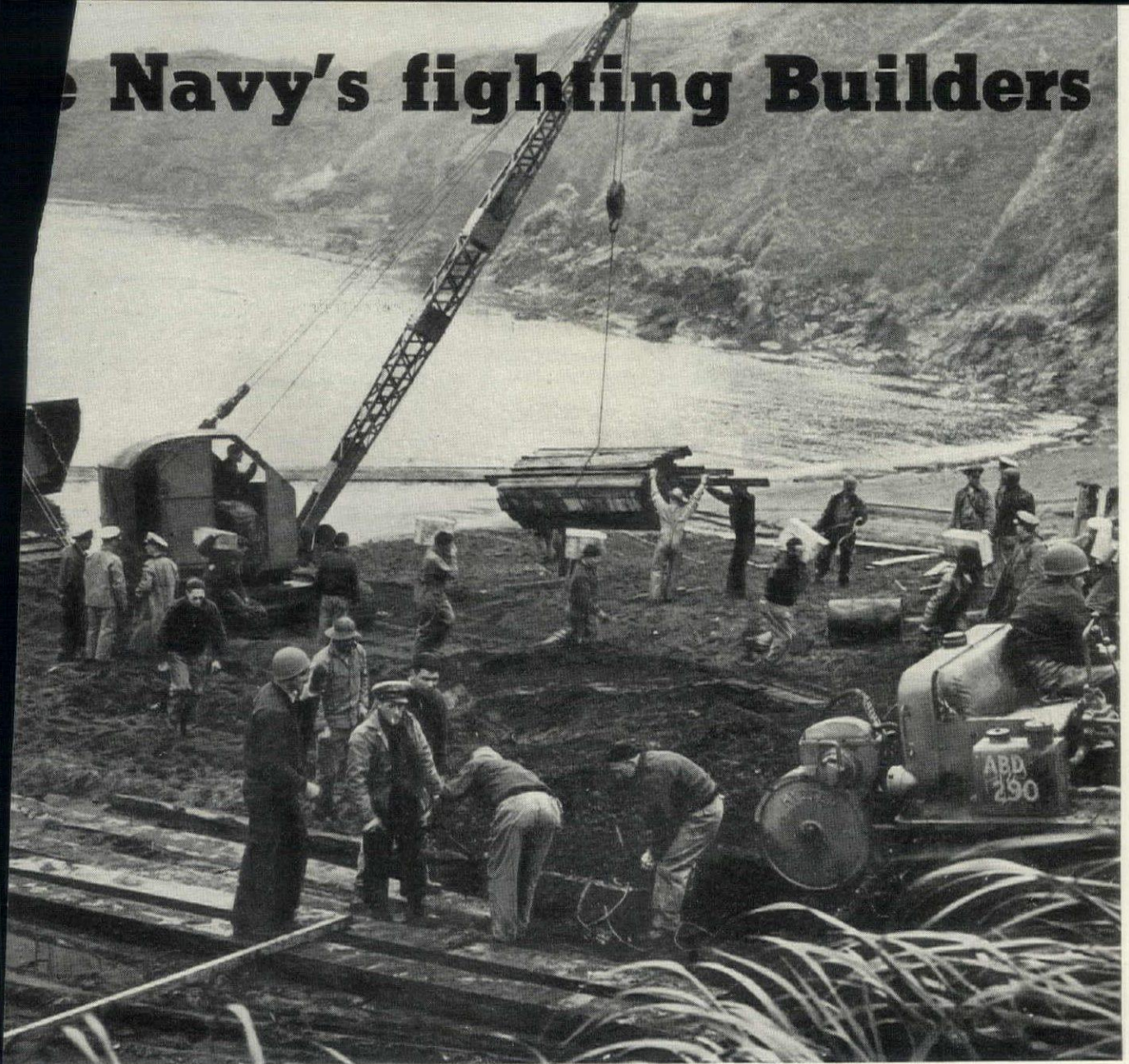
TIRE and gas shortages soon stripped the trailer of its wheels.



TRAILERS like this were early used for stop-gap war housing.

THE SEABEE





In peacetime these U. S. builders changed the face of a country. Today the bases they erect in obscure corners of the globe are changing the face of the world.

THE official motto of the Seabees, the Navy's two year old fighting construction battalions is: "Construimus Batuimus"—"We Build, We Fight." Aside from the motto, there is nothing classical about the Seabees. The newest branch of the Navy, the Seabees 262,000 strong are the toughest, most resourceful and energetic bunch of builders, dockwallopers, repair men and antibooby-trap operators this war has seen. As such they are something of an anomaly in the ceremonious and gentlemanly tradition of the Navy. But old traditions mean little to this outfit of horny-handed, cussing, gun-toting construction workers. Not young themselves—their average age is the middle thirties—the Seabees have built a lusty new tradition of their own. "Can Do" is the Seabee watch word from the Arctic wastes of the Aleutians to the dank jungles of the Southwest Pacific, from the Cen-

tral Pacific to the Atlantic, Africa, and Italy. Drawn from the ranks of the construction industry, the Seabees and their achievements in every corner of the globe are the industry's significant contribution toward victory.

In all of the last war, the Navy spent only \$189 million on its shore installations. In this war \$7.5 billion has already been spent since July, 1940. Before this war, the Navy never had to fight from bases that were under fire, never had to scramble from island to island to set up advance base after advance base with which to attack the enemy. World War II's two ocean Navy and its air arm are impotent without their global girdle of bases, and an island remains useless until the Seabees have transformed it into a base. Without the backbreaking backbone work of the Seabees, there would be no Major Foss, no Major Boyington, no front page stories of

Jap flotillas sent to a watery grave.

Although the headlines are not for the Seabees—only the solid, unglamorous backseat achievement that makes the headlines possible—their work has not gone unrecognized. Despite the acclaim from generals, admirals and even the President, Seabee heroism remains largely unpublicized. The name of Aurelio Tassone is virtually unknown to the U. S. newspaper reader, yet this 28 year old ex-state-road bulldozer operator performed one of the most ingeniously heroic feats of the war. During the Treasury Island landings in the Solomons, he became so enraged at the havoc wrought by Jap snipers in a coconut-log pillbox that he roared down the ramp of an LST in his twenty-ton bulldozer to attack them. Using the steel blade of the bulldozer as a shield, he charged the pillbox, dropping the blade when he was virtually upon the Japs. The bulldozer literally swept the pillbox from its foundations and buried the twelve Japs in the debris.

During the U. S. landing at Sicily, members of the 54th Seabee Battalion saved the lives of more than 175 soldiers by quick action. An enemy plane had set one of the troop-carrying LST's ablaze. The 54th unit, which had been trying to get a pontoon causeway lashed in place on another landing barge, swung the causeway across to the stricken LST and held it until all the soldiers had raced across it to safety.

On Guadalcanal, Seabee Lawrence D. Meyer, busy at work reclaiming Henderson Field, jumped to a machine gun to down a Jap Zero. Shortly thereafter, while operating a pontoon barge carrying gasoline supplies from Tulagi to Guadalcanal, he was killed by a Jap bomb.

These stories could and will be multiplied. Seabee heroism is as common as Seabee resourcefulness. But Seabee achievements will of necessity continue to be reported parenthetically at the tail end of news stories describing air victories. "An additional bomber airfield," a recent report ran, "has been placed in operation on Treasury Island where it can add its flights to the fast-forming nutcracker aerial offensive against Rabaul and Kavieng. . . The new air strip brings to three the number of fields placed in operation in the Bougainville area. . . These three . . . form the sledge hammer right arm of aerial pincers." The construction industry's contribution of the men who forge these pincers with so little fanfare, will not soon be forgotten.

"SLICK ARM CHIEFS"

Wake, Cavite, and Guam taught the U. S. Navy more lessons than one, among them the fact that unarmed civilian construction workers could not be expected to pitch in to defend what they built. Thus, on December 28, 1941, the first Seabee regiment, consisting of some 3,300 officers and

men was officially authorized. Credit for the conception of the Seabee idea goes to Rear Admiral Ben Moreell, the blunt, beefy and brilliant chief of the Navy's Bureau of Yards and Docks. Credit for Seabee training and operations however, rests with Captain John R. Perry, a tall hard-driving Texan whose official title is Director of Administration and Personnel of the Bureau of Yards and Docks.

In order to induce skilled construction workers to give up highly paid civilian jobs and volunteer for service with the Seabees, Navy ratings were offered them. From the ranks of 59 different building trades, men began to answer the call—veterans of the last war eager to get their licks in, men with large families eager to see the world, blacksmiths, crane operators, plumbers, oilers, electricians, welders.

Because the volunteers included many men in their forties (the age limits were set at 17 to 50), the Navy began to call the Seabees "Grandpops." Because it takes an enlisted man in the regular fleet Navy twelve to twenty years to achieve a rating and the average Seabee was coming in as a petty officer second class, Navy men resented the Grandpops. Old time Navy men, their sleeves covered with hash marks, coined another term of derision for the unadorned Grandpops—"slick arm chiefs." The Seabees retorted by referring to the much prized service stripes as "ignorance stripes." As the first Seabees began to be shipped out, their disregard of the niceties of Navy discipline led many Navy men to believe that they had been bedded down with hornets rather than bees.

Because the Seabees were organized so hurriedly, there were no training facilities for them at the start and the first Seabees were trained at NYA camps. Twenty-five thousand Seabees, many of them without guns and uniforms, were sent overseas before the Navy was equipped to give them as much as eight weeks' training. (These men decided that "C.B." stood not for "Construction Battalions" but for "Confused Bastards.") By the spring of 1942, however, Seabee training camps were being set up.

Today there are six Seabee camps for basic and advanced training. With recruiting for the Seabees halted last October, these camps have all but fulfilled their function of making skilled construction workers into efficient fighting men. For the past year or so, the Seabee "boot" has first been sent to Camp Peary outside of Williamsburg, Va., where for eight to twelve weeks of intensive training, he has learned close and extended order drill like an infantryman; he has learned to run a hellish obstacle course complete with pyramids, water hazards, dugouts, gun emplacements, like a Ranger; he has learned marksmanship and use of the bayonet.

our war effort is outstanding...

Camp Peary is also equipped with a school for nearly every building skill. In the machine shop the boot has learned how to do the repair work which will fall to him overseas. He has become familiar with the types of bulldozers he will operate in clearing an airplane landing strip or a barracks site. He has met his versatile, all-purpose mechano set, the pontoon gear.

On Peary's 6 x 3 mile site chosen especially for its variegated terrain—sand dunes, beaches, swamps, lakes, wooded uplands, scrubby lowlands—boots have learned to invade "Island X" under attack, and throw up docks, runways, hangars, generating plants, piers. Peary is also equipped with a model freighter, dock, and warehouse. Here the Seabees have worked at loading and unloading ships the hard way.

With basic military training completed, the Seabees are sent to any one of three advance base depots in Rhode Island, California, or Mississippi. Here the huge task of assembling gear and supplies gets under way. All the tools and equipment necessary to build a naval base—from screwdrivers to bulldozers, from nails to generators—must be loaded into the ships in logical order. Further training is given in advance combat techniques as well as in the use of specialized machinery.

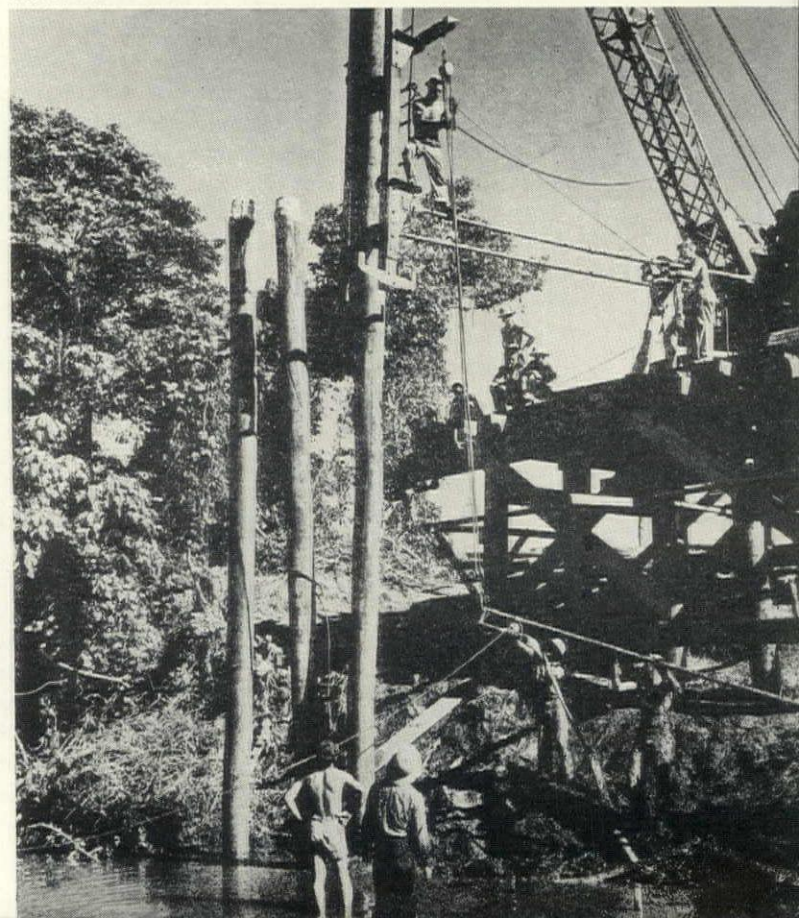
SEABEE ORGANIZATION

A high degree of specialization and a high degree of jack-of-all-trade versatility exists side by side in the organization of the Seabees. The over-all organization breaks down into five different types of units. The first is the Seabee Construction Battalion, consisting of a headquarters company and four construction companies and totalling 1,079 men and 32 officers. But within this battalion of super-specialists with each man sifted in training into the niche for which he is best fitted, there is no such thing as a Seabee company made up only of iron workers, or carpenters or bulldozer operators. While each gang has its specific work to perform the Seabee scheme ordains that all turn to and serve as helpers to any other trade. When there is a wood barracks to be built, the iron workers, the steam fitters, and the electricians lend a hand to the carpenters who lead the show. Similarly, if the job is in metals, the carpenters pass the tools and take orders from the metal workers. This diversification has been largely responsible for making each Seabee battalion into a versatile closely knit team capable of performing construction miracles. The postwar potential of this kind of training for construction workers is also significant, for returning Seabees will have transcended the narrow craft lines hitherto characteristic of the building trades. Better trained as all-around construction men, they may help to alter postwar building methods.



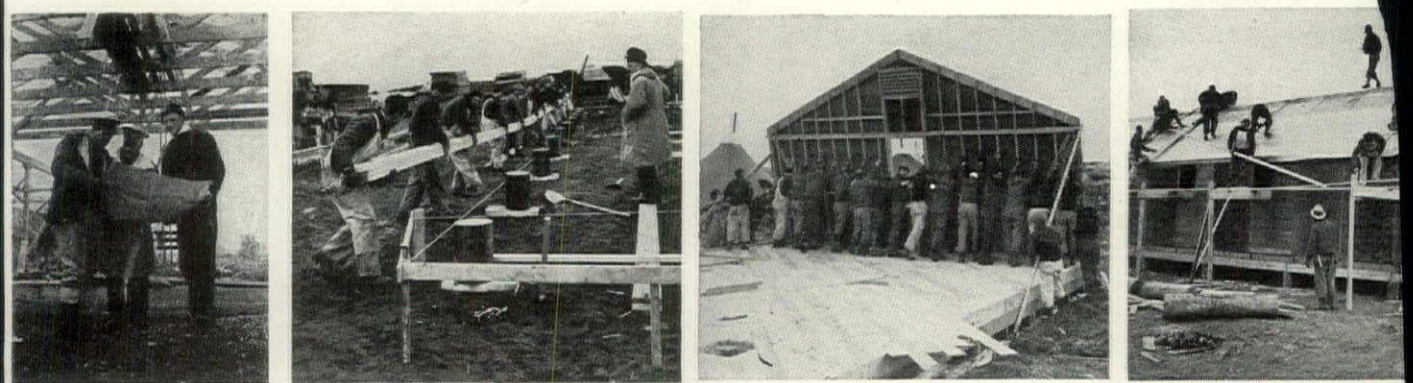
A SEABEE SPECIALTY: UNLOADING LANDING BARGES QUICKLY

DRIVING PILES FOR ONE OF THE MANY GUADALCANAL BRIDGES



"You build..."

Official U. S. Navy photo



PREFABRICATING WALLS ON THE SITE, SEABEES ERECT AN ALEUTIAN MESS HALL IN TWO AND A HALF DAYS

The second type of Seabee unit is the "Special Battalion"—a euphemistic name for the Seabee stevedores who have done so much to relieve the cargo loading and unloading bottleneck which threatened supply lines earlier in the war. Each Special Battalion consists of 1,010 men and 34 officers, most of them "dock-wallopers who've learned to call themselves logisticians," as one of their officers puts it.

Not so long ago, freighters were being lost 200 yards from their destination, waiting their turn to be unloaded by untrained members of the combat services. Ships tied up for days, even for weeks were perfect sitting ducks for enemy attack. This situation was relieved only with the arrival of the hook-slinging Seabee Specials, who on one recent occasion handled 31 ships with a total of 61,891 tons of freight in the remarkable time of 23 days. Today Seabee Specials are getting ships unloaded and turned around days ahead of old schedules.

Today when a Construction Battalion has completed the work of building a base, it is generally relieved by a Seabee Maintenance Unit. A battalion in miniature consisting of 275 officers and men, the Maintenance Units defend what their mates have built, repair and improve and in some cases finish left over projects.

In order to release fighting Marines on a hazardous landing from the specialized job of running equipment ashore a Seabee Marine Detachment is attached to each Marine Division. These Seabees wear Marine uniforms, and as an integral part of the Marines in landing and fighting operations, they not only do the regular job of a construction battalion, but form important Marine combat units as well.

For the man-killing job of destroying obstructions and traps placed to hinder beach landings, Seabees have volunteered for Demolition Units. These units, made up of one officer and four men each, many of them former "hard rock men," have undergone a special toughening-up. They have been coached in the uses of dynamite. They have been taught how to destroy bridges, mine

fields, roads, barbed wire entanglements and docks. They have learned how to lay mine fields and booby traps and how to detect and dismantle the enemy's. They work on the land but they also work under sea. Before the first assault wave lands Seabee Demolition Units are at work, often in the dead of night, unearthing from the sea near the beach "horn scullies," those upended and sharpened rails placed in V formation which can rip the bottom out of an LCT.

Practically every harbor U. S. forces have fought for has been choked with our own and enemy debris. The Demolition Units help to clear it. Because they know how to use explosives under water, the demolition of a sunken ship is a comparatively simple job for them. They are also skilled in placing explosives alongside a grounded ship in such a way that the suction which holds it is broken, thus enabling tugs to extricate it.

THE GUN, THE WRENCH, THE HAMMER

A Seabee's "Island X" may be anywhere. In effect, it has been everywhere. A list of Seabee work accomplished indicates the magnitude of their achievement. They have built bases in Ireland and Scotland, in Iceland and Argentina. They replaced civilian contractors' gangs in Bermuda, Trinidad and outlying bases of the 15th Naval District. They replaced civilian workers in Alaska and took part in the combat operations at Attu and Kiska. They took over in Hawaii, Midway, Palmyra and Johnston. They helped to develop port and base facilities at Freetown and Sierra Leone, Africa. They were in at the landing operations at Casablanca, and the subsequent development of facilities. They built in Algiers. They helped with the operations against Sicily and Italy. They have been active in the combat areas of the Russell Islands. Rendova, New Georgia, Munda, New Guinea. Bougainville, New Britain and Tarawa. They have built and are continuing to build advance base facilities throughout the Pacific and Southwest Pacific area—at Espirito Santo, Noumea,



CAMOUFLAGE IS ALSO DUCK SOUP FOR THE NAVY'S SEABEES. THIS IS A HANGAR THEY BUILT LAST SPRING

A TRUSS IS HOISTED. A BOATHOUSE IS IN THE WORKS



SEABEE HANDIWORK: A PALM-FESTOONED CHAPEL



THE BATTLING BUILDERS' job is first of all to build. This they have done rapidly, resourcefully and competently in every theater of operations, in every corner of the globe. The Seabees are the men who in peacetime built the U.S.'s skyscrapers, dams and tunnels, blasted its mountains and cut its roads. Today they are carving airstrips out of jungles, raising and repairing wrecked floating drydocks, building cities of barracks, hangars, hospitals on islands that have never known a wheel.

"You fight..."

the Fiji Islands, Samoa, the Solomons, New Hebrides and in Australia.

Such a list of place names however, tells nothing of the obstacles overcome and the skill and ingenuity shown by the fighting Seabees. In the Aleutians, the Seabees were among the first to land. There they swung from ropes in a driving rain to chisel footholes in the solid rock of steep cliffs in order to construct a track for a traveling carriage. Before the last assault boat had landed at Attu and Kiska, the Seabees were at work replacing poorly constructed Jap installations. In the teeth of gales, bottomless tundra, sleet, snow and fantastic williwaw storms, they hacked landing strips out of solid rock in record time. Barracks and warehouses were thrown up overnight. Swampy tundra gave way to smooth hard roads. Seabees dove into the icy waters to erect wharves and docks. They worked in short spurts in water up to 108 ft. deep, and so cold that hose carrying air to them frequently froze. For many Seabees there, there never was a three-day period when they were not in the bone-chilling water.

On the Alaskan mainland, the Seabees quickly repaired the damage done by Jap planes at Dutch Harbor and made the base stronger than ever in the doing. Jobs they had not been trained for did not faze them. Twenty Seabees, only one of whom had had experience with ships' engines, were assigned to salvage a beached and ancient ship that stood rusting in a harbor. These men retubed the ship's boilers and put its turbines in order. They made their own jibs for spotting in the mammoth valves, and made their own packing for the valves. The bearings of the engines were pulled out and the metal repoured. The condenser was rebuilt. The air-pumps were overhauled. In 30 days the ship was given dock trials as a fast Navy transport.

In the warmer but no more pleasant terrain of the South Pacific, the Seabees have acquitted themselves as notably. On Guadalcanal, where the Seabee 6th Battalion landed a few days after the Marines, their task was Herculean. Some \$10,000,000 worth of Marine and Seabee equipment had been lost in the landing. The 6th took over the task of rebuilding the bomb-ravaged, unfinished Henderson Field with most of their tools and equipment gone.

Not only did the 6th have to work with inferior abandoned Jap equipment but Henderson Field which then meant the difference between holding and losing the island, had to be completed in a hurry. Despite these hazards the Seabees laid 18 in. of crushed coral over the field, and topped it with a layer of pierced steel planking; they built within twelve days a companion strip for fighter planes. Another battalion, the 14th, cut and trimmed teakwood and mahogany from the

jungle to bridge the Nalibiu River under enemy fire; they built a sawmill and cut 100,000 ft. of lumber a month. Their road building feats were performed so close to the front that on one occasion Marine officers requested them to stop blasting tree-stumps—dynamite charges were disturbing Marine gun emplacements.

The early job of maintaining the airfield in flying condition was, like Sisyphus', unending. With constant Jap bombing,—the 6th was bombed 140 times—the steel planking was constantly being torn up, making it impossible for U. S. fighters to land safely. In the midst of an air attack, the Seabees would jump from the foxholes they had dug along the airstrip, and rush out into the field to tear off the ripped plank, fill up the bomb hole and replace the plank.

Not content with this baptism of fire, many Seabees volunteered for one of the most dangerous jobs Guadalcanal offered. A gasoline shortage threatened to cripple Marine operations early in the campaign. Supplies could only be flown or barged in from Tulagi. Despite the fact that these barges were set-ups for Jap bombers, they were largely manned by Seabee volunteers.

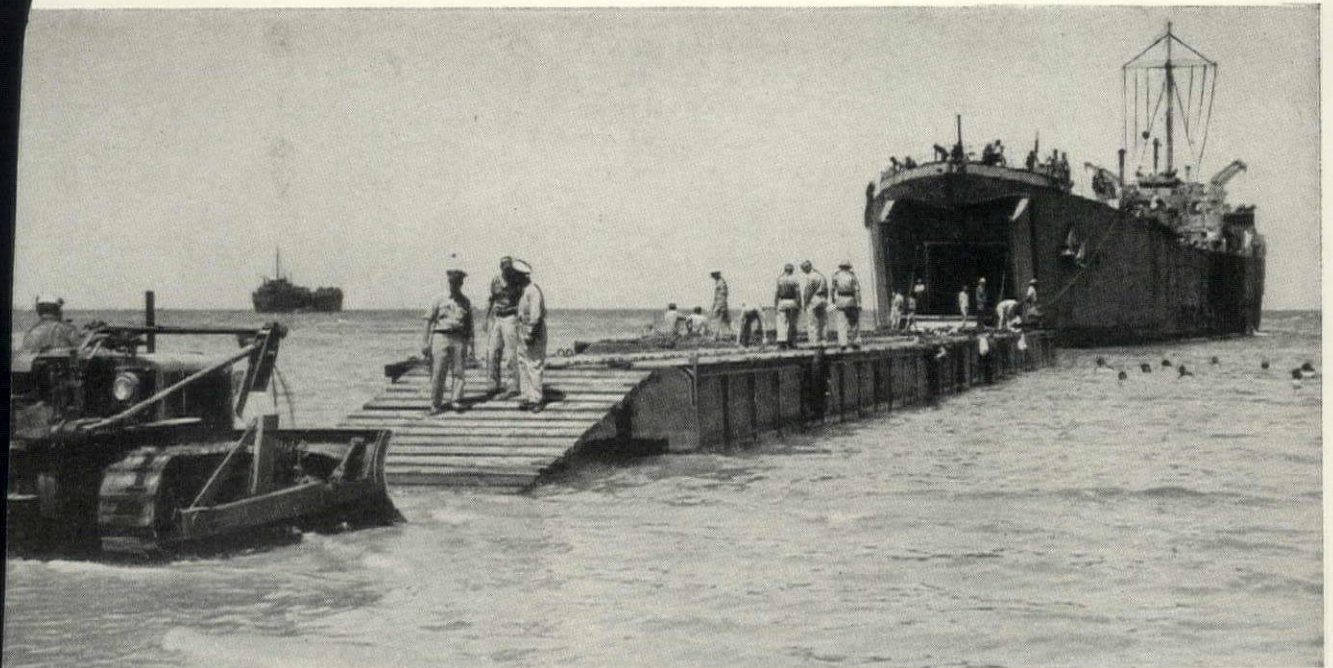
THE SOUTH PACIFIC

Seabee battalions have been in with the assault waves on almost every amphibious operation in the South Pacific. Seabee-built bases already pepper the South Pacific. At Vella La Vella, Rendova and most recently in the Gilberts, Seabees landed under heavy enemy fire.

Jap strafing and bombing however has never stopped the Seabees from unloading supplies on a beach. At Rendova the Seabees' preoccupation with their housekeeping reached a high pitch of unconcern for their personal safety. Steel mesh mats are generally laid down on a soft beach to prevent the equipment rolling off the LCT's from bogging down in the mush. Rendova's beach was so soft that the mats proved ineffective. Despite the heavy Jap fire, the Seabees deployed into a nearby coconut grove to fell trees from which they fashioned on the beach a corduroy base for their gear.

On many South Pacific islands the Seabees have bulldozed roads out of mud 2 ft. deep. Bridges were built as shells burst overhead. On a single day in a Solomon Island landing under continuous enemy bombing, Seabees unloaded on the beach, set up supply dumps and dragged the most vital equipment to the dumps. They helped to haul heavy cannon ashore, built gun revetments and a temporary camp where they stored their gear. As a chaser, they bulldozed nine miles of roads.

The Seabees attack the job of hacking airfields out of the island jungles with equal



LANDING BARGES' CARGO IS FREQUENTLY DISGORGED ONTO BEACHHEADS VIA A SEABEE PONTOON CAUSEWAY

Official U. S. Coast Guard photos



SEABEES AND COAST GUARDSMEN HUG A SHAKING BEACH SOUTH OF SALERNO AS NAZI BOMBERS GIVE THEM HELL

SEABEES LAND AT A PACIFIC ISLAND READY TO FIGHT



THE BUILDING BATTLERS have had a layer of combat training superimposed on their skill as construction workers, for Seabees must be prepared to fight to defend what they have built. Already more than 300 Seabee officers and men have laid down their lives in the performance of their duties. On many an obscure atoll, on many an unpronounceable island, the Seabees' proud boast that they have been the first to land and the last to leave is borne out by the facts.

"You repair..." "You are prepared to r

aplomb. In general, Seabee procedure has been first to clear a field of its trees and stumps, then to level it with bulldozers. After that, coral which has been blasted out of beds and churned to powder is laid in an 18 in. layer and rolled. Pierced steel planks are then laid over the coral, and the field is ready for operation.

Many of the islands and atolls however, boast no coral, and scoria, a porous volcanic ash, must be used instead. Unless it is wet down daily—the Seabees have found salt water the best binder—the scoria blows off in dust.

Often these airfields have been completed in days instead of weeks. On Munda for example, now one of the best airfields in the South Pacific, the poorly constructed and bomb ravaged Jap field was put into usable condition in less than eight days. On Tarawa where the Seabees landed with the assault waves, the airstrip which hours before had been a major threat to the U. S. position in the Pacific, was put into shape for U. S. planes by the time the last Jap had been killed. On one of the Solomons, Seabee bulldozers trundled into an almost impenetrable jungle. Thirteen days later despite 16½ in. of rain—about half as much as falls in the midwest during a year—the Seabees had completed a 3,000 ft. coral-topped airstrip.

AFRICA, ITALY, IRELAND

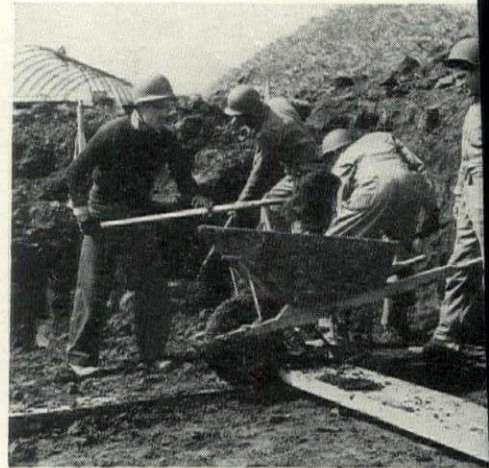
In other theaters of the war, the Seabees have played an equally vital role. The first American force to land in Africa was a detachment of Seabees who established fuel oil facilities at Sierra Leone. Seabees were also in the first wave at Casablanca where they set to repairing installations damaged by U. S., British and Nazi shells and bombs. As U. S. and British forces rolled eastward, Seabees rolled with them, repairing airfields, wharves, docks. Seabee demolition units were out in front blasting barbed wire entanglements, locating and detonating booby traps and land mines. Seabees built housing and hospital facilities. Water supply and purification was also in their hands. Seabee malaria control squads helped to reduce the spread of malaria.

At Bizerte Seabees repaired the crippled harbor and dock facilities and consolidated the installations which became the springboard for the Sicilian invasion. When Sicily was invaded, volunteers from a battalion on duty at Bizerte helped to run material ashore. Another Seabee unit lashed pontoon causeways onto a fleet of invading LST's and LCT's, over which some 10,000 Army vehicles were unloaded. Demolition units dynamited huge barbed wire entanglements, 6 to 8 ft. high which barred the way of the shock troops. Other demolitioners blew up buildings which the Italians had mined.

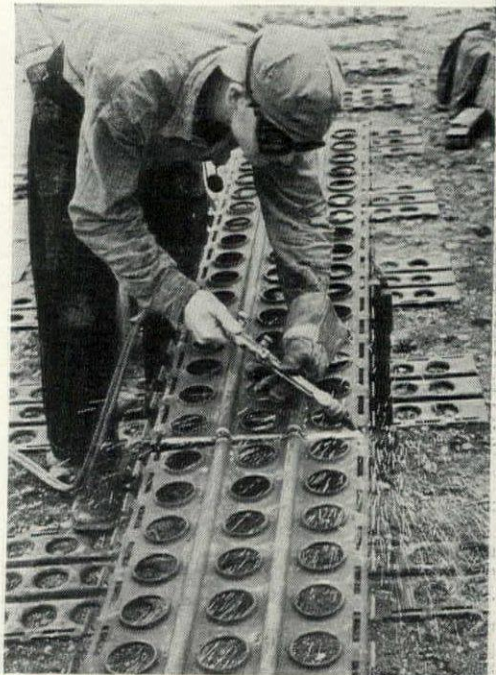
At Salerno with the invasion forces under a



A TRACTOR PLOWS THROUGH KISKA MU



SPONGY ALEUTIAN TUNDRA IS DUG UP



PIERCED AIRSTRIP PLANKS ARE WELDED

operation whenever necessary."

Official U. S. Navy photos

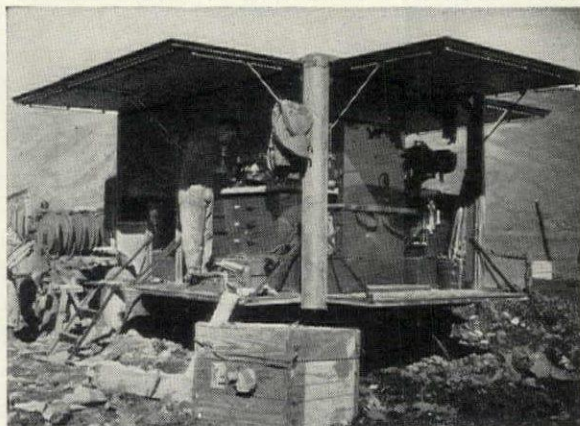


SEABEES PIECE PIERCED PLANKS FOR AN AMCHITKA AIRSTRIP BEFORE A THAW TURNS THE FIELD TO MUD

AN ATTU ROAD APPEARS WHERE THERE WAS NONE BEFORE



SEABEE TOOL: A COMPLETE PORTABLE SHOP



REPAIRING is as important a Seabee function as building. Because they are tough, ready and versatile the Seabees are frequently called upon to pitch in on emergency repair jobs outside their own bailiwick. For example, early last year the "Enterprise" put into port for repairs. In the absence of regular ship repair crews, Seabees were put on the job. In the midst of the work the "Enterprise" was ordered to put to sea and engage the enemy. During the subsequent battle, Seabees were still hard at work patching.



hell of fire from shore batteries, enemy bombers and tiger tanks which blasted men and equipment to bits on every side, the Seabees unloaded another 10,000 pieces of equipment, cleared space for dressing stations, blasted barbed wire entanglements, and took part in the fight. Within two days they had turned the bloody beach of Salerno into a temporary base of operations.

Seabees have also "worked the war" in more peaceful climates. They have been largely responsible for setting up the strategic repair, refueling and storage base of Bermuda. In northern Ireland, the great service station for convoys, the Londonderry Naval Base is today maintained and operated by Seabees. There Seabees have completed a tank farm, assembled a boiler plant, built Quonset huts, pumphouses, roads and a wharf. An eleven mile pipeline was laid down through the rocky Irish countryside.

Seabee construction has its more relaxed moments. The thousand or so architects among the Seabees have played their part in bolstering morale by designing recreational and religious buildings. Often they have cleverly made a virtue of necessity and improvised ingeniously with the materials at hand. For example, palm-festooned churches have been built on Pacific islands. Bamboo has been used pleasingly to trim the interiors of mess halls and hollowed bamboo has been used for lighting fixtures. To the disgruntlement of the Army, swank Naval officers' clubs and messes, complete with handsome bars and flagged terraces, have been thrown up in the jungle and the Arctic.

SOMETHING FROM NOTHING

Seabees have improvised materials, tools and parts wherever they have been stationed. Thus, where cement has been lacking for a sea-plane apron, Seabees have used sand with special precautions against erosion by the sea. Mahogany and teakwood have been used to build the humblest sheds and shelters. Coke bottles have been used as insulators when a power line had to be extended. Empty gasoline drums have been drafted for a variety of uses—roofing, shoring, drainage systems, shower baths, culverts, ovens, hotcake grills, trusses, baffles, piping and even canoes. In the Aleutians, to keep poured concrete from freezing, the Seabees

invented a commercial version of the flame thrower which cast a curtain of hot air over the concrete. One Seabee unit had little coal suitable for forge work but plenty of fuel oil. So, working exclusively with scrap save for some firebrick, they built an oil-burning forge that developed sufficient heat to melt cast iron.

The heavy duty bulldozer has been promoted from the land to amphibious work as well. A Seabee unit faced with the job of beaching a number of tank landing craft, flooded their bows so the sterns would rise, then ran cables from the sterns to bulldozers edged in on the beach. The bulldozers soon hauled the LCT's dry.

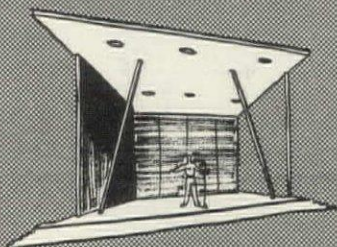
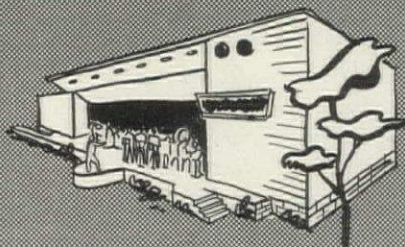
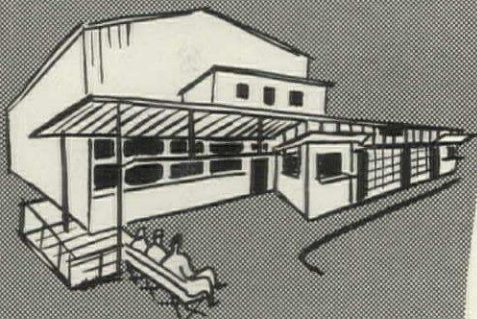
Parts of Seabee equipment wear out with no spares available for thousands of miles. Seabees have become adept at fashioning new parts by hand, and at salvage. One Seabee equipment repair shop in the South Pacific, called by the men "Combotnecsopac"—short for Command Bottleneck South Pacific—started out with an old broken lathe, a milling machine, a drill press and part of a captured Jap generator. Continually expanded by the diligent salvage of such things as old pipe, damaged tank plates, parts from captured Jap equipment and odd bits from the island's junk yard, Combotnecsopac is now operating day and night, servicing equipment for other islands as well as its own.

Most versatile of the versatile Seabees' tools is the pontoon, a prosaic sheet steel box, 5 ft. x 7 x 5 ft. Strung together by a secret process, these pontoons form barges of any size up to ones with terrific carrying power. With out-board or inboard motors developed jointly by the Navy and Chrysler, the pontoon barges move fuel, transport whole oil tanks, are used as ice-cutters and tugs. With a giant crane mounted on them, they perform the essential job of lifting PT boats off ships. Submerged, they are used as floating drydocks to repair damaged landing craft.

LST's which are incapable of landing far enough up a beach to be unloaded, carry a string of pontoons on each of their sides. By expert manipulation Seabees lash the two pontoon strings together and bridge the gap between the beach and the LST, thus providing a causeway for rolling equipment to emerge on. So efficiently does this pontoon causeway work that under ideal conditions it is possible to unload an LST with all the tanks, trucks, half-tracks, bulldozers and trench-diggers it carries, in the incredible time of twenty minutes.

In the midst of a world dedicated to destruction, the Seabees are busy building, repairing, salvaging, and fighting to maintain what they have wrested from the jungle and the waste. The construction industry has reason to be proud. It is delivering the brick and mortar foundation of victory. When victory comes it will be in no small part due to the fighting Seabees' heroic achievements.

MAC DILL FIELD, FLORIDA (Cont'd)



MacDill Field's architects in uniform produce an extensive community project, prove again that good design counts in war as in peace.

When THE FORUM in June 1943 published plans and pictures of the Post Exchange at the Air Corps' MacDill Field, we said that the architects' materials had been "ingenuity, imagination, talent. . . ." To these have now been added "sufficient funds" to make this latest installment, again designed under the direction of Capt. Joseph J. Roberto, an outstanding contribution to morale-building by architecture in wartime. Having completed their conversion of the Post Exchange, these architects in uniform started out, in March 1943, on a much larger project of community facilities to serve their Bomber Command Base in Florida. The sketches on this page do not represent isolated palliatives to improve an army camp: rather, they represent a departure from the notion that the mechanics of war can best be taught in a war-like environment of privation. The experiment at MacDill Field is, in that sense, an experiment in educational method.

To anyone familiar with the usually drab and dreary atmosphere of training camps it must be obvious that Special Service Officer Capt. Rokusek could not have used his funds more wisely. It will not be possible to measure in tangible terms the contribution of this project to the training of better airmen. But today Capt. Roberto and his men are encouraged by requests from several base commanders within the U. S. for plans and specifications for similar structures to be built on their fields. Just as U. S. industrialists discovered that better housing increased production, the Army is finding that a more cheerful and friendly environment will help train better soldiers.

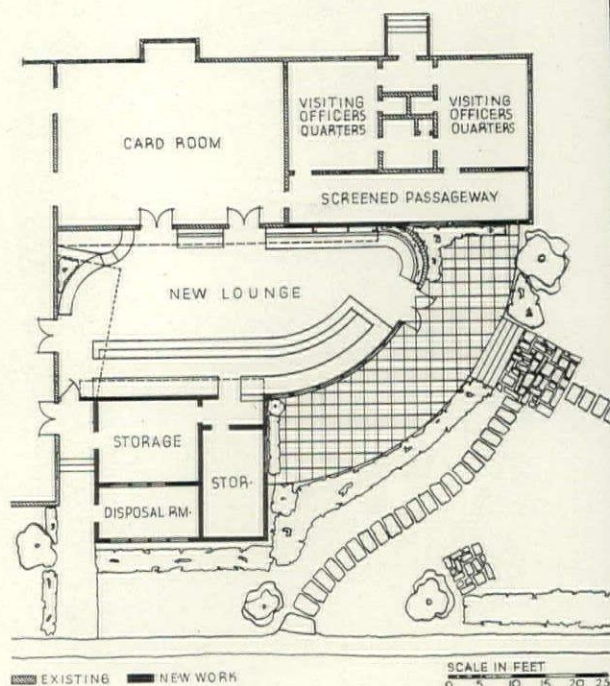


Warrant Officer Orville Reut

OFFICERS' LOUNGE

Sixty-three soldiers, unskilled in building, constructed this bar with the assurance of expert craftsmen.

As an addition to the Officers' Club, the architects designed a unit that includes a soft drink bar, a cigarette counter, sitting space and an attractive terrace. The design was controlled to some extent by existing doors to the lounge and card room, and by the construction device of triangular knee bracing common in Army structures. This bracing logically led to sloping walls, which in turn provide enough space to recess most of the storage cases that usually break up an otherwise unified design. The long upholstered bench is equally simple in its cantilever construction, and is topped by an oak ledge to hold officers' caps. The interior color scheme, which includes a bright yellow for the leather bench, red bar stools, clay colored tiles and cheerful curtain fabrics, was conceived by Mrs. Carol Roberto, a designer in her own right. Col. Voss, the base commander, was so delighted with it that he named the room after her.





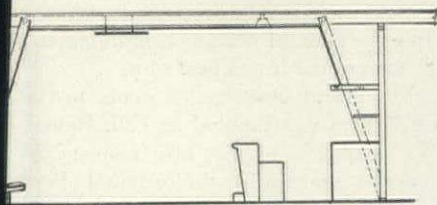
RAILING OF THE TILE TERRACE SLOPES OUTWARD TO CREATE A FEELING OF GREATER SPACE

All photos by Corporal Ken Burke

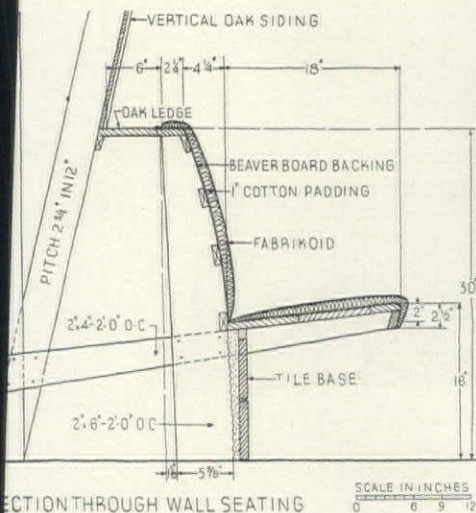


PROJECTING END OF BAR KEEPS ENTRANCE CLEAR, CREATES OPEN LOBBY

RECESSED LIGHTING FOLLOWS CURVE OF BAR, MARKS DISPLAY CASES

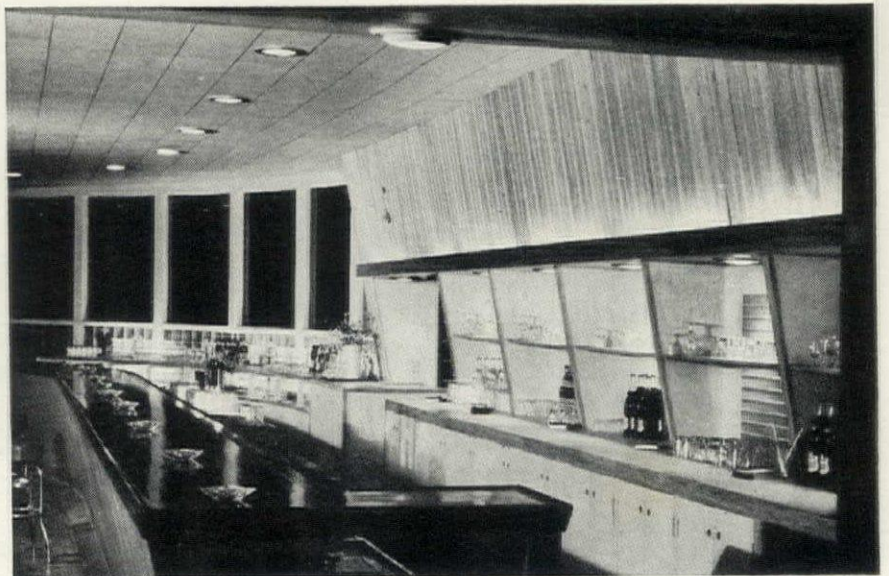


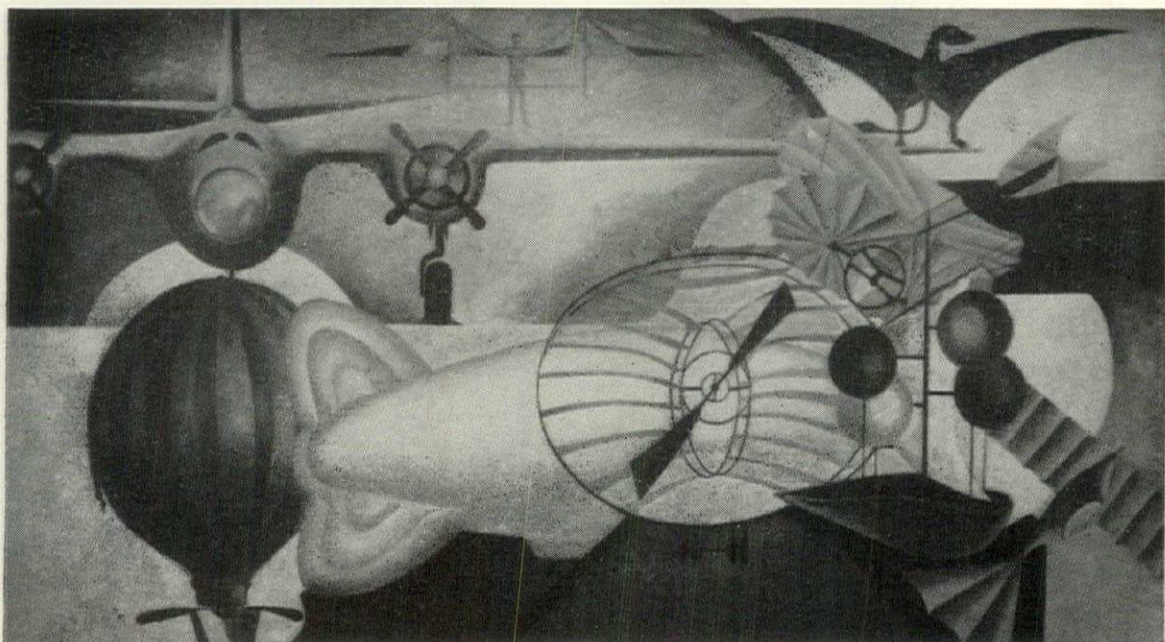
SECTION THROUGH BAR



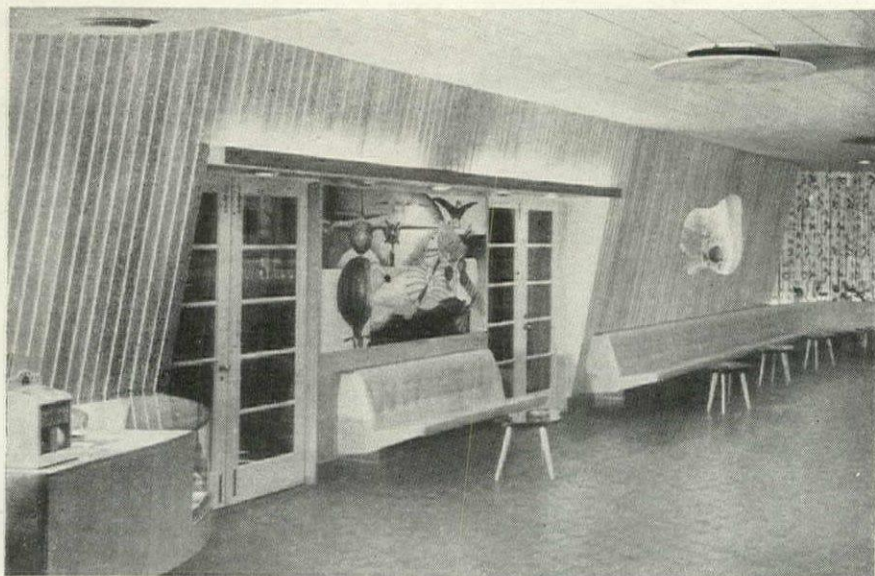
SECTION THROUGH WALL SEATING

SCALE IN INCHES
0 6 9 12





"FLIGHT OF MAN" BY CPL. LIMPUS SHOWS AERIAL CREATIONS FROM ICARUS TO MARTIN BOMBER



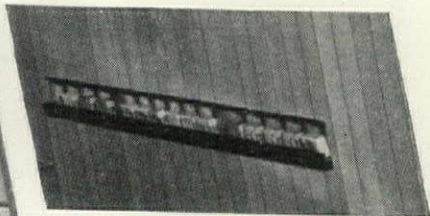
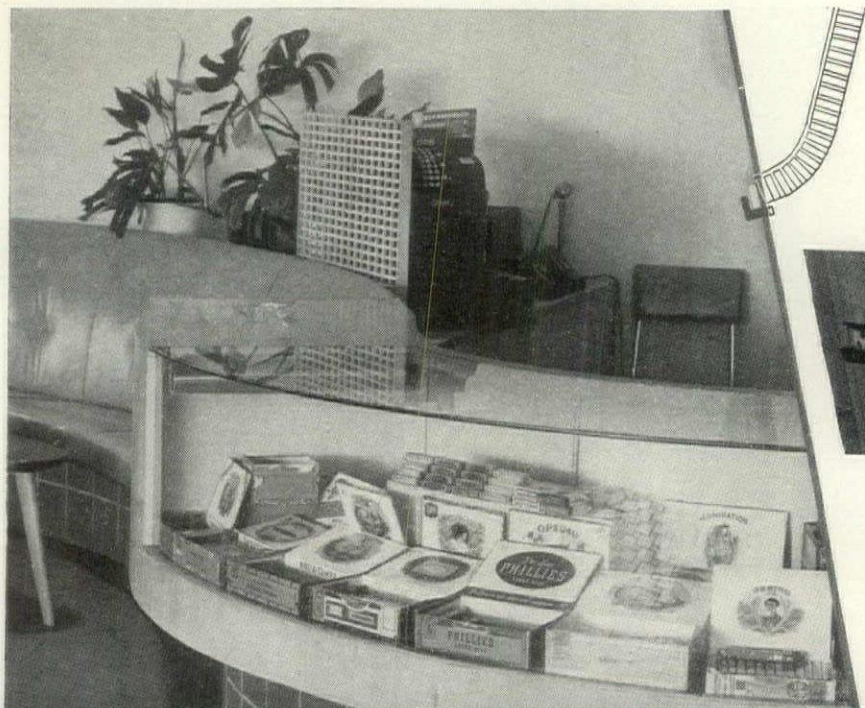
OFFICERS' LOUNGE

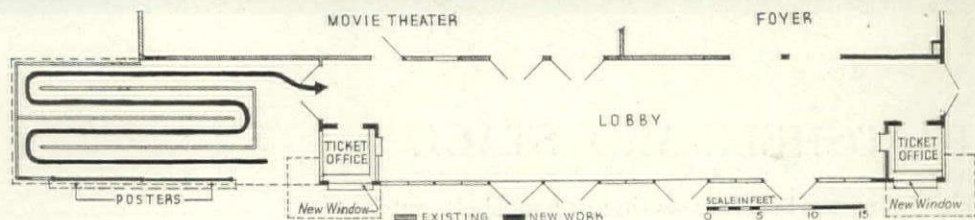
The cigarette counter, which utilizes the curved glass of a broken store window, is located at the far end of the room. Like the leather bench, it is cantilevered from a tile base. An ingenious system of built-in chutes automatically serves packages of cigarettes, while cigars are displayed in the showcase. The case has been integrated into the general design, continuing the S-curve of the bench next to it.

The mural between the doors to the card room was painted by Cpl. Robert W. Limpus, who was also responsible for the murals in the original Post Exchange conversion.

SIDE TABLES CREATE INFORMAL SITTING AREA AT CARDROOM ENTRANCE

BUILT-IN CHUTES FEED CIGARETTE PACKAGES FROM WALL



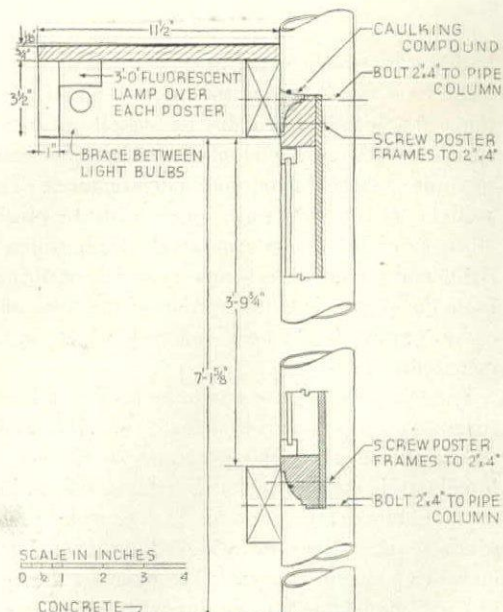


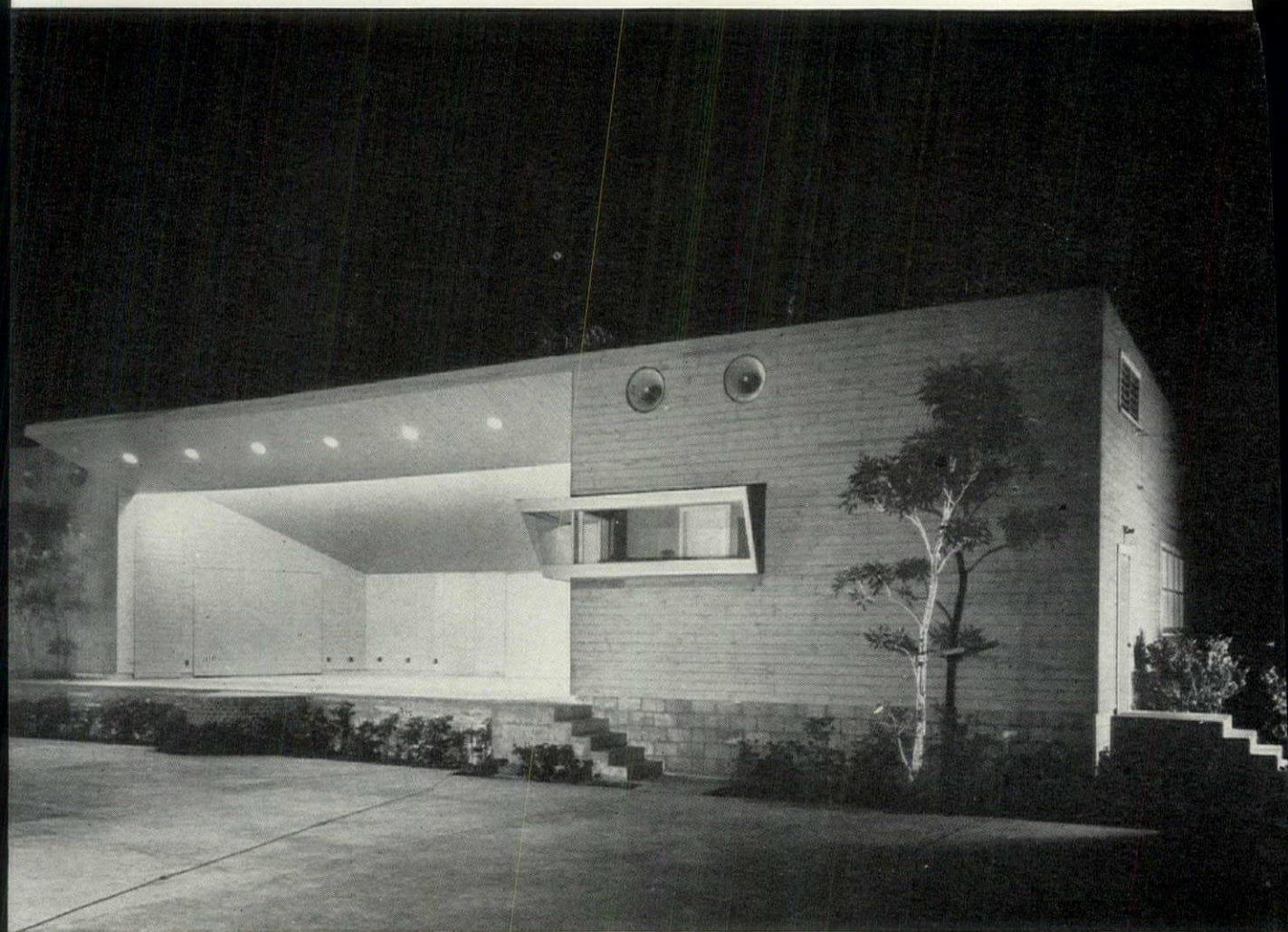
THEATER LOBBY

The problems of bad circulation, ventilation and acoustics were solved with a minimum of effort.

Unless he can get a pass to go into town, a soldier's entertainment is limited to the Post theater's two evening shows. Consequently hundreds of men begin to line up about an hour before the curtain rises, and the charge that ensues when the doors open exceeds civilian imagination. To bring order into this chaos, the designers created a lobby which forces circulation, separates outgoing patrons from new arrivals. Posters announcing the next attraction (see detail, right) were made integral with the general design.

A curtain wall and soffit behind the last row of seats make it possible to open lobby and foyer doors without admitting light to the auditorium. Portholes in the new wall permit a glimpse of the picture on entering. With the addition of exhaust fans, new windows and doors to the standard Army theater design, ventilation was greatly improved. Furthermore, the front surface of the curved curtain wall was faced with sound-absorbing materials.



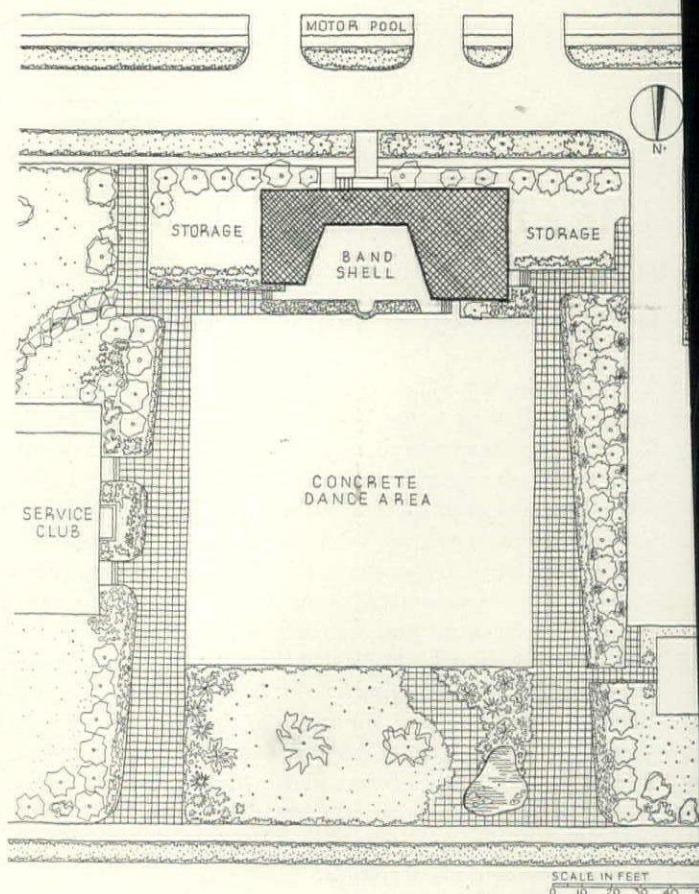


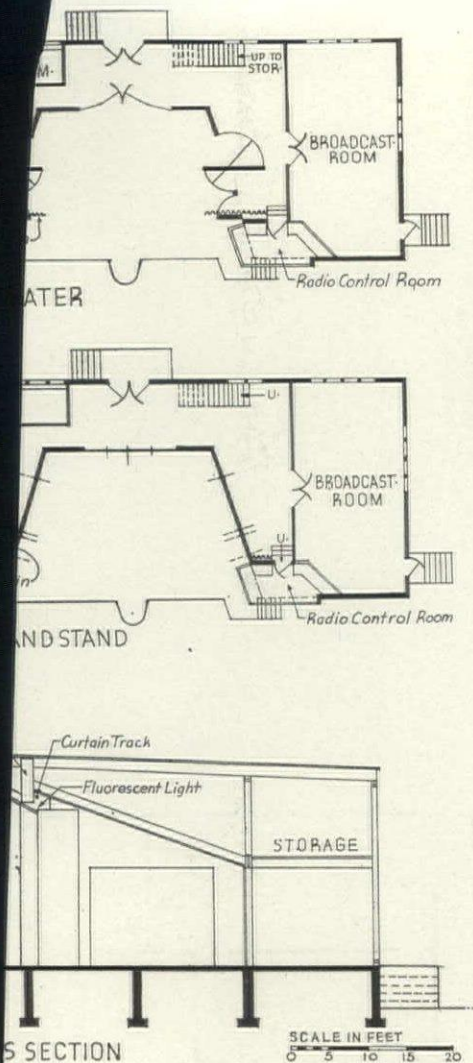
BANDSHELL AND STAGE

Three-purpose building serving as bandshell, outdoor theater, broadcast studio, is field's greatest attraction.

On a level plot, near the Service Club, a remarkably simple building was constructed to solve a highly complicated problem. First of all it was to house MacDill's band, of which the field is very proud. Bandshell acoustics demanded splayed walls and a sloping ceiling. Secondly, it was to serve as a stage for outdoor performances. Therefore large sections of the side walls were made to pivot to form the "tormentor" of the conventional stage, which conceals the lights and creates side wings by which performers enter and leave the stage. The intersection of the truss and the sloping ceiling form the "teaser" against which other lights are mounted.

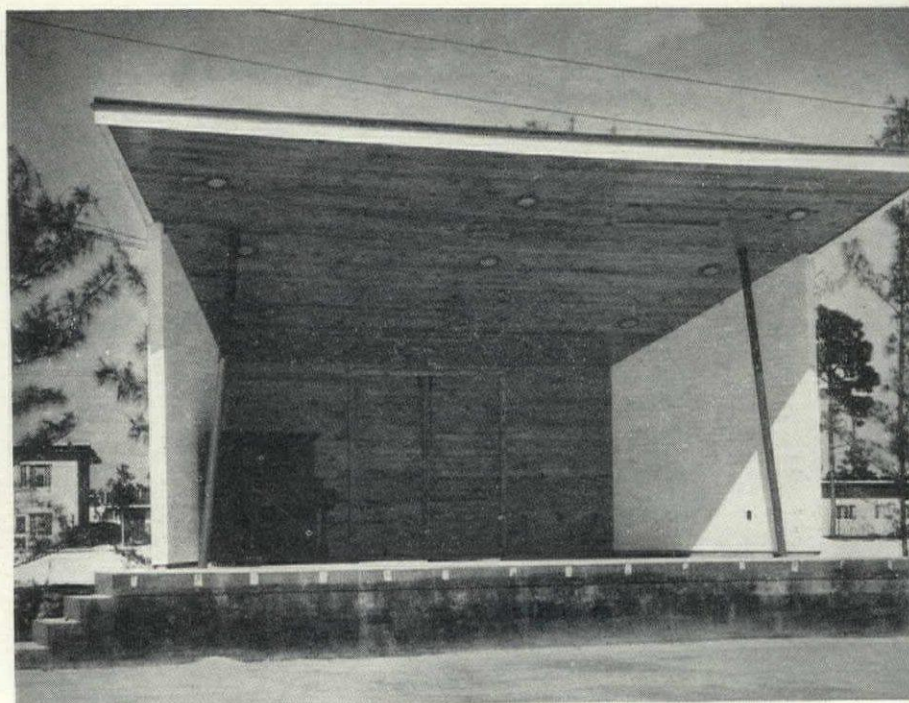
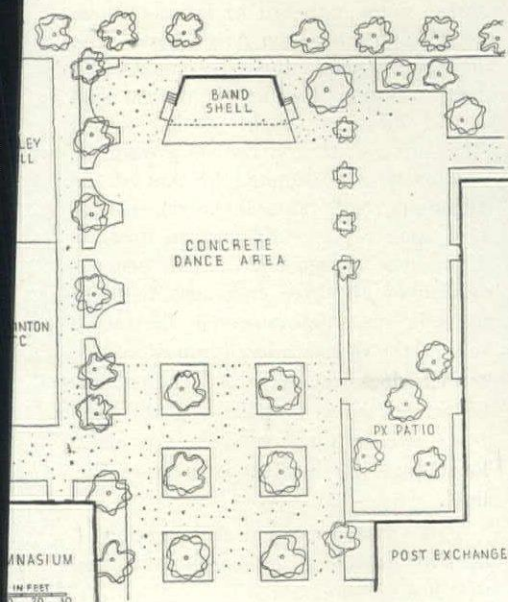
Finally, the structure was to be used as a broadcast studio, since MacDill's band broadcasts weekly, and has proven among the most popular programs on the air. The required broadcast booth overlooks the stage, the audience and the interior broadcasting room. To provide a sound barrier, window glass areas were sloped downward and create an interesting design element. The open-air theater seats 3,500, can accommodate 500 couples when used as a dance floor.

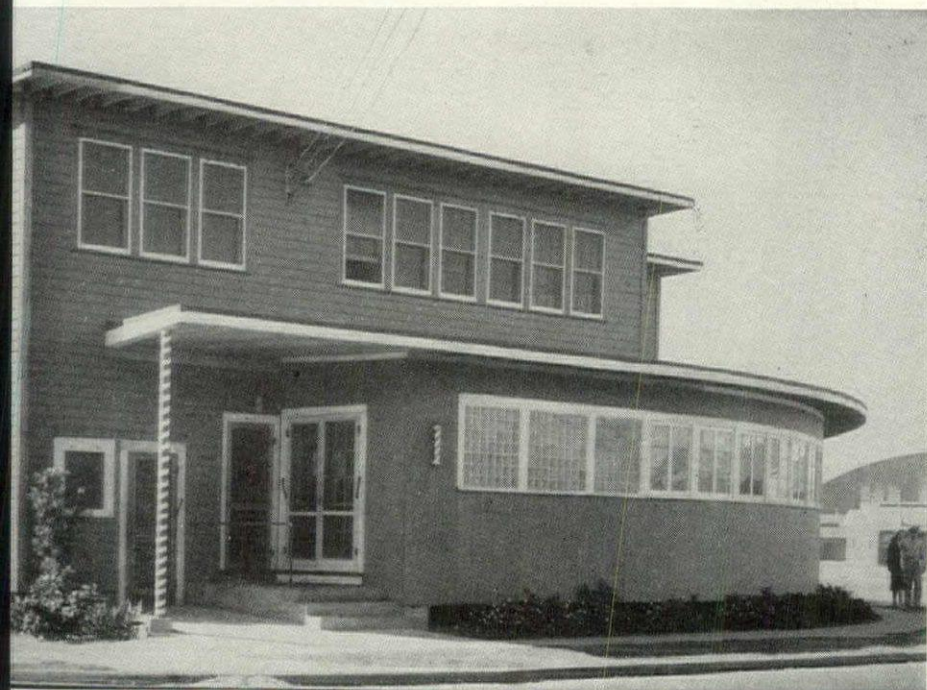




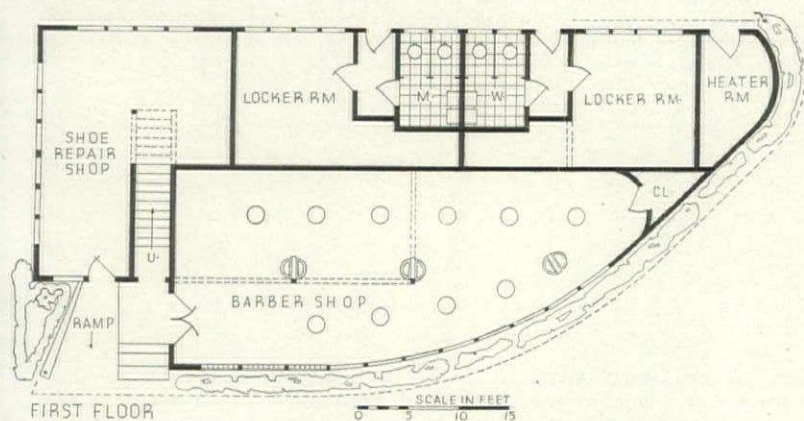
MAC DILL'S WISHING WELL is part of the recreation area, has netted 12,000 pennies within a few weeks for Infantile Paralysis fund. Landscaped by Lt. Fred Peck, of Philadelphia, the Wishing Well is a major attraction and chief outlet for postwar hopes. Planting includes bullrush, water lillies, jasmine. No mortar was used to hold the rocks in place. Note audience area and dance floor in the rear.

BANDSHELL IN COLORED AREA is one of the most effective single designs. Located at the end of a long, narrow plot between the combined Post Exchange and Service Club, it faces a large, square concrete dance floor. Sloping pipe columns shorten the span of the beams without obscuring the vision, are painted brilliant red. Ceiling and rear wall are natural finish pine. Acoustically splayed walls are pine painted white.

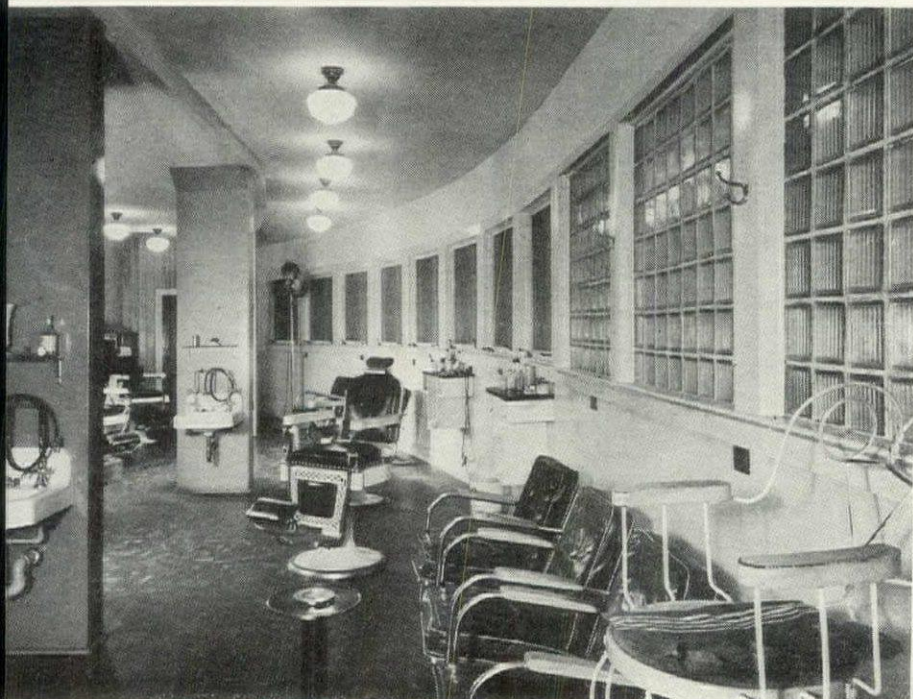
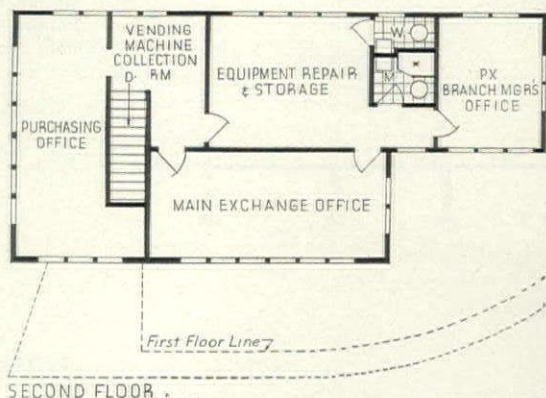




PIPE COLUMN PAINTED LIKE BARBER POLE MARKS ENTRANCE TO SHOP



FLOOR OF BARBER SHOP WAS RAISED 30 IN. TO HELP DRAIN FIXTURES



BARBER SHOP BUILDING

While the least impressive building of the group architecturally, this barber shop contains elements of purely utilitarian value unheard of in most comparable structures on Army posts. The lighting is good—the glass blocks had been salvaged from an old curved wall—and there is ample waiting space. The curve of the barber shop wall, incidentally, was dictated by that of the adjoining road. Separate entrances lead to a shoe repair shop and an upstairs equipment repair office. The concentration of all three entrances to these units in one small corner of the building might be considered questionable, but it does represent a decided improvement over installations at other posts, where these services are often located at the farthest corners of the field.

These units represent an extension of the Post Exchange, and employ civilians who live off the post.

A LAYMAN LOOKS AT BUILDING

Gerald M. Loeb criticizes the building industry and its works from the standpoint of the consumer. "Why," he asks, "should architects be sensitive only to the impressions of the eye?" Having found his luxury apartment in one of the world's costliest hotels a second Guadacanal, he pleads for engineering horse sense.

Mr. Loeb is a senior partner in the banking firm of E. F. Hutton & Co. This unsolicited manuscript suggests that his interest in architecture and building is more than casual. The significance of his observations, however, lie in the fact that he is not an expert, that his views, right or wrong and always provocative, probably reflect the attitude of many another potential client for architectural and building service.

THE architects of America have never done a good job of selling the public on what good architecture means. The result is that architecture is the lowest paid of the professions, and our cities and countrysides are blotted with eyesores and impractical and overcostly makeshifts.

Architects should go into partnership. The minimum architectural firm should include an architect, engineer and a business partner. Good architects are artists every bit as much as musicians, authors and actors, all of whom engage financial managers and publicity representatives. I think the architect classes himself as a member of a profession comparable with doctors and lawyers and believes the code of ethics which governs the latter governs him as well. The truth probably lies between the two extremes and, while the employment of business managers and publicity agents will be distasteful to most, the admission of a good business partner to the architectural firm is entirely acceptable from any point of view.

Some of the most successful architects in this country, whose work is the most widely known, are simply good business men first and unfortunately often mediocre designers.

THE ARCHITECTURAL FORUM has done an outstanding work in its field, which unfortunately is a field confined to the profession and to businesses catering to it. There is a crying need for a real publicity medium that will teach the need and advantages of good architecture to the public. The occasional articles in national magazines and the popular "home" publications of wide circulation miss the point altogether. They are aimed at women and tend to glorify what might be called "cottage architecture," if that phrase means anything to the reader. They aim at a kind of home-made coziness and comfort miles from the real thing. Their illustrations of homes and rooms uniformly include the good and the bad, which is no way to cultivate good taste. And, of course, being mainly women's publications, they rarely include anything at all tending to raise the standard of the office, the factory or the store, to say nothing of the many other types of buildings that need good architecture.

More business in architecture would mean more architecture and better architecture as the taste of the public became educated and stimulated. The contractor-built home and the inadequate business building would pass.

Architects would themselves produce better work. The proportion of architect-designed buildings that are unfortunate compromises is excessive for the good of the profession. I try to believe the architect had it in him to do better, but,

lacking the business judgment to sell his ideas to his clients, prostituted himself to get a job and a square meal.

Anything that brings money and work into architectural offices would improve architectural results. This would bring more money and more work and attract more brains. Thus the profession would be reborn.

I spoke of a third partner—the engineer. If architects are poor business men, I think that can be understood and excused, but being poor engineers is more difficult to understand. Art is the satisfaction of the senses, and why architects should only be sensitive to the impressions of the eye is hard to comprehend. No work of art, or of architecture is complete and real unless it satisfies all senses as well as the sense of sight and unless it is thoroughly functional and practical. In fact, a completely functional design often turns out incidentally to be sound art. But nothing impractical can possibly be good art.

MANHATTAN MIASMA

I live in one of the most expensive buildings in the world. I think it would not take long to count how many co-tenants I have living, as I do, on the 33rd floor. This great building was constructed without regard to cost. The money invested in it was lost long ago. Even the bondholders have little real chance of ever being repaid. A great firm of internationally known architects designed this building. It was designed with the help of a great staff of hotel managers. Both the architects and the managers had a lifetime of experience designing and managing hotels, though I sometimes doubt it, after visiting and living in hotels all over the world. All through this great building are evidences of money thrown away. But in the one fundamental necessity of proper conditions for bodily comfort in the way of ventilation and temperature, allowing pleasant waking hours and sound sleep, my apartment, if it is a fair example, is completely lacking. Despite the great waste of money everywhere visible, the public hallways have no windows or cross ventilation, obviously to save rentable outside space. However, the economy is a false one indeed. Outdoor air rushes up to the outer skin of this tower, drawing air out of the living and sleeping rooms. The hot, stale air filters through around doors into the guest rooms and out the windows. In mid-winter the atmosphere is usually so hot and stale that one can only try to sleep under a sheet. "Guadacanal" was my pet name for my quarters in this "luxury" hotel until I moved to another similar room containing a form of out-dated air conditioning.

Now, it is this sort of thing which I think hurts architecture. The traveler leaves his undesigned home and goes to an architect-designed hotel. And, if he found the latter really much better, he would resolve to have his next home architect-designed.

I suppose the point of my "luxury" hotel is not well taken, as surely there must have been an engineer on the job. But I think that he must have confined himself to seeing that the steel frame supported the building and, if he had a

business partner, he confined himself to getting the job instead of showing his clients why money spent in some directions would bring returns and thus incidentally help the client and the whole profession.

I am a layman—not architect or engineer—but I can see where windows in the halls and adequate ventilation stacks in the baths, closets or foyers, transoms even if need be, combined with casement windows hung to swing out from the top would have scooped fresh air into these rooms, drawn out stale air and helped to make this building livable and other than the financial nightmare it actually has been since its construction.

THINGS TO COME

Back in 1938 I climbed up the great ruins of Angkor Wat in Cambodia. Here is said to be the remains of a city of more millions than Manhattan. It was interesting to reflect on the reasons for many of the architectural features of the design of the Cambodians. I rarely go into my tower quarters without visualizing some great change that will leave it bare of human habitation for centuries, only to be rediscovered as Angkor was rediscovered. And I cannot help reflecting what these new world individuals will think of why architects of today designed that building as they did.

So after the war, if architecture is to successfully compete for the consumer's dollar, it must be real and done with an eye to function so as to produce something that can be properly publicized and sold to the public.

We are told that the future of postwar building is in mass production and prefabrication and that the real market lies in the low income brackets. I believe that to be both true and false. It is true as regards an effort to sell shelter in competition with personal transport as provided in prewar days by the motor car and perhaps after the war by the helicopter. But there can be an expanding market for architect-designed homes, offices, factories, stores and various private and public service buildings if architects wake up and take some business men into partnership with them.

The wonders of the postwar television set, the postwar auto and the postwar helicopter have already been oversold to the public in the general circulation press. Corporation executives are worried lest the actual products they will have to sell a few months after fighting stops will be spurned by buyers awaiting these new creations of the imagination. Much less has been done with the postwar house. Here and there we see comments and exhibitions, but mostly on the lowest priced workman's home or on the fittings for expensive homes.

The real field for the average architect after the war will be, just as before the war, in relatively expensive homes plus larger buildings which are practically all architect-designed. In my estimation what the architect accomplishes in homes costing from \$15,000 to \$35,000 is what will really count in determining whether the market for his services is going to expand. And also what he can do with small privately owned shops is going to mean a good deal. But even in the field where architects must be employed because of size and other complications, a higher standard of work will bring more total work.

For example, a very few modern stores have been designed. But, as these become more common, they will obsolete the present stores and force additional building.

Are the new buildings and homes going to be traditional or modern? They should be first of all functional. There is no reason for us today to copy construction features of

the classical architects which were governed by the limitations of their day as to materials, heating, cooling, etc. But just as I think it impossible to justify our copying of a strictly classic design, so do I think it almost as bad to throw out the attractive features that have lived through the years and can be adapted to inclusion in the postwar functional building.

HUMAN FUNCTIONALISM

The so-called modern and up-to-date architecture I see around the country and the best of which is illustrated and described in *THE FORUM*, tends in most cases to be too bare and too cold. If persisted in, this tendency will kill off modernism and functionalism altogether in time.

I think it reflects a concentration on constructional functionalism and a neglect of psychological functionalism. Buildings are built to last and to resist the weather, but they are also built to shelter and contain the human animal. Because a plain white wall will fulfill its constructional function of keeping out the elements does not mean that it fulfills its psychological function. The fully functional wall must also be restful and pleasing to the eye. And walls must also be satisfying to the touch. I think that they must speak to us mentally as well. They must say "this wall was built in an age when good taste and good living and good craftsmanship prevailed." Only too often nowadays they say that they were built in an age when the workman thought only of his union and the employer only of utilitarian needs.

I think I have crossed the Atlantic in most of the well-known boats, and many times I have heard experienced, educated and sensitive travelers speak in fond reminiscence of the homey wood paneled smoke rooms of some of the older British ships as contrasted with the cold modernism of the newer express liners. There was much in the "boaty" decoration of the old small ships that was far more desirable than the hotel-like construction and operation of the latest queens of the sea.

The postwar architect must include this human functionalism if his designs are to grow in popularity.

THE WASHINGTON STATLER

Recently I visited the new Washington, D. C. "Statler." Here in the new capital of the world, visited by almost everybody of importance in the world, is the newest hotel in the world. One might expect something to symbolize American business and American architecture. Something that might be the most important modern building for many years to come. Something more notable than Ragnar Ostberg's Stockholm City Hall or Frank Lloyd Wright's Imperial Hotel at Tokio. After all, this is the U.S.A., not Sweden or Japan. In fact, I feel it should have been a quasi-public enterprise subsidized in the manner of a great liner or any other structure of more than mere commercial importance. Something, among other things, to sell architecture to its guests.

Perhaps I set my sights so high that, when I finally arrived at the plain, undersized midwestern "business man's hotel with a coffee shop" the new Statler so obviously resembles, the let down was too great. The brilliance of the main dining room at the Savoy in London would be dim next to my conception of what the Statler might have been.

But even if it could not be this and instead had to be the flagship of a famous hotel chain erected on a purely commercial basis, it doesn't seem to be (Continued on page 116)

The first article in this series dealing with the postwar house-for-sale was a presentation of the Editors' thesis that the Cape Cod model is through as a first-class merchandising item, and that the builder and his collaborators would have to offer a much better product to compete successfully in the open market. Among the supporting arguments advanced: people will want houses that look new and different. Technical developments, of which radiant heating is one, are obsoleting prewar designs. New competition will appear in the house field: prefabricators, manufacturers of larger equipment and fixture assemblies, and progressive builders. This article continues with an examination of the service elements.

PLANNING THE POSTWAR HOUSE II

A constructive approach to materials and equipment would bring the speculative house a lot closer to the picture of 194X, and without waiting for production miracles.

TRADITIONALLY the speculative builder has relied on a number of factors to help merchandise his product—and to distract attention from its inferior planning and atrocious taste. Accessibility, neighborhood character, availability of parks, churches, schools, etc., were part of the sales program. Materials and equipment were another. Both have tremendous postwar significance in the house-for-sale business. And both, it should be carefully noted, are things *created by others* and used by the builder. In one sense, this is as it should be, for nobody expects a developer to build refrigerators or public parks. Nevertheless, it is the almost total lack of a constructive approach to these two aspects of private housing that is moving the average speculative builder into a competitive position which, in the years after the war, will not be too happy. It is the basic theme of this article that there is a relationship between builder, equipment and the house as a product for sale, which, properly developed, would improve the product and stabilize the position of the builder.

The big operators in the home field, during the prewar years, often displayed great acumen in capitalizing on the public's demand for quality, and they will undoubtedly continue to do so. One Long Island builder, for example, always opened a new tract with a model house in which the piping, wiring, plaster, lath, etc., were exposed to view at some point, and equipment and fixtures were prominently labeled. All, of course, were nationally advertised brands. A large prefabricator today, whose postwar plans envisage a yearly production running into the thousands of units, intends to pass along some of the savings of mass production and quantity buying in the form of more and better equipment. This is significant as well as interesting, for it shows a conviction that the buying public is more interested in equipment (and the convenience that goes with it) than in saving money. This conviction is amply bolstered by the example of the automobile business, where increased luxury has always outsold lower prices.

The point in this matter of gadgetry which is almost invariably overlooked is a simple one; equipment has helped to sell houses partly because, as a nation, we like to buy mechanical gadgets,

partly because advertising has created a widespread feeling that these things were good, but mainly because the home buyer was willing to spend what he could for improved living conditions. But improved living conditions do not stop with equipment.

It will not be news to anyone to learn that the speculative builder has troubled himself very little indeed about improving living conditions through better planning, since it was much easier to toss in whatever new and saleable-looking gadgets happened to be on the market at the time. Also, better planning meant hiring a competent architect instead of buying blueprints by the yard. Then it came about that one year the great contribution to better living would be colored bathroom fixtures and another year establishing a new high by installing door chimes instead of a bell. The closest the builder ever got to real planning ideas were the rumpus room and the breakfast room.

As a result of this limited approach to house merchandising, the public's strong but inarticulate urge to acquire better homes was sidetracked by more equipment. It was a repetition of the situation, described in last month's installment, whereby the public showed an overwhelming preference for "Plan A" because no other was offered. The American consumer is no fool, although he has frequently been made to look like one. He has bought a lot of equipment in the past and he will buy still more in the future. But to claim that equipment does not only its own job, but that of planning as well, is something that no manufacturer would ever dream of doing. It is time that the builder became equally sensible about his product, which is not only equipment, but organized space as well.

THE WORK CENTER

It used to be possible to talk about the kitchen without dragging in such fancy titles as "work center." And if the word were used in its old sense it would still be acceptable; but "kitchen" today means a minimum space where cooking is done and where eating would be if there were room. The space described as a work center, on the other hand, covers not only cooking, but laundry, heating, storage and dining.

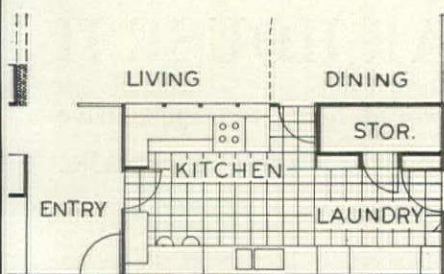
To really get down to cases on the work center and its possible relationship to the house-for-sale, it is necessary to digress for a moment and consider the real storm center of prewar and postwar house design: the basement. Does it stay or does it go? For war housing it has definitely gone, but many things are out for the duration that will be back as soon as the war is over.

THE BASEMENT: pros and cons

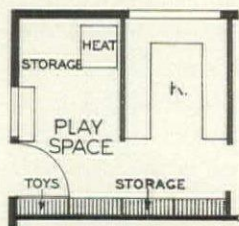
The great and obvious advantage the basement enjoys is that the house has had one for generations. Behind this dank, dark space is all the respectability, all the accumulated inertia of an institution that has endured for a long, long time. This does not mean that the basement is an architectural appendix, a survival of no visible use. When people stored vegetables and fruits over the winter—they seem to be doing it again—the unheated cellar was the natural, in fact the ideal spot for the purpose. Its temperature and humidity remained fairly constant, and stored root crops could be kept in it until the fresh ones were above ground again. It can be duplicated in the modern basements by isolation from the heater room.

To hold the immense hand-fired coal furnaces of 30 or 40 years ago (and all the tons of coal needed to heat uninsulated houses) a big basement was essential. When domestics were plentiful and cheap, a basement laundry was more convenient for the occupants of the house than one in the kitchen. With a furnace that leaked heat like a sieve, the warm basement kept the first floor very comfortable indeed. The space was also ideal for storing things that wouldn't fit into closets, and were too heavy or untidy for the attic. It is all very well to say that there is no point in this senseless piling up of junk, but people will insist on keeping things, and anyway, what would the scrap drives have done without basements full of old iron beds and Grandfather's forgotten safe?

For the house built on sloping ground the basement is more than a storage



Example of the compact work center: cooking, laundry and eating are in one space. Note possibility of over-the-counter service to the living room. Mario Corbett, architect.



This represents a definite allocation of basement space to the work center. "Play space" would be labeled "Utility room" in average house. Gilbert Rohde, designer.

space. Unobstructed walls on one or two sides will permit the introduction of normal windows and the creation of definitely usable rooms. Under such circumstances, however, the basement ceases to be exclusively a basement and becomes desirable above-ground living space.

Thus there is a good deal to be said for retaining this space, in spite of its disappearance for the duration. But the people who say that the basement will be largely eliminated from the postwar house-for-sale—and THE FORUM's editors are inclined to share this view—argue that the basement is costly cubage, and better space can be built for the same money upstairs. There is no intention on anybody's part to make this opinion into a hard and fast rule that holds under all conditions; on a sloping site, as we have seen, it does not. Nevertheless, in average circumstances, it is claimed that the basement should be eliminated and replaced by an equivalent space elsewhere.

One big reason for having a basement disappeared when compact, automatic laundry equipment came on the market. With some types it was entirely possible to do the wash in the kitchen, or even in the bath. If the housewife is given a choice, she is not going to vote again for an arrangement which involves carrying the wash downstairs and then dragging it up again.

Perhaps the major factor in the belief that the basement is moving out of the picture comes from the development of radiant heating, which has now been publicized to the point where consumers are already asking for it. Radiant heating—or at least the variety which uses pipe coils imbedded in a concrete floor—removes once and for all the strongest argument against the basement-less house; even the most timid of house buyers will cease to worry about the discomforts of direct contact with the ground.

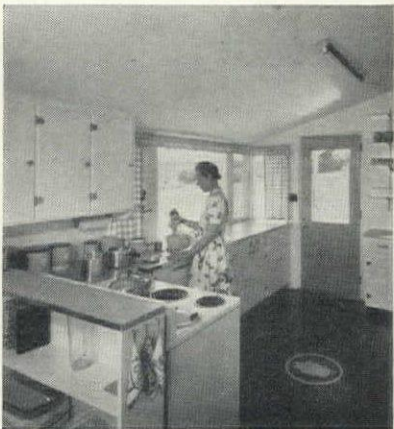
Location of the furnace is less important in its influence on planning trends than the type of heating system, but here again, technical improvements reduce the importance of the basement. With forced feed in both hot water and warm air systems, the limitations of gravity-type heaters are removed, and location of the plant on the first floor becomes feasible. What little noise is produced by the above-ground heaters can be handled without difficulty by the intelligent use of materials and by proper planning.

Added to the arguments for the elimination of the basement in the poswar house is its elimination in the duration house. Hundreds of thousands of people have been living in war-built housing and while there is no above-ground space to replace the basement, the fact is that these people are reasonably comfortable, and are getting used to the idea of having nothing under the first floor.

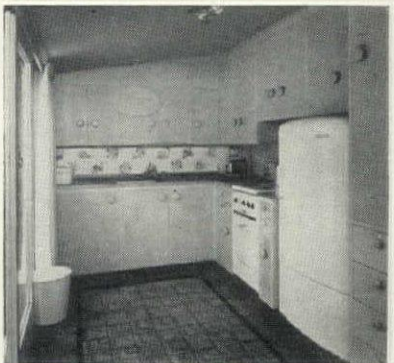
This brings us back where we came in.

THE WORK CENTER, again

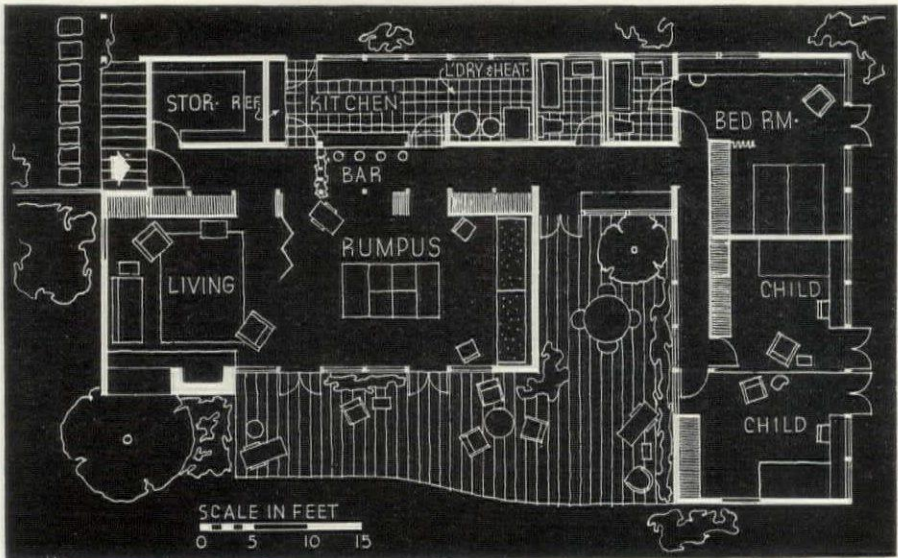
If the basement is left out, the kitchen inevitably swells to include a variety of items. One, we have seen, is storage. Another is the laundry. A third is the furnace. The deep freeze, for which the potential demand is enormous, will probably find a place in the new work center. Of these items, only the



FIXED GLASS WINDOW over sink for clear outlook. Photograph taken from the dining space. Carl Koch, architect.



THIS KITCHEN has an all-glass wall (left) from floor to ceiling. Note pleasant use of natural wood and tile. William Hamby, architect.



THIS HOUSE was designed by Edward D. Stone for a previous issue. Its interest to the operative builder lies in its handsomely (and efficiently) organized work center with storage, kitchen, laundry, heater and bath or baths in a straight-line unit.

fourth is unfamiliar. And if the basement should *not* be left out, people are still going to want all of the laundry and some of the storage space upstairs. Literally hundreds of houses have been published in the past half dozen years which show a utility room in conjunction with the kitchen. They have also shown installations of automatic laundry equipment in the kitchen and the provision of dining space. What would be new would be the inclusion of these ideas in a well-designed postwar house in a development.

THE BATHROOM

The bath is linked with the work center only to the extent that economy and convenience dictate. Bathroom packages, in one or more pieces, will probably come on the market. In England such units are already being produced. If we do not get around to the prefabricated bathroom, whose chief appeal would be more bath for the same money, the builder will still face a definite problem in the postwar market—how to offer a house at a reasonable price with more than one bath.

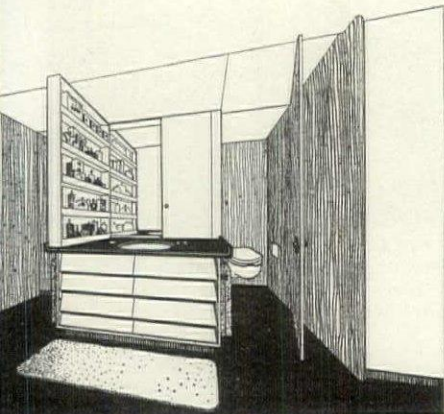
There are many answers. The most expensive is to build two conventional baths. Since nobody was able to offer a moderate-price house with two conventional baths before the war, there is little reason to expect this solution to work better afterwards. At this point, and probably on the basis of the same reasoning, most of the small house producers have given up.

Another move towards a solution is the bath-plus-lavatory, a possible scheme, but one better adapted to the two-story house where ground floor facilities would otherwise be lacking. One alternative which might make excellent sense in the one-story house is the bedroom lavatory, the old-fashioned washbasin brought up to date with all the devices at the disposal of the contemporary designer.

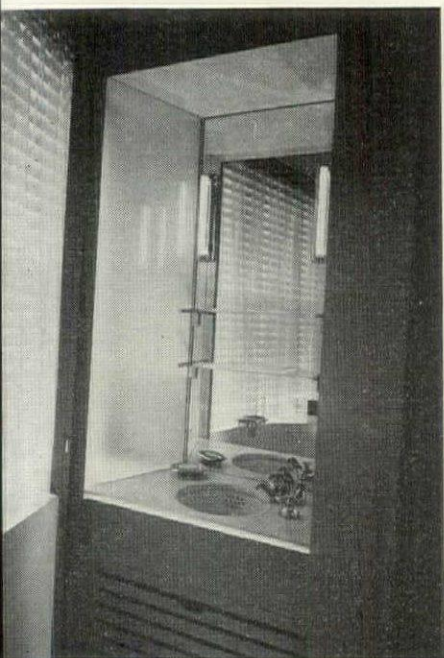
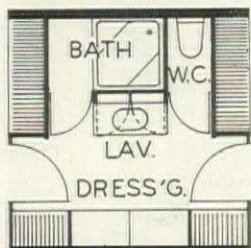
Obviously, the inclusion of such a fixture in one or more bedrooms would do a great deal to reduce congestion in the family's one bath. This idea, which is by no means a new one, brings up another which has also been considered from time to time: the divided, or compartmentalized, bath.

The most casual analysis of bathroom use will reveal facts that have a definite relationship to bathroom planning. Among them is the fact that not all fixtures are used every time the bathroom is used. Consequently, some house planners have advocated putting the fixtures into separate compartments, thereby freeing the bathroom and giving it greater flexibility of use. The idea, however, while theoretically sound, has never aroused any wild enthusiasm among the operative builders, and there are few custom-built houses, for that matter, which follow out this proposal. If individual lavatories were installed in the bedrooms, compartmentalizing the bathroom would have already begun, but there would still be a number of objections to continuing the process.

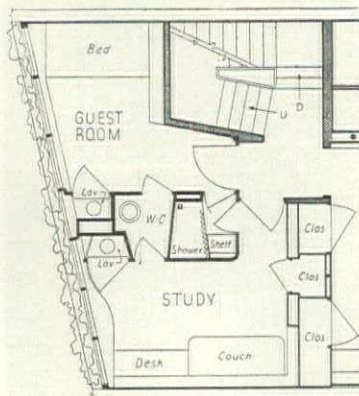
These objections are very reasonable. If the bathroom is divided up into three compartments, all accessible from a corridor, the corridor has to be too long. Also there would be the intolerable nuisance of dashing out into the corridor from one compartment to the other. Or the alternative of two doors (or three) to each compartment. Moreover, since each unit would normally get outside light, the distance between the corridor and the exterior wall would



BATH IN COMPARTMENTS, designed by Morris Ketchum and Jedd Reisner. Note lavatory fixture with oversize medicine cabinets, generous shelf space and drawers below.



BEDROOM LAVATORY, using stock bowl and carpenter-built top and laundry hamper. Splay at sides provides needed elbow room.



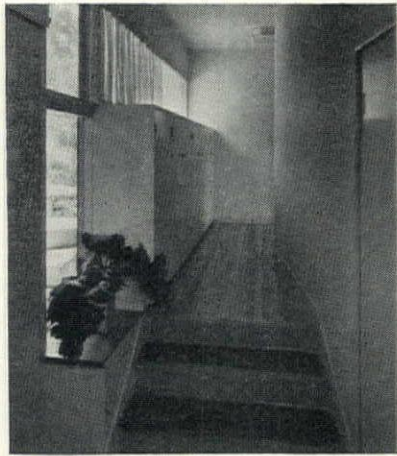
BATH IN UNITS. The two lavatories (see photo), water closet and shower are in separate compartments accessible from both bedrooms. Hamby & Nelson, architects.

are absurdly short, too short for economy. The only solution to the bath in compartments is the interior location, using artificial light or clerestory windows. Both plans which show a bath in compartments assume artificial lighting and ventilation. Fixtures in the upper illustration (facing page) are conventional on-the-market types with a certain amount of millwork including drawers, over-size medicine cabinet, etc. The lavatory, incidentally, is a good example of the hundreds of feasible merchandising ideas, representing a better use of standard equipment, developed by modern architects.

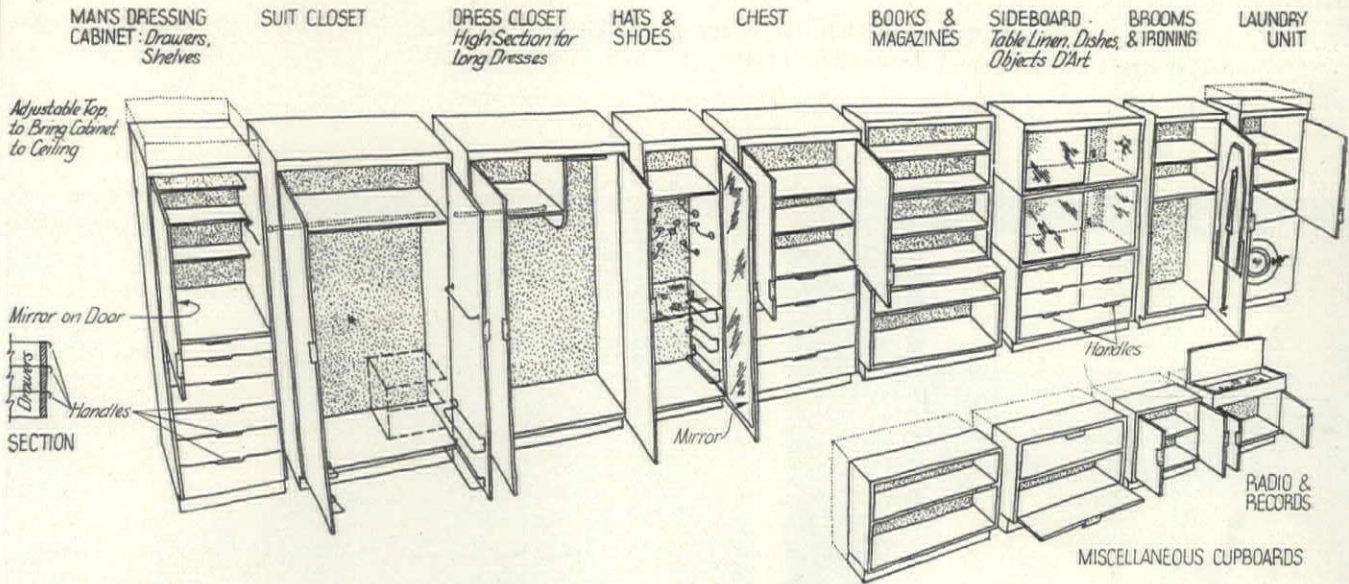
STORAGE

The No. 1 "pet peeve" in every survey of house and apartment dwellers is "not enough closets." Analyzed and extended, this complaint means many things. It means, for instance, that conventional storage space lacks diversity, as well as just adequacy. A perambulator and a necktie are both items to be stored, but a standard closet is not always the correct answer.

To solve the storage problem is not within the scope of a small section of a short article, and the purpose here is to stress the opportunity which has been muffed by practically every developer in the small house field. If some manufacturer offered a line of completely fitted, standardized storage units such as those illustrated, the only problem would be filling the order blank and making



HALL CLOSETS, unconventional but definitely usable. The average house could use many such units. John Ekin Dinwiddie, architect.



room on the plans. Prefabrication, however, is not necessary, for the units could be provided anyway using conventional methods.

Again it becomes apparent that the house-for-sale is as much in need of ingenuity as money; that its saleability (in a competitive market) can relate as much to the way in which equipment is used as to the equipment itself; and that all the quality merchandise in the world will not make up for the deficiency in design quality from which the house has suffered to date.

IMPROVED PRODUCTS

There has been a tremendous amount of work done on postwar equipment, both by designers with amateur and professional status, and by the manufacturers themselves. Whatever comes out finally, it will represent big or little steps in a few definite directions. One evidence of a trend is the number of proposals for packaged units of many different kinds. A few of these are reproduced from earlier issues of THE FORUM. Among the ideas which appear over and over again is the notion that kitchen and bath should be linked in a manufactured service unit.

There is a widespread conviction that at least two of the three main elements of the kitchen—the stove and refrigerator—need a complete design overhauling

DESIGN FOR STORAGE units by William Wurster. The idea was standardization for mass production, but it can be carried out in a more conventional manner with profit.

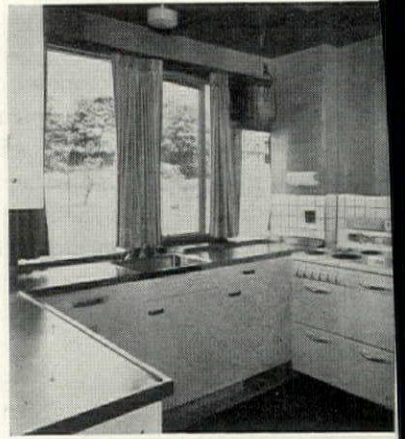


DRAWER UNIT, making good use of space normally wasted. Also excellent concealment for radiator. Antonin Raymond, architect.

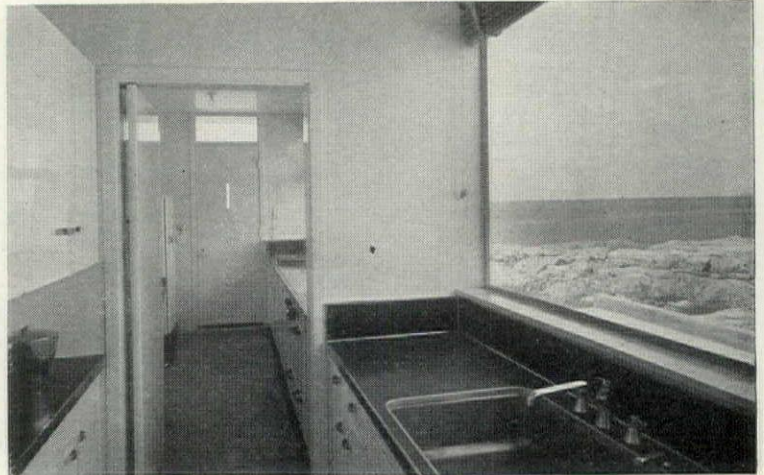
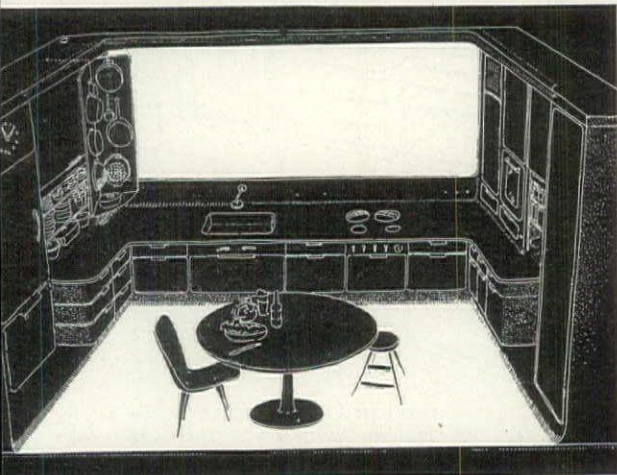
for better operation and greater efficiency. A dramatic proposal along these lines is the Libby-Owens-Ford kitchen, which summarized in a full-sized form many of the ideas which have been going the rounds for a long time.

The prospect of the appearance of unfamiliar equipment designs on the market will not cause the builder any headaches, for they will have been designed to do just the opposite. It is virtually a certainty that any packaged equipment, or even room sections, that appear in the early postwar period will be designed specifically to fit into the most conventional of houses. The importance of these potentialities to the builder does not lie in the trouble they might cause, but in the competitive opportunities. Moreover, the builder who is sufficiently familiar with trends in design and production to anticipate developments in building products, will be able to use existing, conventional items in new and far more saleable ways. The modern architects have shown extraordinary ingenuity in making such adaptations, and as a result have moved in less than ten years from the position of discredited rebels to the most influential group among building designers.

A few illustrations, selected from a great many equally appropriate, will clarify this point. It has been apparent that the streamlined kitchen, so-called, had much that was wrong with it. And the main thing wrong with it was that cabinets cluttered up the walls to the point where there was practically no room for windows. Using standard equipment, architects such as Gropius and Koch have organized the space so that the exterior wall is unencumbered. The rooms they have produced do not cost any more than the conventional kitchens they replace, but they are a lot pleasanter to work in. And it should be added that with this scheme the play yard under supervision from the kitchen can become a reality.



KITCHEN WITH VIEW, otherwise conventional in its arrangement and use of equipment. Elimination of cabinets over the sink is the only change from usual practice.



TWO KITCHENS demonstrating a more drastic application of the kitchen-with-view idea. Left, a project by William Wurster. Right, house by Gropius and Breuer.

TRANSITION

What would normally be a conclusion becomes a transition, for the examination of equipment makes it clear that the organization of the space in which the equipment is used is very important. It also becomes clear that the consumer demand for better living has two aspects. One, as we have just seen, deals with the machines and gadgets that have made life easier. The other, which is the organization of space irrespective of equipment, has been largely ignored by the builder. For those qualities which make the difference between comfort and irritation, a homelike atmosphere and a bedlam, are not always for sale at the dealers; in many instances the added cost is not for material at all, but the price of ideas. Here is where the modern architect's contribution is most directly usable to the builder. An analysis of this contribution, as it relates to the house-for sale, will be the subject of the third article.

PLANNING WITH YOU

he reason so many "master plans" for communities have died of dry rot in the City Hall safe has been the failure of planners to win citizen support for their program. Obviously, there is only one way in which such understanding and acceptance can be achieved: by carrying the planners' message to the widest possible number of public-spirited citizens by every effective means. One such means—and one of the most important—is through speeches and radio addresses to specially interested groups.

The following address delivered by Albert M. Greenfield at a recent convention of the National Retail Dry Goods Association in New York City is printed here as a fine example of such oral propaganda. Mr. Greenfield, who is chairman of the Executive Committee of the Urban Land Institute and a Philadelphia banker and realtor, has spoken before on the subject (see ARCH. FORUM, July '43, p. 42).



U.L.I.'s Greenfield

And again he observes all of the rules of persuasive utterance. He addresses himself specifically to a particular audience, approaching the question of planning from their point of view and explaining it in terms in which they have a direct and personal interest. His language is simple and avoids technical terminology which the lay audience might have difficulty grasping. Finally, he proposes definite, practical steps within the capacity of his particular audience—steps which are capable of being carried out in the not-too-distant future.

Our business is merchandising. Ever since our forefathers gathered beneath the proverbial elm tree to trade with the Indians, our merchants have been constantly striving to improve their facilities for selling their wares. Today, the life blood of our communities finds its source and inspiration from the quality of merchandising leadership to be found within its borders. The American public has come to judge a community by its stores. This imposes upon us merchants a responsibility for leadership that we must not ignore.

In the past decade, our wide-awake merchants have been indulging in some face-lifting-rearrangement of fittings, installation of modern elevators and escalators, new systems of lighting; all of which have a definite and important part in making our stores a more efficient and pleasant place to do business. Streamlined store fronts, newly created display technique and modern structures that might even be called sales palaces have contributed toward the march of progress of American merchandising.

The time has come, however, when we are justified in indulging in a bit of, what I like to call, 'enlightened selfishness'. By that I mean we should extend our point of view further than the building which we occupy and our immediate neighbors and do something about the blighted area that is to be found only a stone's throw from our downtown shopping centers throughout

the nation. In the great cities of the past, the centers of merchandising—the market squares and plazas were, and in some cities still are, outstanding focal points of civic interest and the locale of some of our greatest and most inspiring architectural creations.

A PROBLEM AND AN OPPORTUNITY

However, our generation has witnessed the onset of an entirely new set of circumstances. We have seen the typical organized quality of urban arrangement go by the board. In contrast, our cities have been undergoing a process of disorganization and disarrangement. Improvements in transportation, undreamed of only a few years ago, have given the public a means of escaping from the dinginess that we have permitted to creep into our urban centers, until finally, during the past two decades, we have even witnessed the process of merchandising picking up and following the market all over widely scattered areas. There has been a consequent adverse effect on the stability of the city itself as an organization; an adverse effect upon the tremendous resources which have been invested in established urban centers; and an adverse effect upon merchandising in established central districts.

There are some who believe that a trend as dramatically evident as this must be allowed to continue on its chaotic and destructive way. But the

disastrous effects of following such a line of least resistance are too great to demand the respect of those who are genuinely interested in preserving our cities as civilizing places of cultural and economic opportunity.

Of course, it is not suggested that we attempt to compress growing cities within cramped and inadequate confines. We can expect them to grow in area and in population, but it is our obligation to see that this growth takes place with a degree of orderliness and common sense which has not been true of the recent trend in expansion. To seek methods of substituting orderliness for confusion is not to chase rainbows. There are many things that we can do, and we must do them.

Our city centers do not have to remain dingy. We can improve our civic housekeeping by ordinary good taste in regulations affecting signs, billboards, overhanging wires and other unsightly things. These centers need not remain inaccessible to the great bulk of the urban population because of inadequate public transportation and parking facilities. The corrective improvements in rapid transit, in highway access to city centers, and in modern centrally located parking terminals would be but trivial engineering feats compared to the marvels that are being wrought daily in the war effort.

Many of us build structures to house our enterprises. None of us would begin building without a careful plan to

insure us with satisfaction at the completion of the work. Yet we tolerate the building of the cities that contain our buildings without the kind of plan that can tell us where we are going. We do not have to put up with this. There can be city plans just as there can be plans for individual buildings, and no city can be prepared for the momentous postwar years unless it has a plan by which structural changes and additions to the city can be directed into a desirable and predetermined pattern. It is not enough to have a planning commission or planning activity. There must be a plan. We could not build buildings if we had only planning departments without definite plans.

We may plan carefully to make our central business districts accessible by all forms of transportation. We can improve them in appearance. We can make them more convenient and attractive, and if we do no more, we will leave them as they are surrounded by wide belts of slums, blight and disrepair. For that reason, our plans must have something to say about the reclamation of this deteriorated dirty collar that is strangling the city's center. Our plans must include some workable method for reclaiming this land and putting it once more into productive use...

It so happens that whether we plan it or not about 90 per cent of the privately owned areas of a typical city will be used for some type of dwelling purpose. It seems clear, then, that a great part of the large blighted areas, when reclaimed, will need to be redeveloped for residential purposes. This does not mean, however, that it will be possible to go through these areas, tear down the dilapidated structures that stand on them at present, and replace them with similar structures on the same lots and on the same streets. To do that would be to overlook the most important lesson there is to be learned from the city development that has

taken place during the last 20 or 30 years. The public has been seeking and finding an escape from overcrowded conditions, from those old excessively narrow lots, from the indiscriminate mixture of commercial and residential land uses that has taken place in the old districts, and from the horse and buggy street layout which underlies them...

If we are to redevelop a considerable part of the blighted areas that surround our business districts for residential purposes, we must realize that these areas will be competing in neighborhood quality with the kind of commodity that has been produced in the more remote parts of our cities. If that kind of redevelopment is to succeed, it must meet that competition.

URBAN LAND INSTITUTE

I am not suggesting that this gigantic task be undertaken in the name of charity. It is a job for those resourceful private entrepreneurs that have the know-how of neighborhood building. It can succeed only if that type of private entrepreneur can be encouraged to use his resources and abilities in bringing the worn-out districts back to life and livability. This means that we are going to need some type of financing that can give the private builder access to this eroded land on a basis that will justify him in redeveloping it. It means, too, that we must have the needed extension of our laws of eminent domain to permit the assembly of land in the old areas on a scale sufficiently large to create a new environment and wipe away every trace of the old dinginess.

As many of you know, there is in the U. S. an organization of forward-looking businessmen who have been grappling with this problem for several years. It is the Urban Land Institute with which I am associated as Chairman of their Executive Committee and, because its work is of basic importance to the future of merchandising, I would like to tell you a little about it.

This private, independent business man's organization works in the field of city planning and land development policy. It is true, of course, that the making of city plans is a responsibility of local government, but the realization of those plans—the building of cities according to plan—is possible only through public cooperation and support. No existing benefit of city planning could have been achieved through official action alone. A city plan, conceived in discharge of official responsibility—conceived perhaps by a single individual—can be translated into reality only when it becomes a civic ambition.

Conversion of the official or individual conception into civic ambition is the work of public relations and public education. In this sense, city planning is much more than a matter of municipal administration. It is a matter of public policy.

The part of public relations in city planning programs can be most adequately served if those who conceive and execute city plans seek public expression on city planning policy during the planning process, as well as public support for plans that mature in the planning process. That is the way of realism, civic vigor, and tangible accomplishment in city planning.

City planning is not a single shot operation. It is a continuing process. Achievement of long-range goals requires the preservation of permanence in civic objective, but city plans must admit of detailed completion and modification to fit the incessant flux of urban life.

For this reason there is a most vital field for a permanent organization of non-official segments of the public—those who develop and use the city—to advance constructive cooperation between official planning and non-official planning and land development policy. This is the field of work of the Urban Land Institute.

Convinced that the need for rebuilding deteriorated city areas is paramount among urban problems, and convinced that this work is a proper field for private enterprise, the Urban Land Institute has sponsored a legislative proposal known as the Neighborhood Development Bill. It was introduced shortly before the Congressional recess last summer by Senator Robert F. Wagner of New York. Briefly, it proposes that the federal government extend its credit to municipalities for the purpose of purchasing land in deteriorated urban areas for redevelopment by private enterprise and by public improvement. It anticipates, of course, that the cities would act under appropriate state legis-

(Continued on page 114)

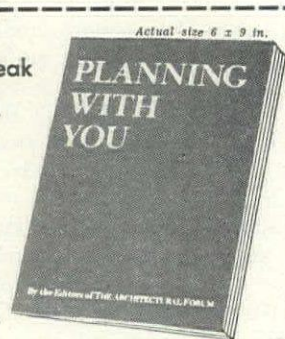
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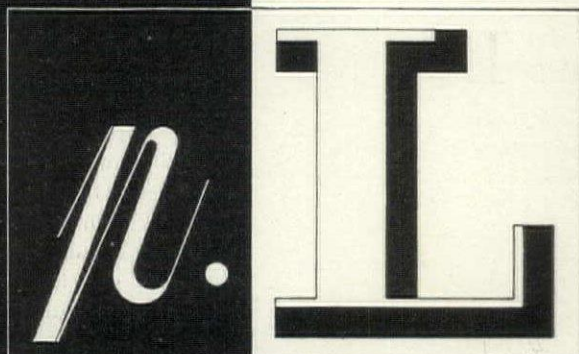
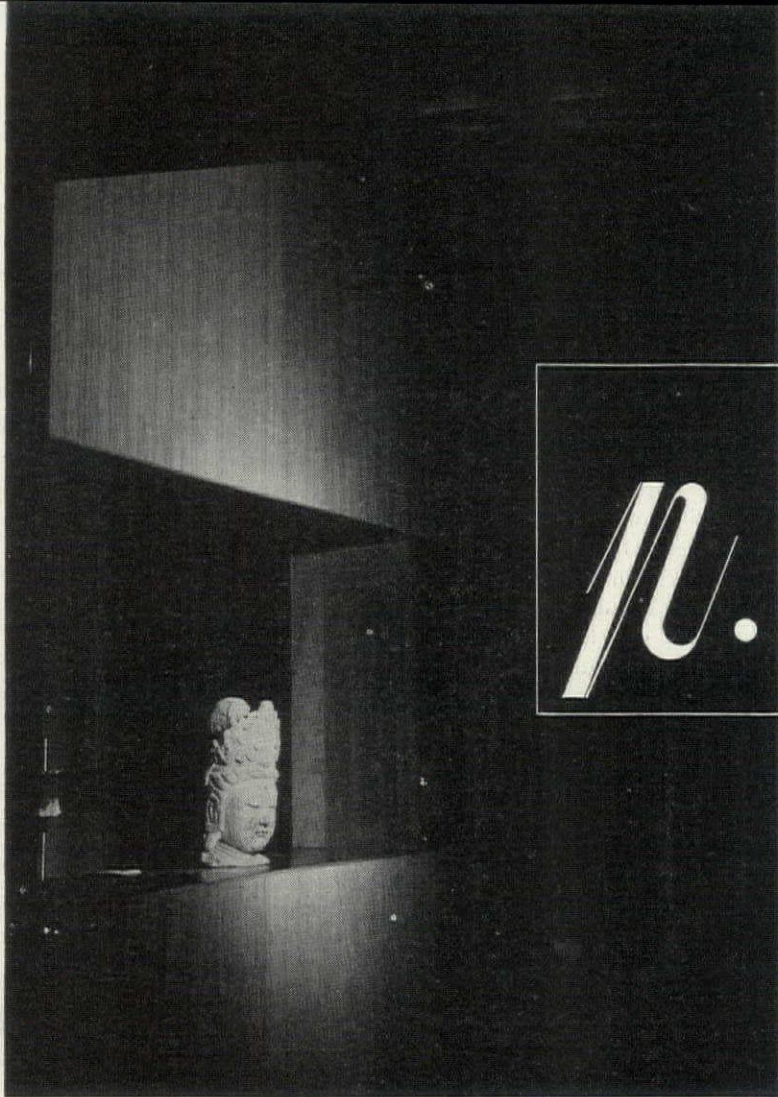
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FOUR HOUSES

by the office of PAUL LASZLO

Since the early part of the 1930's this country has been an increasingly popular haven for Europe's most (and least) distinguished architects and designers. Some arrived tooting their horns, bearing neatly packaged design formulas with which to dazzle the natives. Be it said for the natives that many were horned but few were swoggled. Others among the many newcomers soon made real contributions. And there were many affable souls who, like Paul Laszlo, just moved in on Hoboken or Hollywood and quietly found jobs to do. In the U.S. for the better part of a decade, Laszlo has apparently never written a manifesto, waved a banner or founded a movement. He just follows the best traditions of his native Vienna by designing comfortable houses, well-curved arm-chairs and dining rooms with plenty of elbow room. The portfolio of agreeable houses which follows, therefore, is not an exposition of the European influence on Hollywood, but a very accurate picture of what California did to Paul Laszlo.

OFFICE OF PAUL LASZLO

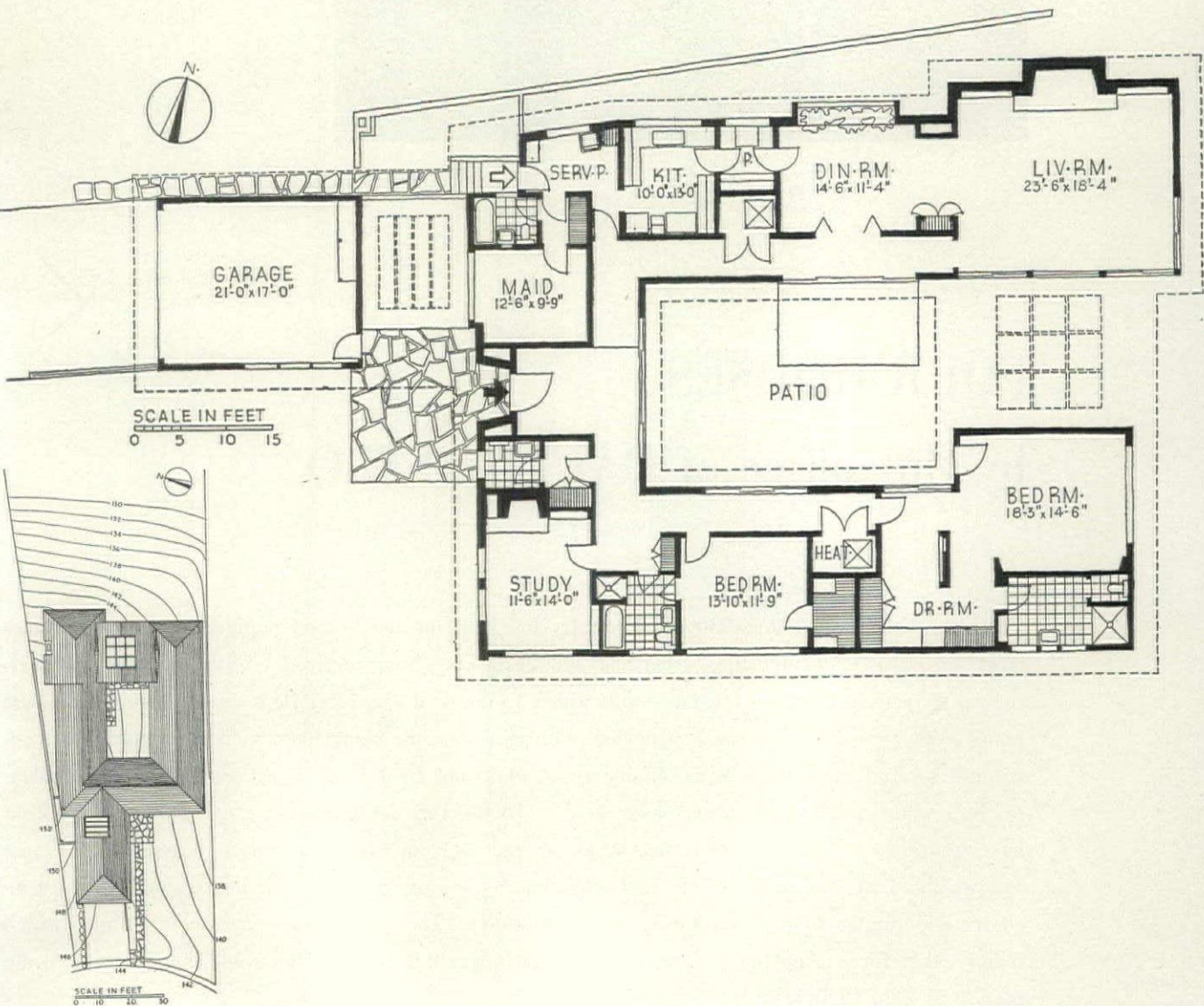
Sandwiched between three-story buildings, this U-plan house was designed to enclose space, exploit to the full a constricted lot.

HOUSE 1.

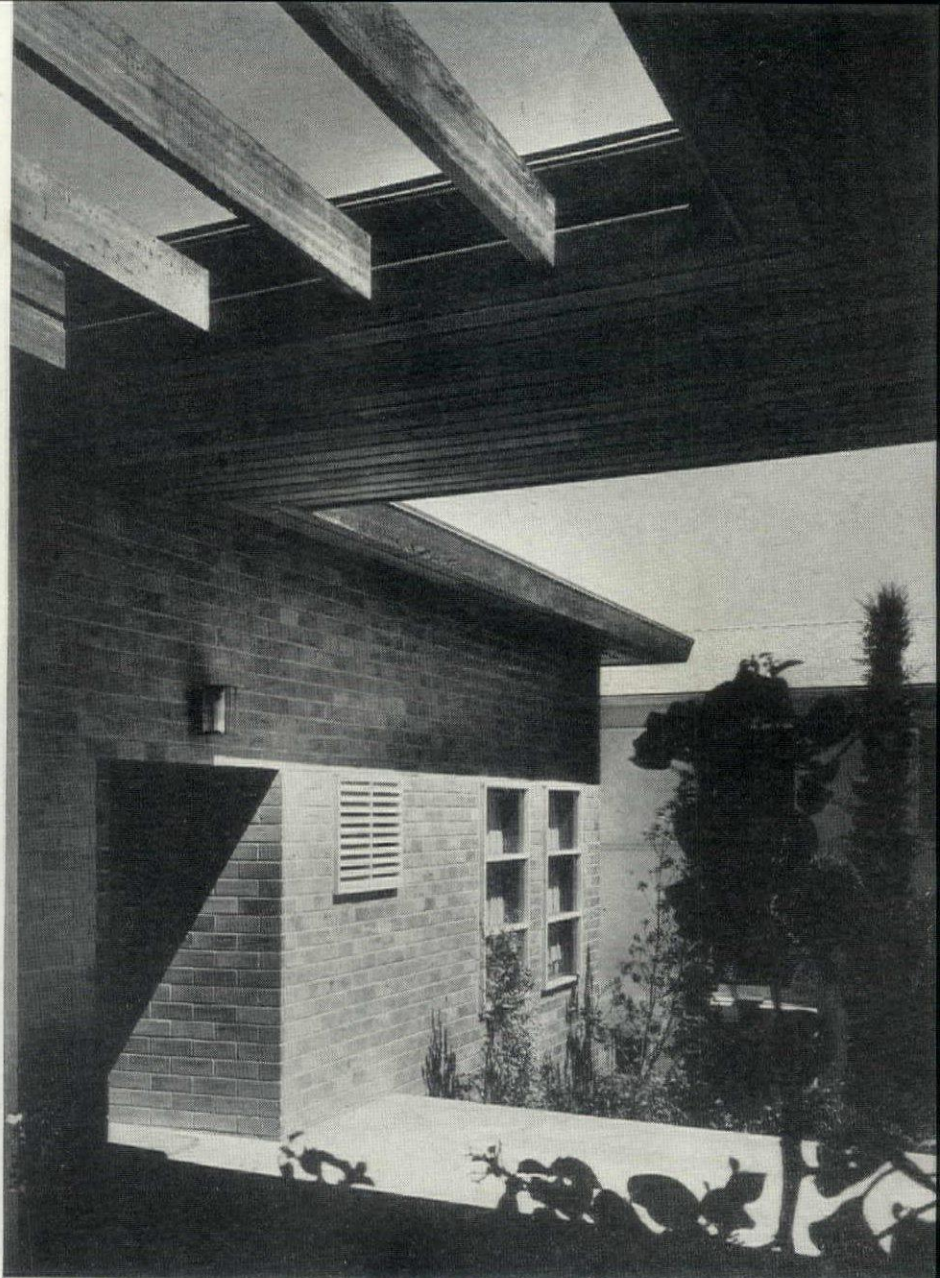
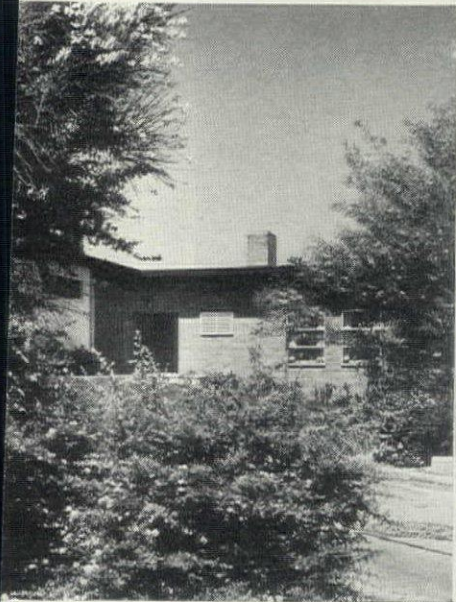
Traditionally Californian in its plan, this hillside dwelling is noteworthy for a number of new and good ideas. As you enter the lot from the street the first impression is one of being hemmed in by high surrounding buildings. On opening the entrance door, however, the entire patio area with its view beyond opens up and the house, far from seeming constricted, becomes a generous, informally open space, without clear divisions between interior and exterior living areas.

The plan, on analysis, turns out to be almost symmetrical in its structural and mechanical skeleton. The definite separation of service and living areas, each with its own access, is extremely well handled, and highly efficient within a scheme that is bound to be less workable than its compact, eastern counterpart.

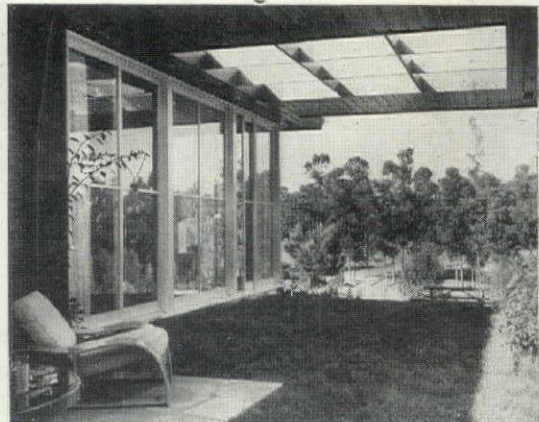
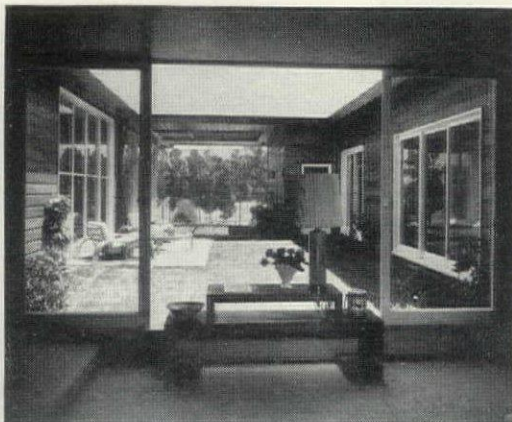
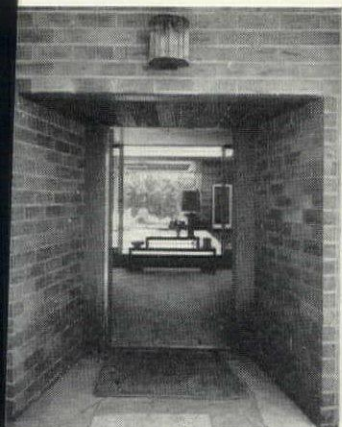
The designer, in close cooperation with the owner, planned the entire interior color scheme and all the furniture and accessories. In an open plan such as this the extension of the architect's function is absolutely essential, since separation of adjoining spaces is frequently achieved solely by introducing a low cabinet, a settee or a similar interior device. Thus the master bedroom contains a vanity which, when its two mirrored doors are opened, hides the closets and turns the dressing room wall into one large mirror. The built-in bar between living and dining rooms is another example of an interior decorating feature being used to define the plan.



by Julius Shulman



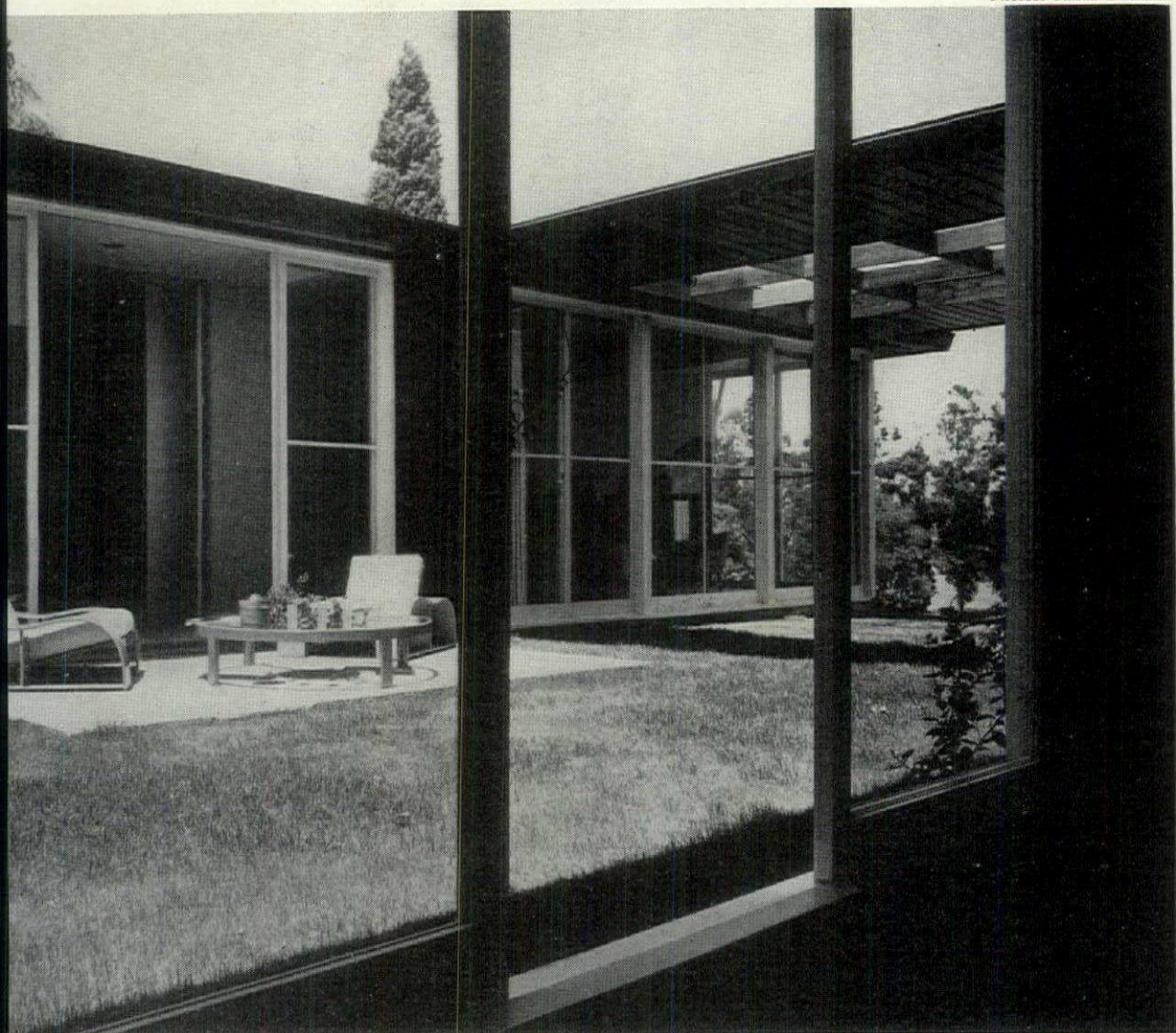
HOUSE APPEARS SMALL FROM STREET WALK TO GARAGE IS COVERED. A LATTICE ADMITS LIGHT TO MAID'S ROOM



THESE THREE PHOTOGRAPHS SHOW VISTA FROM FRONT DOOR, THROUGH ENTRANCE HALL, INTO THE LARGE PATIO

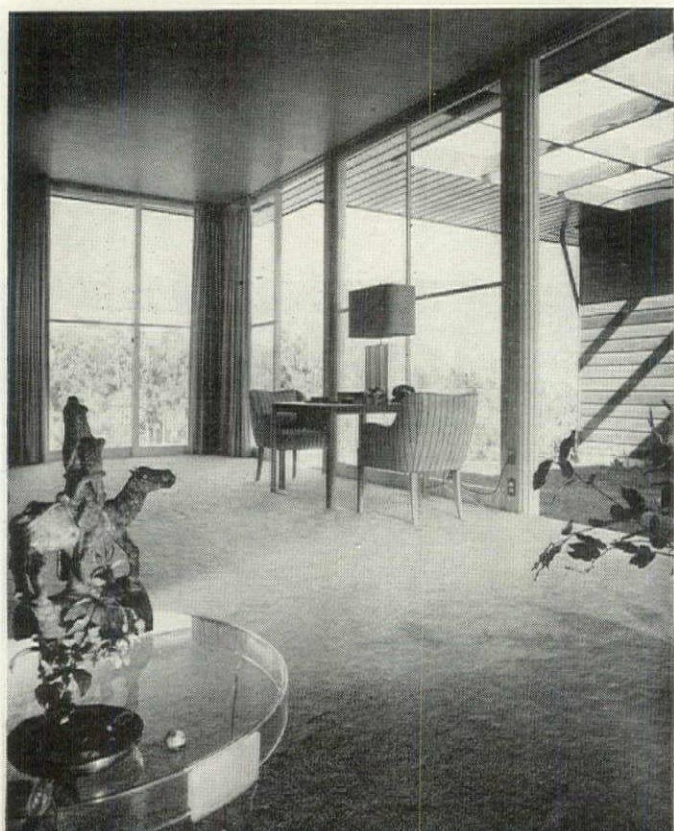
OFFICE OF PAUL LASZLO

Photos: Julius Shulman



ON SUNNY MORNINGS YOU CAN WALK FROM THE BEDROOMS ACROSS THE PATIO TO BREAKFAST

LIVING ROOM CORNER WINDOWS OPEN UP TO THE VIEW



HOUSE 1. (cont'd)

The problem of furnishing a modern house continues to show a wide variety of solutions. In the Philip Johnson house (see ARCH. FORUM, Dec. '43) the structural asceticism of the building was, without compromise, carried through to the furniture as well. Mr. Laszlo's work represents another extreme of the experiment: starting out from a basically contemporary pattern, he frequently uses its visual rather than its functional qualities, decorates rather than designs. It is perhaps too early historically to judge which of the two succeeds in satisfying human needs. It should be said in Mr. Laszlo's defense, however, that his scenery was lavish and his setting Hollywood. Whatever one's personal tastes may be, this house, designed for the only woman producer-writer in the wonderland, is as much a piece of showmanship as a private home, and the pictures on these pages show that Mr. Laszlo has successfully blended these divergent functions.



THE DINING ROOM IS PART AND AN EXTENSION OF THE LIVING ROOM BEYOND . . .

WHOSE CENTRAL "MOTIF" IS THE LARGE FIREPLACE, SEEN HERE FROM THE PATIO



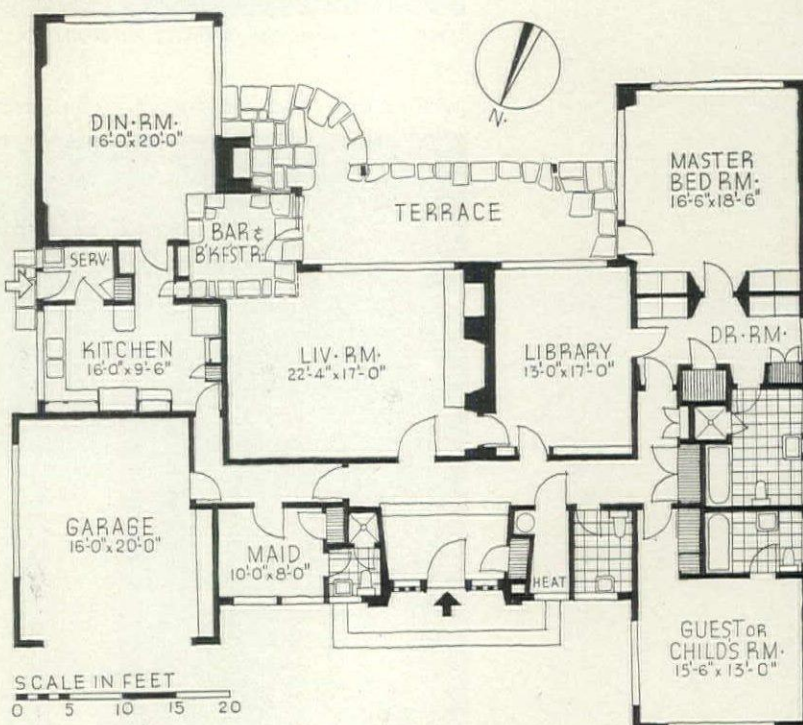
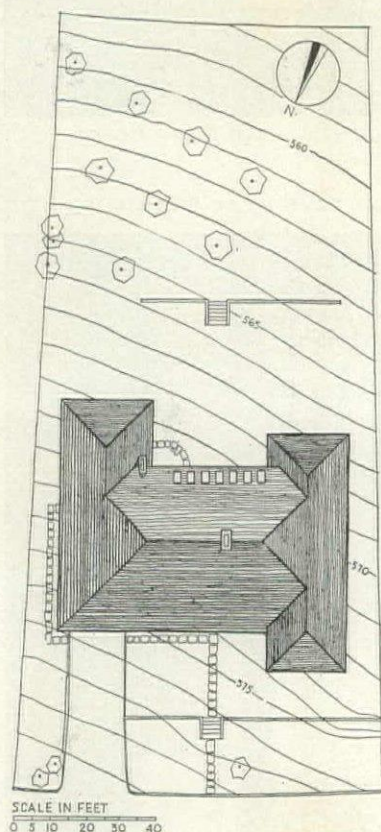
OFFICE OF PAUL LASZLO

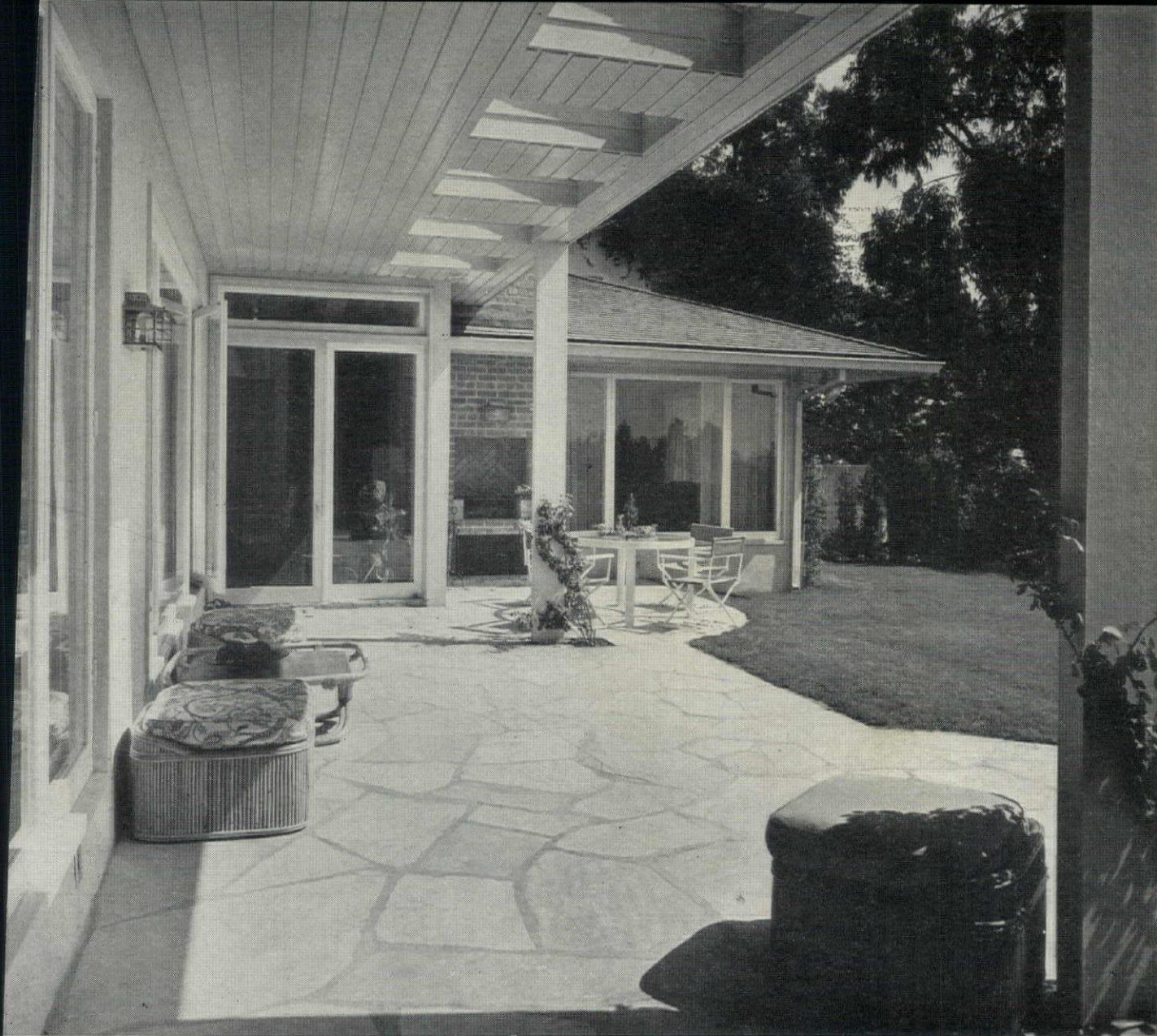
A variation of the previous plan, this house solves similar problems in a more compact manner, demonstrates clients' influence on design.

HOUSE 2.

The house for Mr. and Mrs. de Strakosch also overlooks a hillside, but its plot is less constricted, and the best view happens to coincide with a southern orientation. While the requirements from the owners' viewpoint were somewhat similar, the solution relocates the living room to comply with the altered orientation, and makes a separate unit of the dining room. As a result this plan is less open than the first one, but its compactness undoubtedly makes it simpler to service. A covered terrace overlooks Santa Monica and the Pacific Ocean beyond.

Several features of the plan are interesting: the bar and breakfast room between dining and living areas helps to draw these together into a single space without violating the owners' requirements. The compact bedroom wing has liberal closet space. While these individual units are well handled, the circulation within the plan as a whole seems laborious and the "buried" corridor area, which has to be artificially lighted, somewhat wasteful. The design of the entrance hall, too, is less attractive than in the Harrison house: the slanting walls of the lobby open up toward a blank wall, rather than to a spacious view, as might have been the original intention.





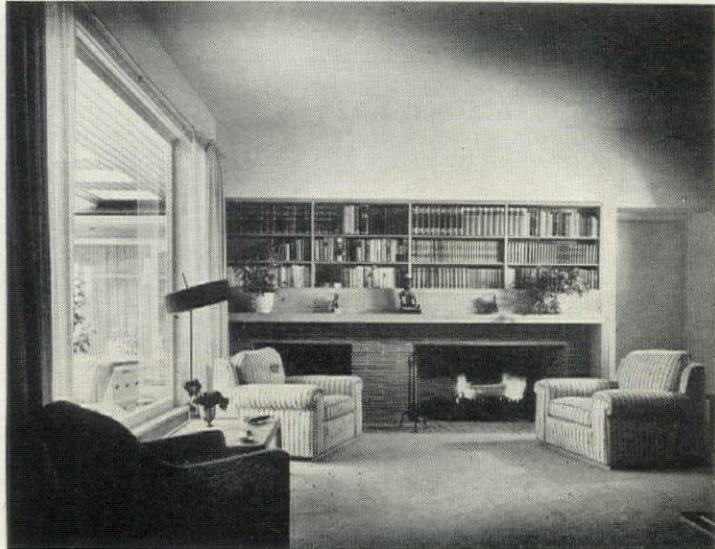
ER TERRACE HAS A SERIES OF OPENINGS TO ADMIT MORE LIGHT INTO THE LIVING ROOM AND THE LIBRARY

us Shulman



FACES A FINE VIEW FROM ITS HILLTOP SITE

Maynard L. Parker



LIVING ROOM HAS FIREPLACE AND BOOKS AS ONE WALL

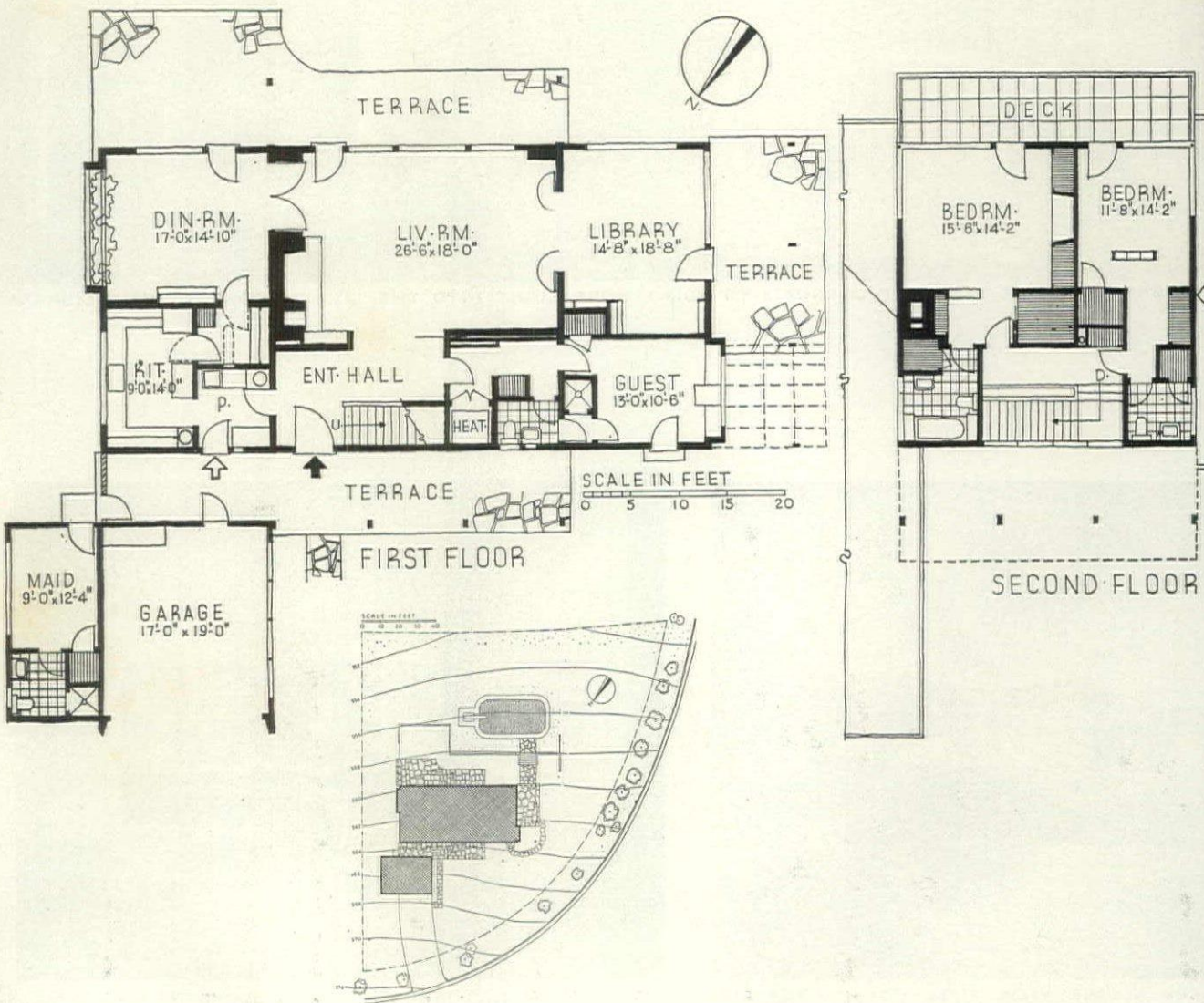
OFFICE OF PAUL LASZLO

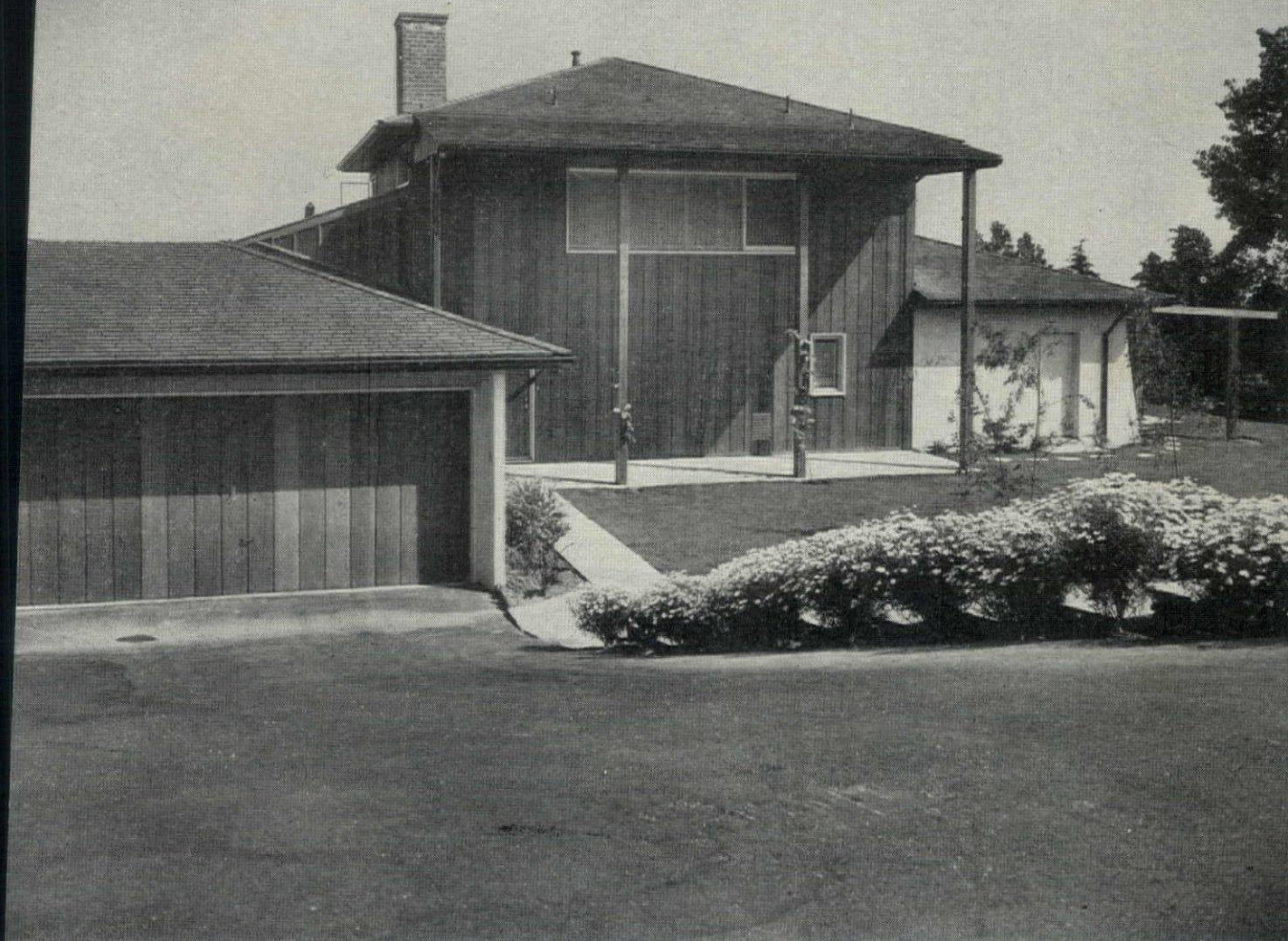
Designed for a corner plot facing the street on three sides, this California house would work well in other sections of the country.

HOUSE 3.

This house was built in the same block as the de Strakosch house, but requirements of produced a radically different solution. The plan-type has been used before, and it is excellent one, both structurally and from the point of view of organization. The house divided lengthwise into two halves: the side facing the garden is taken up entirely by the common living area. The other half contains services and rooms in occasional use, such as the guest room. The garage and maid's room form a separate entity, and the own sleeping quarters are located upstairs in a compact unit. While the obvious disadvantage of having the same view for all the major living areas might have been avoided on a different site, the arrangement in this case makes the best use of a difficult situation.

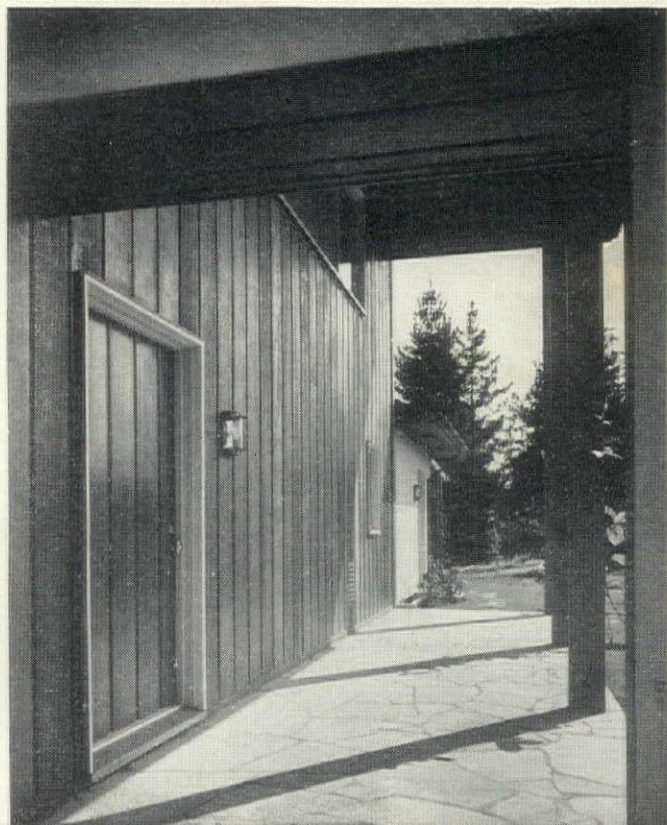
It is unfortunate, therefore, that the designer should have felt impelled to elaborate a simple scheme in its exterior expression. The treatment of the exterior, again, is a little on the decorator's rather than the designer's side. There seems no reason to break up a plain wall by facing one section of it with vertical redwood siding, the other with stucco. Furthermore, the window patterns seem a little too forced. This is the more regrettable as this is probably one of Mr. Laszlo's best-planned houses, with every detail of service and circulation worked out with great care and excellent spatial feeling.



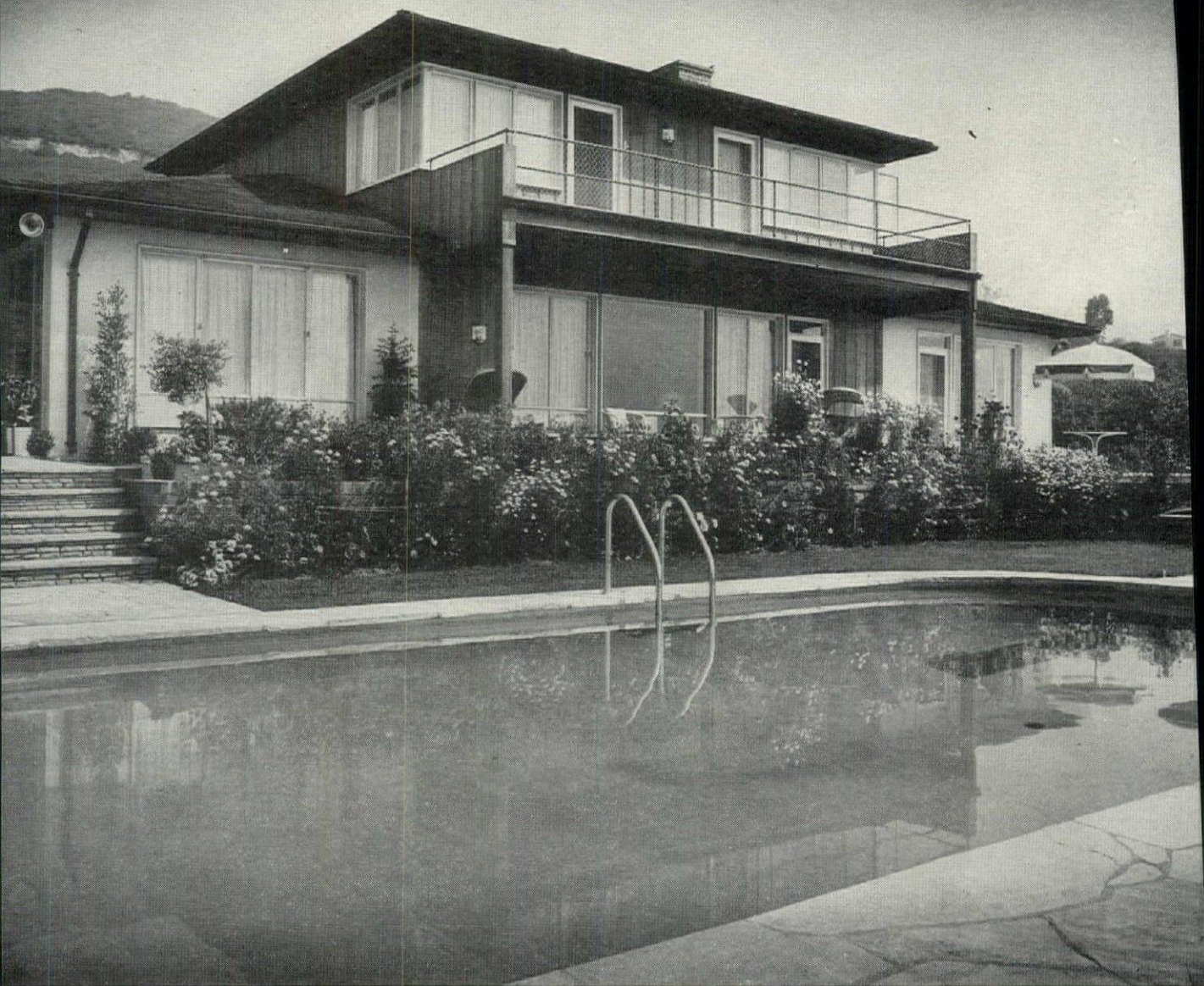


GARAGE AND ENTRANCE WAY FACE THE STREET. STONE STEPS EDGED WITH DAISIES LEAD DOWN SLIGHT GRADE -

THE SOLID ENTRANCE DOOR ADDS NEEDED PRIVACY

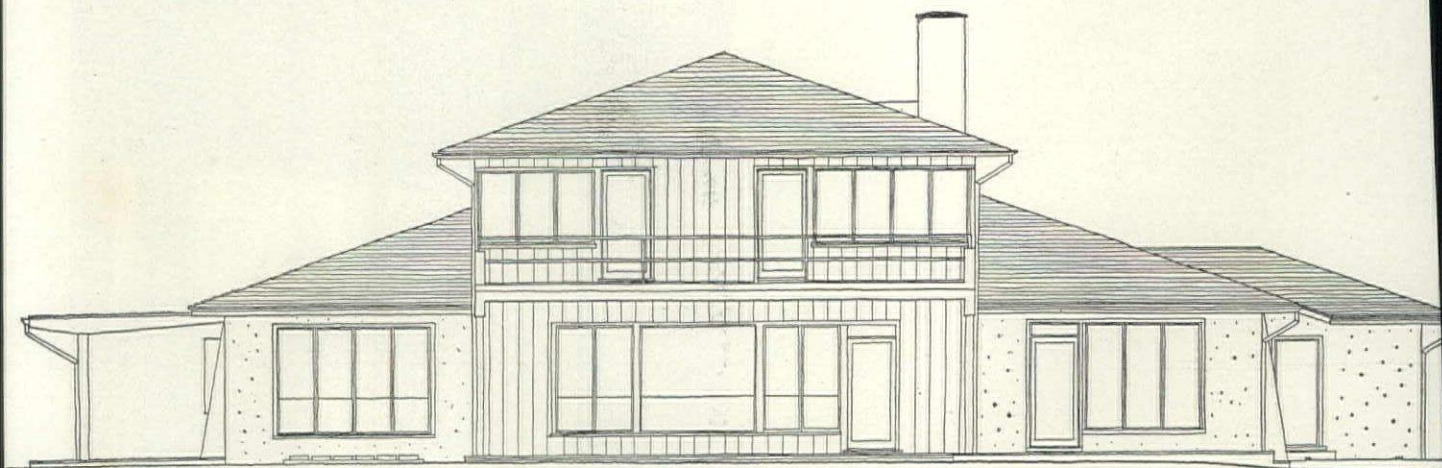


Photos: Maynard L. Parker

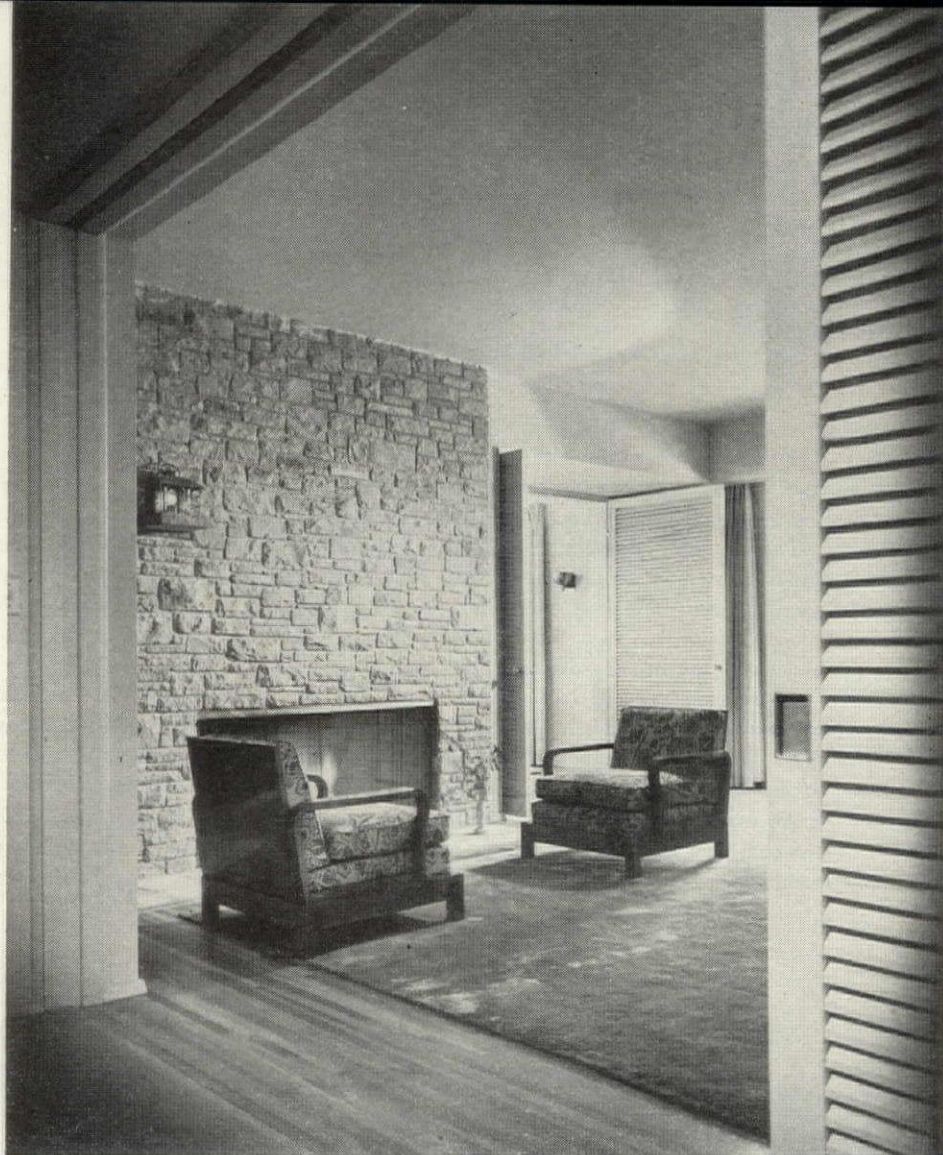


PLOT PLAN SHOWS THE SWIMMING POOL MORE PLEASANTLY RELATED TO THE HOUSE THAN PHOTO SUGGESTS

HOUSE 3. (cont'd)



The garden side of the house is in direct contrast with its street facade in its use of generous window areas. These manage to recapture some of the simplicity of scale that is inherent in the plan. But as in the street elevation, this view again seems unnecessarily broken up, a little "over-detailed," perhaps, where detail should have been subordinated.



Photos: Maynard L. Parker

MILDNESS OF CLIMATE IS EXPRESSED BY EXTENSIVE USE OF LOUVER DOORS

NOTE WINDOW IN THE DINING ROOM, TILTED OUT AT THE BOTTOM TO MAKE ROOM FOR PLANTS



OFFICE OF PAUL LASZLO

A hillside house overlooking Los Angeles is curved to fit a road and catch a breeze. Outdoor living here is more than a slogan.

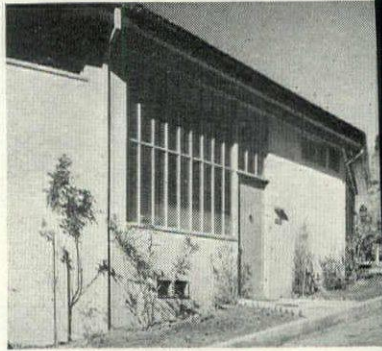
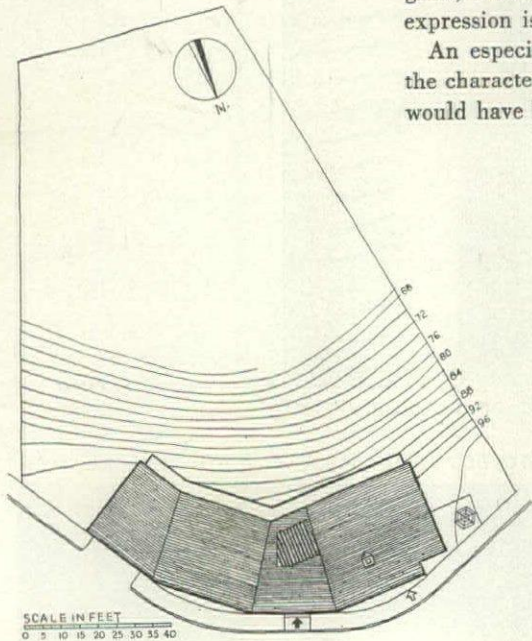
HOUSE 4.

The large photograph on the facing page, showing a setting which must often seem more like an oven than a conventional landscape, indicates very clearly the major problem of the architect: how to keep the house cool.

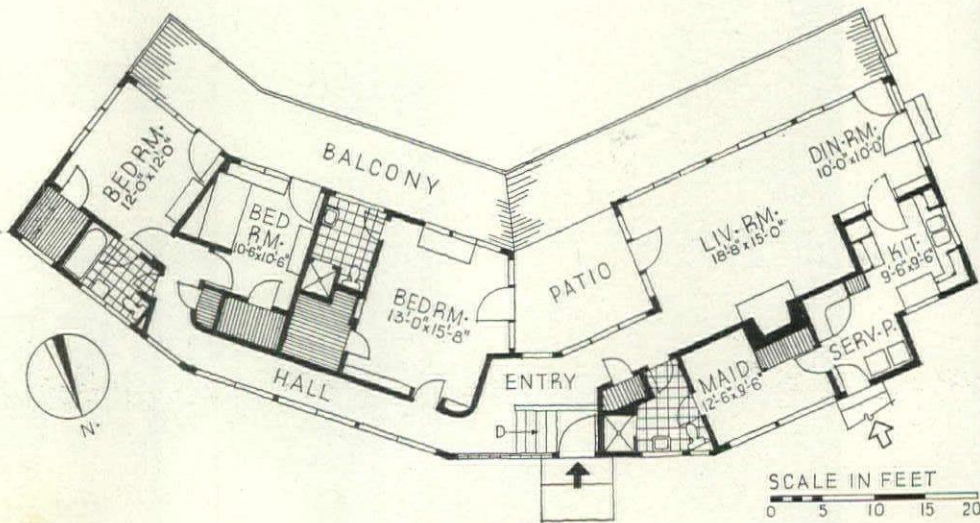
The plan and other illustrations give the answer. To the south there is a deep overhang supplemented by an awning in front of the living room, which faces directly south. The small central patio is a device for providing additional ventilation for the entry and the rooms around it. And finally, the house itself has been curved in plan to catch more effectively the breezes that come in from the ocean.

There are other sub-tropical features, aside from the provisions for ventilation. The non-committal entrance wall, blank except for a few high windows and a window of obscure glass, becomes more and more typical as building moves south, and this contemporary expression is therefore particularly interesting.

An especially successful part of the entire design is the landscaping, which maintains the character of the setting easily and naturally. Flowers more formally arranged in beds would have looked completely inappropriate against the stark, arid background.



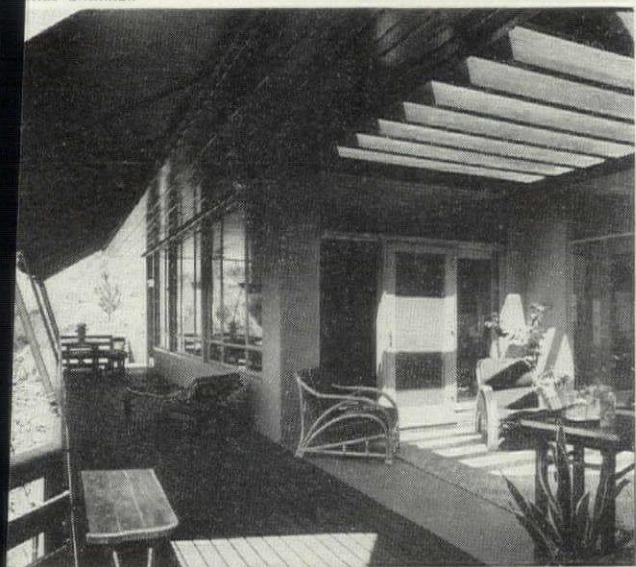
WALL OF ENTRY IS ALL GLASS



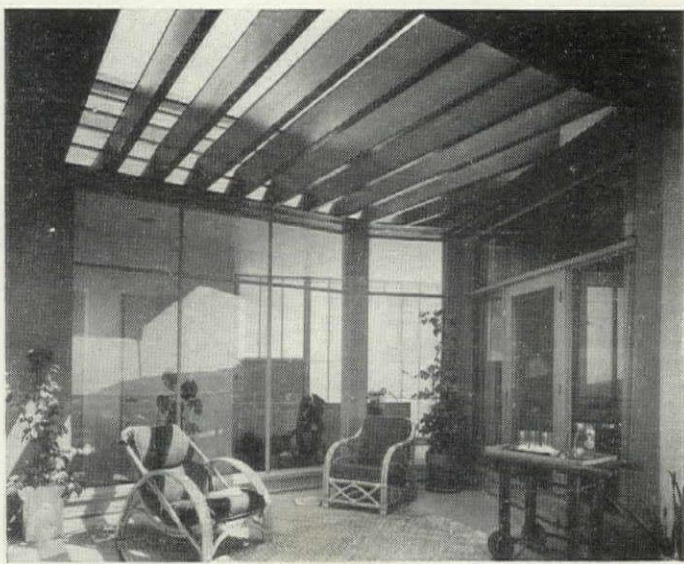


OF DRY HILLS REFLECTING SOLAR HEAT TO THE HOUSE SITE GAVE THE ARCHITECT HIS WORST PROBLEM

Julius Shulman



TERRACE HAS A VIEW OF CANYON AND CITY BELOW



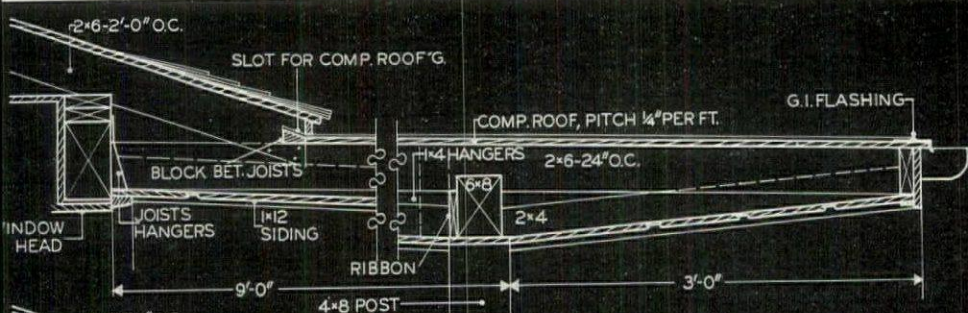
PATIO IS ACCESSIBLE FROM THREE MAIN PARTS OF HOUSE

ROOF OVERHANGS

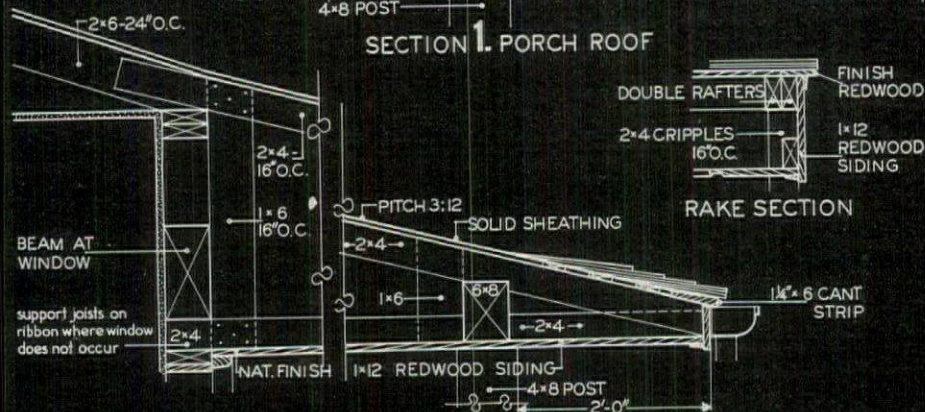
OFFICE OF PAUL LASZLO

DESIGN DATA 14

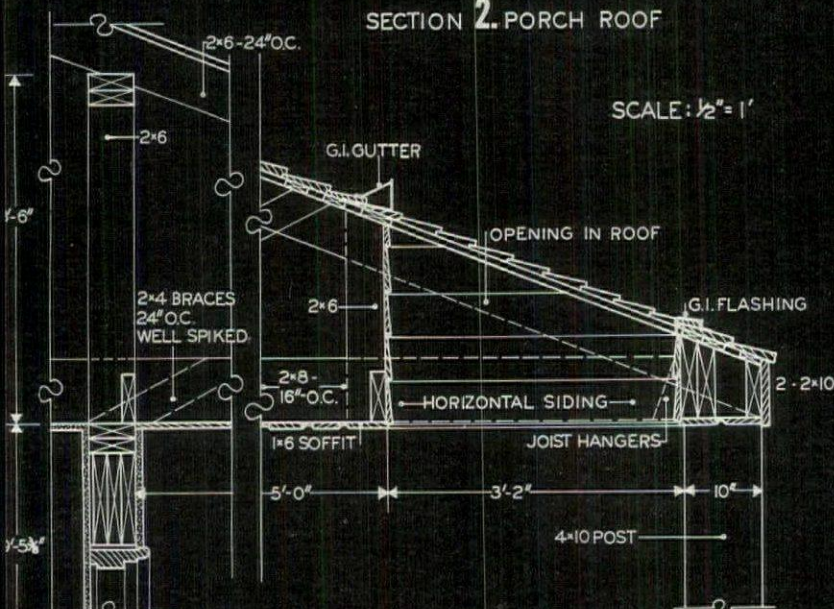
THE ARCHITECTURAL FORUM



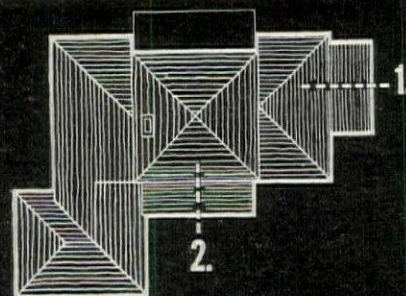
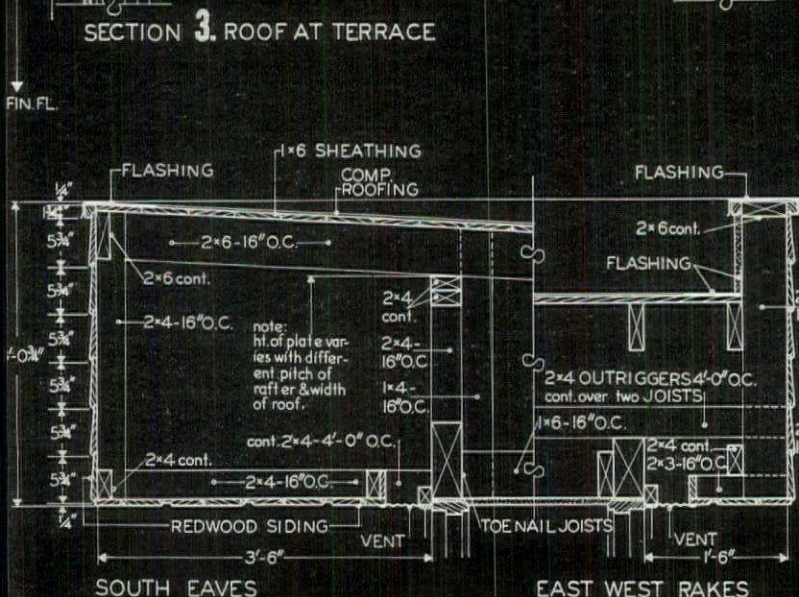
SECTION 1. PORCH ROOF



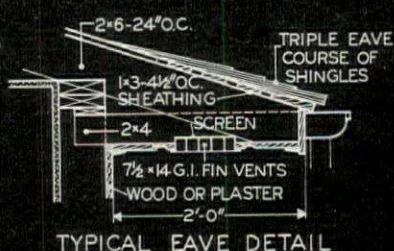
SECTION 2. PORCH ROOF



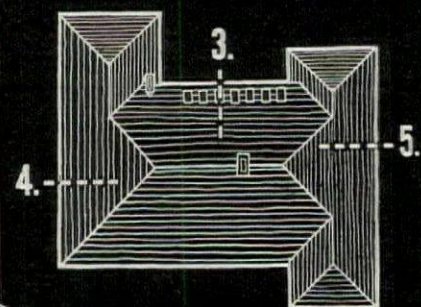
SECTION 3. ROOF AT TERRACE



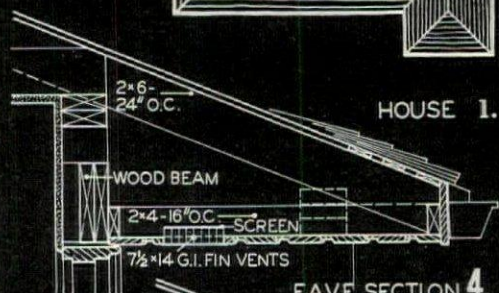
HOUSE 3.



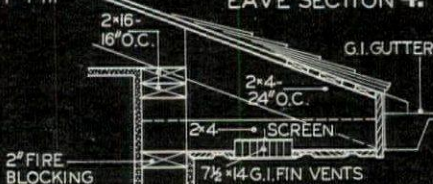
TYPICAL EAVE DETAIL



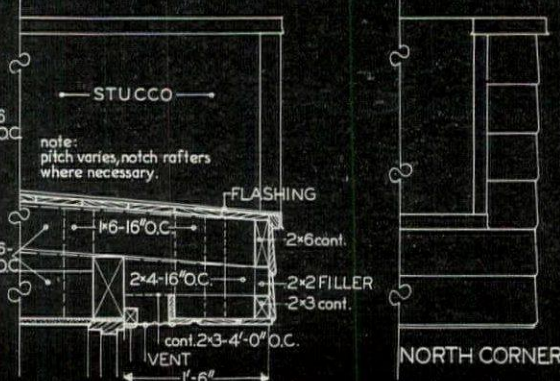
HOUSE 1.



EAVE SECTION 4.



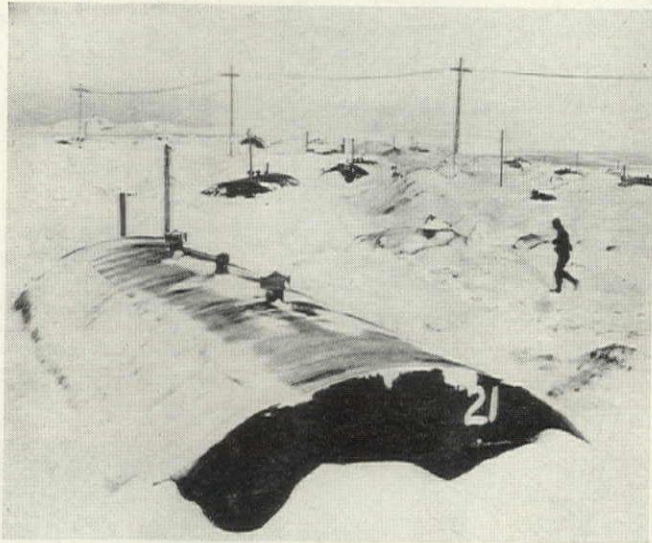
EAVE SECTION 5.



HOUSE 4.

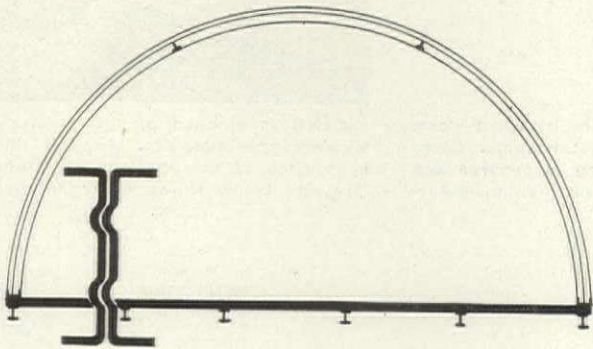
PREFABRICATION

Official U. S. Navy Photos



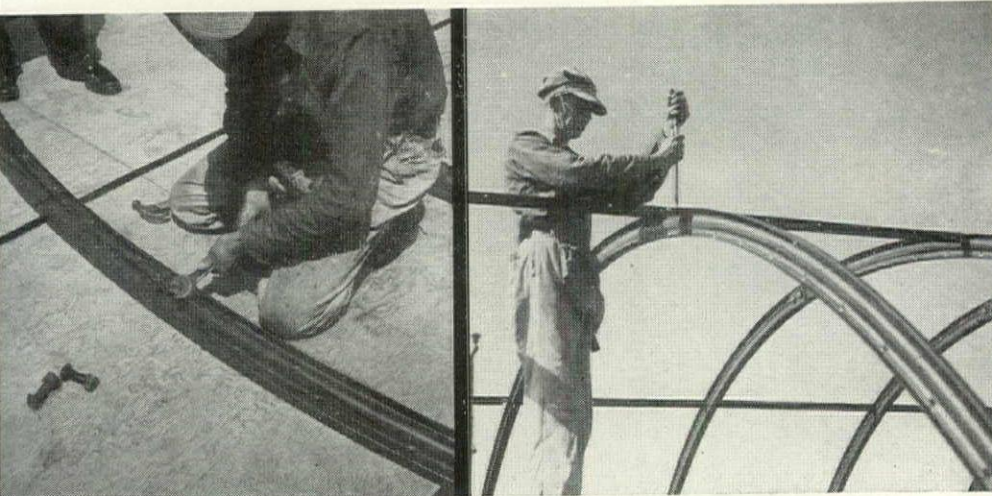
GLOBAL WARFARE DEMANDS GLOBAL TROOP SHELTER: LIGHT, EASY TO SHIP AND WELL INSULATED

HUTMENTS TO HOUSES—Manufacturers of the Navy's famed "Quonset" hut, plan to base a new system of peace-time prefabrication on their extensive war experience in the fabrication of military buildings.

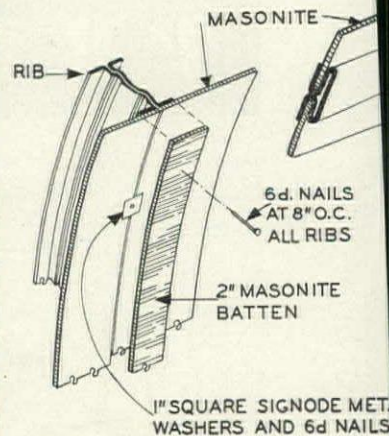


The widespread use of prefabricated structures by the Army and Navy, while not so much publicized as prefabricated war housing, may have as great an influence on peace-time prefabrication. A number of companies now turning out buildings of various kinds for military purposes plan to enter the housing field after the war, applying their wartime equipment and experience to the fabrication of small homes and other structures for peacetime use. Among them, the Stran Steel Division of the Great Lakes Steel Corp. is in the almost unique position of having recent and extensive experience with the use of metal in prefabrication.

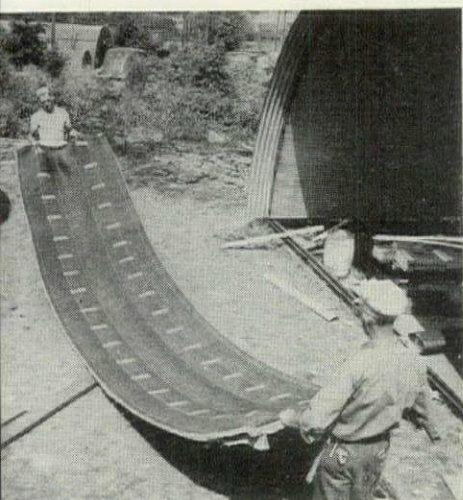
Stran Steel, best known before the war for the patented nailing groove feature of its light, cold-formed framing members, has supplied thousands of steel-frame barracks, storage buildings, canteens, etc. for military use. Beginning with the Quonset Hut, a 16 x 36 ft. structure for which Stran Steel furnished only a frame consisting of short, straight, nailable members arranged to form a multi-angled barrel vault, the company developed an ingenious arch-rib structure in various widths and lengths for which it supplies all necessary materials crated for export. Basis of the present system is an I-shaped, nailable member bent to form a continuous arch, uniting walls and roof in a single simple structure. These arches, which span 20 to 40 ft., are joined across the bottom by light steel floor framing, also consisting of nailable, I-shaped members. The steel frame, which is assembled with ordinary bolts, is first lined on the inside with thin Masonite, bent to conform to the arch. After the



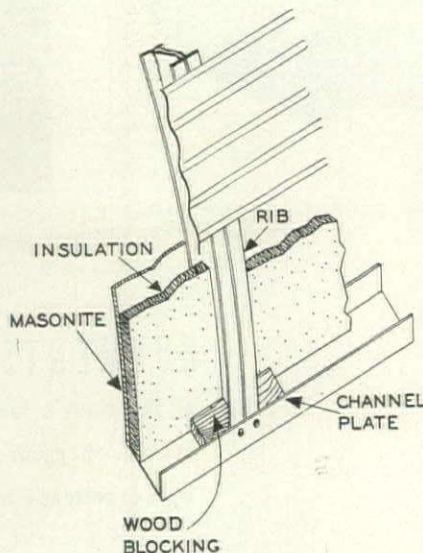
ARCH SECTIONS are bolted together on floor platforms (above), tie-strips screwed to arches (right). Necessary tools are crated with parts.



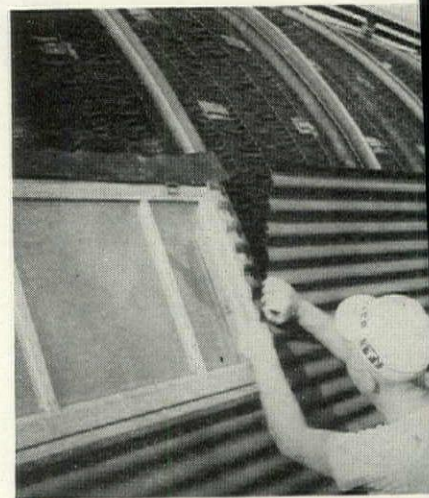
INSIDE LINING is painted Masonite bent to conform with shape of arch. Vertical joints are covered with Masonite batten strips, joints are formed with grooved spine.



INSULATING BLANKET is applied over Masonite lining, before placing exterior metal siding. Strips are long enough to cover entire arch.



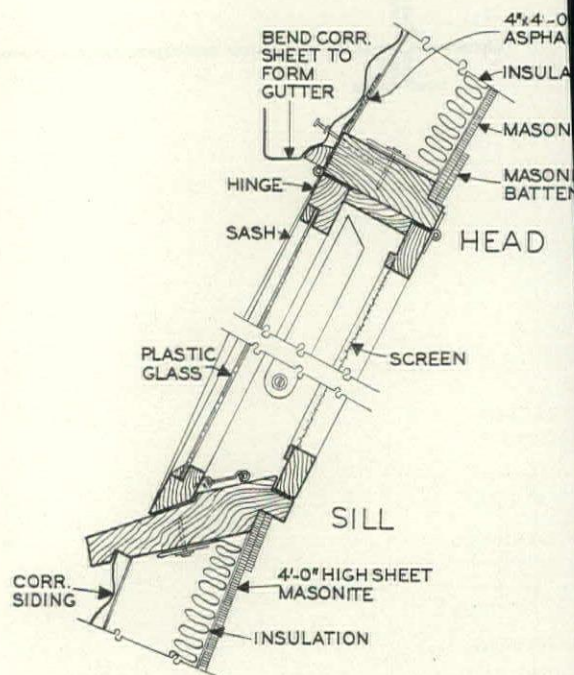
INSULATION is held in place by wood blocks, jammed behind flanges of metal frame. Corrugated, galvanized iron siding is secured with double-headed nails in patent nailing groove.

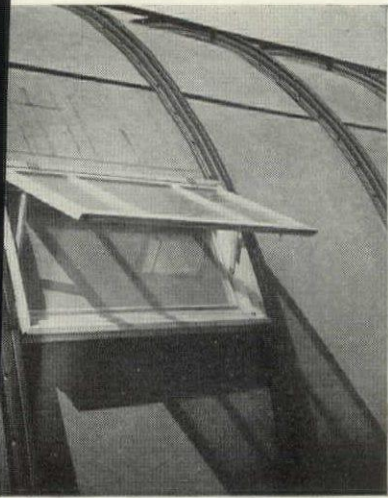


SIDING is shipped precut to size to fit window openings, etc. Asphalt filler-strips open ends of corrugations at Jambes of windows. Drawing below shows other details.

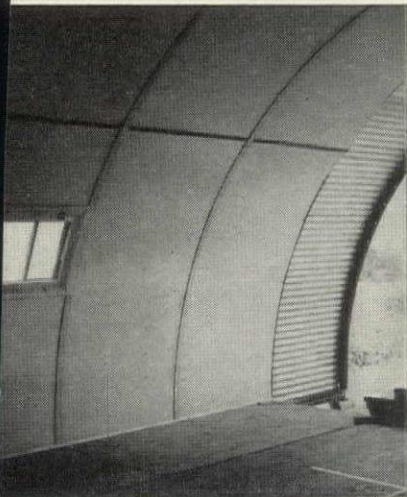
Masonite lining is applied, a layer of insulating blanket is placed between the ribs, working from the outside, and the structure is then covered with pre-painted, corrugated, galvanized iron siding, placed horizontally. Floors are plywood, nailed to the steel joists. Unlike the original Quonset Hut, the arch rib hut has side windows, three to a side, set in the sloping surface of the walls. Despite this feature and its larger size—20 x 56 ft.—the standard hut built in this way is lighter, more economical, and packs in less space than the original model.

After the war, Stran Steel expects that this arch structure, already used for military warehouses, workshops, etc., as well as troop shelters, can be applied in substantially its present form to a number of peacetime purposes, such as garage buildings, and can be adapted to other uses like greenhouse construction. In addition, the company's development department is already at work on a type of structure better suited to house construction, and is also studying the possibility of prefabricated kitchens and bathrooms built as separate units for use in conjunction with prefabricated panel construction.

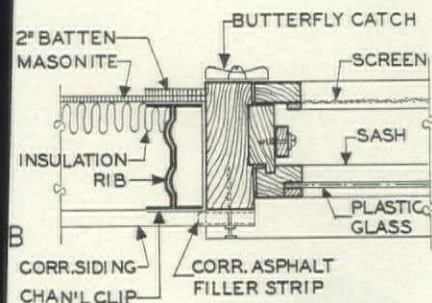
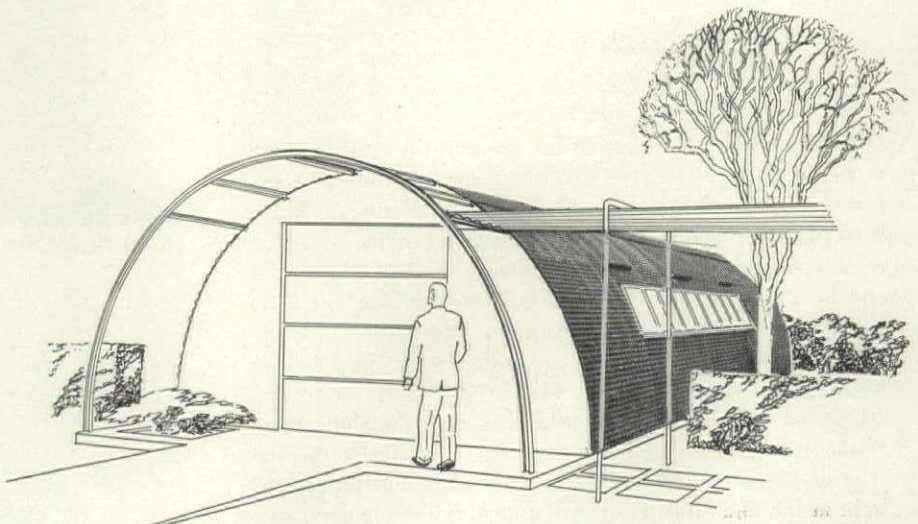
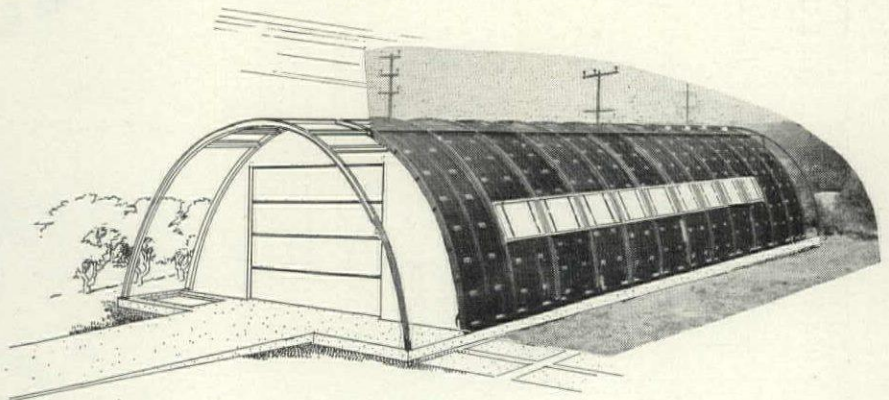
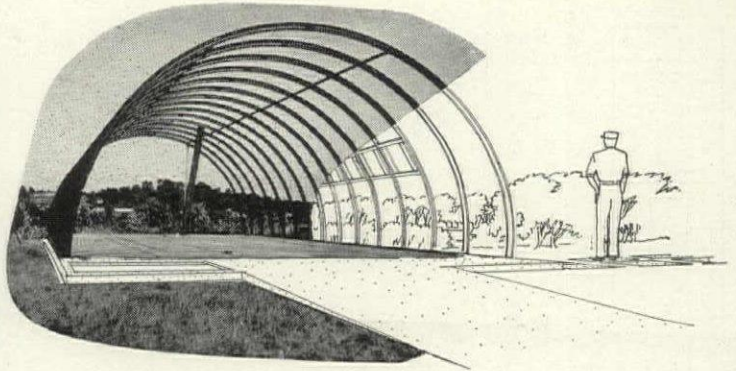
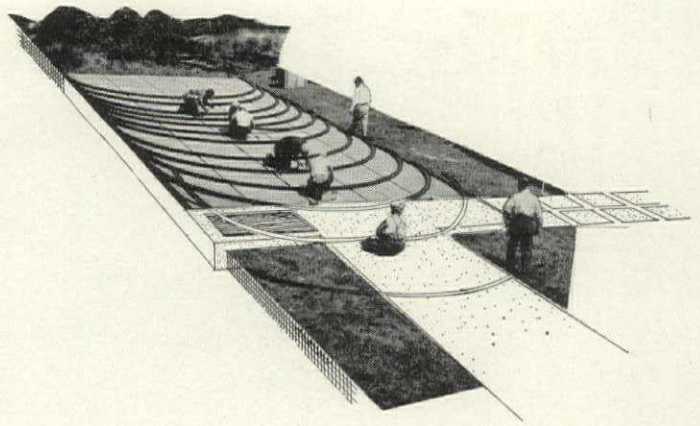




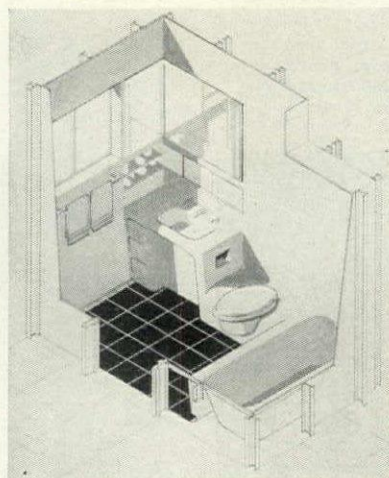
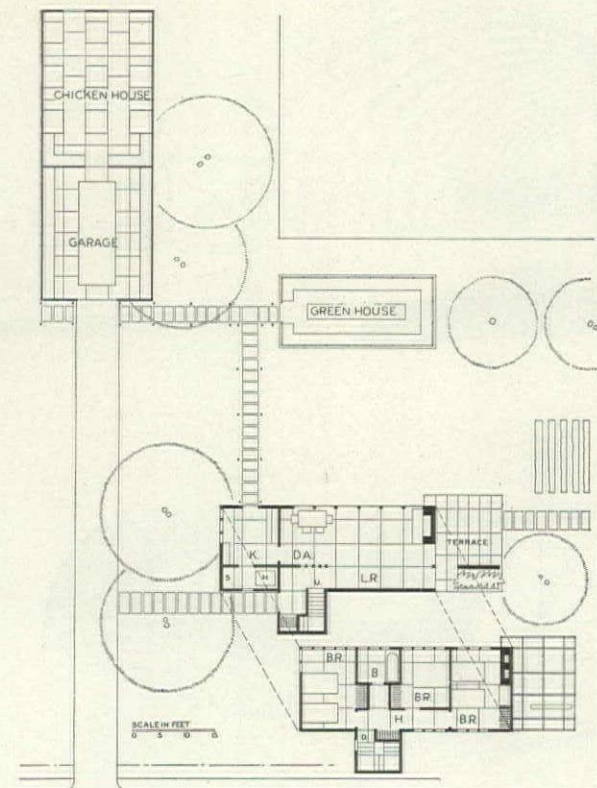
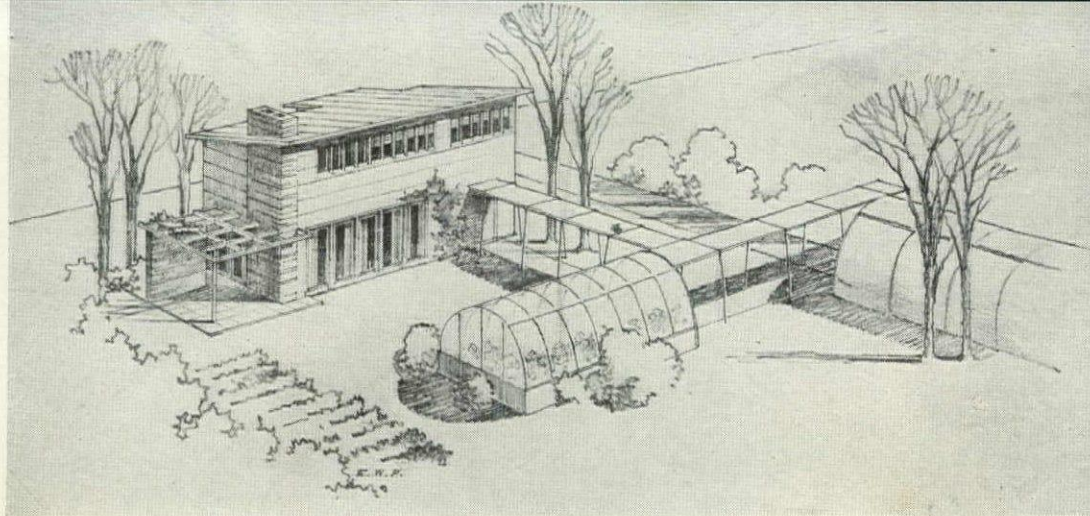
ED WINDOWS have wood frames and shipped complete with screens and with in place. Photo shows inside lining e, applied before outside sheathing.



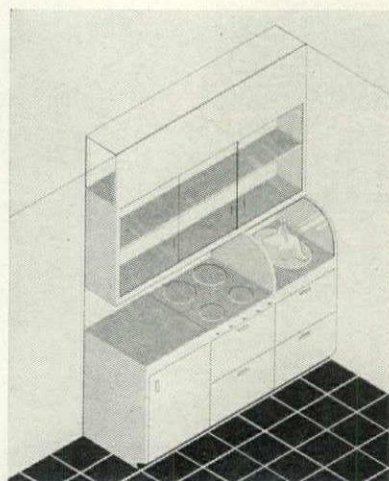
f finished hut is neat and trim, warm and eep clean. Bulkheads at ends of buildings elled last, were still not in place when this as taken. Overhang protects door.



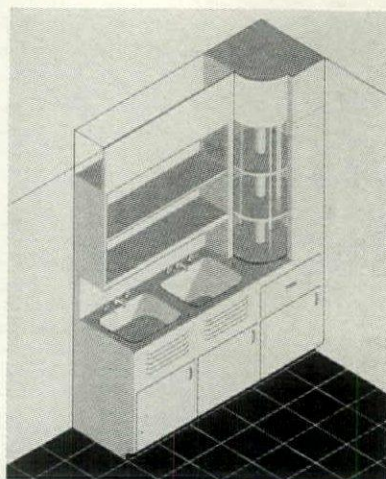
POSTWAR USES of arch rib structure might include garage buildings, greenhouses, etc. In photo-drawings above, the artist has shown various stages in the erection of a backyard garage, using actual assembly pictures of a standard, 20 x 56 ft. military "hut." Such a structure could be erected by the owner himself, with the help of his neighbors, particularly if they had all had military experience setting up huts.



UNIT BATHROOM



SECTIONAL KITCHEN



Drawings above show a postwar prefabricated farm group as visualized by Stran Steel's development department in conjunction with the architectural division of Smith-Hinchman & Grylls Inc. Greenhouse and garage-chicken-house consist of adapted arch-rib structures, house is built from flat panels which would presumably have similar, nailable metal frames and panelboard finishes. In addition to structural panels for floors, walls and roofs, Stran Steel is also working on the possibility of kitchens and bathrooms fabricated as cubicle units. Sketches at right show some of the arrangements under consideration. At the top is one type of prefabricated bathroom, with walls and fixtures of light metal, and an exterior wall matching the regular panel construction, but also suitable for incorporation in conventional construction. Middle and lower pictures show opposite sides of a prefabricated kitchen, with a glass-front oven and a round, glass-doored refrigerator, both above work table height.

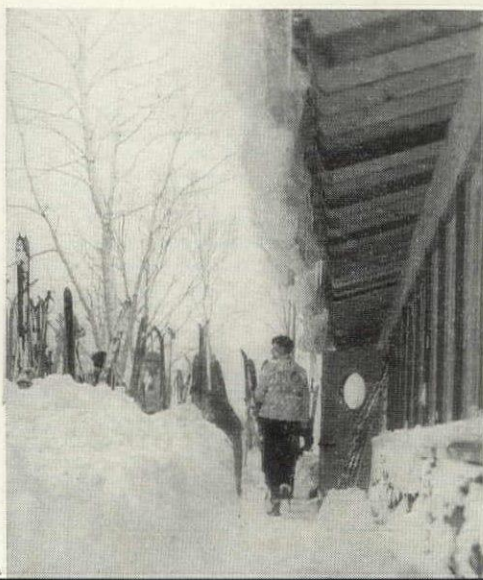


ALTHOUGH BARELY COMPLETED, THE LODGE ALREADY SEEMS PART OF THE MOUNTAIN'S SOUTHERN SLOPE

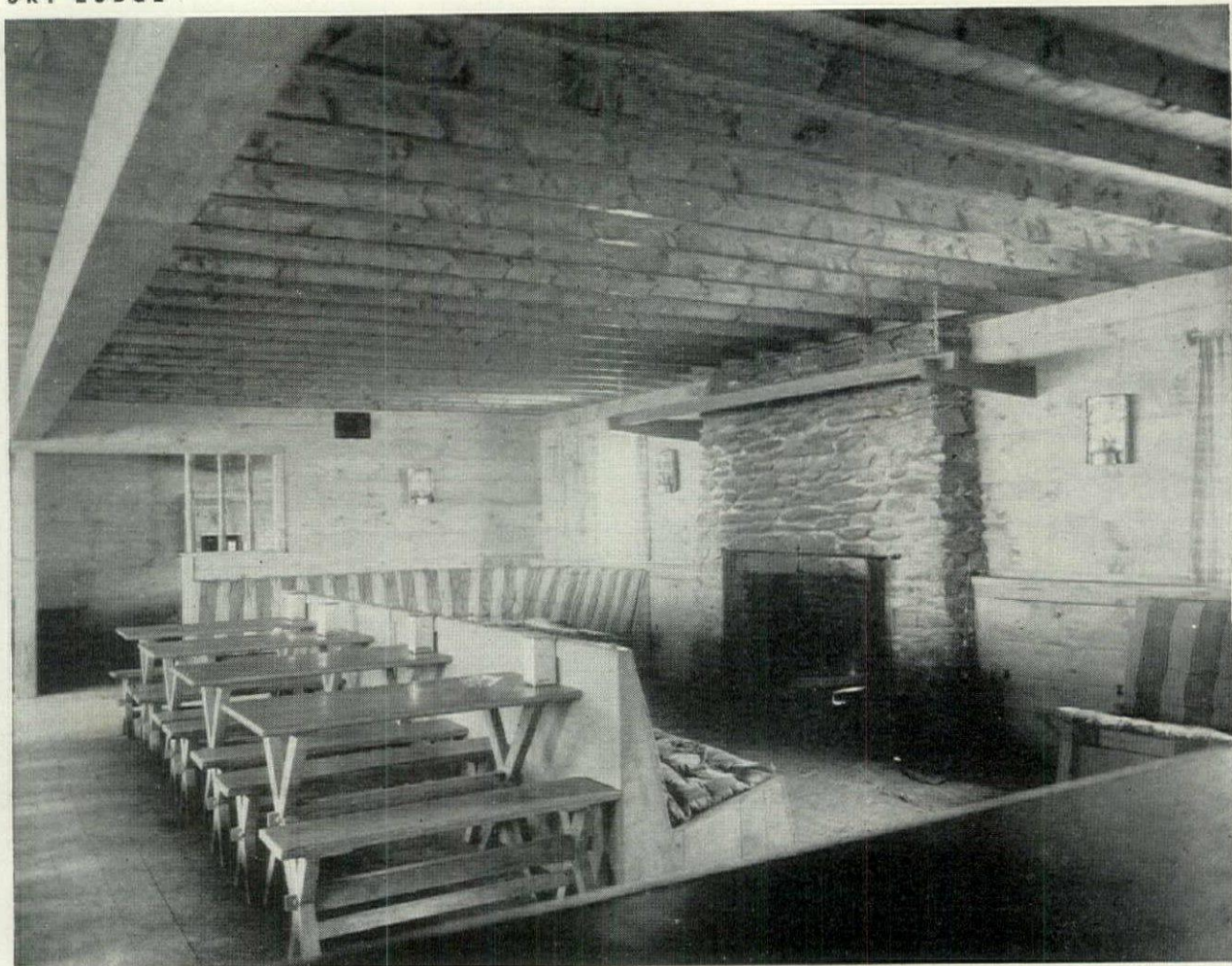


SKI LODGE

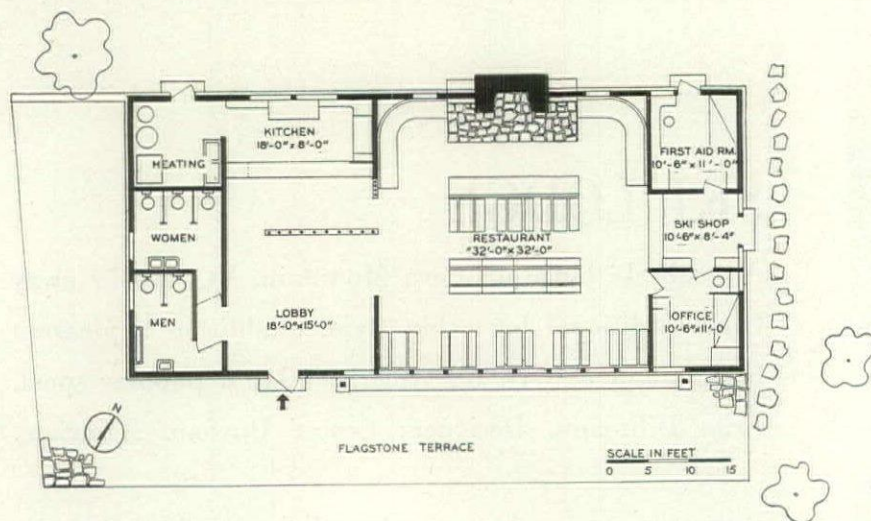
A small ski lodge on Peru Mountain, Vt., breaks away from traditional log cabin style, establishes a pleasant background pattern for America's latest popular sport. Fritz Dillmann, Designer; Ernest Durban, Associate.



Designed as part of a ski center in Snow Valley, this lodge serves as a recreation building only, with overnight accommodation provided for in the adjoining camp. To skiers—500 to 1,000 daily—returning from the surrounding slopes, it offers food, refreshments, a large fireplace, a place to sit and stretch their legs, a space to hold occasional square dances. To emphasize its function as a community center, the lodge was painted in bright colors: light blue window frames and red rafters contrast with the natural cedar clapboards. A low pitched roof can carry heavy loads of snow to tie this building in with the white winter landscape. The traditional deep overhang protects unusually large window areas. Its base of fieldstone, which sits on a flagstone terrace, is important in a building of this type as a brace and insulation against heavy snowfall.



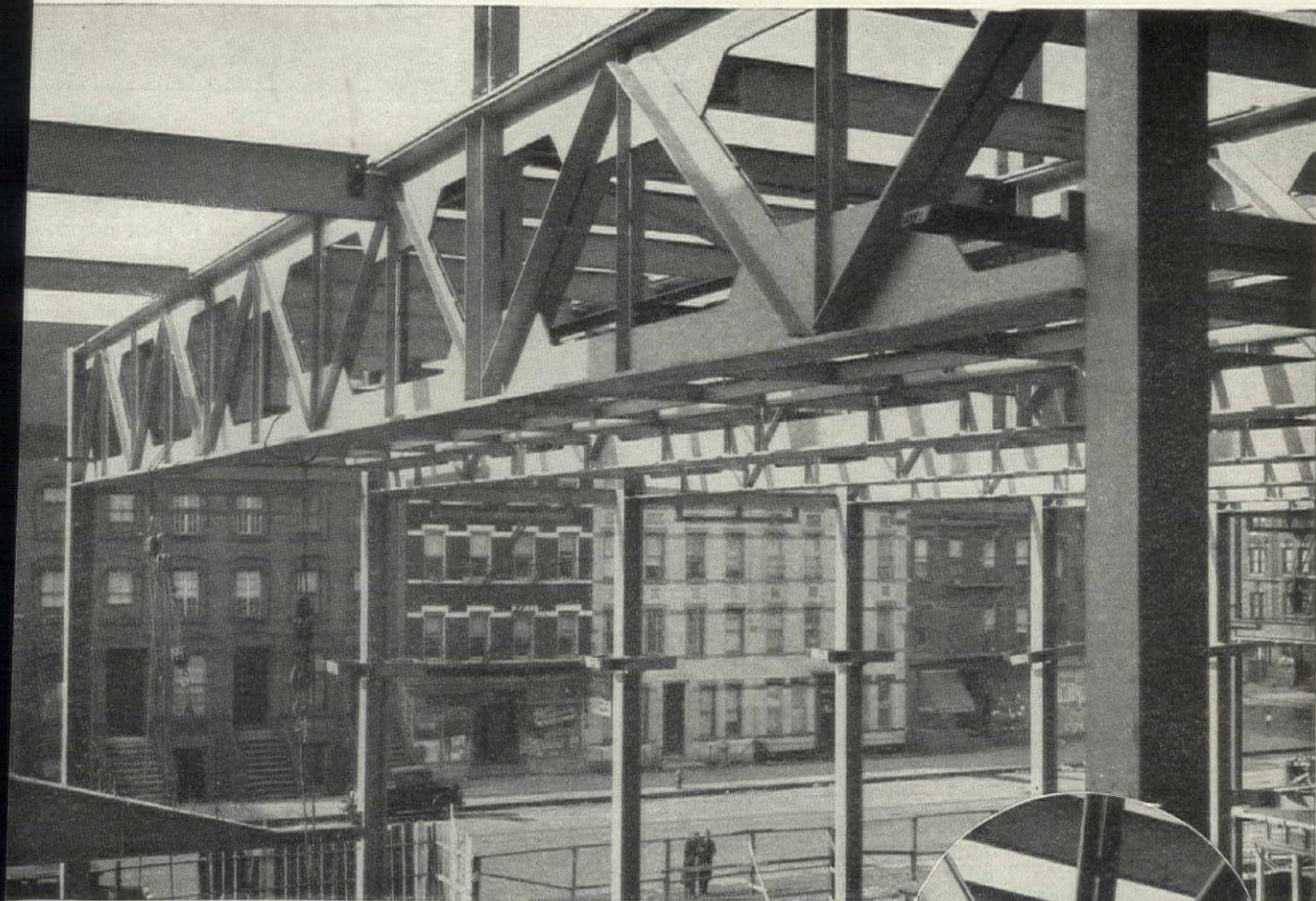
SKI SHOP COUNTER OVERLOOKS THE RECREATION AREA. NOTE DRYING RACK ABOVE THE FIREPLACE



CONSTRUCTION OUTLINE

FOUNDATION—concrete. **STRUCTURE**: Exterior walls—fieldstone and red cedar siding; inside—pine. Floors and ceilings—pine. **ROOF**—red cedar shingles. **INSULATION**—Johns-Manville. **FIREPLACE DAMPER**—H. W. Covert Co. **SHEET METAL WORK**: Flashing—brass, Chase Brass & Copper Co. **WINDOWS**: Sash—wood. Glass—quality A. **PAINTS**—E. I. Du Pont de Nemours Co. **HARDWARE**—Howard & Horton. **KITCHEN EQUIPMENT**: Range—bottled gas, The Kohler Co. Cabinets—Wm. Gillette. **BATHROOM FIXTURES**—The Kohler Co. **HEATING**: Superflex oil burner with warm air blower, Perfection Stove Co.

Among the facilities provided are a ski shop, office, and a first aid room discreetly kept out of sight. The cafeteria-type food service is in keeping with the general atmosphere of informality, and seems to function efficiently. Local labor was used in the construction, and this may have contributed to the simplicity of the plan. A 33 ft., 12 x 12 in. beam along the center line of the structure opened up the recreation area of the lodge, and made it very flexible in use.



HOW STRUCTURAL WELDING *Saves 10%* IN STEEL!

Comparatively long trusses such as those illustrated above, and long girders, offer a particular opportunity to save steel by using arc welding and oxyacetylene cutting. In general it is agreed that welded construction results in an average saving in steel of better than 10%, when such members are involved.

Three main factors make this possible: First, welded construction does not require the punching or drilling of weakening holes, therefore permits the use of lighter plates and sections and lowers shop costs. Second, plate edges to be welded need not be overlapped to provide maximum efficiency. Third, less connections material, if any at all, is required to join members or plates at their intersections.

The services of Air Reduction's Applied Engineering Department are readily available for consultation on design problems.

Detail of welded panel point connection of a truss, utilizing the increased depth of the unique one-piece chord and "gusset plate" made by splitting a beam section.



Sketch showing the way the beam section was split by oxyacetylene cutting to make the chord sections shown above.



AIR REDUCTION

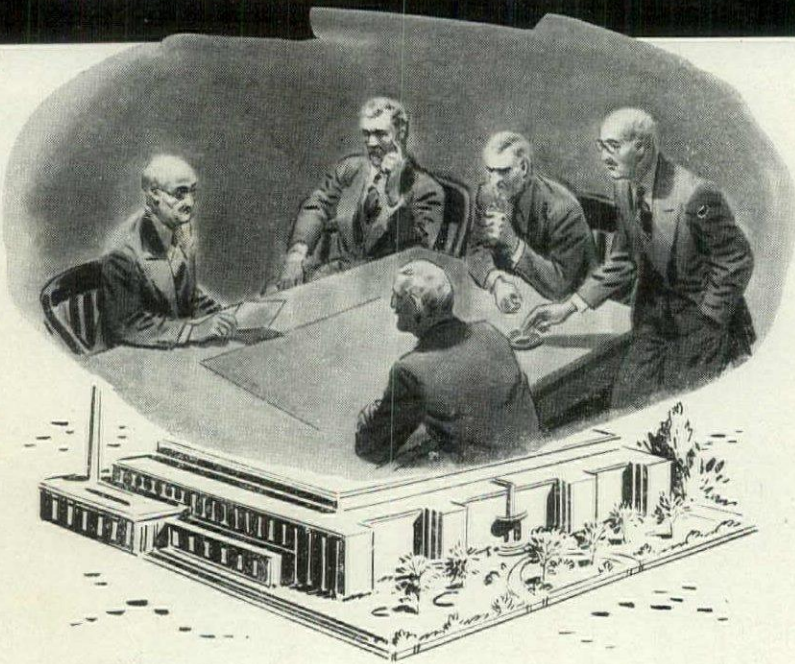
General Offices: 60 EAST 42nd STREET, NEW YORK 17, N. Y.

In Texas: MAGNOLIA AIRCO GAS PRODUCTS CO. • General Offices: HOUSTON 1, TEXAS

Offices in all Principal Cities

HOSPITAL ARCHITECTS...

Don't Overlook This *New Idea!*



AN ENTIRELY *New* WINDOW-DETENTION PRINCIPLE BY CHAMBERLIN

Many psychiatrists feel that the new Safety-Detention Screens developed by Chamberlin will eventually obsolete heavy mesh and restraining bars in the structure of buildings devoted to modern psychiatric treatment.

Chamberlin Detention Screens tend to eliminate that caged-in "prisoner" feeling which may aggravate suicidal impulses. They create a more pleasant atmosphere for patients and provide greater protection for the institution. These rugged, effective Detention Screens have been engineered so that patients cannot throw debris out of windows. They cannot be tampered with. Write for complete details today.



CHAMBERLIN

SAFETY-DETENTION SCREENS

Division

CHAMBERLIN METAL WEATHER STRIP CO.

General Offices: 1277 LaBrosse, Detroit 26, Mich.

Let a CHAMBERLIN ENGINEER Help You Plan

Chamberlin has branches in all principal cities

Write for address of our nearest engineer

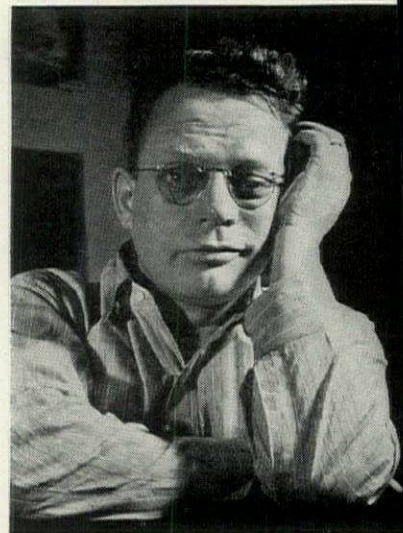
MONTH IN BUILDING

(Continued from page 47)

a white shirt, SWPC's new and possibly more important role was clear: the gradual resumption of civilian production showing up here and there, Corporation's main job would be to help small business get its share of material surpluses and of civilian orders.

Last month General Johnson was back at his own surgical dressing de-

Otto Ha



MAVERICK will mother stepchild

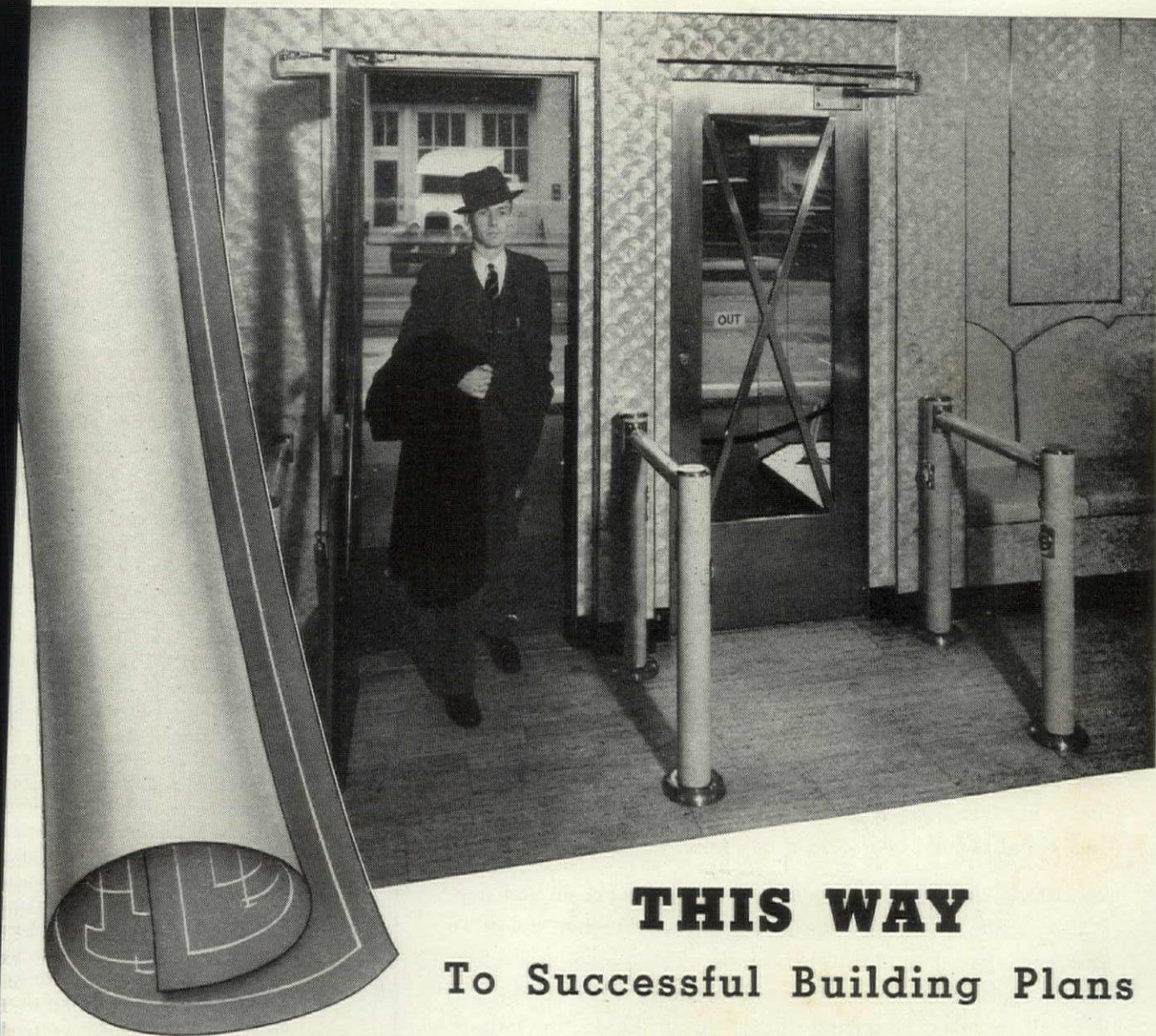
and President Roosevelt himself looked into the matter of a new SWPC chief. Result: brusque, bull-direct Maury Maverick will head SWPC as a WPA vice-chairman. Ex-Congressman, ex Mayor of San Antonio, Maverick has recently spent enough time within WPA to get an acute sensitivity to the smell of bureaucracy, but has never lost his conviction that the government must assume important responsibilities for regulating private enterprise.

A confirmed liberal, Maverick, unlike most liberals, has both a respect and a talent for techniques of practical politics, with one exception: he has never learned to modify his own vigorous convictions to win either votes at home or party favor in Washington. No friend of big business—"Did you ever see a utility company plant a tree except in the front yard to attract investors?"—Maverick can be expected to approach his new job with gusto. As a one-time home builder, he might also be expected to give more than perfunctory attention to this large sector of small business enterprise, now looking anxiously for the road back.

MAN OF ALL WORK

As the Admirable Crichton of the war program, the Federal Works Agency has turned in a performance of merit. To the children of the nation's war

(Continued on page 100)



THIS WAY To Successful Building Plans

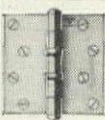
In these days of discussion and planning for postwar construction programs—Stanley Magic Doors offer the ultimate in modernization, providing smartness, courtesy and convenience.

Actuated by a beam of light, completely automatic in operation, simple in design and easy to install, Stanley Magic Doors speed traffic and welcome people in or aid them on their way. They are applicable to practically all types of doors and door arrangements.

Stanley Magic Doors are in use in: Banks . . . Office Buildings . . . Stores . . . Hotels . . . Restaurants . . . Theaters . . . Hospitals . . . Industrial Buildings. Stanley will cooperate with you in preparing plans and specifications. Fill out and mail the coupon now.



STANLEY



The same trade mark that appears on highest quality Butts, Hinges and other Hardware Equipment for commercial industrial and residential buildings.

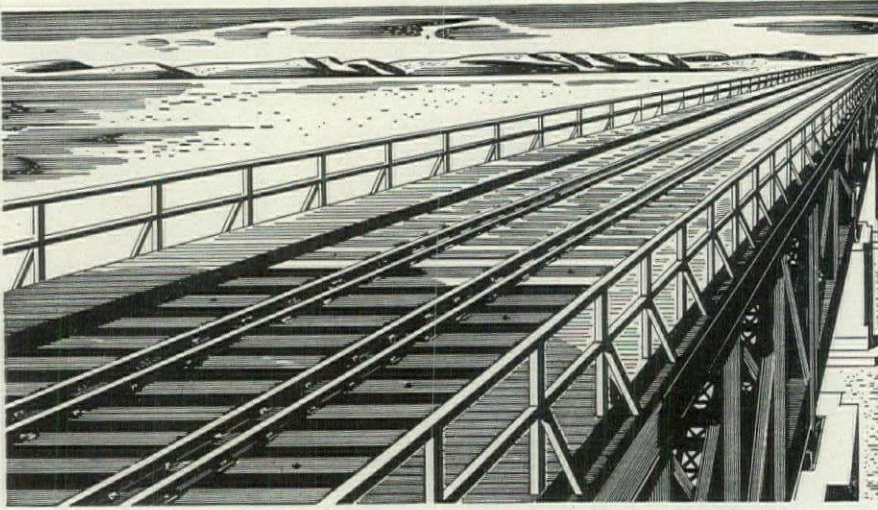
SEE OUR
CATALOG IN
SWEET'S

The Stanley Works,
Magic Door Div.,
New Britain, Connecticut
Gentlemen: Please send full information on Stanley Magic Doors for
() Commercial () Industrial Use.

Name.....
Firm Name.....
Street..... State.....
City.....

STANLEY MAGIC DOORS

REQUIRE NO HAND TO OPEN



WOOD Is Still Best For Jobs Like This

THE RAILROADS are among the earliest and most consistent users of Wolmanized Lumber*. Bridge timbers, stringers and ties, wharf and platform decking—life is tough on jobs like these. But this wood is "alloyed for endurance," armed against decay and termite attack, so it can take it.

RESILIENCE, the cushioning effect between trackbed and supporting steel, is retained where Wolmanized Lumber is used in structures like that illustrated above. This wood also offers light weight, ease of handling and erection, high strength. It is clean, odorless, paintable. There is no added fire hazard, and the wood is not corroded by brine drippings from refrigerator cars. Nor does it corrode its metal fittings.

SERVICE RECORDS covering millions of feet of Wolmanized Lumber, at work for the railroads and elsewhere in industry, provide evidence of its durability. Lasting ability is given ordinary wood by vacuum-pressure impregnation with Wolman Salts* preservative. "Fibre fixation" prevents leaching out.

WOLMANIZED LUMBER is being employed for wartime structures all over the world, speeding erection, assuring long life. It will do the same for your peacetime construction. American Lumber & Treating Company, 1647 McCormick Building, Chicago, Ill.

*Registered Trade Mark

"Alloyed" FOR ENDURANCE
WOLMANIZED LUMBER



MONTH IN BUILDING

(Continued from page 98)

workers, FWA has played nursemaid (aid for 434 child care projects, 1,400 schools). To lonely soldiers and workers seeking a good time in the evening off, FWA has played fairy godmother (aid for 695 recreation centers). To overloaded war communities lacking funds for public works extensions, FWA has been lady bountiful, stepping in to supply streets, water works, sewage extensions, power facilities. Summing up these and other many roles last month in its fourth annual report, the agency might well have listened for a little applause.

But Congress wasn't doing much hand-clapping. Left out of the last deficiency appropriation bill, FWA has recently been strapped for the money to carry on its job of bringing necessary works and services to war-swollen communities. Unless it can convince Congress to pass favorably on its request for a \$50,000,000 share in the deficiency appropriation bill soon to come up, FWA may have to abandon this part of its operations.

From its Lanham Act purse, earmarked for needed public improvement in war communities, FWA has so far taken out about \$4.70 for every \$1 spent by the municipalities for public works, but only 38 cents for every \$1 spent from local funds for public services. Some of the federal funding has been loaned, and FWA reports that the majority of communities have been cooperative in helping to foot the bill.

Provision of community facilities has been only one part of FWA's war building job. The Agency can also point proudly to thousands of miles of roads, built to speed raw materials to factories, finished goods to shipping points; to the near-finished Alaska highway built in cooperation with U. S. Army engineers; to the long steps taken to make the inter-American highway a reality; to scores of coastal flight strips; to sixteen residence halls built for Washington workers.

REDEVELOPMENT SHOAL

Like most of the U. S., Illinois Circuit Court Judge Julius H. Miner had the flu last month. But constriction in the judicial chest did nothing to cloud the judicial mind. From the Judge's sickbed came a decision that looked like the first step to knock the Illinois Neighborhood Redevelopment Law off the statute books.

Like many another redevelopment proposal, the Illinois Act foundered on a familiar shoal: exercise of the right of eminent domain. That large-scale

(Continued on page 102)



This advertisement
will appear in:
THE LADIES' HOME JOURNAL
GOOD HOUSEKEEPING
BETTER HOMES & GARDENS
THE AMERICAN HOME
HOUSE BEAUTIFUL
THE PARENTS' MAGAZINE

Get acquainted

with your kitchen

• When we have the urge to get the convenient kitchen we really need but can't buy now, let's put that money into the uniform of fighting dollars--War Bonds--and let it help speed Victory. In the meantime, let's put whatever time we can spare from our war work into planning the kitchen we want when the war is over, so that we can be sure it will be perfect in convenience and appearance.

Youngstown Pressed Steel will send a beautiful new booklet, brimful of helpful ideas for planning new kitchens or remodeling old ones.

Youngstown Kitchens

YPS
YOUNGSTOWN PRESSED STEEL DIVISION, MULLINS MFG. CORP.
Dept. P-344, Warren, Ohio

The new YOUNGSTOWN booklet, "Get Acquainted With Your Kitchen," tells how to plan for new comfort in your postwar kitchen. Send for your copy today.

YOUNGSTOWN PRESSED STEEL DIVISION, MULLINS MFG. CORP. Dept. P-344, Warren, Ohio

Please send same to:
☐ Save War Book "UPPERCASE" Ideas for Kitchen Remodeling
☐ "Lowercase" Price 35¢
☐ I plan to build ☐ to modernize

Name _____
 Street _____
 City _____

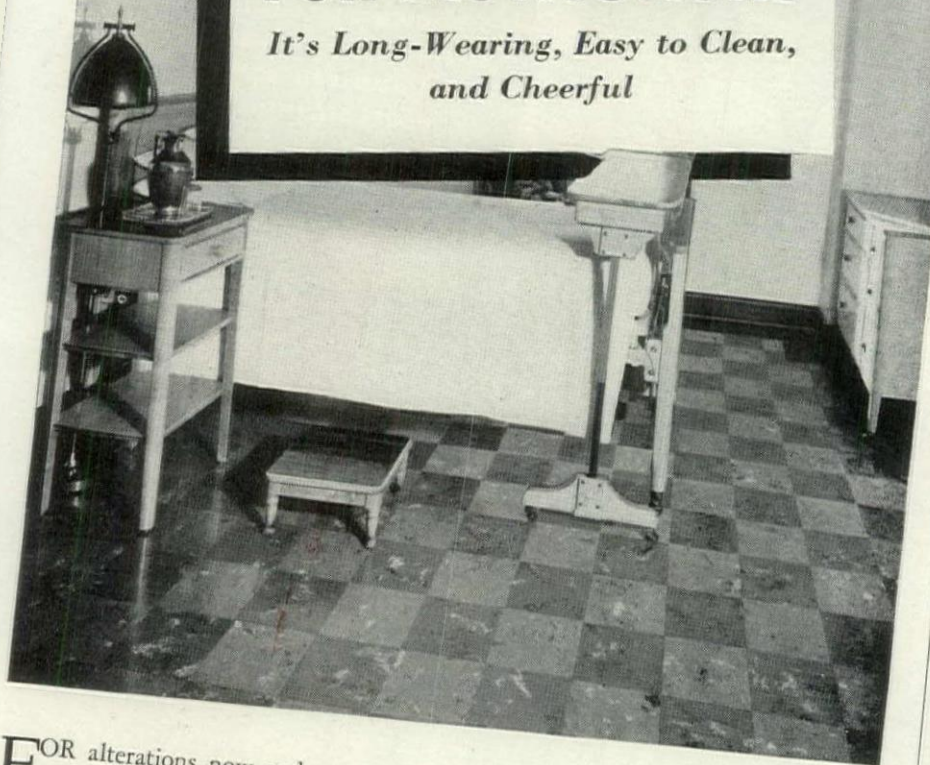
TOTAL WAR
MEET YOUR TOTAL SPEND
TOTAL PEACE
will make it too
Plan Now to give
every man a job--
put every dollar to
work safeguard your
freedom of choice

Get Acquainted WITH YOUR Kitchen Business

YOUNGSTOWN kitchens are being kept before the public in large space, full color advertisements, such as the one illustrated. This continuous consumer advertising is building a strong list of prospects for YOUNGSTOWN dealers after the war . . . Cash in on this reservoir of business by getting details about YOUNGSTOWN dealerships NOW.

A LOW-COST FLOOR FOR INSTITUTIONS

*It's Long-Wearing, Easy to Clean,
and Cheerful*



FOR alterations now and new construction after the war, Armstrong's Asphalt Tile is an ideal floor for hospitals and other institutions. Its many practical features include a smooth, easy-to-clean surface; long-wearing, through-to-the-back colors that stay new-looking for years. It can be installed on subfloors of all types, even on concrete in direct contact with the ground on grade or below grade. A special Greaseproof Asphalt Tile is made for kitchens and wherever floors are exposed to spilled grease, fats, and oils. For operating rooms and other areas where static electricity is an ex-

plosion hazard, Armstrong's Conductive Asphalt Tile eliminates the danger. Armstrong's Asphalt Tile provides unlimited design possibilities. Hand-set a block at a time, its wide range of plain and marbled colors can be planned to meet any individual requirement. And because it contains no critical materials, it is available without priority.

For detailed information about Armstrong's Asphalt Tile, consult Sweet's, Section 13, Catalog No. 31, or write directly to Armstrong Cork Company, Building Materials Division, 2302 Duke Street, Lancaster, Pennsylvania.

ARMSTRONG'S RESILIENT TILE FLOORS

ASPHALT TILE—STANDARD, GREASEPROOF, INDUSTRIAL
AND CONDUCTIVE · LINOTILE (OIL-BONDED)



urban rebuilding is virtually impossible without use of this power is generally agreed, but controversy has been vigorous as to the public safeguards needed when it is invoked. Almost all state constitutions require that the power of condemnation be used only to acquire property for a public use and upon payment of a fair compensation, but plenty of earnest legal battles have been fought over what may be considered a "public use." Right of a municipality to condemn land for rebuilding as low-cost housing with public funds is now established by many court decisions, but how far condemnation may be used in clearing the way for rebuilding by private corporations has yet to come to a test in most states.

Ruled unconstitutional by Judge Miner was the Illinois law passed in 1941 authorizing use of the power of eminent domain (after 61 per cent of the site had been obtained by voluntary transactions) to condemn slum areas for rebuilding by private corporations under public supervision and control. No tax exemption was provided by the law. Said Judge Miner:

"To justify the taking of a private property from the owner without his consent even for adequate consideration, the law must extend its control over the property after it has been condemned to insure its devotion to the declared public purposes and uses. . . . "Since all public control for the perpetuation of the public uses is removed with the completion of the redevelopment area, the granting of the power of eminent domain becomes the crux of the entire Act. The purposes for which the property would be taken and used would be a private purpose for pecuniary profit and not a public purpose at all."

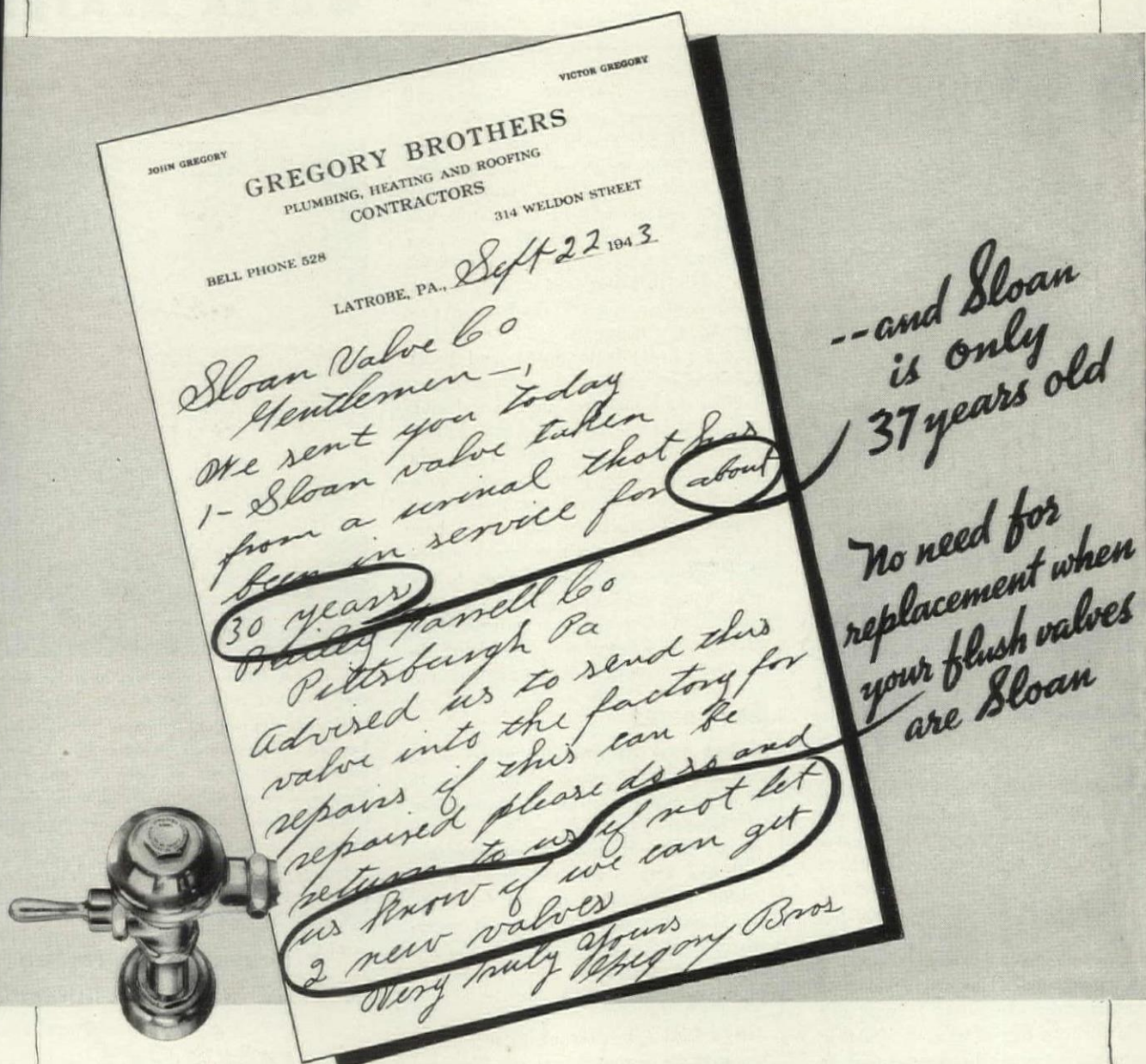
Both Chicago real estate men and planners look forward to a decision from the Illinois Supreme Court which will clear the way for legislative action to frame a more realistic and workable redevelopment law.

With Metropolitan Life's Stuyvesant Town getting a go-ahead from New York State's Court of Appeals (see ARCH. FORUM, Dec. '43), the New York redevelopment law looked as if it would stick. Also pivoted on use of the condemnation power for rebuilding by private enterprise, the New York law provides a 25-year tax exemption. During the tax-exempt period the redevelopment company may not lease or sell the project without consent of the local legislative body. Said Judge Edmund H. Lewis in the New York opinion: "If

(Continued on page 104)

SLOAN VALVES' WARTIME ECONOMY

BORN MANY YEARS AGO



JOHN GREGORY
VICTOR GREGORY

GREGORY BROTHERS
PLUMBING, HEATING AND ROOFING
CONTRACTORS
314 WELDON STREET
LATROBE, PA., Sept 22, 1943

BELL PHONE 528

Sloan Valve Co
Gentlemen—
We sent you today
1- Sloan valve taken
from a urinal that had
been in service for about
30 years
Bailey Hamell Co
Pittsburgh Pa
Advised us to send this
valve into the factory for
repairs if this can be
repaired please do so and
return to us if not let
us know if we can get
2 new valves
Very truly yours
Gregory Bros

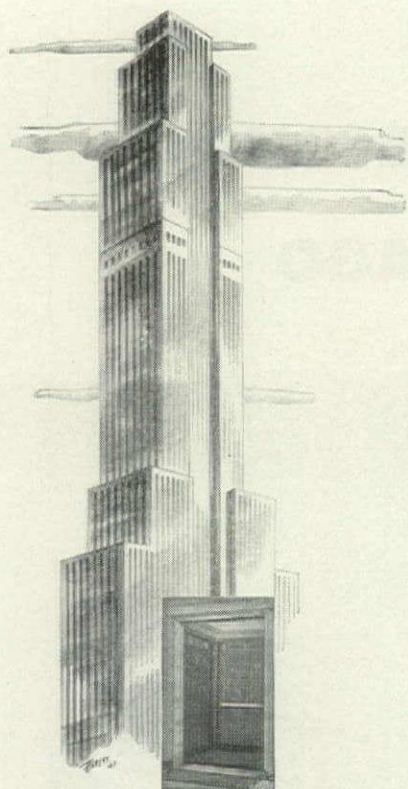
--and Sloan
is only
37 years old

No need for
replacement when
your flush valves
are Sloan

The above letter tells its own story—a story typical of the unequalled performance of Sloan Flush Valves. Of course, Gregory Brothers' Flush Valve was repaired and is again as good as new and should give many more years of trouble-free service.

Throughout fighting America the advantages of Sloan superiority are multiplied by millions—and with records of performance such as this singular one above, it is little wonder why there are more Sloan Flush Valves installed than all other makes combined.

SLOAN VALVE COMPANY
4300 WEST LAKE STREET • CHICAGO, ILLINOIS



Montgomery Elevators in future buildings

NEW BUILDINGS now being planned will utilize new materials and techniques. And where passenger and freight elevators are required, new problems will arise. For assistance in solving these problems you can depend on Montgomery. For nearly 50 years Montgomery Elevators have been giving dependable service in thousands of buildings throughout the country. Accurate records show that practically no major repairs have ever been required. Too, original cost of Montgomery Elevators is generally lower than that of other comparable makes. If you are planning a new or remodeling project, we invite you to investigate Montgomery's Elevator Planning Service. Details on request.

MONTGOMERY MANUFACTURES a complete line of passenger and freight elevators, electric dumbwaiters and special equipment for vertical transportation.

montgomery

Elevator Company

HOME OFFICE • Moline, Illinois
Branch Offices and Agents in Principal Cities

MONTH IN BUILDING

(Continued from page 102)

on the completion of the project the public good is enhanced, it does not matter that private interests may be benefited."

PREFAB BET

Alert to postwar changes in the Building market that may call for new merchandising techniques, Westinghouse Electric has surveyed significant present trends. Some tentative conclusions: Prefab may get as much as one-fourth of a postwar market for 1,000,000 homes. If big industry gets seriously interested in factory-built houses, prefab's share of the market may be even larger. But existing prefabricators will be able to turn out 400,000 units a year by operating up to present capacity.

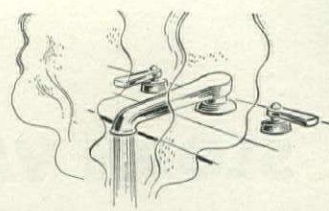
Prefab thinking about distribution, Westinghouse reports, tends to bypass customary channels. As prefabers choice, private dealer outlets and direct-to-consumer sales take preference over lumber and building material dealers and local builders. (See ARCH. FORUM prefab survey, Jan., 1943). In the opinion of some prefabricators questioned, the chance for home sales over department store counters has been much over-rated. Department stores, they sagely observe, are happy to display house models to pull in customer traffic, but when they run into problems of erecting, financing and servicing the homes, their enthusiasm may dwindle.

NEWS NOTES

Bathtub Black Market. The price of a regular bath is zooming, according to W. J. Lango of the National Association of Master Plumbers, who told the House Small Business Committee that bathtubs with a \$41 ceiling price are selling in the black market for \$100. Black market transactions exist everywhere in the country, he said, and are rapidly undermining the morale of plumbing contractors.

Jerry's End? Like doctors, British builders may be registered, if the National Federation of Building Trade Employers pushes its present notion. The Ministry of Works has already set up a wartime registry, which lists building firms in order of their capacity, but the proposed permanent registry would emphasize qualifications based on sound building standards. Commented the *British Builder*: "The value of a register will be obvious—a registered builder, like a registered doctor, may be liable to be struck off the register for untradesmanlike practice; and the

(Continued on page 106)



THE MODERN,
EFFICIENT
WATER HEATER
is *Electric!*



Those new houses you're planning for after the war will have potent sales appeal if equipped with modern automatic electric water heaters! They produce an instantly available supply of hot water at extremely low cost. They're sootless, which means absolute cleanliness—fumeless and flameless which means absolute safety.

Include electric water heaters in your post-war plans. Both you and the ultimate owner will profit by your foresight.

"A house wired for an
ELECTRIC RANGE is already

wired
for an
Electric
WATER HEATER!"

ELECTRIC WATER HEATER SECTION,
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CLARK • GENERAL ELECTRIC • HOTPOINT
• HOTSTREAM • KELVINATOR • MONARCH
• NORGE • PEMCO • REX • SELECTRIC
• THERMOGRAY • THERMO-WATT •
UNIVERSAL • WESTINGHOUSE



.40 YEARS AGO— the Electric Age began in the Century's **FIRST** Building Era as buyers began to insist on Electric Lights in their new homes.

THE CENTURY'S THIRD BUILDING ERA WILL FEATURE

Electric Ranges!

BEFORE THE WAR the Electric Range had started its great forward march. In 1940, 450,000 Electric Ranges sold—in 1941, 780,000! The trend is **INEVITABLE!** The speed, economy, safety and convenience of Electric Cooking has become a part of "the American way".

AFTER THE WAR—cash in on this great swing, plan **NOW** to wire the homes you're going to build, for Electric Ranges. Built-in, such wiring is negligible in cost—powerful in sales appeal.

For details on wiring costs and advantages, write for the booklet "Wiring Ahead". Address:

ELECTRIC RANGE SECTION,
NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
155 East 44th Street, New York 17, New York



2.20 YEARS AGO— in the Century's **SECOND** Building Era, came Electric Refrigeration. Homeowners insisted on wiring for Refrigerators and other appliances . . . Apartment house owners found Electric Refrigerators a "must".



3. AFTER VICTORY— will come the Century's **THIRD** Building Era. And Electric Ranges will be the new American Kitchen "must". **FROM NOW ON**, the fast-selling homes will be the homes wired for Electric Ranges!

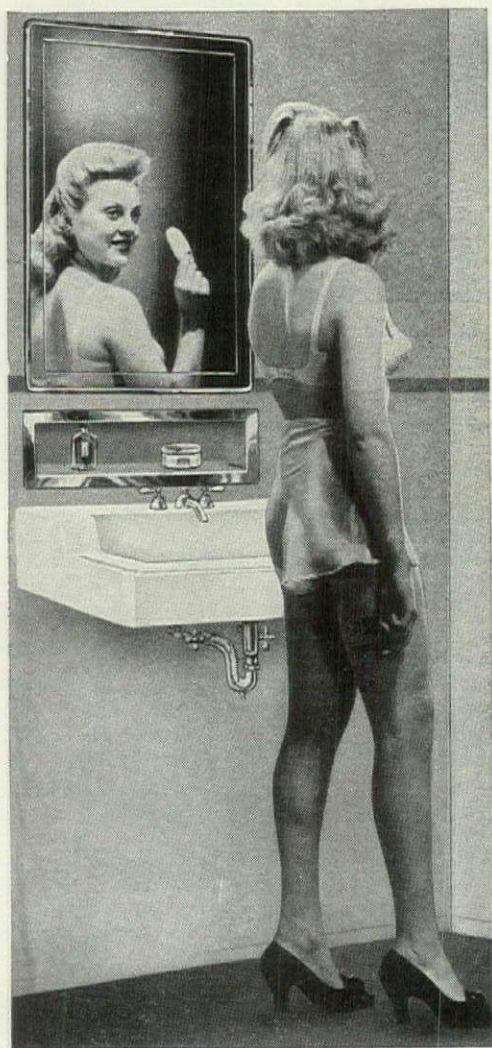
Wire Your Houses

FOR EASIER SALES



A-B Stoves • Estate • General Electric • Gibson • Hotpoint • Kelvinator • Monarch • Norge • Quality • Universal • Westinghouse

Neat and Trim!

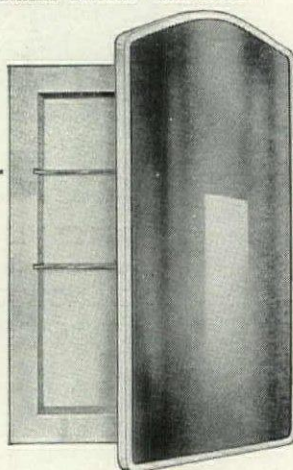


MIAMI METAL CABINETS

— production of which has been necessarily discontinued for the duration — will again be available in quantity after the war . . . Meanwhile, some models may still be had from distributors' stocks.

The MIAMI LINE

consists of three distinctive wood cabinet models; also wood-framed wall mirrors in six sizes . . . Bodies of cabinets are made of kiln-dried hardwood, with joints double locked, glued, and tenoned; door back of moisture-proof composition board; mirrors framed in STEEL, finished to match cabinets.



No. 102-W

CONSERVE METAL . . . WIN THE WAR FASTER!

MIAMI CABINET DIVISION

The Philip Carey Mfg. Company — Dependable Products Since 1873

MIDDLETOWN, OHIO

MONTH IN BUILDING

(Continued from page 104)

supplying of good and sound materials and the building up of good and recognized standards should be among the registered builder's obligations. . . British Standard Specifications, Codes of Practice and now a builders' register may, happily, eliminate the jerry builder from postwar work."

Confusion. Increasing mental derangements among the women who work in Washington's Pentagon and live in the almost-as-vast government dormitories along the Potomac have set off House action to provide care for such patients in D. C. institutions. Thirty cases of persecution complex, depression and confusion have been reported. Found in one residence hall: a woman walking around "clothed only in a feather." As to what role drab design, cramped rooms, and almost incomprehensible size of both living and working buildings played in these budding psychoses, there was no available medical opinion.

Moving Continued. Undismayed by its experience in moving the first batch of demountable houses (see ARCH. FORUM, Jan., 1943), the Federal Public Housing Authority said more shifting will soon begin. To nearby South Bend will go an additional 60 units from the surplus at Kingsbury-Laporte, Ind.; 172 units will be shipped to Chambersburg, Pa. from Point Pleasant, W. Va., another area where munitions production is slowing down. The Army has asked FPHA for 750 demountables to be used at a Tennessee project, but will take care of the moving job itself.

One for Chicago. The "world's greatest newspaper" announced matter-of-factly last month that it would build the "world's most modern and spacious" radio structure as soon as wartime restrictions are lifted. Said the Chicago Tribune: WGN's new six-story home will cost several million, include a 2,000-seat radio theater, the "largest, most modern, and best-equipped in the world." Plans and specifications will be ready for immediate post-war action.

Rent Bonus. First criminal prosecution against violators of OPA's New York rent ceiling came to light last month in a U. S. District Court. Trapped by \$200 worth of marked bills were a couple of Bronx landlords, who had collected the amount as a bonus for leasing an apartment at the maximum legal rent. The landlords got sixty days; tenants got their \$200 back, were told that under OPA regulations they might sue for an additional \$600.



TRANSPORTABLE ANYWHERE WITHOUT DISASSEMBLING

THE fact that the Palace Home can be moved on a flat-bed motor truck, without disassembling the house or any part of it, makes it particularly well adapted to meeting quickly postwar housing needs.

Those desiring new homes in a hurry will no longer have to put up with a two to three months' delay while their home is being erected. This new type of residence reduces the period of waiting to the length of time it takes for a motor truck to travel from factory to building site.

The mobility of the Palace Portable Home is due to a patented construction feature which makes it a simple matter to swing in the wing sections, so that the structure, when folded, is only 8 feet in width.

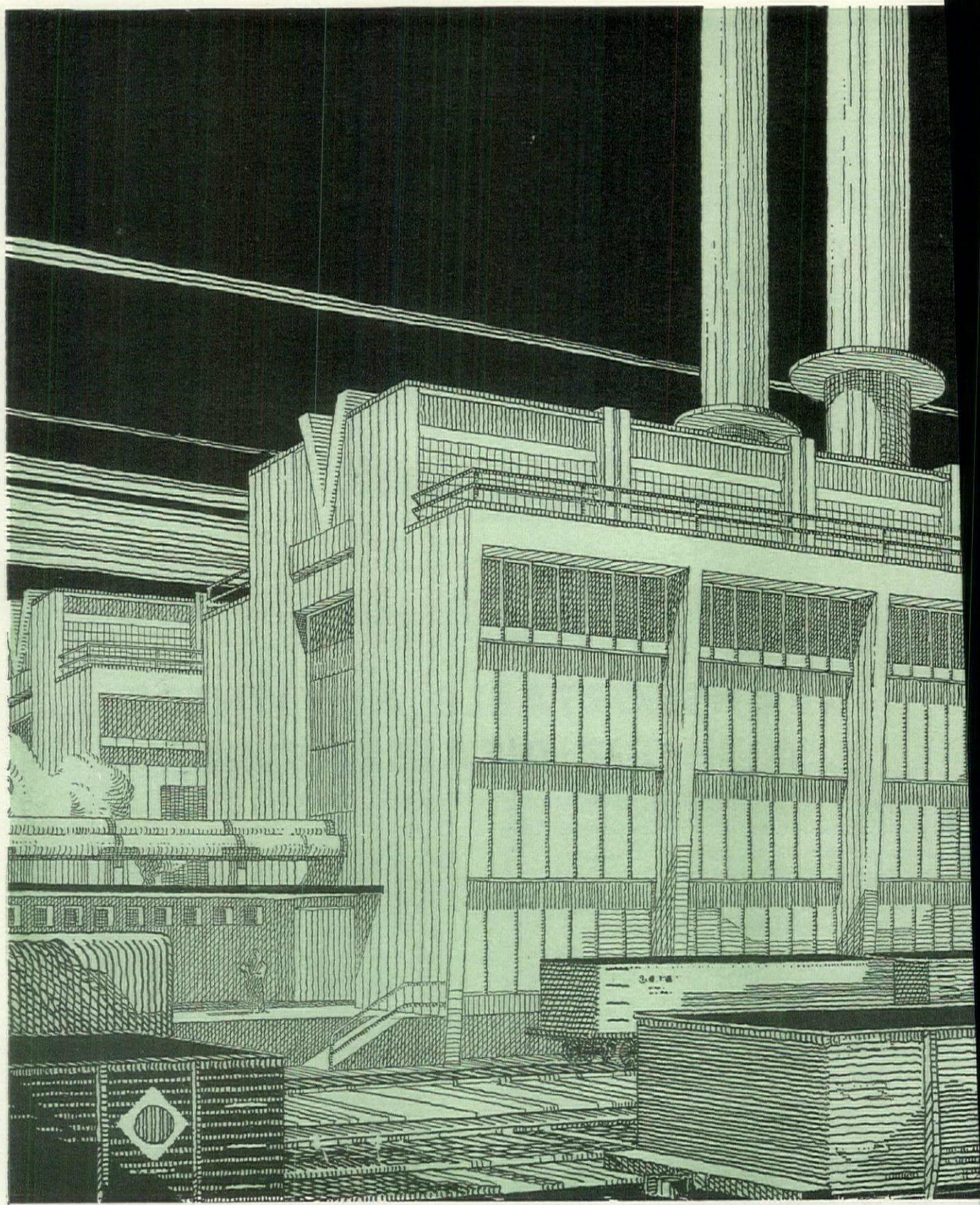
Unlike so-called pre-fabricated houses, the Palace Portable Home is not made in sections for assembly at the building site, but is fully assembled at the factory. Complete even to the installation of electric wiring and fixtures, plumbing and bath fixtures, and heating and cooking equipment, the Palace Portable Home is ready for occupancy practically upon arrival at its destination.

In making your plans for postwar business, whether in opening up new subdivisions or in supplying the urgent demands of prospective home builders, keep in mind the Palace Portable Home. It will enable you to speed up building operations tremendously.

*Write for 4-Color Brochure
of Palace Homes and Floor Plans.*



CORPORATION
Flint, Michigan



Republic — **STEELS AND**

DESIGN AND BUILD IT *Economically - Efficiently* WITH STEEL

STEEL has proved that it is a *sound, practical, safe* building material. It has demonstrated its undeniably low cost per year of service life.

STEEL has provided the architect, engineer and builder with a *combination of qualities found in no other material*. It has made possible outstanding pieces of architecture. It has enabled men to erect building wonders.

STEEL is strong, tough, stiff, safe.

- is high in strength to weight ratio—permitting reduction in bulk—saving space.
- will not warp or shrink.
- will not absorb moisture.
- is fireproof, vermin proof, splinter proof.
- resists heat and cold, wear, corrosion, oxidation.
- is sanitary and clean.
- provides a stable base for finishes—metallic, vitreous enamel or various colored surface coatings.
- provides, in stainless grade, a permanently attractive, lustrous, silvery finish.
- is easy to fabricate both by shop and job methods.
- is inherently long in life with little need for maintenance.
- is low in cost per year of service life.
- is available in a wider range of forms than probably any other material.

Republic's capacity for steels and steel products is greater today than ever before. Through new wartime experience, Republic metallurgists and engineers have expanded their unsurpassed knowledge of steels, their fabrication and performance.

Design in STEEL—and have the assurance that it will be ready when you're permitted to build—that it will enable you to do the building job you want done.



SEE SWEET'S FILE

or write us for detailed information on these Republic Steel Building Products:



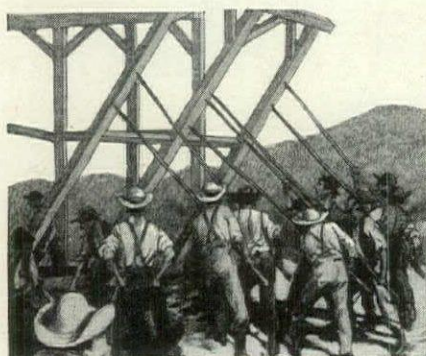
Pipe—Steel, Copper-Bearing Steel, Toncan Iron
 Sheets—Steel, Copper-Bearing Steel, Toncan Iron
 Roofing—Steel, Copper-Bearing Steel, Toncan Iron
 Enduro Stainless Steel
 Toncan Enameling Iron
 Taylor Roofing Terns
 Electrunit Steeltubes (E.M.T.)
 Fretz-Moon Rigid Steel Conduit
 Steel Shingles . . . Steel Siding
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STEEL PRODUCTS



Barn Raising

in the old days called for everybody's help.

In modern building projects the National Life Insurance Company, a 94-year old Vermont organization, offers its services.

★ ★ ★

In its statement of December 31, 1943, the National Life Insurance Company showed mortgage loans throughout the United States as follows:

Loans insured by FHA	\$110,235,187
Other City Loans	30,198,068
Farm Loans	10,878,705
Total	\$151,311,961

★ ★ ★

Applications considered promptly at current rates.

Address Department B.

**NATIONAL LIFE
INSURANCE COMPANY**

HOME OFFICE
MONTPELIER VERMONT
PURELY MUTUAL — ESTABLISHED 1850

LETTERS

(Continued from page 36)

taken. You see, in Australia we possess no architectural magazines of our own and very few text books, the majority coming from U.S.A. and Great Britain. THE ARCHITECTURAL FORUM plays such a vital part in our course that it would be virtually a physical impossibility to pass through our course without it. It seems to me that FORUM has been a record of architectural work over the past years. Now, however, there is very little architecture to record, so what happens—just a few written articles and stacks of advertisements. However, I do not want you to think that FORUM has gone down in the estimation of Australians. It is still the greatest architectural magazine in the world as far as we are concerned. . .

S. W. HALL

Malvern S. E.
Victoria, Australia

Well, or to put it another way, . . . well—Ed.

FREE ARCHITECTURE?

Forum:

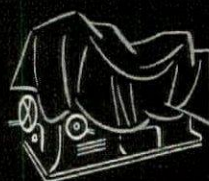
The matter of small house plan service comes up periodically at our meetings, conventions, etc., and yet nothing has been done to solve the matter other than to cry about it. Just prior to our State Association Convention at San Francisco in 1938, the writer was ready to propose setting up architectural clinics for that great majority of people who do not now use architectural help, who get their plans free from a lumber yard or a small-time builder or perhaps from a popular magazine.

Many of our best (?) architects do not want this business, neither do they want anyone else to have it. In the truly professional sense, we should be prepared to give some service. If a project as great as a public health system can determine who is needy and who is not, and give service, at the same time not injuring the private practice of doctors, the same should work for the architects.

This architectural service should be statewide in its scope to be really effective and to give service where it is most needed. We are now suggesting all sorts of remedies to clean out the blighted areas. These are merely palliatives; why not start at the beginning—prevention rather than cure!

WILLIAM J. STONE, *Architect*
Chairman, Public Relations Committee
Southern Section
State Association of California Architects, Pasadena, Calif.

SERVING BY CONSERVING... No.



UNDER COVER
means
Under-Production

★
ARCO RAYS
with
FOG CONTROL

In this day of ceaseless production, plant painting is often neglected because of the fear that it will tie up essential facilities. Maintenance men who specify Arco Rays with Fog Control have no such fears. This unique mill white minimizes mist and splatter...lets production go on even within a few feet of the spray gun.

ARCO RAYS is but one item in Arco's complete line of plant maintenance products . . . products which have played a major conservation role in three generations of American industry. Write for details.

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



for the men who have the

ELECTRICAL SAY

THESE BULLETINS COVER CIRCUIT
BREAKER APPLICATIONS OF EVERY
TYPE. GET THEM FOR YOUR FILES



WHICH OF THESE BULLETINS DO YOU NEED FOR YOUR FILES?

- #4000 Multi-breaker Load Centers. 1 to 16 circuits, 15 to 50 amperes, 115-230 volts A.C., 1 and 2 Poles.
- #3200 Industrial Multi-breakers. 15 to 100 amperes, 230 volts A.C., 2 and 3 Poles.
- #3500 Industrial and General Purpose Circuit Breakers. 10 to 600 amperes, 115 to 600 volts A.C., 125 to 250 volts D.C., 1, 2 and 3 Poles.
- #4500 Multi-breaker Lighting Panelboards. 15 to 50 amperes Branches, 115-230 volts A.C. Mains, 1 and 2 Poles.
- #5000 Circuit Breaker Lighting Panelboards. 10 to 50 amperes Branches, 125-250 volts A.C. or D.C. Mains, 1 and 2 Poles.
- #5200 Multi-breaker Type MH Distribution Panelboards. 15 to 100 amperes Branches, 230 volts A.C. Mains, 1, 2 and 3 Poles.
- #5300 Square D Type ABH Circuit Breaker Distribution Panelboards. 10 to 50 amperes Branches, 230 volts A.C., 125 D.C. Mains, 2 or 3 Poles.
- #5500 Square D Form W—Circuit Breaker Convertible Distribution Panelboards. 15 to 600 amperes Branches, 600 volts A.C., 250 volts D.C. Mains, 1, 2 or 3 Poles.
- #3000 Square D Switchboards. 575 volts A.C. or D.C.

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FOR YOUR FREE COPIES

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6060 Rivard Street, Detroit 11, Michigan

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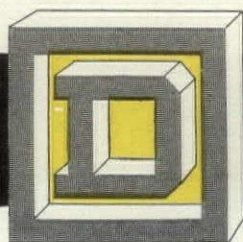
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ELECTRICAL EQUIPMENT

KOLLSMAN AIRCRAFT INSTRUMENTS

SQUARE D COMPANY

DETROIT

MILWAUKEE

LOS ANGELES

HONEYWELL

Announces

MODUFLOW

MODUFLOW Control Systems will be a powerful post-war sales tool . . . Provides continuous heat flow at exact temperatures needed . . . Used commercially many years . . . Will be available for post-war homes

KEEPING AHEAD of progress is a habit with Minneapolis-Honeywell. Announcement of the Moduflow Control System gives the automatic heating trade an additional opportunity to participate in the post-war market. The Moduflow Control System will revolutionize post-war home heating. It will be a powerful sales tool in the hands of automatic heating engineers and dealers and will lead to the sale of additional automatic heating equipment.

LISTEN . . . Blue Jacket Choir, with Danny O'Neil, from Great Lakes Naval Training Station, Columbia coast-to-coast network, every Sunday morning 11:05 to 11:30 Eastern War Time

Here Is What Moduflow Does!

THE OWNER of every home, large or small, old or new, as well as every operator of a commercial building, is a prospect for the Moduflow Control System, because it eliminates the glaring fault of present day automatic heating—intermittent delivery of heat. Instead, Moduflow, as its name implies, provides a continuous flow of heat at exactly the temperature required to offset heat losses and to maintain room temperatures at the desired level. It does away with the alternate periods of hot and then cold radiators or registers and thus prevents stratification, drafts, overheating and underheating. Also, the Moduflow Sectional Control System enables home owners to maintain different sections or rooms at varying comfort or economy temperature levels, further eliminating fuel waste. Living quarters, for example, may be kept at 72; kitchens and bedrooms at 65; attached garage at 40 to 50; nurseries at 75. Most existing homes, however, to lend themselves to this sectionalized or zone heating, will require some change in the piping or duct work.

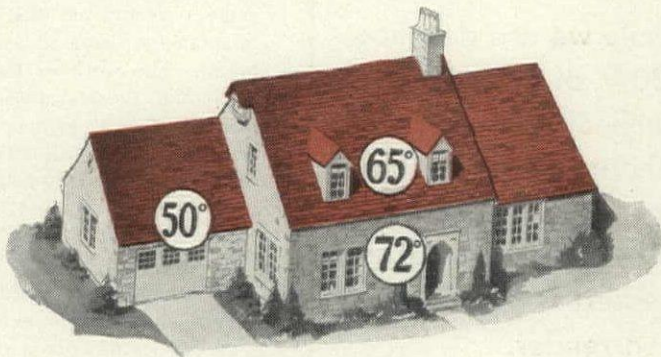
Here Is How Moduflow Does It!

THE PRINCIPLES of the Moduflow Control System are simple, and, in fact, not new. Actually, Minneapolis-Honeywell engineers have applied them to commercial buildings for 10 years or more. Only recently, however, has Moduflow been adapted to homes. Exhaustive tests have proved both its economy and comfort.

As stated before, the Moduflow System provides a continuous flow of modulated heat into each room. This is accomplished by maintaining boiler or furnace bonnet temperatures at a fixed level. By automatically mixing heat from this reservoir with return water or air to exactly the temperature called for, and continuously circulating this mixture through the heating system, the room thermostat is constantly kept satisfied without overheating.

In the case of steam heat, only enough steam to satisfy the thermostat is circulated.

The cost of the Moduflow System for existing homes is surprisingly low—actually no more than that of a modern washing machine. Fuel savings alone will easily offset this expense. In new homes, it is even less. It is easy to see why the Moduflow System will revolutionize post-war heating. Minneapolis-Honeywell Regulator Company, 2740 Fourth Avenue South, Minneapolis 8, Minnesota. Branches and distributing offices in all principal cities.



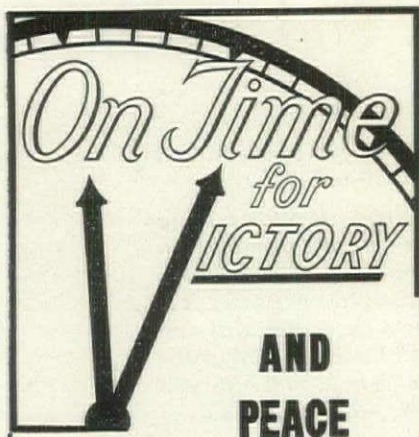
New post-war homes can be sectionalized or zoned so that the Moduflow System will maintain rooms or sections at various comfort or economy temperatures.

Personalized Apartment Control

The post-war apartment will permit each tenant to maintain his temperature to his own liking—or even individual sections of it may be kept at various comfort or economy levels with the Moduflow System.

"Moduflow" is now being introduced through the radio and general magazines. Through these mediums a non-technical booklet is being distributed to the public. A little later a technical booklet will be ready for the trade.

MINNEAPOLIS
Honeywell
TEMPERATURE CONTROLS



While we are devoting 100% of our effort to illumination on ship and ashore to help win the war, we look forward to Peace and the increased service we can then render.

Our research, engineering, manufacturing and application facilities have been accelerated.

Our staff is unimpaired. Our vision of what lighting will be after the war is an inspiration.

Let's all pull together to get it over with, soon.

A. Ward Hendrickson Co.,
Incorporated

Lighting Fixtures
Illuminating Engineers
337 ADAMS STREET
BROOKLYN, N. Y.

PLANNING WITH YOU

(Continued from page 76)

lative authority to contract for such loans and to exercise the power of condemnation, when needed. Under this proposal, the cities would reestablish the value of land on a realistic basis, when necessary, and sell or lease areas for private redevelopment to private builders. Its indebtedness to the federal government would be repaid out of proceeds of land sales and rentals.

The Urban Land Institute will also make public in the near future an alternate plan of proceeding toward this same objective on the basis of local financing without the use of Federal credit. The work of this organization is of the greatest importance to the maintenance of economic stability in our cities and to all business interests, which like merchandising, depend more than we generally realize upon orderliness and sanity in city arrangement.

We who are engaged in the business of merchandising should take an interest in and become actively identified with the postwar plans of our respective cities.

By concerted and united effort, we can through our various city planning commissions or other duly authorized officials develop plans for the postwar rehabilitation and rejuvenation of those cancerous blighted areas of urban centers that have long since served their purpose and usefulness.

These are times of great changes—times when forward-looking men in our business will find themselves bound by a sense of civic duty and a loyalty to their city to plan not only for the new and broader order of merchandising, but also for the rejuvenation and modernization of the land area surrounding our stores.

American cities like the proverbial 'Topsy' have in most instances 'just grewed and grewed' without any thought of future planning. Fortunately, we profit by experience and now we must rebuild the blighted areas of our cities and make them so appealing that those who during the past years have moved to the suburban areas will find in the city of tomorrow—all of the attractiveness provided by the wide open spaces of the suburbs plus the incomparable advantages and conveniences of urban living.

This is a big job but it can be done and I urge all of you to join with the Urban Land Institute in working out a satisfactory solution to the Urban Land problem. . .

The Urban Land Institute will welcome your cooperation and also the privilege of being of service to you.

ABESTO

ASSURES BETTER ROOFS AT A SAVING

*What is the Most
Important Part of
the Building You
Design?*

No architect can answer that question simply. The building is made up of equally important component parts. Foundation — side walls — roof — all must weld into a strong whole.

That is why modern architects specify Abesto Cold Process construction for the roof of a building designed for strength and service.

Because Abesto Cold Process roofing materials have proved through years of actual use, and because our engineers have constantly met and answered problems arising in the field we can offer the architect a roofing material which is superior in the three qualities that are essential to a good built-up roof.

Abesto gives you these three qualities—

Better Adhesion which insures close bonding of laminations —

"Cured Elasticity" which permits the expansion and contraction of a roof without cracking —

High Resistance to oxidation which gives long time service.

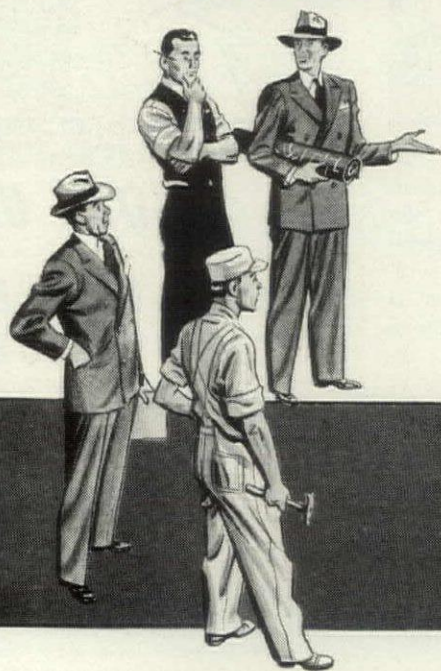
Write for our free specification sheets which show the various types of construction for which Abesto is used.



ABESTO MFG. CO.
MICHIGAN CITY, IND.

FREE . . . to Architects, Contractors and Builders:

A Brand New Kimsul* Book on Latest Insulation Methods



24 Pages of Vital Information on Modern
Construction Methods!
Here's a Sample of the Contents:

More Than 50 Photographs and Diagrams
of Latest Insulation Methods

Special Heat-Loss and Fuel-Conser-
vation Charts, based on
Practical Insulation Conditions

Detailed Charts of Insulation
Efficiency expressed in
"U" Factors

Installation Diagrams of
Modern Attic-Ventilation
Methods

Shadow-Map Showing Where a Vapor
Seal is Needed, and Photographs
Showing It Being Installed

...Plus Full Information on
KIMSUL Flexible Blanket-
Type Insulation and Its
Installation Advantages!

Don't Delay! Send for Your FREE Copy Today!

Here's a book that can be of real service to every architect, contractor and builder. It's *packed* with vital information that every "builder" should have. And it's *accurate* information...discovered and compiled through the research and practical experience of Kimberly-Clark Insulation Engineers.

This big free book can help each architect to complete his building specifications...each contractor to do a better job...and each builder to get the job done faster! So let it serve *you* throughout 1944. Send for your FREE copy today!



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INSULATION

A PRODUCT OF KIMBERLY-CLARK RESEARCH

*KIMSUL (trade-mark) means
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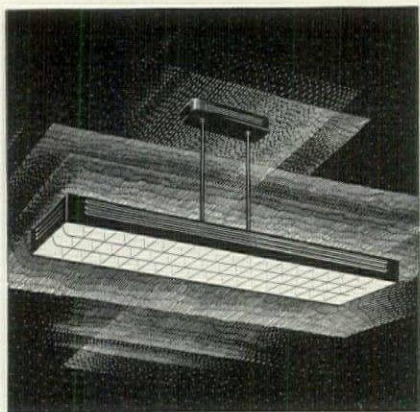
- ☐ Please send me my FREE COPY of the new illustrated book, "Save Man-Hours and Man-Power on Every Job".
- ☐ Also have a KIMSUL representative call.

Name _____

Address _____

City _____ State _____

____ Architect ____ Contractor ____ Builder



For lighting war plant
OFFICE or DRAFTING

THE
ADMIRAL
by WAKEFIELD

... a fluorescent unit
made from WOOD!

Made largely from wood, the ADMIRAL conserves war materials and meets WPB limitations on weight of metal. At the same time, it provides efficient, high intensity, diffused light to help handle wartime paper work faster, with less eyestrain.

Puts 90% of the light down on desktops or boards and allows the rest to go upward to avoid ceiling contrasts. It is a natural for fluorescent lighting in offices or drafting rooms essential to war production. Especially effective for work that involves critical seeing or relighting older office space which has poor ceilings. Walnut finish. Comes in 2, 3 and 4-lamp units. See our catalog in Sweet's.

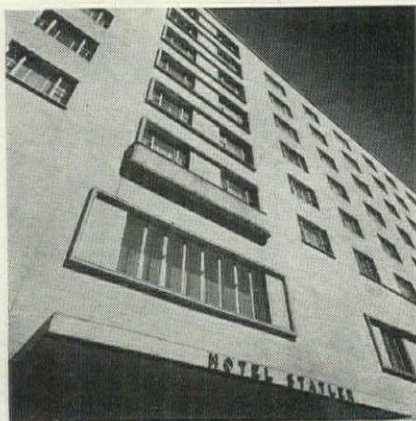


THE F. W. **WAKEFIELD** BRASS CO.
VERMILION, OHIO

LAYMAN ON BUILDING

(Continued from page 68)

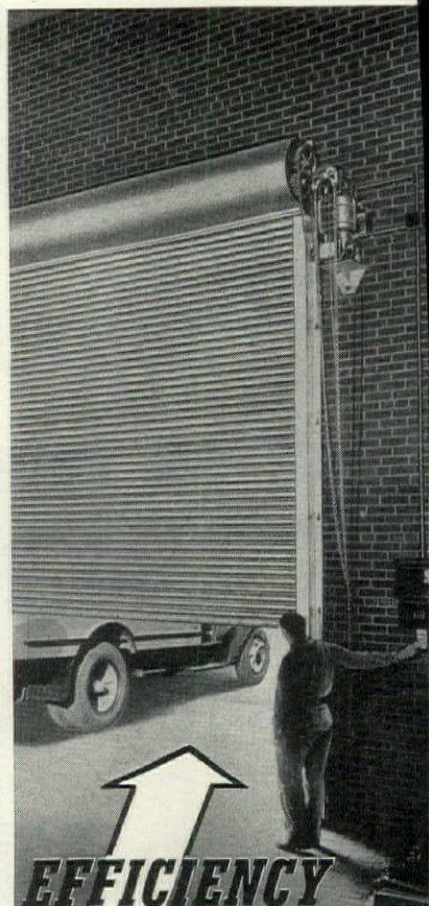
what it should be. The exterior is devoid of required ornament, nor does it achieve distinction through form or fenestration. The inside motor entrance is not dramatized to the extent justified nor is the pedestrian entrance properly tied into it, with the result that cars stop at unimpressive and inconvenient doorways. Commercially, the important fact is that the passerby or the observer of a picture of this hotel is not encouraged to stop.



The room that happened to be assigned to me was functionally inconveniently designed. One expects the combination of a great firm of architects with a great firm of hotel operators to produce a bed light that is right for its purpose. One expects closets designed for clothes of a dimension worn by men and women of 1943 and bathroom fixtures set in the proper places. The thought that came to my mind was that architects should make more use of temporary "mockups" similar to those used by the motor car manufacturers. It is about time that they know some common standard dimensions and, before selecting furniture or arranging fixtures, they should be tried out in "mock" room.

Foreign visitors will not find much to take home with them from the design of this hotel. Nor will American guests rush back to their home towns to engage an architect for their new building, whatever it may be. Nor will the hotel company fill its rooms when priorities are off and we return to normalcy.

The builders and designers of the Washington Statler have only done what most modern owners and architects have done, and I am not selecting them for special criticism. It does possess many admirable qualities, advances and innovations. But it serves here as well as anything else as a guinea pig to illustrate what I think is partly wrong with architecture in America, and what must be done to revitalize it after the war.



EFFICIENCY
GOES UP

When KINNEAR
ROLLING DOORS
ARE ON THE JOB

You can make sure doorways are geared to high-speed production by specifying Kinnear Rolling Doors — operated by motor for maximum efficiency. Their vertical, coiling operation gives you full use of all floor, wall and ceiling space. The doors open overhead—completely out of the way of traffic and plant operations. The rugged, attractive curtain★ affords high protection against theft, riot, sabotage, wind and weather. And with remote-control switches, openings can be cleared or closed by a split-second touch of a pushbutton, from as many strategic points as efficiency demands.

☆ To save vital metals, the famous Kinnear WOOD Rolling Door is now filling many wartime needs for Kinnear Door efficiency. This time-tested door of inter-lapping wood slats features all the operating advantages of the inter-locking steel slat door originated by Kinnear. Write for details, The Kinnear Mfg. Co. 1640-60 Fields Ave., Columbus 16, Ohio.

KINNEAR
ROLLING DOORS



In Step with the Future

THE above illustrates a super service-station of tomorrow. Automobiles will be serviced on the ground floor—helicopters on the roof. The Bohn organization after Victory, will turn their attention and the full fruits of their research to a wide variety of new developments like the one shown above, as well as innumerable other projects. Remember the name Bohn, one of the world's foremost sources for non-ferrous alloys and advanced metallurgical studies.

BOHN



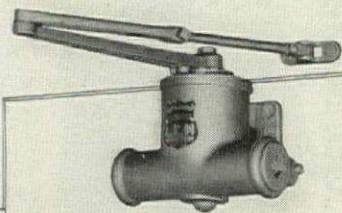
BOHN ALUMINUM AND BRASS CORPORATION, DETROIT, MICHIGAN
 GENERAL OFFICES—LAFAYETTE BUILDING
Designers and Fabricators — ALUMINUM • MAGNESIUM • BRASS • AIRCRAFT-TYPE BEARINGS



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.

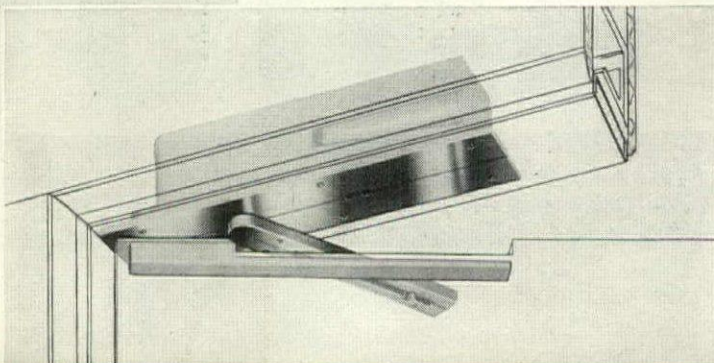


NORTON LASIER COMPANY
466 W. SUPERIOR ST., CHICAGO



DOOR CLOSERS

Copyright 1944, Norton Lasier Co.





UNDER THE NATION'S ROOF

February, 1944

Biggest roofing news in 1943 was the greatly increased acceptance of perforated felts by architects, engineers and roofers.



Roofs built to most rigid specifications...with the finest materials...by experienced and conscientious workmen - can go wrong from blister trouble. Ruberoid Perforated Felts are your best insurance policy.



Cause of blisters is two-fold: Air trapped between layers, or moisture in the roofing fabric. Irregularities in the deck, "roofed" over by the first layer of felt, imprison these pockets of air and moisture. This works with temperature changes, expanding under the heat of the sun, pushing up the covering into a blister.



Experiences with Perforated Felt Built-Up Roofs have been piling up fast...and they're all good. Case history record of blister elimination through use of perforated felt has astonished many "old-timers".



Ruberoid P-E-R-F-O-R-A-T-E-D Felts have double valve action. Outlet valves release vapors. Inlet valves insure a complete asphalt seal between the layers of the completed roof.



Smooth surfaced asbestos adopted for numerous government installations. Specifications now call for No. 15 Perforated Asbestos Felt in place of No. 20 (non-perforated) formerly used.



New specifications, providing increased use of perforated asbestos and asphalt felts, now available from Ruberoid. Ask about specifications for asbestos and combination roofs.

The RUBEROID Co.

Asphalt and Asbestos Building Materials

For up-to-the-minute information on your roofing and building problems consult our nearest sales office:

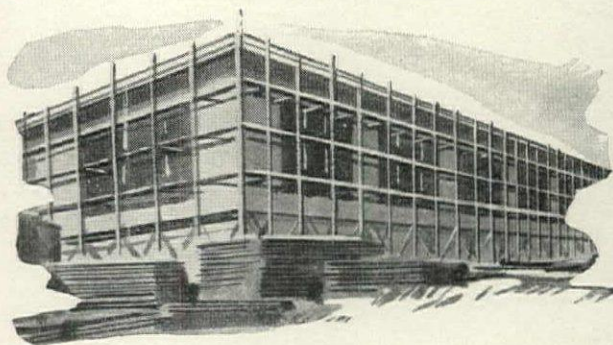
NEW YORK (18)—500 Fifth Ave. • CHICAGO (1)—307 North Michigan Ave. • BALTIMORE • ERIE • MILLIS (Boston) • MINNEAPOLIS • MOBILE

Is a post-war construction "boom" coming?



1

Business advisory sources in Washington report that post-war planners are figuring on a volume in construction materials after the war roughly the same as in the boom in the late 1920s. That would be more than a third higher than in the five years immediately preceding the outbreak of this war.

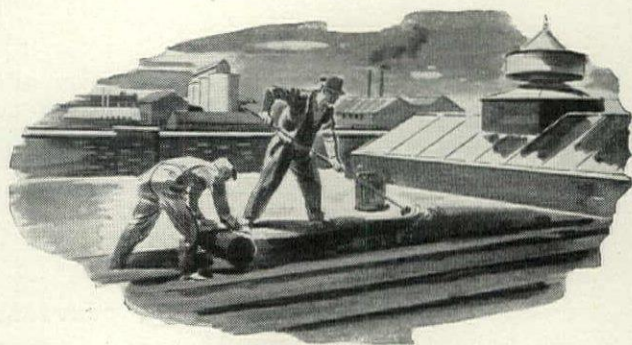


2

They estimate that the construction business and the related furniture and glass industries will provide employment for about 25% more people than before the war.

3

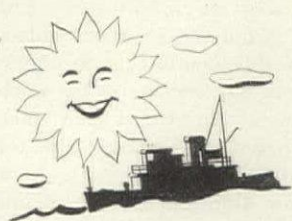
Many preliminary plans for post-war buildings include flat roofs and greater utilization of roof areas. Flat roofs call for coal tar pitch and felt roofing materials. The wartime spurt in inventiveness has brought many marvelous new things, but nothing has been invented that is better for flat roofs than coal tar materials.—Koppers Company, Pittsburgh, Pa.



KOPPERS

THE INDUSTRY THAT SERVES ALL INDUSTRY

coal tar roofing coal tar waterproofing



COMFORTABLE LIVING ASSURED

ONE hundred powerful, new Diesel tow-boats are now at work bringing oil up the Mississippi and through the inland waterways along the Atlantic Coast. That's comforting news to many homes and plants that have been worried about getting through this Winter.

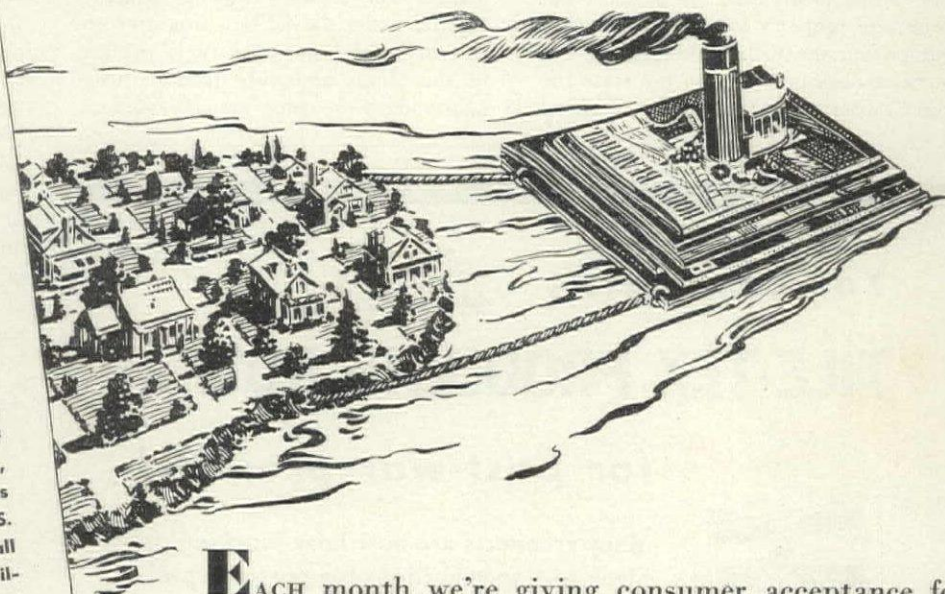
Comfortable living is assured for the crews of these barge-pulling tugs, too. The specifications as laid down by the U. S. Engineers Department call for York automatic oil-burners to keep the quarters on board warm and comfortable . . . to save space, reduce weight, and deliver more heat.

Years of experience in designing and installing oil-heating equipment are behind York Heat. To this back-log has been added the further experience of applying York Heat to all kinds of war-time uses. You can be sure that when York Heat is again available for the homes of tomorrow, it will offer new economies, new conveniences, and new living comfort.

YORK HEAT

Division of
YORK-SHIPLEY, INC.
York, Pa.

TAKING YOUR CUSTOMERS IN TOW



EACH month we're giving consumer acceptance for YORK HEAT a powerful tug. Each month millions of people are reading about YORK HEAT in the leading magazines. This means hundreds of prospects are being developed right in your own home territory. It means that York dealers won't have to waste any time cashing in on YORK HEAT when the war ends.

This is another of the YORK HEAT advertisements appearing regularly in: AMERICAN HOME • HOUSE and GARDEN • HOUSE BEAUTIFUL • BETTER HOMES and GARDENS • TIME (Canadian Edition) • BUSINESS WEEK.



YORK HEAT

Division of YORK-SHIPLEY, INC., YORK, PA.

BOOKS

(Continued from page 28)

"The fictitious value of slum properties should be squeezed out before public funds are expended to purchase them. Public housing for low-income families and the use of the police power of the state to enforce adequate (dwelling) laws will accomplish this result . . . Our law denies to the state the right to appropriate property for public use without paying the full market value; but our law does not deny to the state the right to destroy market values founded

on injurious use of property, by prohibiting such use."

4) *Public housing is costly and extravagant.*

"The cost of construction of public housing under the USHA program has been about one quarter less than the average cost of similar housing produced by private enterprise."

5) *Public housing does not rehouse families from the slums.*

"Rents in public housing projects erected under the USHA programs are in every case lower than rents charged in the slums and only families from substandard housing are accepted as

tenants."

6) *The slum dweller creates the slum*

"There is not the slightest evidence to support this comforting theory either here or in any country in the world. It is estimated by the FPHA that the value of work performed by the tenant of public housing amounts to about \$1.50 per dwelling unit per month, or eighteen dollars a year. Tenant maintenance programs have been established in every public housing project.

7) *Public housing injures private business and threatens to bankrupt the nation.*

"Private industry provides very few homes for families in the lower half of the middle-income group and except for a few shacks erected in communities without adequate building codes, no new homes for families of the lowest income-third. No conceivable change in economic conditions after the war will put enough into the pockets of families in the lowest income group to enable them to afford good housing. One of the most disturbing aspects of the recovery from the depression was that, while industrial production as a whole rose to more than 90 per cent of the 1925-30 average, prior to the inauguration of public housing under the USHA, residential construction rose to only 34 per cent of the 1925-30 average."

Perhaps the real test for the book is its effectiveness in bringing new support to public housing. It passes this test with a fairly high mark. In other words, the open minded citizen will close its covers more convinced of public housing's desirability than when he opened them. Such reservations as remain will result from the violence of the Straus invectives aimed at his opponents. To tag all opposition to public housing as "greed" and "inhumanity" is nonsense. This righteous indignation is politically unrealistic even though it may indicate sincere humanitarian principles. Unyielding support of an extremist viewpoint on one side or the other does nothing to bring about a practical and acceptable solution to a pressing problem. Actually, much of the present opposition to public housing is based on lack of information and guileless acceptance of adverse propaganda. The best thing that can be said for the book is that it demands from the other side an equally factual and forthright answer—and quickly. Not to go unclaimed is Mr. Straus' smooth and readable treatment of a dry and monotonous subject. With no pretense at being a professional writer he has managed to turn innumerable fiscal and factual statements into a book that ranks well in interest among current non-fiction works.

You can specify



TILE-TEX PRODUCTS NOW...



for post-war projects!

Many architects are now busy working on plans and specifications for post-war projects. It is important that they know what products, previously on the market in pre-war days, will be available once the war ends.

Tile-Tex Asphalt Tile Flooring, Tuff-Tex Greaseproof Industrial Flooring, Tile-Tex Decorative Wall Tile, and Flexachrome Plastic Flooring all will be available shortly after the war ends. Complete data on all of these products can be found in Sweet's Catalog for 1944. At the present time, we are able to furnish Tile-Tex Asphalt Tile Flooring and Tuff-Tex Greaseproof Industrial Flooring. The other two products mentioned have been discontinued for the duration.

Constant improvement in product quality has been a major Tile-Tex policy. The war years have taught us much that we hope to incorporate in the products we manufacture. All four of the Tile-Tex products mentioned above will be noticeably improved in many ways.

If you are writing specifications now for post-war buildings, you can specify Tile-Tex products with the assurance that they will be available at that time.

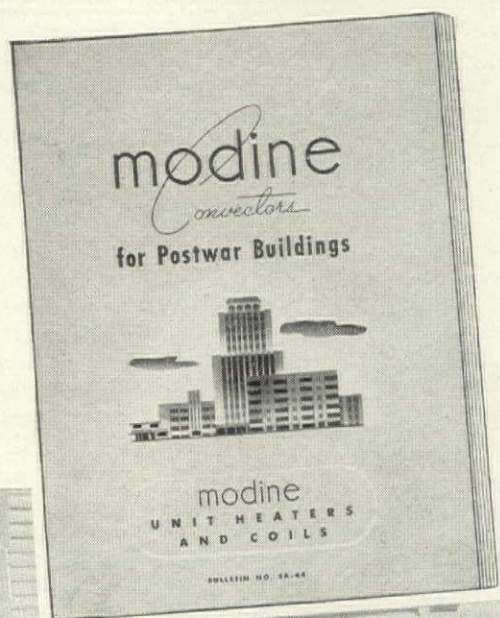


★ The Tile-Tex Company

101 Park Avenue, New York City • Chicago Heights, Illinois

They're here... in this *New* catalog...
put 'em in your postwar "specs" *Now*

modine *Convectors*



● It's all in this new catalog... the data on the line of copper convectors that Modine will manufacture right after the war. And the catalog is off the press. No need to postpone specifications! You can incorporate the comfort, convenience and economy of modern convection heating in the postwar buildings you are planning now.

◀ ASK FOR NEW CATALOG SA-44 describing Modine Copper Convectors for postwar buildings... or see it in *Sweet's File!*



Right—Type RWC Wall Cabinet Modine Copper Convector (an application of this type is illustrated above) ▶

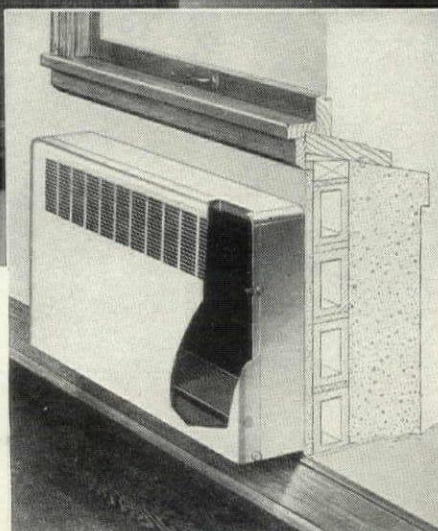


MODINE MANUFACTURING COMPANY
1736 RACINE STREET • RACINE, WISCONSIN



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

WAR PLANTS CAN GET MODINE UNIT HEATERS RIGHT NOW



FACTS for the FUSSY

Are you the fussy type? Congratulations; you're just a bit smarter and more conscientious. It isn't necessary, at least where floorings are concerned. You could buy only on price—which would probably mean picking Kentile because it's so very inexpensive. Or you could choose Kentile because of its quality reputation—first choice for most of the big jobs since 1927. And, of course, you could select Kentile for its amazing range of colors, its pattern possibilities, the advantages of Greaseproof Kentile, etc., etc. But YOU want to know "why" and "how" it is better. Well, here are just a few little technical facts. They're interesting to the man who likes to dig into things, wants to know why Kentile is always laid so fast, looks so good and performs so perfectly.

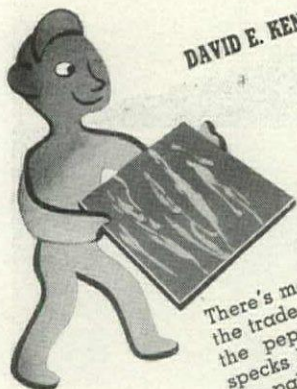
KENTILE
Asphalt Tile
Trade Mark Reg.



DAVID E. KENNEDY, INC. • 58 Second Avenue • Brooklyn 15, N. Y.

YES, ELECTRONICS!

It's supposed to be terribly new, this electronics. But for three years now, Kennedy has used electronics to control the gauge of Kentile. Of course we have human checkers, groups of men who stand at three different places on our fabricating line with nothing to do but watch for imperfect tile. But, in addition, Kennedy in 1941 installed electronic devices that infallibly control the thickness of every inch of Kentile produced, guaranteeing that every tile is absolutely the same gauge across its entire surface—guaranteeing floors that MUST be level!



THE MARVEL OF MARBLE!

There's marbleizing and marbleizing, in the trade. You've seen all kinds. There's the pepper and salt variety—a few specks here, a few spots there. There's the paint brush type—a streak here, a line there, seems to have been "applied" by a wavy ruling-brush. Then there's the marbleizing of Kentile—thorough mixing of the background tile and the added colors, so that from front to back, but running in veins, the marble is varied, uneven, yet strangely patterned in nature's way—the vein-type marbleizing that makes true and distinctive patterns.

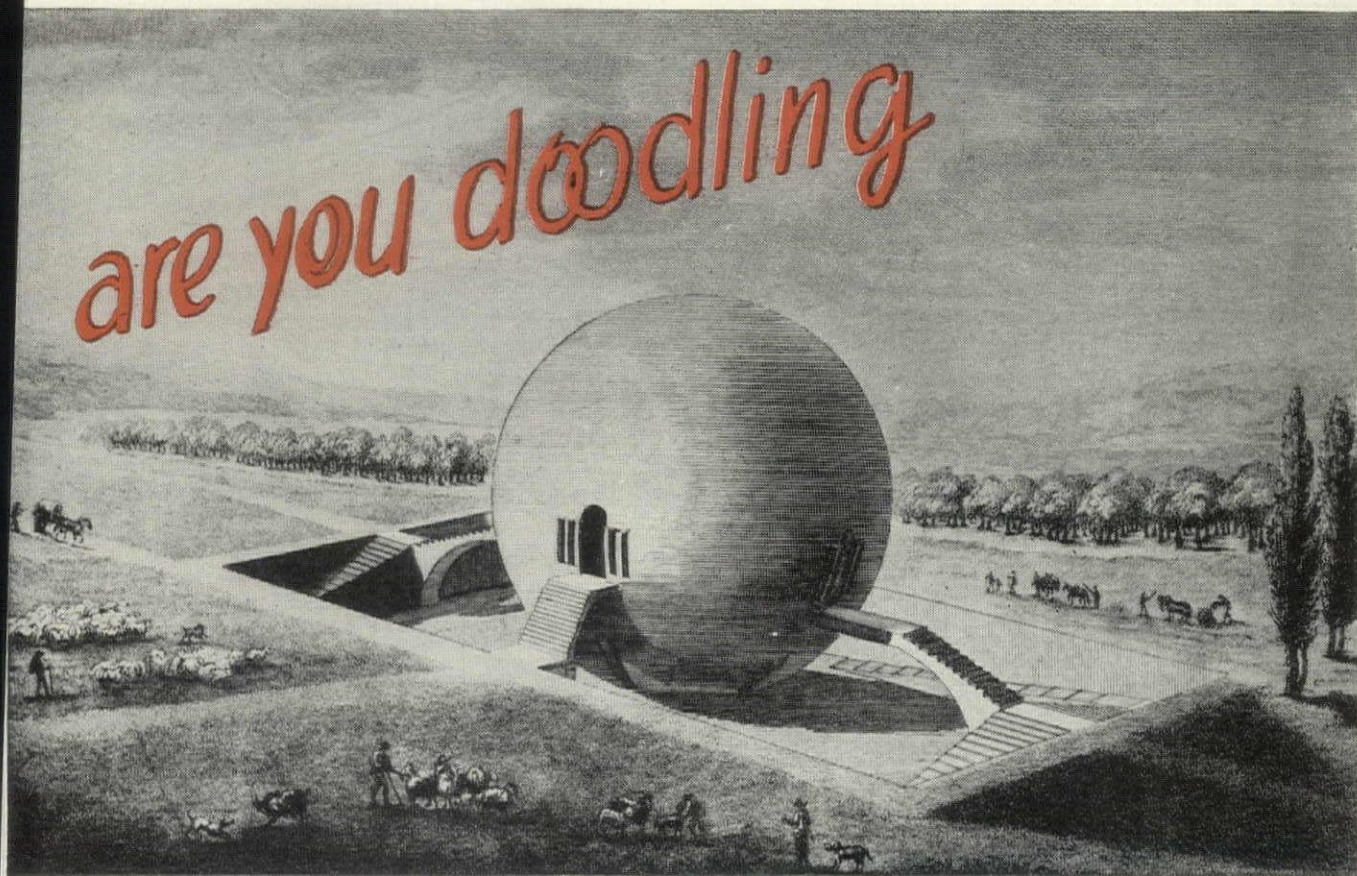


THE DOUBLE-CUT KNIFE TRICK!

Asphalt tile could be cut by a guillotine. That's fast and pretty accurate, but not good enough for us. The knife always has an invisible "sway". Also, the blade pushes down the top edge just enough to create a tiny dust catching bevel. Kentile squares are cut by giant male and female dies. All four edges are cut at the same time by immovable "blades", and the male die from below matches precisely. Flooring mechanics say Kentile's perfect square-ness speeds installation and guarantees a perfect floor. And, any beveling of edges is caused by the male on the underside where it is filled by cement, leaving an absolutely solid top surface.

DOODLED IN 1847. How the farmer got into this farmhouse after dark without breaking his neck, was one of the many problems its designer, M. Le Doux, left unsolved. Bigger problem was how to get this

doodle down on a farm—to set this ball rolling off the blueprints into actual construction. M. Le Doux never solved that one either—so his golf-ball chalet for gentlemen farmers never got built.



or planning for that building boom?

IN 1918 A LOT OF MEN in the building industry were dreaming beautiful dreams about a postwar industrial building boom. You heard statements like "More than 50% of our prewar plants are obsolete and need replacement"—"Hundreds of new products are clamoring for plants in which they can be made economically."

Well—here we are again. Nowadays many builders are echoing the words of 1918.

And maybe they're right. Maybe there *will* be a boom after this war. But *somebody has to break ground for*

it—start the ball rolling.

How? One way is to show executives that the building industry can now have plants which will produce so much more efficiently and economically than outmoded ones that business simply can't afford not to build them.

And the most economical and effective way to tell this story to business is through the pages of *TIME*—the first-choice magazine of business executives, plant owners, and managers—the maga-

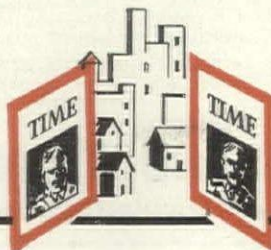
zine they turn to for information to help them think ahead and plan ahead and see the shape of things to come . . . the magazine the employers of America believe in and vote their favorite over all the others they read*.

What's more, TIME is the magazine in which business and industry prefer to tell their own product stories!

*Among the subscribers to *TIME* (who altogether employ 33,000,000 people), are executives and engineers, Government officials, mayors, bankers, architects, and 22 other groups of leaders—all of whom recently voted "*TIME* is America's most important magazine."

TIME

THE GATEWAY



TO THE BUILDING MARKET

FORUM OF EVENTS

(Continued from page 6)

improved, Sir Edwin suggested the installation of motors inside the lions to make them purr. In a preliminary sense, Lutyens was given the opportunity Sir Christopher Wren always longed for—that of rebuilding London. When in 1940 the Royal Academy Planning Committee was formed, Sir Edwin was named chairman. The plan which evolved featured a complete ring-road connecting all terminal stations. The overground railway within this ring is to be abolished in favor of new under-

ground links which will not interfere with the subways. Other projects of the plan include the transformation and relocation of Covent Garden as a music and drama center, a royal processional road from Buckingham Palace to Victoria, the opening of the Thames river front by extending the present embankments and gardens, the reconstruction of Picadilly Circus in rectangular shape (see photo), an open area around St. Paul's cathedral. In recognition of his work, Sir Edwin was awarded the coveted Order of Merit in the King's New Year honors in 1943.

Lutyens also designed the famous Queen's Doll House belonging to Queen

Mary which was a feature of the British Empire Exhibition in 1924.

Sir Edwin was one of the principal architects for the Imperial War Grave Commission. He was knighted in 1911 and made a Knight Commander of the Indian Empire in 1930. He was decorated by the Legion of Honor in 1932. Among some of his better known work are the British School of Art in Rome, the British Pavilion at the Paris Exposition of 1900, the Catholic Cathedral in Liverpool and the head offices of the Anglo-Persian Oil Co. in London.

DIED

Carl A. Nau, architect, in Cleveland, Ohio. As partner and principle architect in the firm of Wilbur Watson & Associates, Mr. Nau had charge of the design and construction of many important buildings including the Ravenna ordnance plant, largest shell-loading unit in the world. He also designed industrial buildings in Akron, Ohio for the Goodyear Tire and Rubber Co., and the Firestone Tire and Rubber Co., factory buildings for Talon, Inc., and the plant for the Industrial Rayon Corporation at Painesville, Ohio.

COURSE IN PLANNING

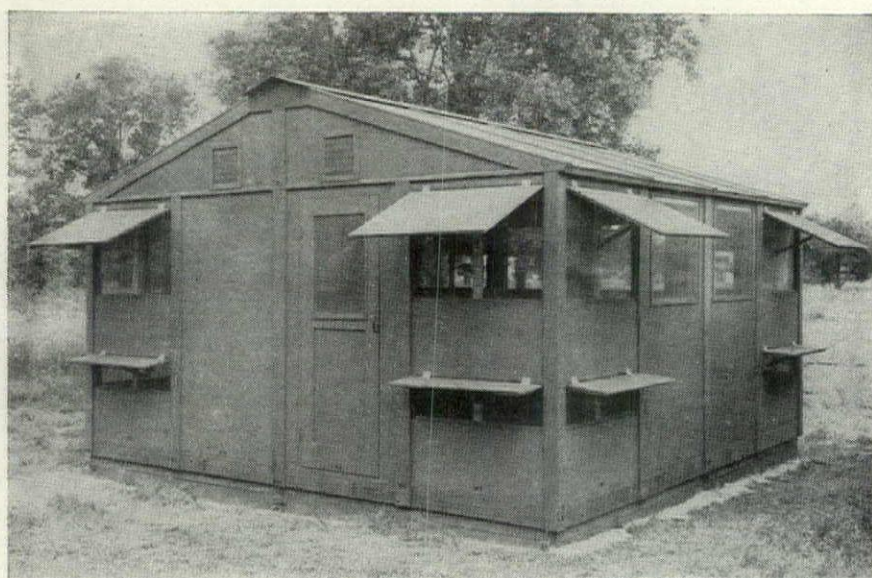
The City Planning Division of the Massachusetts Institute of Technology is sponsoring a short training course in city and regional planning during the spring of 1944. Men and women with professional experience in architecture, landscape architecture, civil engineering, political science or public administration are eligible. The course will begin on April 3rd and continue for a period of twelve weeks. Tuition is \$125 payable at the time of registration. Further information may be obtained from Professor Frederick J. Adams, Division of City Planning, Massachusetts Institute of Technology, Cambridge 39, Mass.

ANNOUNCEMENTS

Lester C. Tichy announces the opening of his office at 369 Lexington Avenue, New York City for the practice of architecture and industrial design. Lawrence S. Bellman, John Gillett and John N. Richards of Toledo announce the change in the name of the firm of Mills, Rhines, Bellman & Nordhoff to Bellman, Gillett & Richards. Charles M. Nordhoff retired from the firm in 1943.

Cram & Ferguson, Boston, announce the admission of Chester A. Brown, John T. Doran and William H. Owens to partnership in the firm.

With the addition of new partners Harley & Ellington, Detroit announce the change of the firm name to Harley, Ellington & Day.



"HURRY" HOSPITALS

Sturdily Built of LAUCKS-GLUED Wood

HOSPITAL UNITS—when and where they are needed! Easily placed there—be it for Marines, Army, Navy or Air Corps—because they're prefabricated, portable, quickly set up—and made to last!

Made by Stout Houses, Inc., of Detroit, Michigan, with production line efficiency. The Laucks Construction Glues, used in the structural work, have been specially formulated to meet tropic conditions. Each well ventilated hospital unit is 16' x 16'. Each is shipped in sections, easily erected, ready to bring medical aid and protection to our fighting men right at the front.

Laucks specially formulated Construction Glues constantly are helping create new building techniques—just as they here help solve the problem of portable mercy. *Let them help you!* For complete information, write or wire:

I. F. LAUCKS, Inc.

Lauxite Resins—Lauxein Glues

CHICAGO, 2 — 6 North Michigan Avenue
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SEATTLE, 4 — 911 Western Avenue

Factories:

Seattle, Los Angeles, Portsmouth, Va., Lockport, N. Y.

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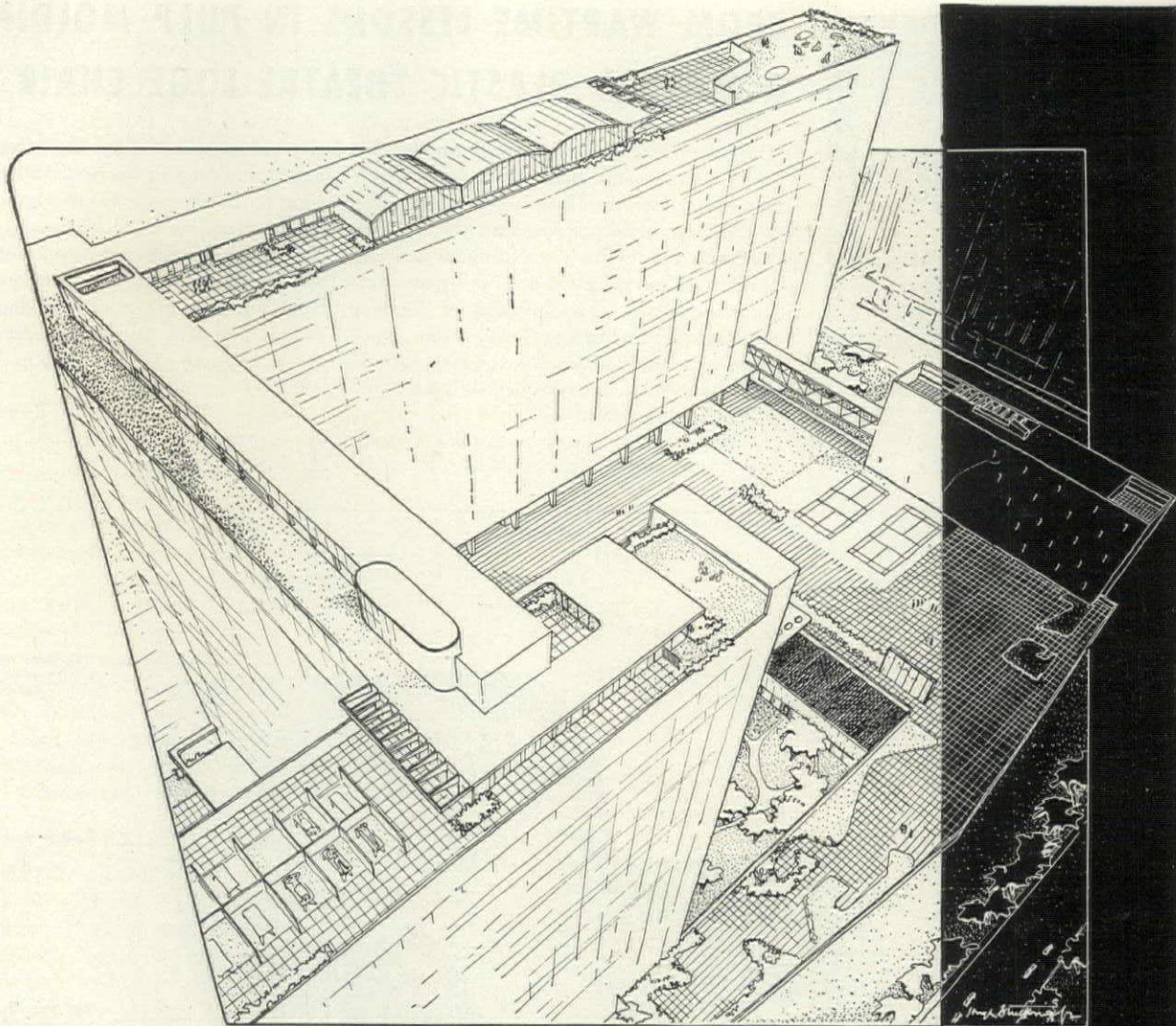
I. F. LAUCKS, Ltd., Granville Island, Vancouver, B. C.
HERCULES-LAUX-MERRITT, Ltd., Stanbridge, Quebec

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



LAUCKS CONSTRUCTION GLUES

Consult LAUCKS—America's Glue Headquarters



HOSPITAL IN 194X

Reasoning that traditional limitations of design will be put to the test in post-war building, architect Hugh Stubbins, Jr., on the staff of Harvard's Graduate School of Design, has studied this hospital plan "from the roof down." For it is in the roof plan, he explains, that most hospital architecture of the past has wasted a maximum of vitally needed space.

Shown here by contrast is the busy and efficient roof of a "typical" hospital of tomorrow—with indoor and outdoor solariums, pools, physical therapy and exercise areas, rest stations, convalescent wards and restau-

rant facilities . . . *all in the roof plan alone!*

Barrett Specification Roofs, because of their extreme adaptability, now make it possible for architects and social planners to execute many of the revolutionary improvements in living, housing and working conditions that are awaiting the end of this war. Then, as now, these famous coal-tar pitch and felt roofs will provide the maximum in dependable, long-lasting waterproofing and weatherproofing protection.

The hospital shown here is fifth in the Barrett series of designs by outstanding American architects devoted to functional planning in roof architecture. You are invited to write today for reprints of the complete series for your files.

THE BARRETT DIVISION

ALLIED CHEMICAL & DYE CORPORATION

40 Rector Street, New York 6, N. Y.

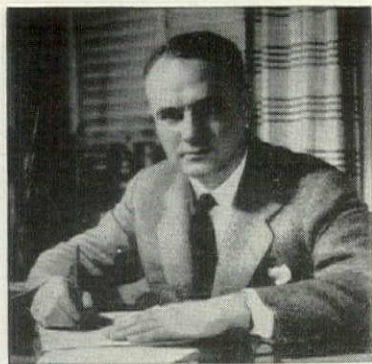
2800 So. Sacramento Avenue
Chicago 23, Ill.

Birmingham,
Alabama

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



*Reg. U. S. Pat. Off.



New York Designer Leo Jiranek, born in Grand Rapids, has specialized in furniture and home furnishings ever since receiving his engineering degree from Princeton in 1922. As consultant to some of the country's leading manufacturers he has worked with many materials, including plastics.

FROM WARTIME LESSONS IN PULP MOLDING... A MOLDED PLASTIC THEATRE LOGE CHAIR

Until very recently it bordered on Sunday supplement sensationalism to talk about molding plastics into forms as large and intricate as the comfortable, spring-base theatre loge chair which the well-known furniture designer Leo Jiranek has suggested here. But war-stimulated research on the problems of forming plastics-impregnated paper pulp... plus experience with fluid pressure molding of plastics-bonded plywood... have opened up vast and exciting new possibilities.

Tomorrow it may well be possible to produce strong, durable articles like Mr. Jiranek's

chair which will combine the strength of laminated plastics with the excellent finish, complexity of form and production economy of conventionally molded plastics.

Complete experimental pulp molding equipment has been installed in Monsanto's plastic laboratories, and the many problems involved in this new and highly promising technique are being thoroughly explored in cooperation with leading pulp molders.

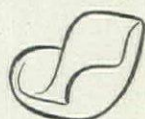
Sketches below illustrate details of how this technique might be applied to a problem like Mr. Jiranek's chair.



Plastic in form of resin is added to a mixture of paper pulp and water in a beater of type used in paper mills.



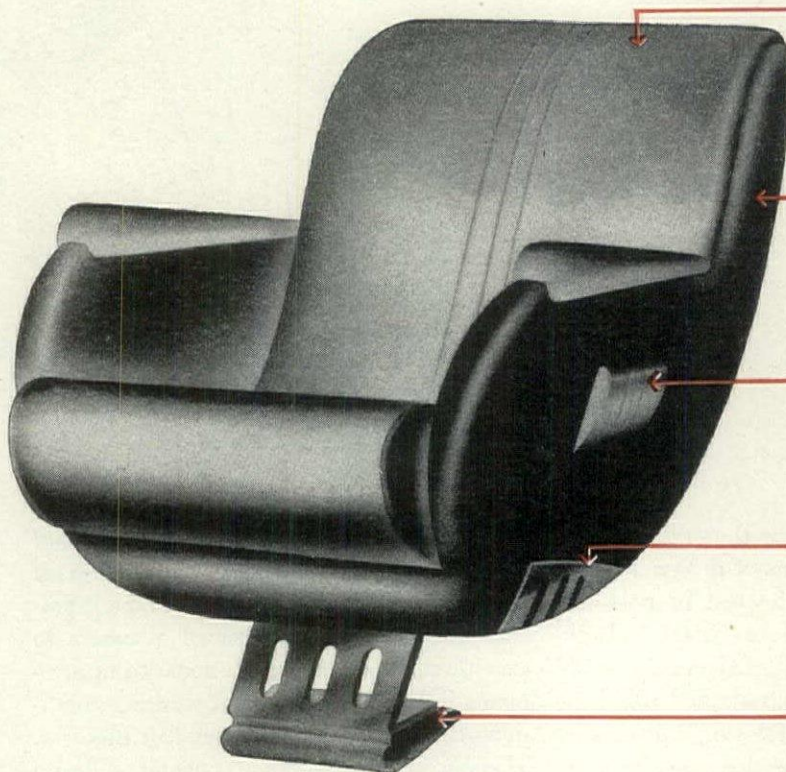
Pulp is then pumped to felting tank in which a die made of wire screening is suspended.



When air is evacuated from die, vacuum attracts pulp particles, producing preform approximate shape of chair.



Preform is dried, may then be molded by rubber bag method to give it final finish.



Upholstery might be Monsanto's water-proof, washable Saflex.[®]

Body might be pulp impregnated with either Resinox[®] or melamine resins.

Ash tray in arm could be conventionally molded from Resinox.[®]

Aisle light could be molded from Lustron[®], Resinox[®] or Fibestos.[®]

Ingenious feature of Jiranek chair is spring base. This, of course, would be metal.

*The Broad and Versatile Family of Monsanto Plastics

(Trade names designate Monsanto's exclusive formulations of these basic plastics materials)

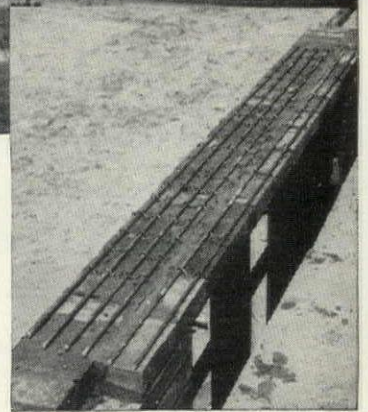
LUSTRON (polystyrene)
SAFLEX (vinyl acetal)
NITRON (cellulose nitrate)
FIBESTOS (cellulose acetate)
OPALON (cast phenolic resin)
RESINOX (phenolic compounds)
Sheets • Rods • Tubes • Molding Compounds • Castings • Vupak Rigid Transparent Packaging Materials



FOR FACTS ON POSTWAR PLASTICS...

For more facts on pulp molding—and on many other new developments likely to affect the shape of things to come—see the 24-page booklet, "The Family of Monsanto Plastics," prepared especially for product designers. Also included are charts, graphs, photographs and information on the complete line of Monsanto plastics, one of the widest and most versatile groups of plastics offered by any one manufacturer. Simply write: MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield, Massachusetts.

Marine base at NEW RIVER, N.C. built of Brick and Tile!



Typical reinforced lintel ready for brickwork to continue.

Use of non-critical masonry permits speed in construction..effects savings..and insures building of high architectural excellence

Camp Lejeune at New River, North Carolina—conceived as a permanent marine base prior to Pearl Harbor—had to be built fast after war came.

Called upon to create quickly a base for 40,000 marines, with permanent structures ranging from power plants and platoon barracks to chapels and women marines' club houses—the builders turned to non-critical brick and clay tile.

So successful was the use of clay masonry, the handsome buildings were completed on schedule and many of them were erected at actual savings in cost.

Of particular interest was the use of reinforced masonry beams and lintels in place of conventional angles and beams. Over 6,000 lintels, ranging in span from 3 feet to over 12 feet in length, were built without failure of any kind.

Tomorrow...many homes, apartments, public and commercial buildings will be built of brick and tile—*modular-designed brick and tile*—and, in many cases, reinforced masonry construction will make possible greater economies and wider application of these products.

As a progressive designer of

the buildings of tomorrow, you will find our new booklet, "Reinforced Masonry Simplified," helpful in explaining the fundamentals and the applications for reinforced brick and tile masonry. A request addressed to the Structural Clay Products Institute, 1756 K Street, N. W., Washington 6, D. C., will bring this booklet to your desk.



After the war..it will be built of modular designed
BRICK AND TILE

PRODUCTS AND PRACTICE

(Continued from page 14)

several weeks and the controls must be regulated manually during this period to compensate for this component of the total heat load. Large glass areas admit enormous quantities of solar radiation which do not affect the temperature controls. This causes heat waste and much discomfort. Large expanses of wall without window openings lose heat less rapidly than other walls and cause overheating in their immediate area.

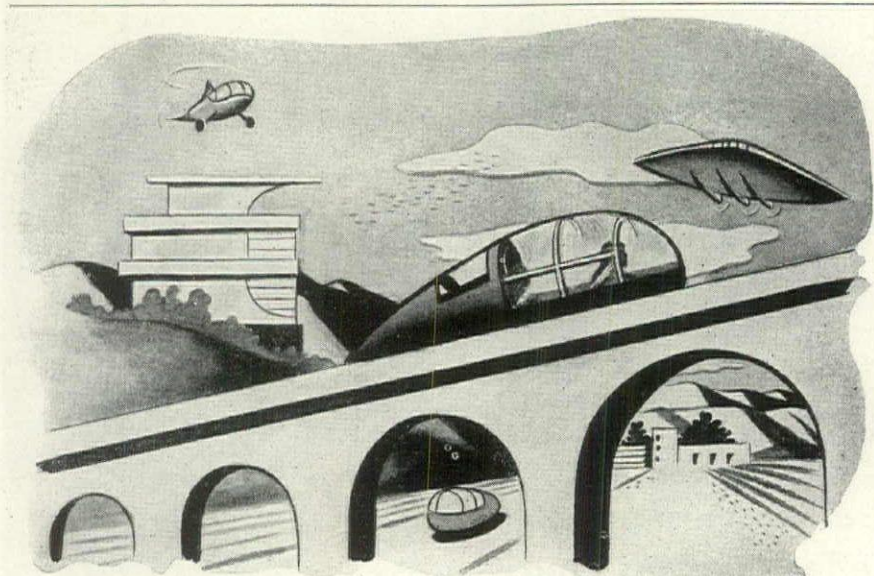
Possible solution of these problems

may be found through the use of an outside chamber similar in principle to those used in zone controls for large buildings. Such a chamber could easily be built so that its rate and distribution of heat loss would simulate the actual conditions caused by walls, glass area and floor slab. Perhaps a little ingenuity applied to each individual problem is needed rather than a highly scientific attempt to design a control adjustable to all installations. Not long ago the entire idea of automatic temperature control was an exciting new development, and soon the remaining "kinks" may all be ironed out.

Complete year-round control of both

temperature and humidity has already been achieved. This is done by cooling or heating water at a central source and delivering it to individual room units. Air which has been filtered and corrected for proper humidity is delivered to these units and passed over the water coils at high velocity, after being mixed with air which has been circulated. Air is recirculated and exhausted from the room to which it is originally delivered. This system provides for individual room control by a dial which adjusts the supply of hot or cold water. The high velocity air is immediately affected.

The demand for this complete weather control, and the pattern of declining cost established by automobiles and electric refrigerators make it reasonable to expect dialed climate to be available in a few years at a price sufficiently low that it will become a necessity in the average home.



Curiouser and Curiouser

Tear-drop cars whizzing along elevated super-highways. Family helicopters landing lightly on apartment roofs. Daydreams of the world of tomorrow are becoming *curiouser and curiouser*.

Are we heading for a postwar paradise? Perhaps.

But, in the beginning at least, the advances of tomorrow will be reflected by yesterday's achievements and by today's accomplishments. And the solution to immediate postwar problems will be provided by a review of the past.

For example, consider Sedgwick elevators and dumb waiters. Before the war they moved men, materials and merchandise up and down. They'll do the same job when the war is won. But they'll do it better and faster.

Sedgwick lifting and hoisting equipment now serves as lowering lifts for tank barges, airplane elevators for

carriers, ammunition hoists and special deck machinery. The results of today's experience will be incorporated into Sedgwick elevators and dumb waiters as rapidly as possible to help get peacetime production started — *fast*. And to improvements in design and construction will be added specially designed devices developed through research, planning and building.

That's why, if you're concerned with postwar plans for hospitals, hotels, schools, factories, airports, and the like — plan soundly, but plan now. And if you're confronted with seemingly insurmountable problems of proper vertical transportation, *let us know about them*.

Our engineers will be happy to help work out the solution and show you how Sedgwick specialized equipment provides safer, surer, more economical lifting and hoisting.

"MEN WHO KNOW ARE SOLD ON SEDGWICK"

Sedgwick MACHINE WORKS, INC.

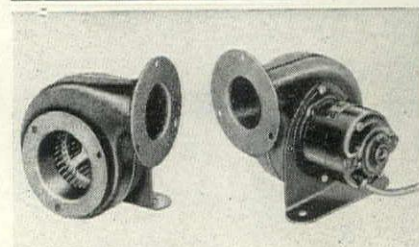
140 WEST 15th STREET NEW YORK 11, N. Y.

Since 1893 designers and manufacturers of specialized lifting equipment

ELEVATORS • ROTO LIFTS • HOISTS • DUMB WAITERS

BUILDING REPORTER

(Continued from page 18)



BLOWERS with flexible mounting arrangement.

Name: No. 6S Utility Blower.

Features: Eight different combinations of the blower, stand, inlet and discharge flanges, bring manufacturers of machines with built-in air handling equipment a unit that is practically custom-built for each application without the cost of special tools, dies and handling. Housing and stand are die-stamped steel, zinc die-cast multi-blade wheel is dynamically balanced, wheel and motor are direct-connected, all resulting in a durable, quiet, efficient, compact unit for engineering into another machine. It is powered by a series wound, 110 volt, single phase, 60 cycle, sleeve bearing type AC motor that operates at 3400 r.p.m.

Manufacturer: Ilg Electric Ventilating Co., 2850 No. Crawford Ave., Chicago 41, Ill.

POWER FEED for drill presses.

Name: Hydra-Drill.

Features: This tool is a controlled automatic fully adjustable power feed for most makes and models of drill presses. Powered by air, this tool automatically operates a drill press so that the customary hand feed, while it can

(Continued on page 132)



HE *makes the law*



Painted for McCall's by Alexander Brook

SHE *makes the citizen*

The strength of America at war lies in the moral and physical strength of its youth. America's hope for the future rests on the ideals and character developed in the children of today.

* * *

While men make and enforce the laws, it is the women who guide the children. For the child acquires the foundation of his character in the

early, formative years...and, mainly at his mother's knee. The high readership of McCall's articles on the care and guidance of the young is evidence of the American woman's keen awareness of this—her deep, and very special responsibility.

Because the American woman's interests and responsibilities are different from the man's, her reading interests are obviously different. That is why no other magazines published can approach women's magazines in their interest to women. It is why McCALL'S MAGAZINE has become a reading "habit" with one American Woman out of every five.



McCall's—three magazines in one
Serving the interests of the American Woman
Her Heart—Her Home—Herself

BUILDING REPORTER

(Continued from page 130)

be used if necessary, is not needed for fast production work. Adjustable stops permit accurate adjustment for all drill press operations such as drilling, counterboring, spot facing, reaming, etc. The range of feed can be instantly regulated for fast drilling of soft materials or slow drilling of hard materials. A safety fingertip control permits immediate release of the automatic feed. The rate of feed of the drill press spindle can be adjusted so that

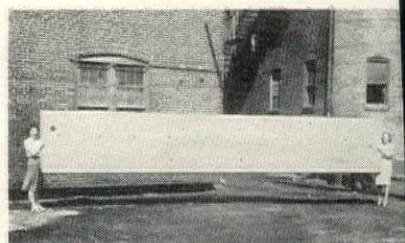
the pressure of the drill on the work is adjusted to any drilling operation regardless of the size of the drill which is used and the rate of speed at which the drill is operated. This saves breakage of small drills, and assures rapid drilling with larger drills.

Manufacturer: The General Pacific Corp., 1800 S. Hooper Ave., Los Angeles 21, Cal.

ENGINEERED PLYWOOD PANELS for lightweight partitioning.

Name: Hollo-Tech.

Features: Lightweight panels are being constructed with a top and bottom sur-



face of plywood attached to a grid of narrow spruce strips with plastic glue. As lightweight partitioning and flooring, it may be used for buildings, airplanes, buses, railway coaches and marine use. When used for flooring, the action is like a multi-webbed box girder; top and bottom surfaces of panel correspond to the flanges, its cores virtually girder webs.

Manufacturer: Technical Ply-Woods 228 North La Salle St., Chicago 1, Ill.



Beautiful...
yes, and efficient too!

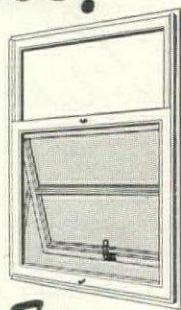
Post-War Window Areas will no doubt be larger, as current trends continue. While generous fenestration opens exciting design possibilities . . . **WINDOW EFFICIENCY** will have to be examined more critically than ever before.

When stock-size Pella Casement Units are available again, compare these three design features with the field for **BEAUTY and EFFICIENCY:**

WOOD and STEEL both used in Pella Casement frames to combine beauty and strength.

ROLSCREENS, original roller-type inside screens. The ultimate in screen efficiency and convenience. **DUAL GLAZING**, the single-panel type that mounts on inside of sash. Inconspicuous. Quickly and easily removed for cleaning.

Watch, too, for the new Pella **DOUBLE HUNG** Windows which make the Pella line of windows **COMPLETE** for post-war homes and commercial buildings. **ROLSCREEN COMPANY, PELLA, IOWA.**



For

TODAY'S HOUSING

Investigate Pella Awning-Type Windows available with screens and storm sash. For 2 x 4 frame, thin wall or masonry construction. White pine. Toxic treated. **WRITE FOR FREE FULL-SIZE DETAILS.** Address Dept. 114.

WARTIME TOILET COMPARTMENT of asbestos board.

Name: Sanybestos Type Toilet Compartments.

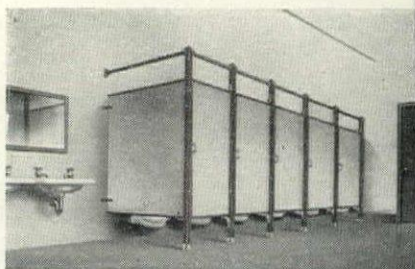
Features: These flush type compartments made of 1 1/8 in. compressed cement asbestos board partition panels and doors, provide an enclosure that is moisture, fire and wear resistant. Doors are bound all around with protective steel channel. Steel posts and headrails available with priority ratings or wood posts and headrails furnished without priority.

Manufacturer: Sanymetal Products Co., Inc., 1701 Urbana Rd., Cleveland, Ohio.

ENCLOSED AIR CIRCUIT BREAKER for public utility and heavy industrial service.

Features: Enclosures are built of heavy gauge, sheet steel for either indoor or outdoor service. Both types give full protection to the circuit breaker, which may be opened or closed without opening the enclosure. Large doors at front and rear provide access to the breaker and connection studs. Connecting cables may enter enclosure at top, bottom or sides. The breakers are available in ratings from 2,000 to 10,000 amperes, with interrupting ratings of 75,000 and 100,000 amperes. Standard voltage ratings are 600 volts AC. and 250 volts DC. Operations may be either manual or electric.

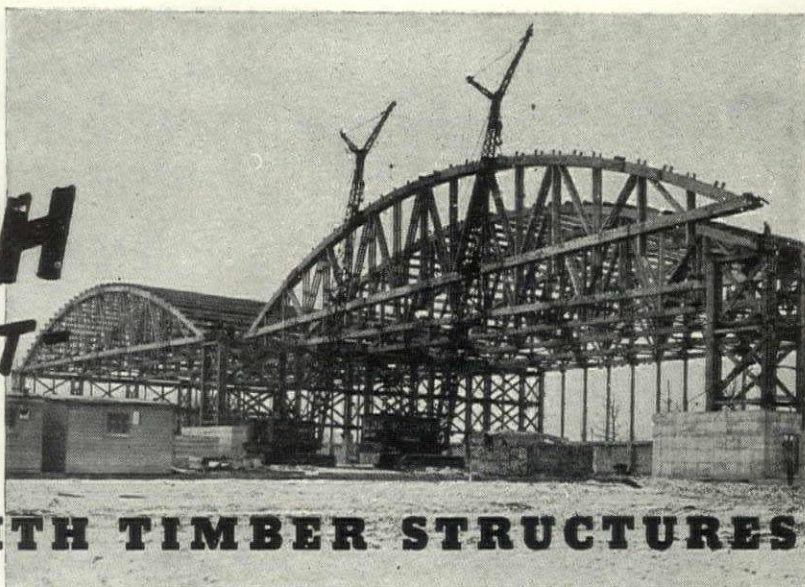
Manufacturer: I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.



Pella WINDOWS CASEMENT * "AWNING" PROJECTED WOOD SASH
Made by Makers of Famous Pella ROLSREENS and Pella VENETIAN BLINDS

STRENGTH IS IMPORTANT

... BUILD WITH TIMBER STRUCTURES



CLEVELAND. 200' laminated trusses were designed, prefabricated and erected by Timber Structures, Inc. for 200'x440' assembly plant, for The U.S. Engineers. Front trusses, (supporting doors and roof), were built to carry 450,000 lbs. Intermediate trusses built to carry 310,000 lbs.



PORTLAND. Steel warehouse for Woodbury & Co. The roof of this 200'x300' building is supported by 35-67' trusses, 15 lb. dead load, 40 lb. live load, plus 14,000 lb. concentration at center line of bottom chord and adjacent to each end of the truss. Concentration supports a three-point suspended traveling crane. Architect: Richard Sundeleaf. Contractor: Wegman & Son.



PITTSBURGH. Fleming Park Bridge—756' (six 126' spans) was built for 12-ton trucks and 30-ton street cars. Designed by Allegheny County, Pennsylvania. Detailed, prefabricated by Timber Structures, Inc. Erected by J. F. Casey Co., Inc. and McCrady Construction Co., Aspinwall, Pa. Verne Ketchum, Engineer for Timber Structures, Inc.

TIMBER
WARD MAYER
STRUCTURES
INCORPORATED

Portland 8, Oregon • New York 17, N.Y.

Engineering in Wood

ROOF TRUSSES and other items prefabricated by Timber Structures, Inc. embody the natural strength of wood plus connection strength of modern timber connectors. So strong, in fact, are laminated timber members, that they are being used in structures where previously only steel girders were considered practical.

Strength is important, yet it is but one of the features of Timber Structures products. Other advantages are ready source of materials, speed of construction, economy and permanence.

This organization has rendered years of service to contractors, architects, engineers, plant management in prefabricating roof trusses for buildings of all kinds and sizes for every major industry. We invite inquiries as to work performed and as to our ability to serve you in timber or other structural materials. For evidence of work we have done please use the coupon below or write direct for literature.

Your dollars can do more — invest NOW in War Bonds!



Use of Teco timber connectors utilizes full structural strength of lumber by spreading joint stress over maximum area.

TIMBER STRUCTURES, Inc.
Send Book "Engineering in Wood"


Name _____

Address _____

Type of building or business ..

If west of the Mississippi, send to Portland 8, Oregon. If east of the Mississippi, send to 535 Fifth Avenue, New York 17, N.Y.

★
MAIL
COUPON FOR
LITERATURE
★

An aerial, black-and-white photograph of a suburban neighborhood. The image shows several houses with gabled roofs, some with porches, and a network of streets. Mature trees are scattered throughout the landscape, particularly on the left side. The overall tone is historical and documentary.

Small houses big in comfort

Public reaction to Revere's current national advertising, featuring the various trends in post-war housing plans, continues to excite wide interest. Some 175,000 booklet requests from individuals and communities attest this fact. In particular, people are interested in low-cost, modern-equipped, small homes.

Mr. Fritz B. Burns, President of the National Association of Builders, elects in the Revere advertisement in the January 22nd issue of the Saturday Evening Post to show what some Los Angeles builders have done in the way of building "livable houses for folks who love living". Certainly, many millions of American families will yearn to own similar houses—brought up to date—in post-war days.

Revere feels that its housing campaign*benefits the whole building industry: architects, builders, contractors, realtors, manufacturers and financiers. It is sure that its emphasis on the durability and beauty of copper and copper-base alloys is sound and justified. The use of these metals makes any building more desirable to live in—and better also to rent or sell.

When "V-Building" comes, Revere will offer improved materials for protecting, preserving and perpetuating houses and other buildings in the form of roofing, flashing, pipe, tube, architectural shapes and the like in copper and its alloys.

In the meantime, Revere cordially invites post-war building planners to share its fund of technical knowledge. Our cooperation is without obligation.



Livable houses for folks w

with copper and brass playing their indispensable p

Today several thousand families in the Los Angeles area live happily, under more livable individual and community conditions than ever before. This is because we and other Los Angeles builders have worked out a building formula which offers "the most home for the least money."



possible part—with a larger role to play in the post-war housing developments we are now planning.

The purchase price for the two-bedroom designs have ranged from \$2,290 and three-bedroom designs go up to \$3,600 and attached garages are included. If shrub and tree plantings are included, further landscape plantings are included.

Three basic floor plans are on sale at the choice of numerous exterior styles and individual color preference. Each community is out on advanced lines with complete utility and planning advantages. I am proud to say that public acceptance of our home and community planning has been eager.

Send to Revere for the free, descriptive, illustrated booklet which tells in complete detail the reasons why we have been able to offer truly livable homes for thousands of folks who love living. You may also some of our ideas on Post-War Housing stilling and interesting.

Revere does not build houses or expect to do so in the future. But it knows full well that after the war, aggressive builders, like Mr. Burns, will offer it house values than ever before. Revere also knows its indispensable role that copper and various other



"with copper and brass playing their indispensable part"

In developing several important defense housing communities in the Los Angeles area, Mr. Fritz Burns and his associates, Mr. Fred Marlow and Mr. J. Paul Campbell, made free use of copper and brass, while these products were still available, to make individual homes more efficient and beautiful. And, as Mr. Burns explains on the opposite page, it is planned to make even more extensive use of copper and copper alloy products in future post-war building.

Revere Products are Standard Everywhere

Revere copper and copper-base alloy products have long been standard in both new building and remodeling. They're specified for roofing, flashing, gutters, downspouts, weather stripping, termi-

proofing. Unsurpassed for non-rusting hot and cold water lines; heating and air conditioning lines; storage tanks; thresholds, window frames and the like. Revere copper, brass or bronze accessories add beauty inside and outside the building.

* Copper gives longer life to any edifice anywhere, any time, because it protects, preserves, perpetuates.

When Peace comes, Revere products will again be available for both home and community building, through leading distributors throughout the country, who will be able to supply your builder and contractor. It's common sense and sound economy to begin planning TODAY for the building needs of TOMORROW.

BUY MORE WAR BONDS TODAY

REVERE

COPPER AND BRASS INCORPORATED

Founded by Paul Revere in 1801
Executive Office: 230 Park Ave., New York 17, N. Y.

This advertisement appears in Saturday Evening Post, January 22, 1944

CIRCUIT BREAKERS. *Catalogue 1002*, 32 pp., 8½x11. Catalogue covers the selection and construction of low-voltage air circuit breakers, including protective devices and individually enclosed circuit breakers. Methods for approximating the necessary interrupting capacity of the breaker on both A.C. and D.C. systems are explained. Schematic diagrams illustrate positions of breaker and trip-free operation. I-T-E Circuit Breaker Co., 19th & Hamilton Sts., Philadelphia 30, Pa.

PUMPS. *How to Pump It*, 19 pp., 8½x11. Descriptive catalogue of complete information concerning the mechanical parts and construction of Rex Speed Prime Pumps, how they operate and what they will do. Also included are specifications and capacity charts to aid in pump selection. Made in capacities ranging from 3,000 gallons to 125,000 gallons per hour for use in many industries particularly for dewatering purposes. Chain Belt Co., 1600 West Bruce St., Milwaukee, Wis.

WOOD PRODUCTS. *The Mengel Co. since 1877*, 13 pp., 8½x10½. Booklet stresses Mengel's war production with photographs of army cargo truck body parts, aircraft plywood airplane engine boxes, etc. Also briefly traces and illustrates the company's history, products and personnel. Sixty-six years of growth and development are reflected in the numerous sketches and photographs, detailing Mengel's many ramifications into a variety of industries and trades. The Mengel Co., Louisville, Ky.

SCIENCE. *Industrial Science Looks Ahead*, 27 pp., 6½x9½. An interesting booklet presenting a list of new postwar products and services that America's industrial scientists see on the postwar horizon for human welfare, comfort and every day living. The developments are forecast in a wide variety of fields and cover homes, house furnishings and equipment, food, textiles, transportation, light, vision, photography, radio, electronics and television. Radio Corp. of America, RCA Bldg., New York, N. Y.

WELDING DESIGN. *Practical Design for Welding*, 8 sheets, 8½x11. This design service offers a new series of clear, well executed plans on machine parts and equipment, to show the with welding products can be designed more economically and with greater strength. The Hobart Bros. Co., Hobart Square, Troy, Ohio.

CONCRETE FORMS. *Form Engineering by William*, 65 pp., 8½x10½. An attractive book describing clamp features for form work on dams, bridge battered walls and buildings. Many photographs, details, and tables show the construction with various form clamps, ties, and nailless demountable forms. Also included are engineering data and tables for construction of small retaining walls. Williams Form Engineering Corp., B 925, Madison Square Station, Grand Rapids, Mich.

POSTWAR CONSTRUCTION. *Construction Potentials: Postwar Prospects and Problems*, 32 pp., 8½x11½. An extensive analysis prepared by the F. W. Dodge Corp., under the chairmanship of Thomas S. Holden, to help all factors in the construction industry get down immediately planning aimed at specific objectives. It includes specific suggestions for action now, indication of the probable size and character of postwar construction demand, discussions of economic problems as they will affect construction and indications of possible legislative action important to construction. F. W. Dodge Corp., 11 West 40th St., New York 18, N. Y.

METAL. *Seventy-Fifth Penn Metal Year 1899-1944*, 32 pp., 4x5½. Attractive booklet commemorates the founding of company and the inventive genius of the founder, Longley Lewis Sagendorph. The history of the company is traced and interwoven with significant industrial and political events through the years, with sketches to illustrate them. Penn Metal Corp. of Pennsylvania, Oregon Ave. and Swanson St., Philadelphia, Pa.

FLOW METERS. *Flow Meter Engineering*, 16 pp., 8½x11. A booklet with considerable amount of basic metering data, arranged for convenient use, also tells why, when, and where flow meters and instruments are needed in the modern plant, with helpful hints for keeping instruments in repair. Cochrane Corp., 17th & Allegheny Ave., Philadelphia 32, Pa.

HEATING AND VENTILATION. *Experience Plus Energy*, 10 pp., 8½x11. A compact, illustrated bulletin which gives a good working knowledge of Agitair products and their applications: air diffusers, heavy-duty ranges, bake ovens and stoves, air exhausters and filters, heat baffles for oil burners, hot water generators and hot gas generating furnaces. Air Devices, Inc., 17 East 42nd St., New York 17, N. Y.

ELECTRONICS. *Bulletin No. 9148*, 3 pp., 8½x10½. Bulletin edited in nontechnical language for general understanding, explains operation of photo-electric devices for automatically controlling equipment for production, safety, lighting, combustion, sabotage, burglary, etc. Worner Electronic Devices, 848 North Noble St., Chicago 22, Ill.

LUMBER. *Lumber Industry Facts, 1943*, 59 pp., 8½x9½. Data book designed for reference use in the lumber industry with information from governmental and industrial sources. It contains 78 statistical tables and 23 charts. Lumber sources, products, production, shipments and consumption are discussed. Other topics covered include pulpwood, pulp and paper. Complete cross index makes specific information readily available. National Lumber Mfrs. Assn., 1319-18th St., N. W., Washington 6, D. C.

FIRE RETARDANT. *Properties and Uses of Zinc Borate 3167*, 16 pp., 6x9. Well designed booklet describing the general physical and chemical properties of Zinc Borate 3167, a fire retardant product, with applications for present and postwar use. It reviews the present practice of imparting fire resistance, with emphasis on the combination of fire resistance and resistance to mildew, weathering, water and other solubilizing agents. The New Jersey Zinc Co., 160 Front St., New York 7, N. Y.

ANNOUNCEMENTS

Sarco Co., Inc., New York, announce the formation of an associate company to be known as Sarcotherm Controls, Inc., to market the company's weather controls for hot water and radiant heating as well as other heating systems. The headquarters for the new company will be located at 222 North Bank Drive, Chicago 54, Ill. E. M. Mittendorf, M. E., of Sarco Co.'s Chicago office has been elected vice president and will act as general manager of the new company.

Ernst D. Lilly, Sales Manager, Lilly Land Co., Princeton, West Virginia, would like to receive literature on postwar designs of prefabricated small homes and homes of various types of construction.



Atlas WHITE News



Universal Atlas Cement Company (United States Steel Corporation Subsidiary)
Chrysler Building, New York 17, N. Y.

BEAUTIFUL AND DURABLE FINISH FOR MASONRY



One of 300 homes for war workers at Hatboro, Pa., finished with portland cement paint made with Atlas White cement. Decorative value, low maintenance cost and protection were important considerations in its selection.

OTHER PRODUCTS MADE WITH ATLAS WHITE CEMENT

Send for information on portland cement paint and other uses of Atlas White cement in the building field—thin pre-cast Architectural Concrete Slabs, fine Terrazzo floors, Stucco, Light-Reflecting floors. Write to Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary) Chrysler Building, New York 17, N. Y.

AF-C-13

Portland cement paint made with Atlas White cement gives effective protection against moisture and extremes of climate. Because it penetrates the pores of masonry, this paint forms a satisfactory bond with any masonry surfaces—concrete, concrete masonry, stone, hollow tile, brick—effectively sealing them against moisture.

Portland cement paint is available in a variety of colors from pure white and delicate pastels to deep, rich hues. Its hard surface resists dirt and dust, and can be easily cleaned, making frequent repainting unnecessary.

Portland cement paint, made with Atlas White cement, is easily applied and economical in first cost. One pound covers from 15 to 25 square feet of area for the first coat, depending upon the texture and density of the masonry surface. Second coat coverage is about 30% more area per pound.

Portland cement paint made with Atlas White cement is prepared by a number of companies in white and in a wide range of colors. It is furnished as a scientifically mixed dry powder, and comes in conveniently-sized packages ready for mixing with tap water on the job. Manufacturer's directions for mixing and applying should be followed.

Factory-prepared paint is preferable.



PRECISION IN COPPER PIPING

MAINTAINED IN THE DRAWING ★★

There is no copper tube made anywhere that has more care exercised in its manufacture than STREAMLINE copper tube. It is held to very close tolerance to promote the ideal piping connection when used with STREAMLINE fittings. The STREAMLINE fitting has an exclusive feature—the feed hole—which enables the plumber to tell visually when a perfect leak-proof joint has been made.

STREAMLINE copper tube and fittings were the twin products that revolutionized piping methods for plumbing, heating, water works and many other uses—and although they are now in the service of our country, in the war effort, they will when peace returns, be used once more by the plumbers and steamfitters of America to build the perfect piping installation.

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

1. TUBE PIERCING
2. TUBE QUENCHING
3. DRAWING
4. HEAT TREATING

**Better windows through
battlefront service**

Final Victory Is Yet to Come...

**SO TRUSCON IS STILL 100%
IN UNCLE SAM'S SERVICE**

Truscon skill and energy, which once produced steel windows that let sunlight and fresh air into your jobs, now are producing special armament that is contributing much to the defeat of our enemies.

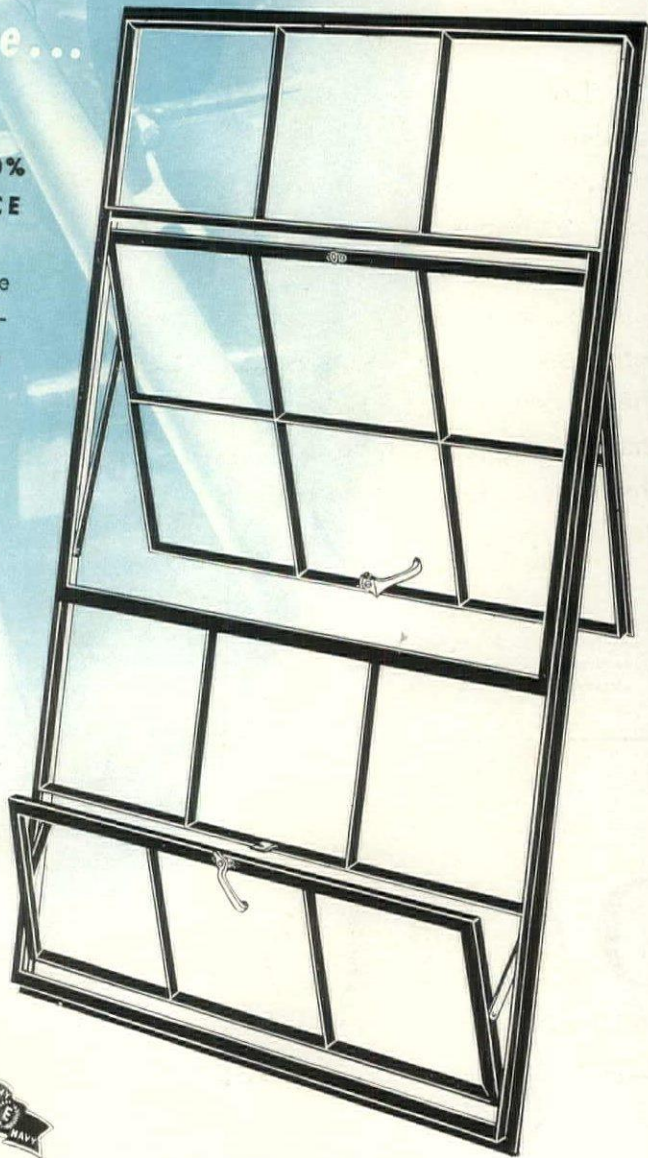
So proficient is this production by Truscon men, women and machines, that their services have been officially recognized as essential to the battlefront successes of our Armed Forces.

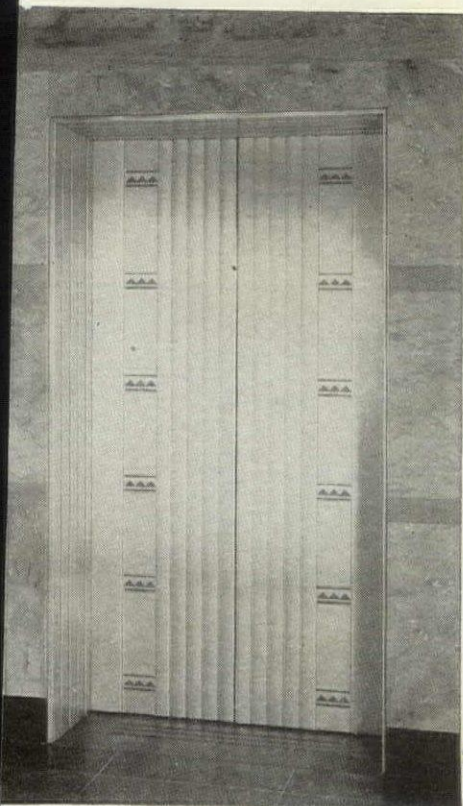
Thus the new lessons we have learned in war, added to our great reservoir of peacetime experience, are preparing us for large-scale production of new and improved steel windows, when our duty to America shall have been fulfilled.



TRUSCON
Steel Company

YOUNGSTOWN 1 . . . OHIO
SUBSIDIARY OF REPUBLIC STEEL CORPORATION





Preview of a POST-WAR RENTAL AGENT

Lobby modernization . . . including the installation of ultra-smart Dahlstrom Elevator Entrances . . . will prove the successful rental agent in the post-war rejuvenation of many an out-dated office structure.

Most old-style lobbies are not only bleak and inefficient, but are often hazardous as well. They present little that attracts the prospective tenant and gets his signature on a lease. Obviously, in any lobby modernization, elevator entrances become the focal point of interest and

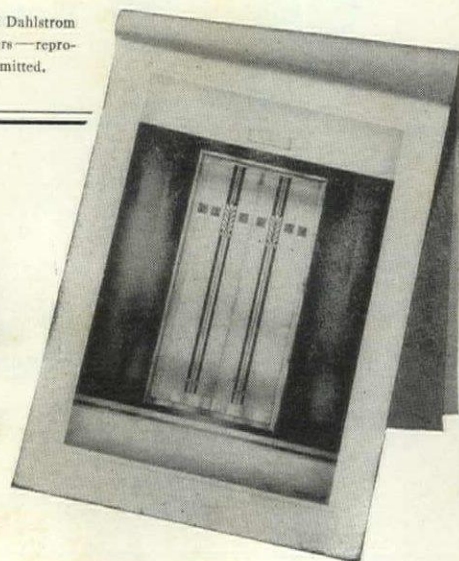
design. Because of this fact, Dahlstrom has long maintained a staff of designers to assist architects in the creation of elevator entrances of striking beauty . . . *and sales appeal.*

Many of America's finest structures are completely equipped with Dahlstrom Elevator Entrances. From Rockefeller Center to San Francisco's Bank of America, these entrances are serving efficiently . . . adding their bit to the building's attractiveness, and efficiently acting as rental agents too.

Illustrated above: State Public Works Building, Sacramento, California. Division of Architecture, Department of Public Works, Architects.



Illustrated at right: A typical example of Dahlstrom cooperation with Architects and Designers—reproduction of a full-color sketch as it is submitted.



DAHLSTROM

METALLIC DOOR COMPANY, JAMESTOWN, N. Y.

BRANCHES IN NEW YORK, CHICAGO, PHILADELPHIA, BOSTON AND SAN FRANCISCO

Representatives in Principal Cities



THE NAVY BUILDS WITH WOOD

Since Pearl Harbor, the U. S. Navy has used over 2,000,000,000 feet of lumber and timber as a structural material at home and overseas bases.

This spectacular use of lumber and the Navy's wide application of the Teco System of Timber Construction have advanced the science of timber engineering. You, too, may have the advantages of timber construction. . . . strength, economy and permanence . . . now and in peacetime.

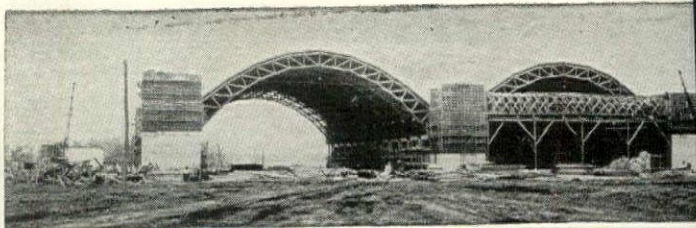
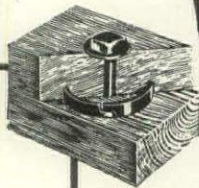
Here is sound engineering advice
Design in timber Specify Teco Connectors Employ a Teco Timber Fabricator.

TIMBER ENGINEERING COMPANY

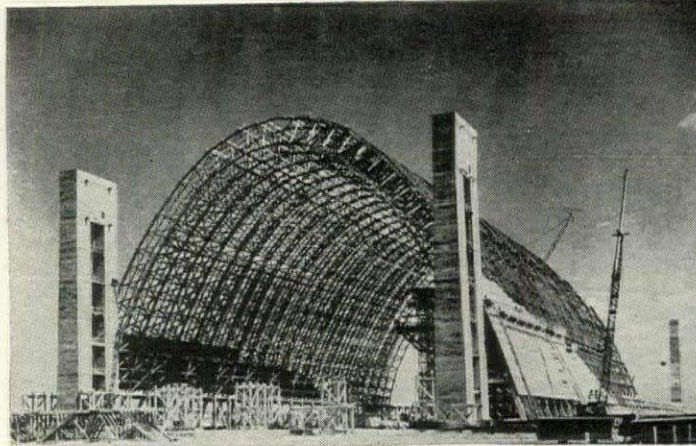
Washington Chicago Minneapolis
Portland New Orleans

Specify
TECO
CONNECTORS AND TOOLS

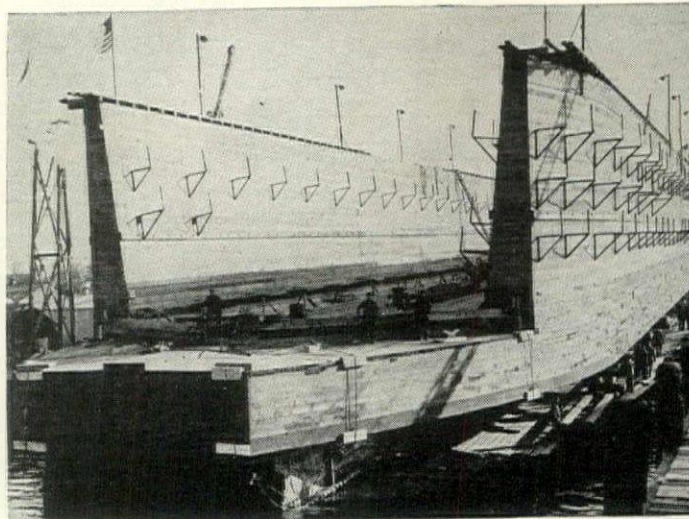
ENDORSED BY LEADING LUMBER
MANUFACTURERS AND FABRICATORS.



Timber Hangars for the Navy's war planes.



Blimp Dock. The world's largest clear span timber structure recently completed by the Navy. 1000 feet long, 153 feet high, clear spanning 237 feet.



Floating Drydock. Timber connected structure for vessel repair at sea.



**FREE
PICTORIAL
BOOK**

The story in pictures
of the Navy's spec-
tacular use of lum-
ber and timber
'round the world.

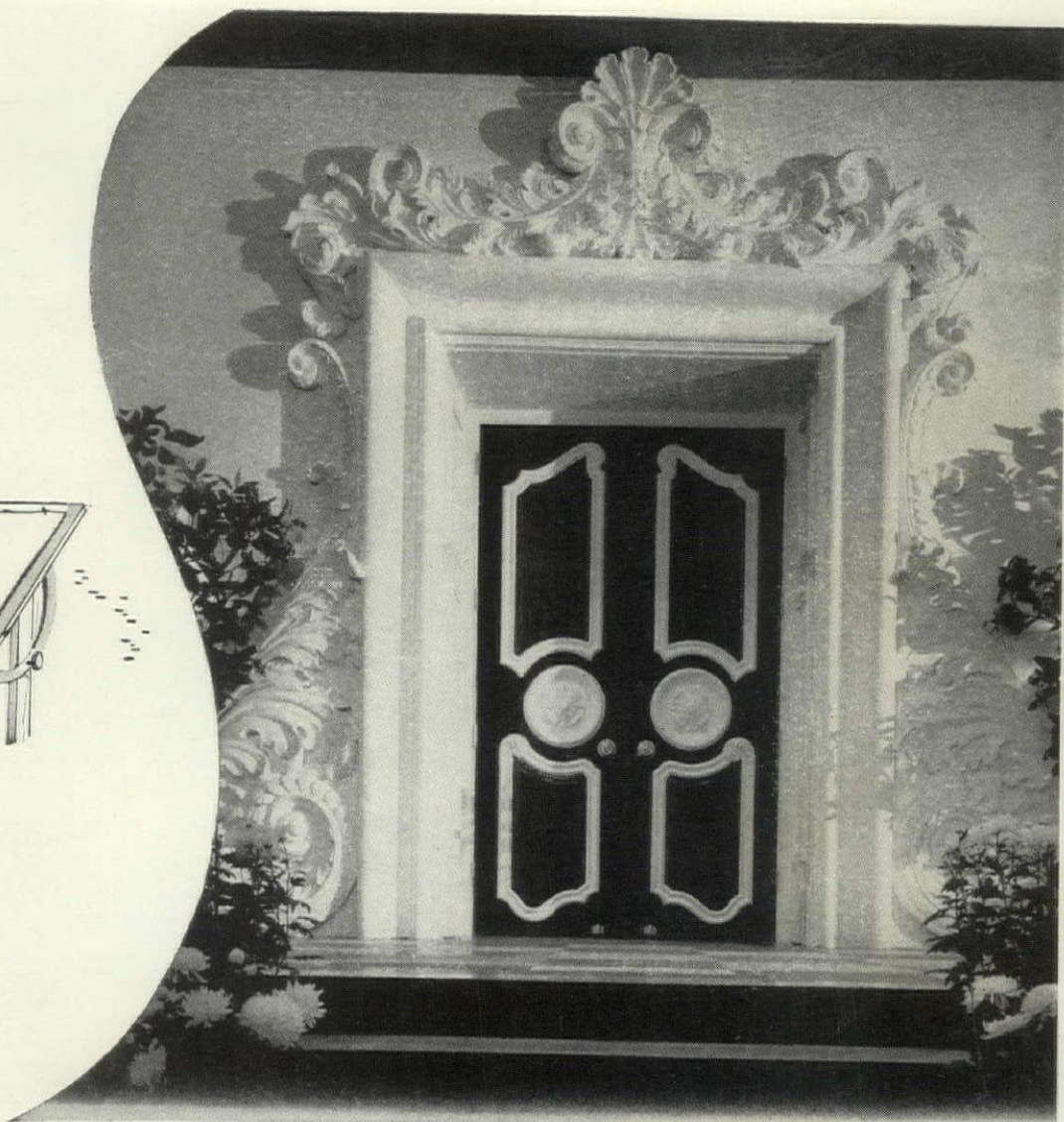
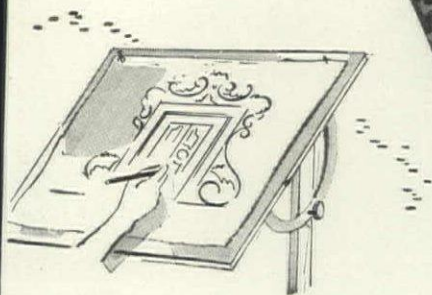
Timber Engineering Company
1319 18th St., N.W.
Washington 6, D. C.

Please send me by return mail a Free copy of "BUILDING
for BATTLE—With the United States Navy"

Name.....

Firm Name.....

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



Camellia Room Drake Hotel designed by Dorothy Draper

VERSATILE ○ ○ ○ DEMONSTRATED BY DOING JOBS NO OTHER MATERIAL CAN DO

Rich man—Poor man—Doctor—Lawyer—Merchant—Chief—all the world is dependent upon walls and ceilings of gypsum plaster—in rendering many services to many people.

When it comes to expressing beauty in simple, unbroken surfaces—flowing curves—or refreshing relief of ornamentation—with broadest latitude in design—“Plaster Does It Better.”

Where sanitary surfaces are needed and maintenance costs must be kept down . . . “Plaster Does It Better.” Let fire protection,

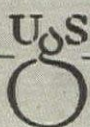
sound correction, ease of decoration and flexibility in application be your requirements—here, too, you’ll find “Plaster Does It Better.”

For years plaster has proved its multiple advantages and advancements through continual research and development in U.S.G. laboratories which have kept well ahead of the times. In short; make your demands what you

PLASTER DOES IT BETTER

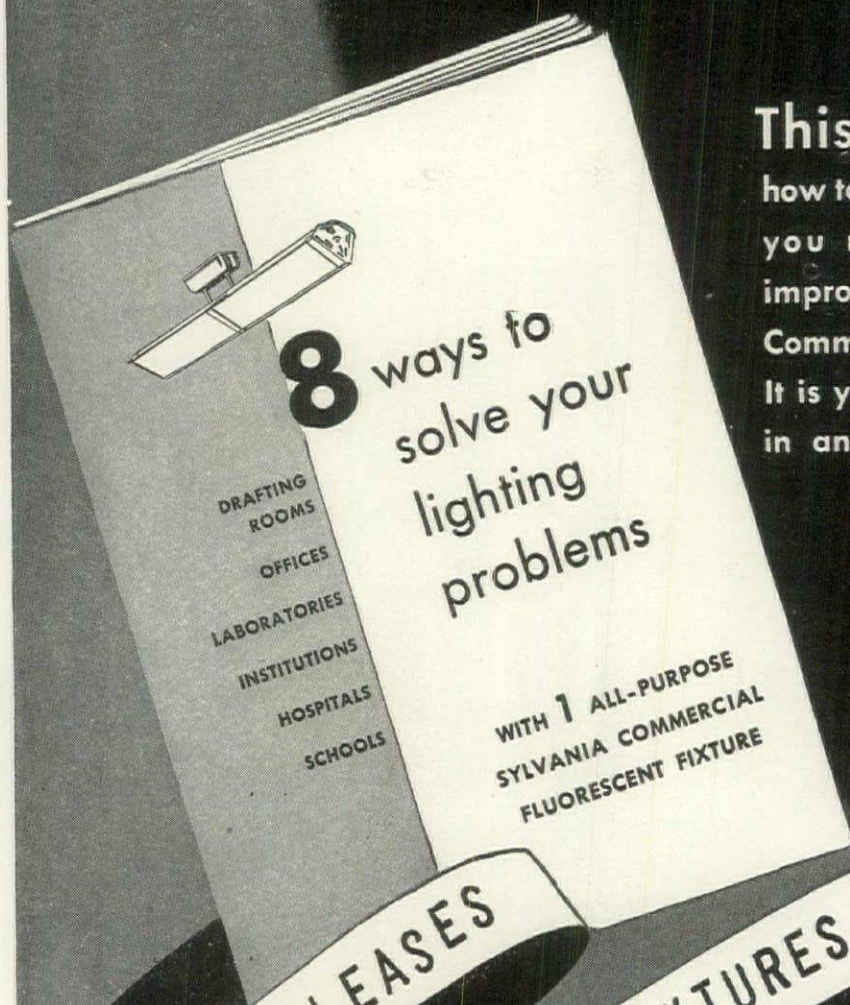
will—there’s one material that will do more things well—and one brand of plaster that has a way of doing jobs better—that’s Red Top*.

*Trademark Reg. U. S. Pat. Off.



UNITED STATES GYPSUM
300 WEST ADAMS STREET, CHICAGO, ILLINOIS

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



This booklet tells you how to get *all* the fluorescent light you need with the new and improved Sylvania All-Purpose Commercial Fluorescent Fixture. It is yours for the asking. Just fill in and mail the coupon below.

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FLUORESCENT FIXTURES FOR

OFFICES--DRAFTING ROOMS, ETC.

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Ipswich, Mass.

INCANDESCENT LAMPS, FLUORESCENT LAMPS, FIXTURES AND ACCESSORIES, RADIO TUBES, CATHODE RAY TUBES, OTHER ELECTRONIC DEVICES



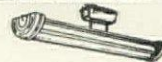
SYLVANIA ELECTRIC PRODUCTS INC.
Dept. AF-1 Ipswich, Mass.

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COMPANY _____

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prepared by an architect for architects ...

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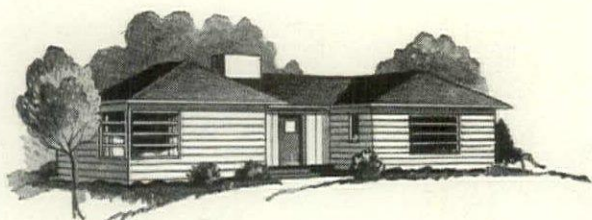
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(give Street Number or P. O. Box No.)

City _____ State _____

SCHOOL WINDOWS

AF 24



The Home of Tomorrow should have this **APPROVED** **INSULITE WALL** **OF PROTECTION**

The walls of the homes of tomorrow will face added demands—the demands that modern air-conditioning will place upon them.

Moisture condensation within the walls will present a serious problem unless avoided when the walls themselves are built.

The Insulite Approved Wall of Protection will help solve this problem for you. With this wall, you give your clients:

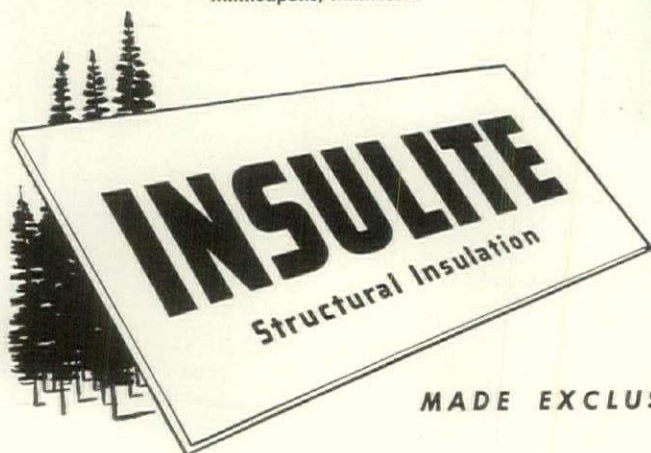
- *Walls of Double Insulation.*
- *A wall of superior bracing strength.*
- *A wall protected against internal moisture condensation.*

The complete story of the Insulite Approved Wall of Protection will interest you. Write today for complete technical information. Address Insulite, Minneapolis, Minnesota.



INSULITE

Division of Minnesota and Ontario Paper Company
Minneapolis, Minnesota



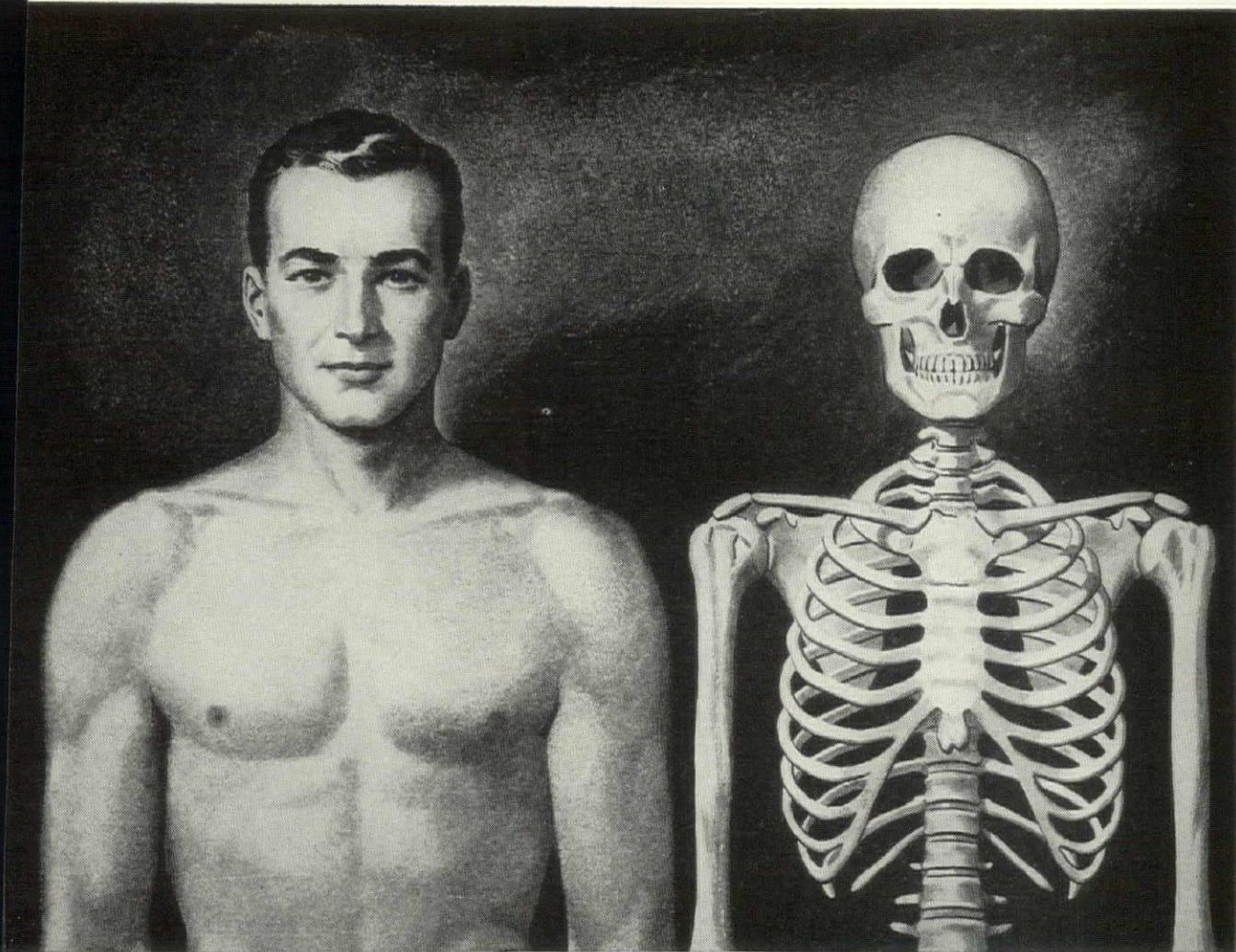
MADE EXCLUSIVELY FROM WOOD



On outer walls, Insulite Bildrite Sheathing. The large boards provide a wind-proofed, water-proofed, weather-tight wall. Bildrite Sheathing has a bracing strength four times that of wood sheathing, horizontally applied.

On inner walls—Insulite sealed Lok-Joint Lath, furnishes a second wall of insulation. The patented "Lok-Joint" provides a strong, rigid plastering surface, prevents joints from opening under trowel pressure.

How moisture condensation is eliminated in the Insulite Approved 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.



Lesson in "Woodatomy"

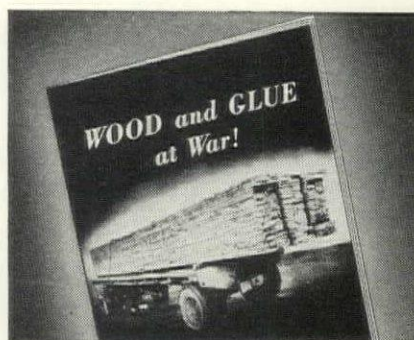
BOATS, aircraft, buildings, refrigerators, and other cabinet-like constructions have two elements in common with the anatomy of man: An outer covering—over a structural framework.

Here lie great potential opportunities for wood in its modern form—*glued* to its best advantage.

Plywood is the covering. It can be durable, to withstand extremes of exposure. It can be of any thickness, to suit weight and strength requirements. It can be molded to almost any shape, and finished with unmatched beauty.

Laminated wood is the framework. It, too, can withstand vibration, heat, water. It can be made, economically, to specified curves and shapes and in unlimited size. Its multiple layers provide strength and stability far above those of solid-wood members.

Keep this in mind: Plywood for the "skin", laminated wood for the "bones". Have your engineers start now—to draw plans for the new wood products you will build after the war. We shall be glad to help you work out the gluing methods.



HOW TO SPECIFY A GLUE

First, determine all hazards the product may encounter. Then, (1) Call in one of our Technical Service men, or (2) Write us for advice, describing your needs, or (3) Write for "Wood and Glue at War", a general description of modern glues and their use—and the chart, "Glue Recommendations for 57 U. S. Government Specifications", which details the durability of these glues in terms of standard tests.

Address: Casein Company of America, Dept. AF244, 350 Madison Avenue, New York 17, N. Y.

CASEIN COMPANY OF AMERICA • A Division of The Borden Company • NEW YORK, N. Y.

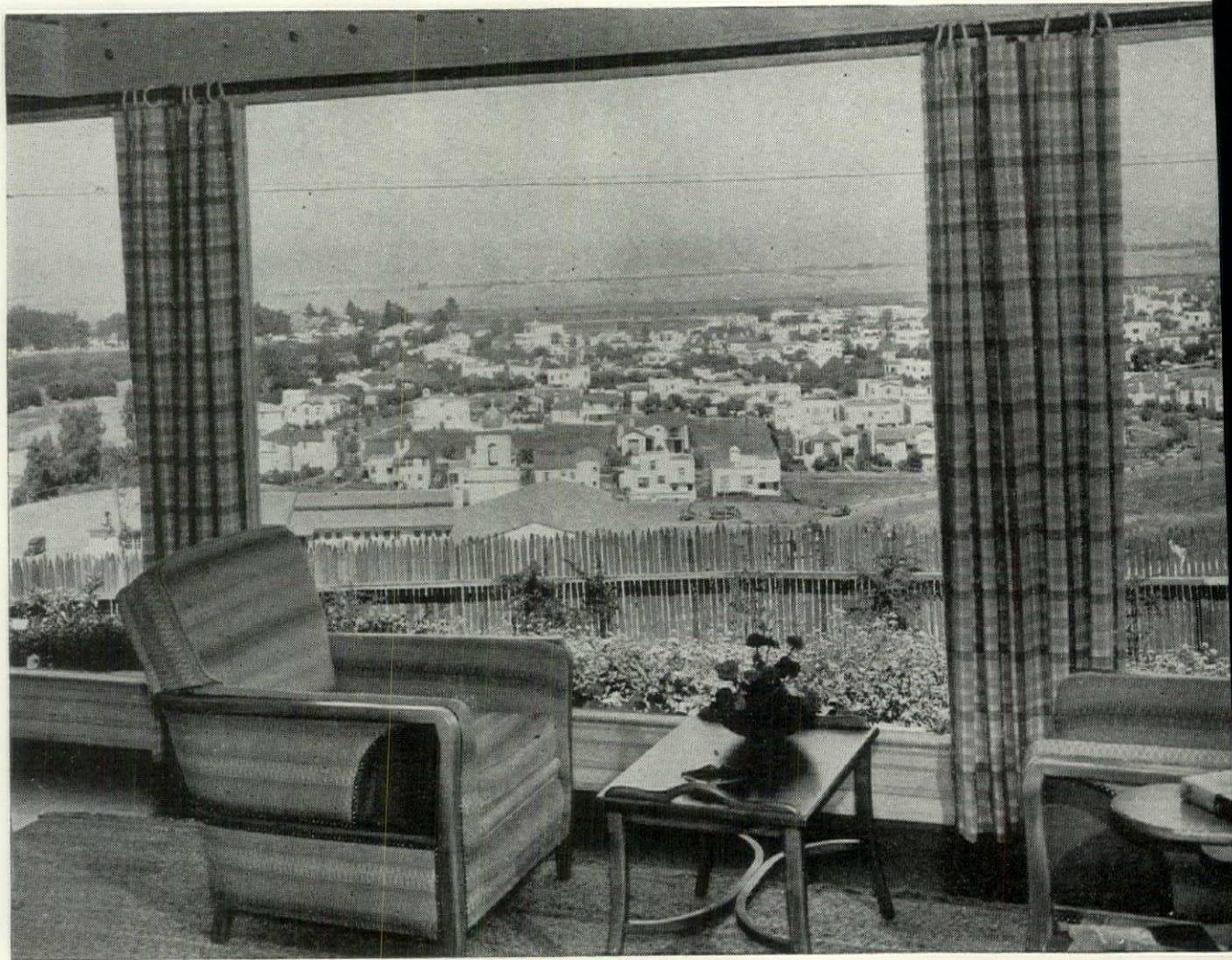
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Glues for Industry



From the House on the Hill to Smaller Homes Post War

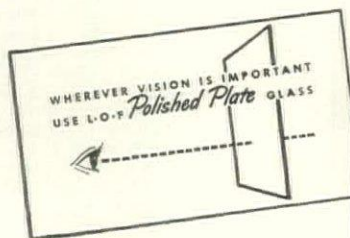
DAYLIGHT ENGINEERING WITH GLASS

Many of the living features of the more expensive homes today will be enjoyed in tomorrow's smaller homes.

Daylight Engineering can and will be one of these features. The larger windows that brighten rooms and make them more spacious in appearance . . . the attractive picture windows and corner windows that make interiors so much more decorative and livable . . . glass partitions and mirrors that help do away with dark corners and hallways . . . these are features of *Daylight*

Engineering that prospective home builders definitely want. And they are features that builders of new homes will find it within their practical means to enjoy.

For postwar homes there will be a new Libbey-Owens-Ford Glass for windows, as well as high quality plate glass for mirrors, structural glass for wainscoting and work surfaces, and Blue Ridge Glass for partitions and many decorative uses. Libbey-Owens-Ford Glass Company, 924 Nicholas Building, Toledo 3, Ohio.

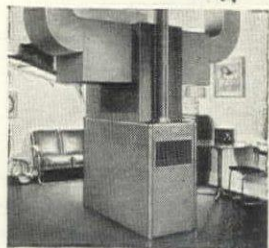
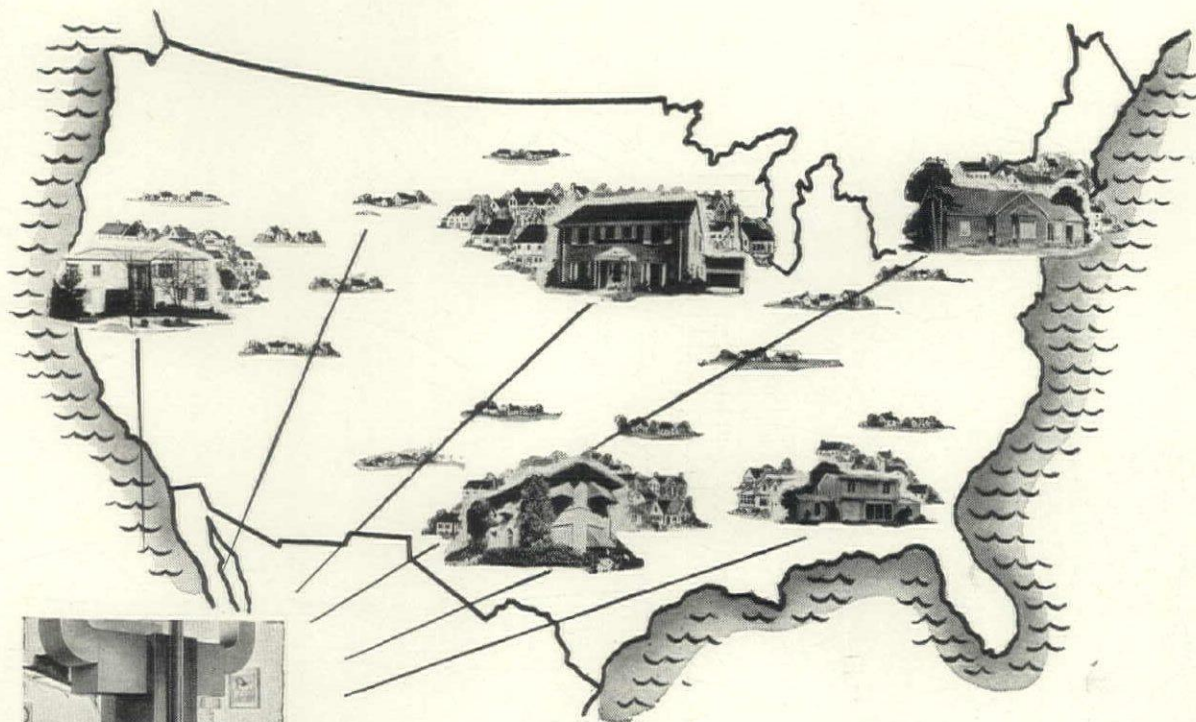


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A GREAT NAME IN *Glass*

Acclaimed . . .

in 300 test installations!



SERVEL'S NEW ALL-YEAR GAS AIR CONDITIONER

***Heats and cools with one unit**

It's the Next Essential for the Home of Tomorrow

You don't have to guess how post-war home-owners and builders will receive Servel's new *All-Year Gas Air Conditioner*. It's already been tested in 300 homes and some types of commercial buildings all over the country. And users everywhere are enthusiastic about the amazing, year-round comfort afforded by this latest development in air conditioning.

Here are some typical comments: . . . "We believe all modern houses in the future will be equipped with it." . . . "Everything your company claimed for this equipment has certainly been fulfilled." . . . "We point with pride to our good fortune in having it."

Yes, Servel's new *All-Year Gas Air Conditioner* has proved itself. And it will be ready for the homes your clients will want to build and modernize when peace comes. Production only awaits the release of capacity from war work.

*This Servel equipment cools and dehumidifies in summer, heats and humidifies in winter, cleans and circulates the air all year round. It offers, for the first time, all the advantages of indirect fired heating and absorption refrigeration in one easy-to-operate, complete air conditioner.

For full information about Servel's *All-Year Gas Air Conditioner*—"The Next Essential for the Home of Tomorrow"—write Servel, Inc., Evansville 20, Ind.

SERVEL GAS REFRIGERATORS are standard equipment in the nation's finest apartment houses.

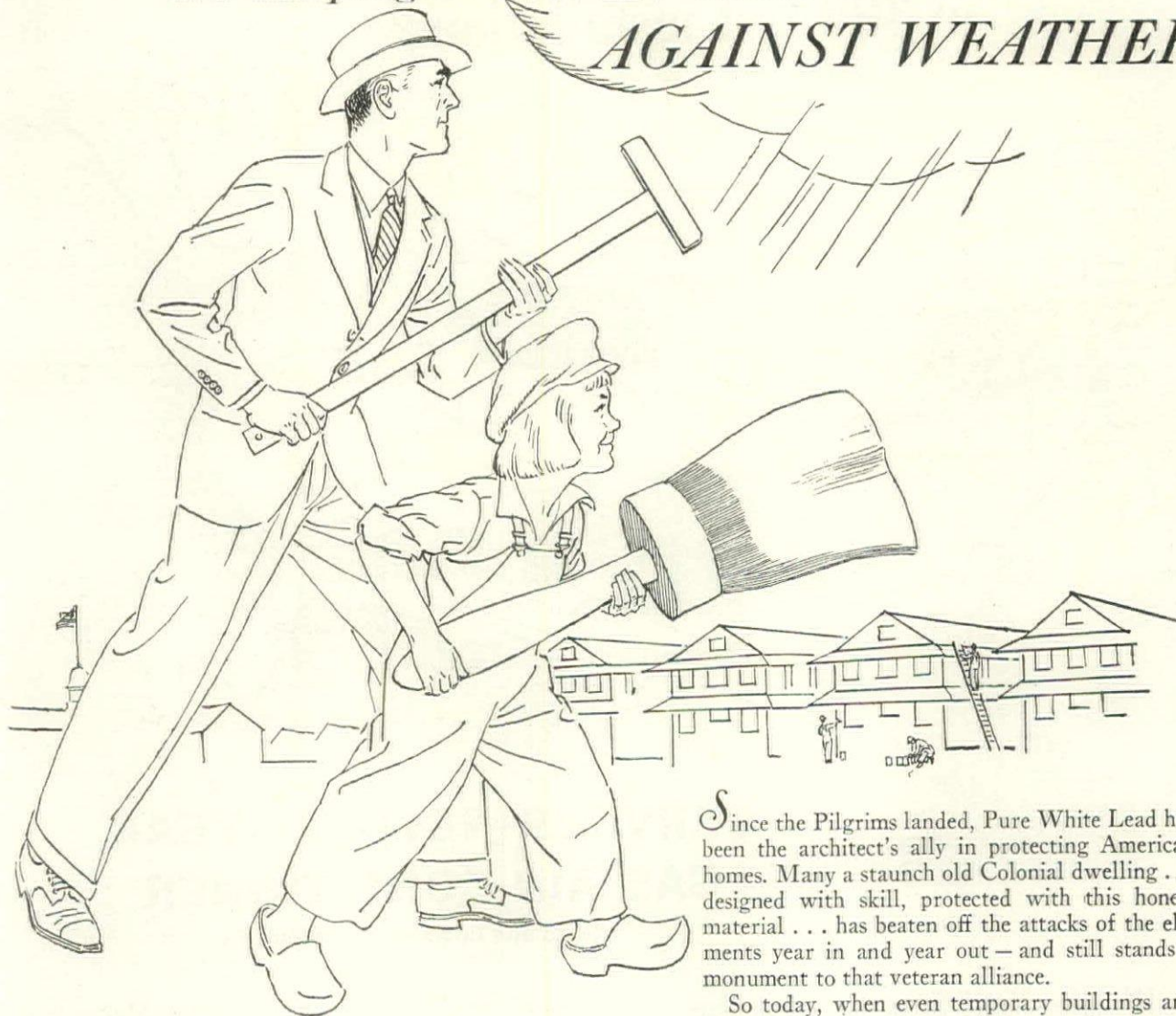
SERVEL Inc.



America's Leading Makers of Modern Gas Appliances

2 Veterans who
are Helping...

WIN THE WAR AGAINST WEATHER!



Since the Pilgrims landed, Pure White Lead has been the architect's ally in protecting American homes. Many a staunch old Colonial dwelling... designed with skill, protected with this honest material... has beaten off the attacks of the elements year in and year out — and still stands a monument to that veteran alliance.

So today, when even temporary buildings and barracks must stand up to the enemy elements, it is not surprising to find the Architect and Pure White Lead teamed up as usual.

And today the Architect recognizes in Dutch Boy, pure white lead at its stubborn best. Experience has shown him it makes paint that not only hugs tight and lasts long but doesn't crack and scale. Paint that not only does its work well but saves his customers the expense of burning and scraping when repaint time finally rolls around.

Thus, when an Architect specifies Dutch Boy Pure White Lead, he has a two-fold reason why it is his "First choice for making things LAST!"

* * *

Today, Dutch Boy is available not only in the long-familiar PASTE form but also as the new ready-to-use Dutch Boy Pure White Lead PAINT. This comes in two special forms: (1) Exterior Primer for a first coat with extra sealing, hiding and covering power and (2) Outside White for an unusually durable finishing coat or for general painting. Together they set a standard for two-coat protection—even on new wood!



PASTE OR PAINT

Specify

DUTCH BOY PURE WHITE LEAD

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

New! Improved!

FACTRI-FIT

DOUGLAS FIR DOORS

Improved appearance! Modern and beautiful, these NEW Douglas Fir Interior Doors feature basic 3-panel designs that home owners will applaud.

Improved features! FACTRI-FIT doors are PRE-FIT at the factory—trimmed—ready to hang. Scuff-stripped, too, for protection in handling.

If desired, FACTRI-FIT Interior Doors may be specified COMPLETELY machined—gained and mortised by high-speed precision tools that assure a correctly fitted door. Savings on the job more than offset the slight additional cost.

Durable, architecturally pleasing, easier to install—Douglas Fir FACTRI-FIT Interior Doors and famous TRU-FIT® Entrance Doors assure your client a lifetime of service and satisfaction.

*TRU-FIT Entrance Doors are available in 27 distinctive designs. Write for catalog showing TRU-FIT doors and complete line of FACTRI-FIT Interior Doors.

No sawing to length. FACTRI-FIT doors are precision-squared by high-speed saws in the door factory. Quick and easy to hang.

Every FACTRI-FIT door comes with scuff-stripping for complete handling protection. Strips are easily removed by carpenter when hanging door.

OLD

Yesterday's doors had to be trimmed to size on the job with slow hand tools. Jobs were costly, often unsightly. How different it is today!



NEW

Today's FACTRI-FIT doors are prefit, may be ordered mortised for locks and gained for hinges as well. Save time and money on every installation.



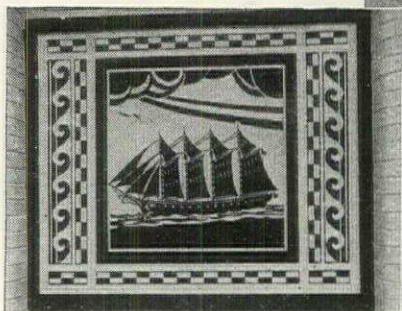
FIR DOOR INSTITUTE
Tacoma Building, Tacoma, Wash.

Remember!
NATURE MAKES
DOUGLAS FIR
Durable!

Durable Douglas Fir Doors are made from all-heartwood, vertical-grain, soft, old-growth Douglas Fir.

Seamen's Institute, Brooklyn, N. Y., →
Henry V. Murphy, Architect. Sand-
blasted Black Serpentine spandrels
on street sides of building show ap-
propriate maritime subjects.

Close-up of one of the deco-
rative Black Serpentine spandrels,
Seamen's Institute.



Chesapeake and Potomac Telephone Company Build-
ing, Baltimore, Md., Taylor and Fisher, Architects. Note
sand-blasted Black Serpentine spandrels in lowest row.

Close-up showing use of sand-blasted
design for contrast and enrichment.

Sand-Blasting Opens NEW VISTAS of Decorative Utility for BLACK SERPENTINE

The wide range decorative possibilities in sand-blasted ALBERENE Black Serpentine is demonstrated in the spandrels, designed for Catholic Seamen's Institute, Brooklyn, N. Y., Henry V. Murphy, Architect, and those for Chesapeake and Potomac Telephone Company Building, Baltimore, Md., Taylor and Fisher, Architects. These are typical of the many new treatments and interesting finishes that ALBERENE has developed for the enrichment of current and post-war buildings.

Wherever design calls for stimulating contrasts or accents, Black Serpentine is

preeminent . . . a most practical choice from the standpoints of economy and availability. So dense and tough is this stone that it may be cut as thin as $\frac{7}{8}$ ", and its durable polish is lustrous but non-reflective.

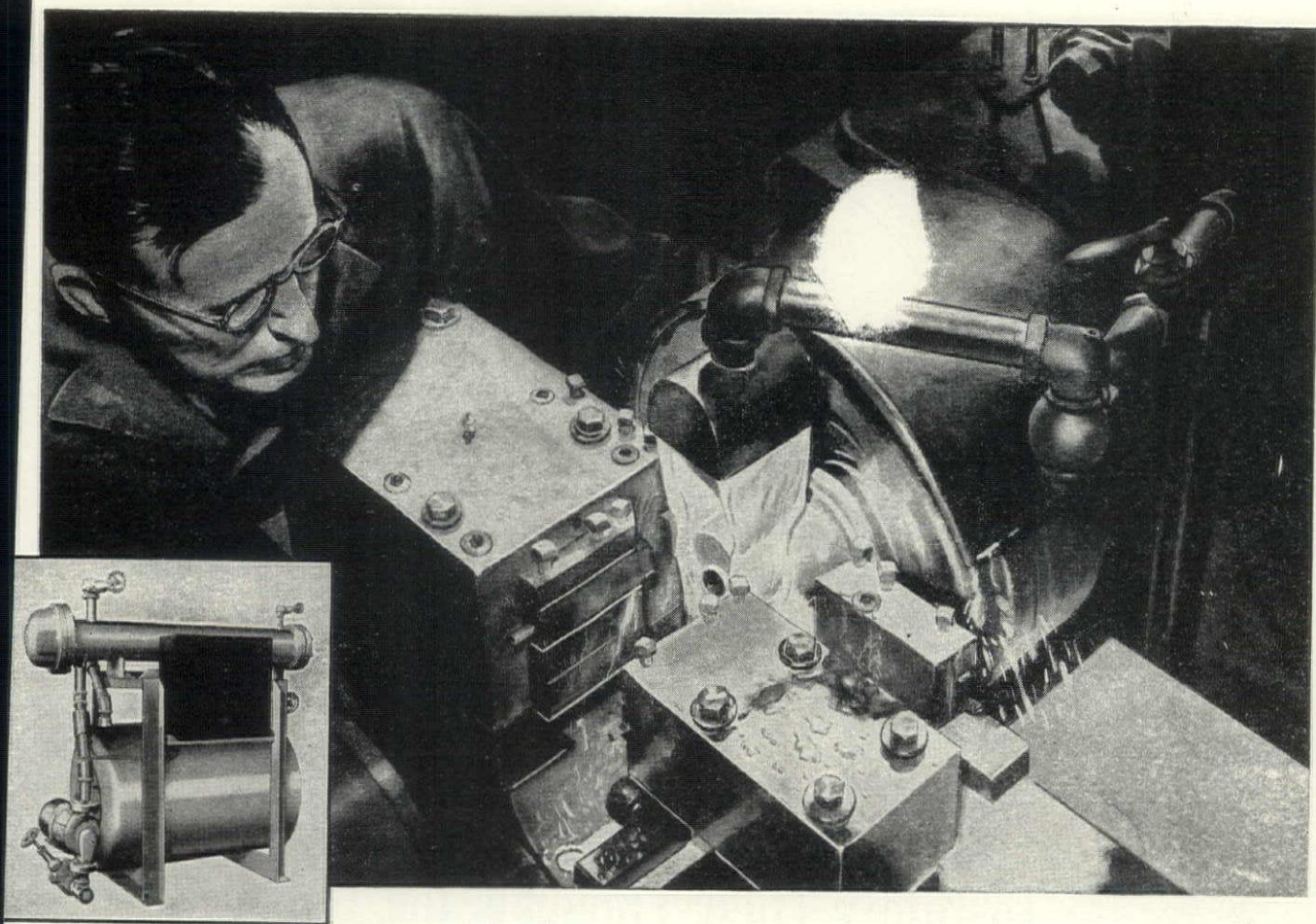
A request on your business letterhead will bring samples, conveniently boxed, of Black Serpentine, Tremolite Green and our mottled blues and greens. Please address Alberene Stone Corporation of Virginia, 419 Fourth Avenue, New York 16, N. Y. Quarries and Mills at Schuyler, Virginia. Sales offices in principal cities.



Alberene

BLACK SERPENTINE

PERMANENT, NON-REFLECTIVE, ECONOMICAL



The machine that does for oil what Pasteur did for milk

TRANE manufacturing engineers, skilled in the principles of heat exchange—have designed and built the new Trane Oil Pasteurizer. It is now possible through the effective cleansing and pasteurization of cutting oils and coolants to protect the worker from industrial skin diseases caused by contact with infected oils.

By utilizing the heat from steam, this new machine pasteurizes oil in much the same way that milk is pasteurized. The oil, laden with dirt, dust and infectious bacteria, is filtered and then heated to 185° by means of a heat exchanger incorporated in the Oil Pasteurizer. The heat is maintained at this temperature until

pasteurization is accomplished. Then by reversing the heat transfer process, the oil is cooled by cold water and returned to the machine *clean, pasteurized, and ready for re-use!*

The Trane Oil Pasteurizer is another product of The Trane Company, manufacturing engineers of heat exchange equipment for heating, cooling, and air handling purposes. It is another example of how Trane is utilizing the principles of heat exchange not only to heat war plants, camps, and ships, but to improve and speed the processes of war production.



TRANE



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To Know Their Thoughts for Tomorrow WATCH WOODWORK!

They're dreaming of their home to be, of course—but their dreams are definite and practical. Actual surveys of thousands of home planners show that woodwork looms large in their thinking . . . because woodwork gives them exactly the things they want in the homes they plan to build. For example—

MORE WINDOWS—There's an increasing trend toward more windows in postwar homes. Bays, corner windows, window groups, hold the center of attention in many a home planner's thoughts. Windows of Ponderosa Pine—available in stock sizes—help meet this desire for more windows with *economy* . . . enable you to design and build small homes that seem more spacious.

FUEL SAVINGS—People who have shivered through fuel shortages will demand the weather-tightness of wood in the windows they buy . . . windows that fit properly, and can be weather-stripped efficiently. Wood is a natural insulating material. Ponderosa Pine

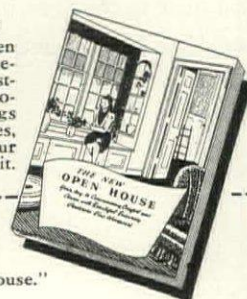
windows can be pre-fit for greater weather-tightness. And storm windows will be available for any stock size.

LASTING SATISFACTION—Ponderosa Pine Woodwork has proved its ability to give lasting satisfaction in the homes of America. Easily painted, durable, treated with toxic preservative for long service, doors, windows and woodwork of Ponderosa Pine provide lasting satisfaction.

MORE CHARM—For generations, home owners have associated the warmth and friendliness of wood with gracious living. Stock windows, doors and frames of Ponderosa Pine give that friendliness . . . plus authentic architectural styling . . . at low cost.

STOREHOUSE OF IDEAS!

This booklet—"The New Open House"—is a veritable storehouse of ideas on planning postwar homes. It is full of photographs, diagrams and drawings of Ponderosa Pine doors, frames, windows and woodwork. Your copy is free—mail coupon for it.



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Please send me a free copy of "The New Open House."

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

MEMO FOR POST WAR PLANNING

Household operating and upkeep expenses come out of the same pocketbook as mortgage amortization payments. High-quality equipment, as supplied by General Electric, usually reduces monthly operating bills more than it increases monthly payments on the house . . . so actually it costs less to live better.

Remember, General Electric high-quality equipment will best serve the interests of your after-Victory clients or customers.

GENERAL  ELECTRIC

HOME BUREAU • BRIDGEPORT, CONN.



how's YOUR quota?



...YOUR 4TH WAR LOAN QUOTA

WHETHER your plant meets its quota, or fails, lies largely in your hands. Your leadership can put it over—but if you haven't already got a smooth running, hard hitting War Loan Organization at work in your plant, there's not a minute to lose.

Take over the active direction of this drive to meet—and break—your plant's quota. And see to it that every one of your associates, from plant superintendent to foreman, goes all-out for Victory!

To meet your plant's quota means that you'll have to hold your present Pay-Roll Deduction Plan payments at their all-time high—plus such additional amounts as your local War Finance Committee has assigned to you. In most cases this will mean the sale of at least one \$100 bond per worker. It means having a fast-cracking sales organization, geared to reach personally and effectively every individual in your plant. And it means hammering right along until you've reached a 100% record in those extra \$100—or better—bonds!

And while you're at it, now's a good time to check those special cases—*growing more numerous every day*—where increased family incomes make possible, and imperative, far greater than usual investment through your plant's Pay-Roll Deduction Plan. Indeed, so common are the cases of two, three, or even more, wage-earners in a single family, that you'll do well to forget having ever heard of '10%' as a reasonable investment. Why, for thousands of these 'multiple-income' families 10% or 15% represents but a paltry fraction of an investment which should be running at 25%, 50%, or more!

After the way you've gone at your wartime production quotas—and topped them every time—you're certainly not going to let anything stand in the way of your plant's breaking its quota for the 4th War Loan! Particularly since all you are being asked to do is to sell your own people the finest investment in the world—their own share in Victory!

**LET'S ALL
BACK THE ATTACK!**

This space contributed to Victory by
THE ARCHITECTURAL FORUM

This is an official U. S. Treasury advertisement—prepared under auspices of Treasury Department and War Advertising Council.

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Heat Exchange Surface

ALL STEEL COILS

CONSTRUCTION

● **TUBES**—Heavy .049" wall thickness low carbon steel-seam welded tubes—offset to expand or contract under all temperature changes. Protected with a coating of solder over the exterior surface.

● **FINS**—are of low carbon steel spirally wound around the tubes in such a manner as to secure the maximum contact between prime and extended surfaces. Fins are protected with a coating of solder which also forms a *permanent metallic* bond between fin and tube. No falling off of transfer with usage due to loosening of the bond between fin and tube. Different spacing of the fins on the tubes makes available varying temperature ranges and thus permits accurate selections to meet the requirements of the engineer.

● **HEADERS**—of large diameter pipe insure adequate steam supply. All connections are male pipe thread.

● **TUBE JOINTS**—are made between tubes and headers by brazing.

● **ORIFICES**—in the inlet end of each tube insure equal distribution of steam through all tubes.

● **CASINGS**—are of heavy gauge steel and have the same standardized dimensions as copper Aerofin Flexitube coils.

● **TYPES OF SURFACE**—steel Flexitube heating coils are available in three fin spacings and in one or two rows of tubes in depth, allowing a wide range of selection to meet temperature rise requirements.

Write for complete technical literature on your specific problem.

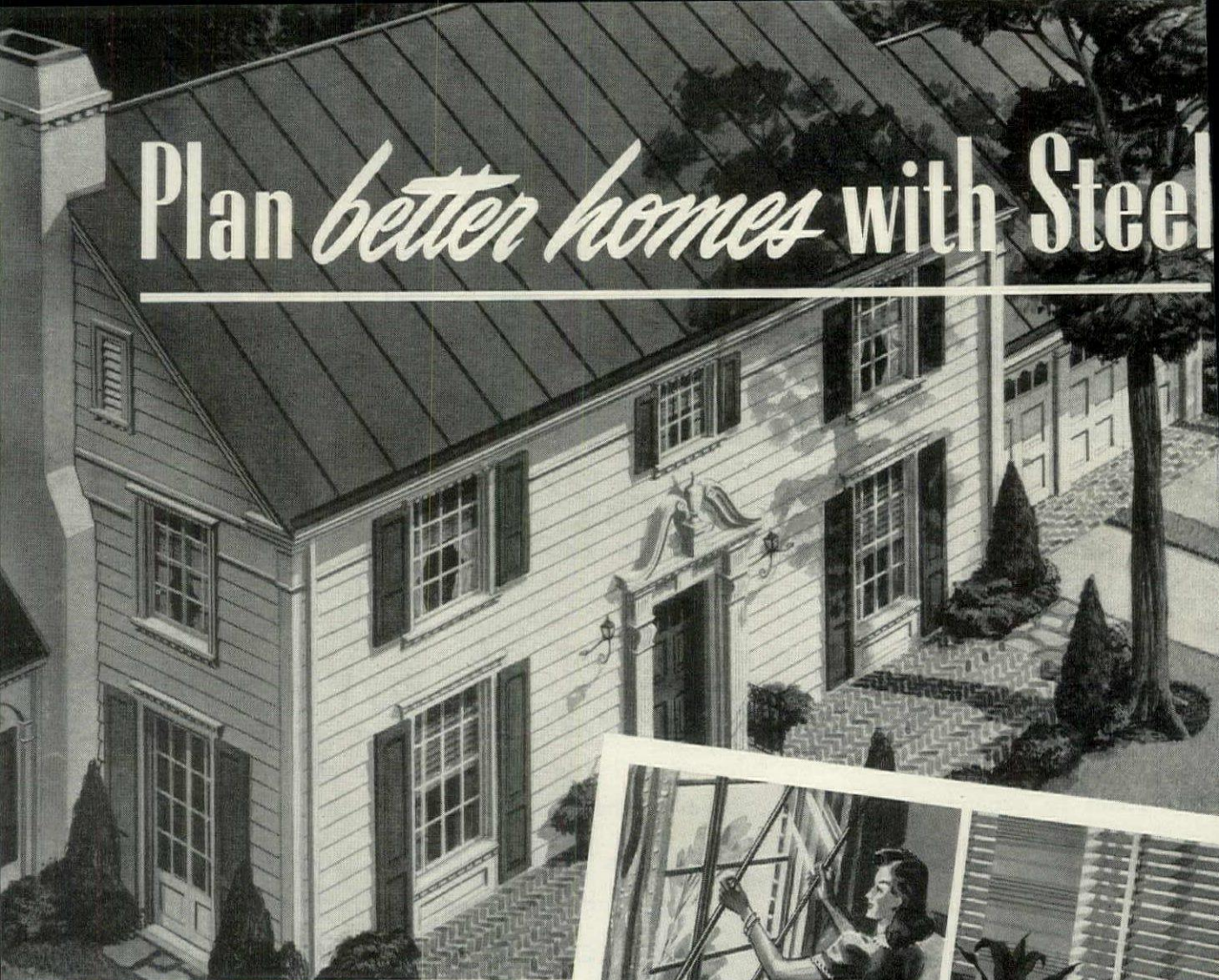
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WHETHER your clients lean to the modern or adhere to the conventional type of home design, you can show them how the use of steel products in home construction provides more comfort, convenience and durability—for less money.

Steel structural members, roofing, stairs, closets, cabinets and fabricated equipment for bathrooms, kitchens, and laundries—the latest improvements in heating, ventilating and air conditioning, in insulation, protection from termites, vermin and fire hazard—all can be had at reasonable cost, manufactured from the right sort of steel sheets.

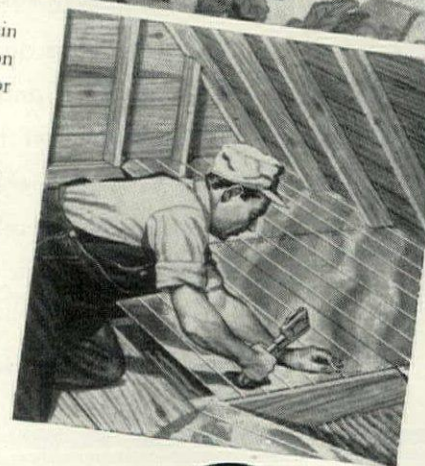
For your convenience, we have assembled complete information upon the U·S·S Steel Products most frequently used in home building. It will pay you to read carefully our illustrated brochure, "85 Ways to Make a Better Home." We shall be glad to forward your free copy—without obligation, of course—upon request.



STORM WINDOWS of steel help maintain comfortable temperatures, save on heating costs. They can be installed or removed in a few minutes.



VENETIAN BLINDS of steel are beautiful as well as practical. The smooth, colorfully enameled surfaces won't warp—are easy to wipe clean.



Ferro-Therm STEEL INSULATION does not pack or settle, is stapled permanently in place. It resists heat, cold, fire, vermin and termites.

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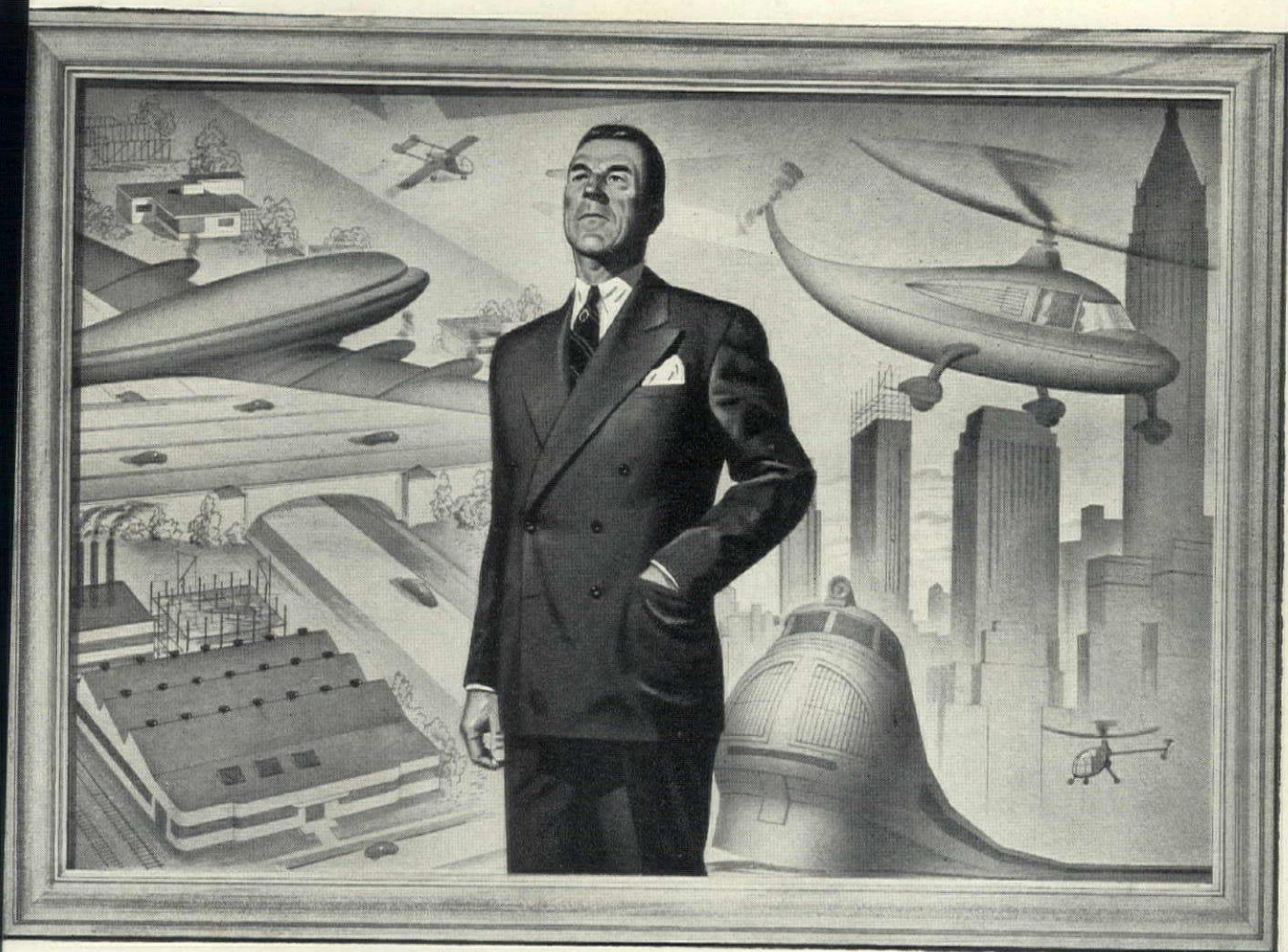
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UNITED STATES STEEL



where will I stand **IN THE POST WAR PICTURE?**

Will I be at the head of the parade or will competition have the edge?

For many it depends greatly on how fast the "change-over" to the manufacture of peacetime goods can be made and how quickly new plant construction or modernization can be started and completed.

If your plans call for any new construction or plant conversion or modernization, get your plans and specifications ready now.

Planning will be a bottle-neck if it is put off too long—the bottle-neck for peacetime prosperity for industries as well as individuals. Call in your architect, engineers and general contractor. This is blueprint time!

A general contractor who is an AGC member is reliable, and competent, and can give valuable assistance to your architect and engineers as well as construct your project efficiently and with economy.



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SKILL, INTEGRITY AND RESPONSIBILITY IN THE CONSTRUCTION OF BUILDINGS, HIGHWAYS, RAILROADS AND PUBLIC WORKS



"I believe post-war building demands better results . . . therefore I will specify MINWAX Wood Finishes"

Owners are "expecting things" of post-war building—better things—better results.

It becomes the architect's job to select them—to weed out the unsatisfactory—to avoid the untried, unproven dream—to select the proved, better way to a better result.

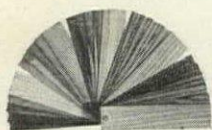
MINWAX Wood Finishes, while "new" to many home owners, have proved their superiority over the more generally known "surface finishes"—proved it to hundreds of architects before the war and on literally hundreds of projects during the war. Here, in a nutshell are the —

FACTS ABOUT MINWAX FLAT FINISH

- the original penetrative finish
- seals, protects and preserves
- finish does not mar, scratch or powder
- with ordinary care maintains its beauty for the life of the wood
- in clear and 10 non-lapping colors

For complete information, see Sweet's or write for—

ARCHITECT'S COLOR FAN



Fan of wood panels showing the actual results of the various shades on the different woods sent free to interested architects requesting it on business stationery.

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11 West 42nd Street, New York 18, N. Y.

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BACK THE ATTACK — BUY MORE WAR BONDS

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WOOD FINISHES

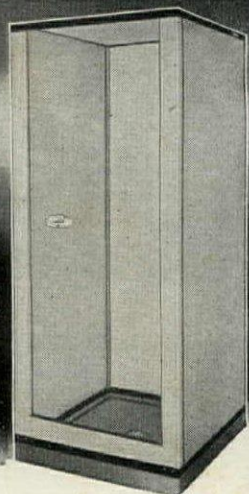
Floors • Paneling • Trim

OTHER MINWAX PRODUCTS

Waterproofings • Dampproofings • Caulkings • Protective Coatings

USING STEEL WHERE STEEL IS BEST

Bathe-Rite
SHOWER CABINETS



You Buy Right . . . When You Buy Bathe-Rite

Compare BATHE-RITE Shower Cabinet features! You'll quickly see obvious superiority in quality that works to your own and your customers' benefit . . . superiority proven in thousands of installations — building on a reputation already established through many years pioneering in prefabricated shower cabinets.

Some features are designed for the plumber and contractor — exclusive quick-assembly, time-and-labor-saving features, for instance. Others, like the STEEL-FRAMED construction, assure long-life service — and satisfied customers.

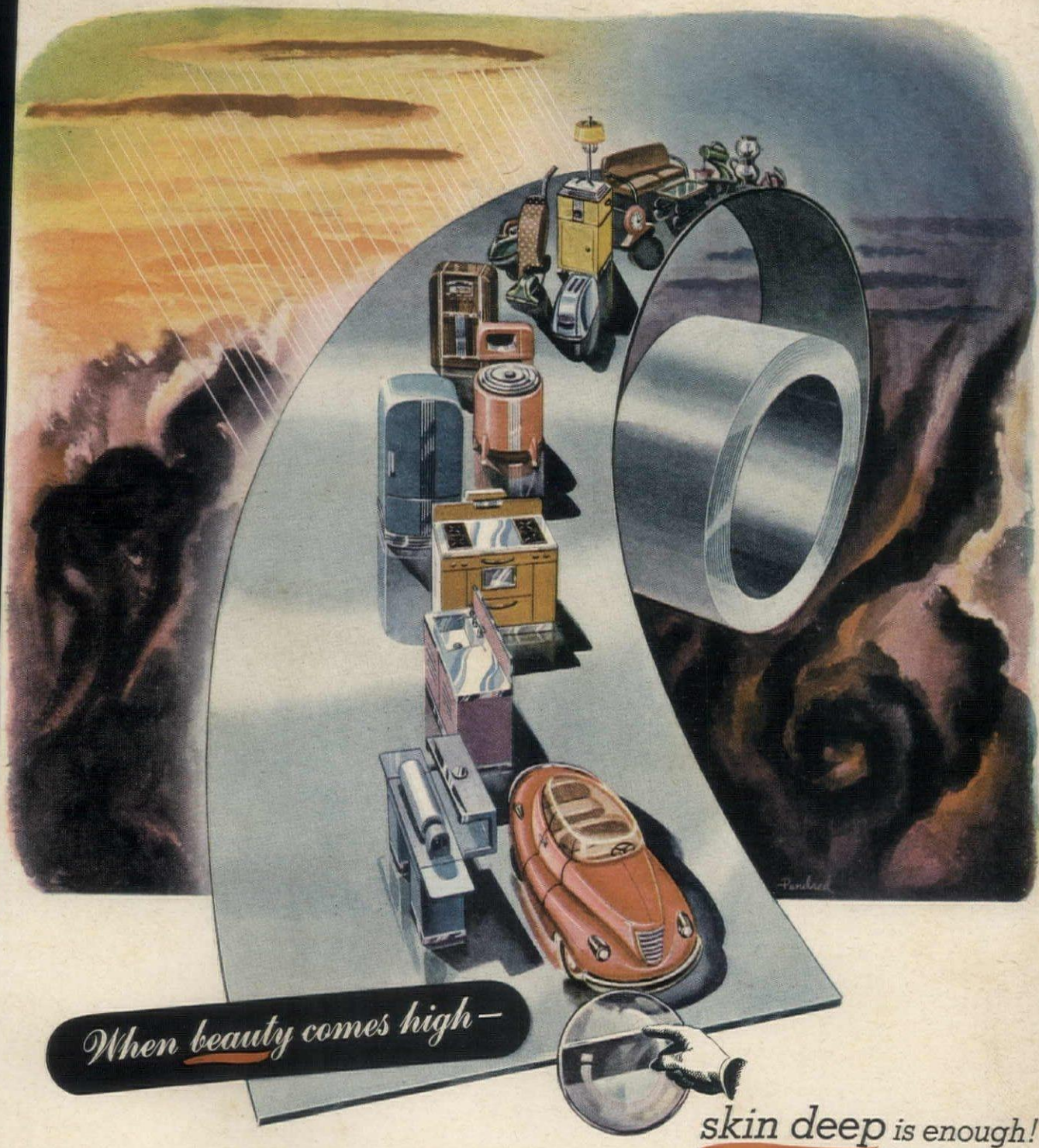
Check the many BATHE-RITE advantages when you're called on to supply modern bathing facilities in today's growing market. BATHE-RITE Shower Cabinets set today's standards, and comply with all government specifications. PROMPT DELIVERY — is another advantage in dealing with a thoroughly experienced, well financed organization.

WRITE OR WIRE FOR DETAILS. Give name of project and quantity required if possible.



Bathe-Rite
DIVISION

Milwaukee Stamping Company
827-S South 72nd Street
Milwaukee 14, Wisconsin



Wherever the *solid* is wasteful . . . wherever the beauty and corrosion-resistance of stainless, the colorful value of copper, the richness of silver, the wearing ability of special alloys are *surface* requirements . . . SuVeneer Clad Metal makes its post-war bid. *Strip steel, inseparably bonded with other metals—one side or both sides, in specified thickness.*

SuVeneer ®Trademark Reg. U. S. Pat. Off. CLAD METAL

Superior Steel
CORPORATION
CARNEGIE • PENNSYLVANIA

HEATING EQUIPMENT IS ALWAYS ESSENTIAL

During Peace and War U. S. Radiator continues to serve the needs of the nation



TTC
RADIANT WARMTH
US

U. S. Radiant Warmth from Sunray and ThinTube Radiators, recessed or enclosed, harmonize with charming period or modern interiors.

UNITED STATES RADIATOR CORPORATION

AND

PACIFIC STEEL BOILER DIVISION

Detroit, Michigan • Branches and Sales Offices in Principal Cities

Manufacturing Plants At:

Bristol, Pa. • Detroit, Mich. • Dunkirk, N. Y. • Edwardsville, Ill. • Geneva, N. Y. • Waukegan, Ill. • W. Newton, Pa.

Member The Institute of Boiler and Radiator Manufacturers • Member of Steel Heating Boiler Institute

Architect's drawing of commercial building combining sales rooms with manufacturing space. Lupton Metal Windows (Projected Type) are used.



For every type of building

The new Lupton Metal Windows are styled to meet the needs of every type building. For over forty years, Lupton Metal Windows have been giving service in schools, hospitals, office buildings, residences, apartment houses, municipal buildings and industrial plants throughout America.

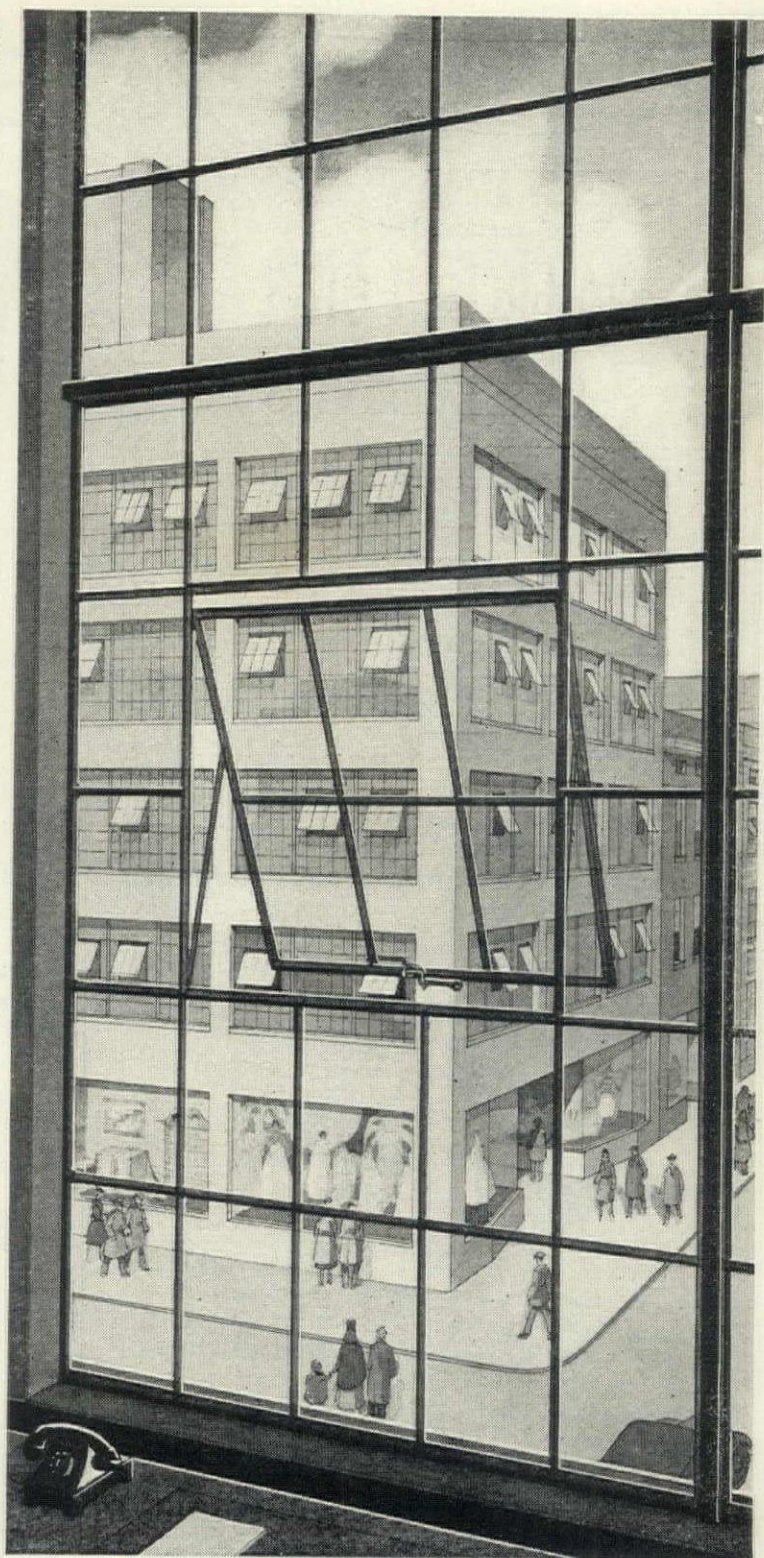
Low first cost and maintenance . . . Extreme weather-tightness . . . Easy operation . . . Simplified design . . . Maximum daylight . . . Improved ventilation . . . Rapid installation . . . These are just a few of the advantages of Lupton Metal Windows.

There's a Lupton Metal Window for every purpose. Save time tomorrow by letting Lupton help you plan today. Write for our free catalog.

Now Supplying Hangar Doors and Other Materials for the Armed Forces.

See our Catalog in Sweet's

MICHAEL FLYNN MANUFACTURING CO.
Allegheny Ave. at Tulip St., Philadelphia 34, Pa.



LUPTON METAL WINDOWS

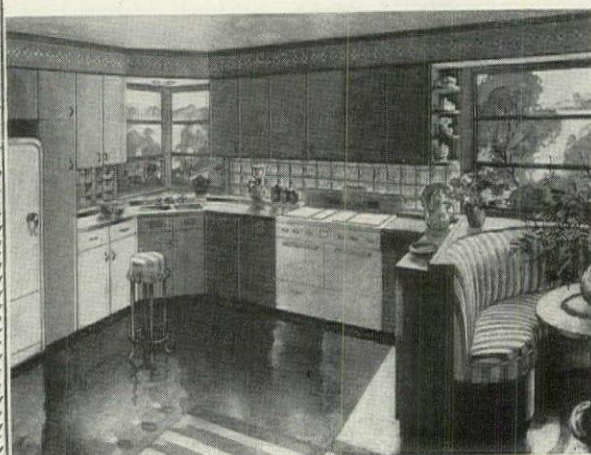
The Curtain Lifts on Tomorrow's Homes

Behind the scenes at Bilt-Well, events of interest to every architect are taking place daily. While production of war essentials goes steadily forward, our planners and designers are working toward the time when again we shall be privileged to present the complete Bilt-Well line to the designers and builders of America's homes.

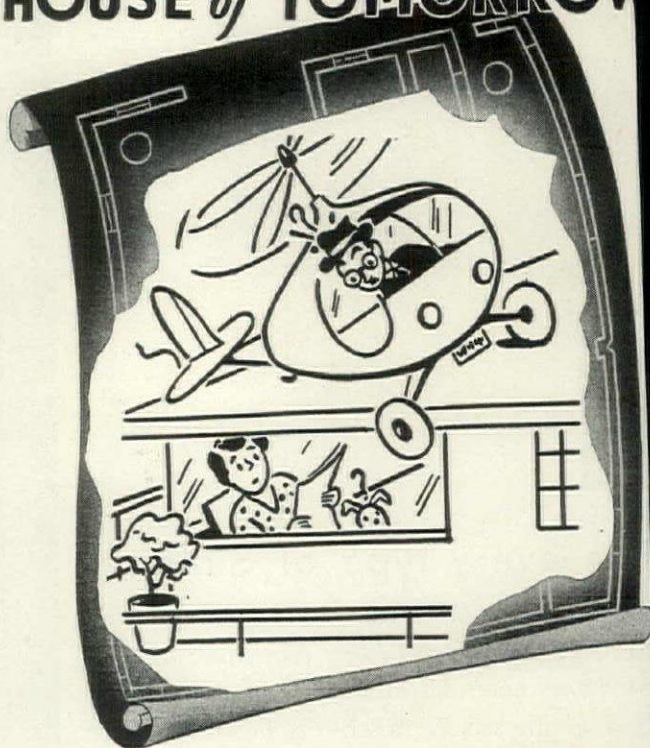


CARR, ADAMS & COLLIER CO.
DUBUQUE, IOWA

Bilt-Well Superior Unit Windows	Bilt-Well Nu-Style Kitchen Cabinets
Bilt-Well Colonial Front Entrances	Bilt-Well Colonial Mantels
Bilt-Well Clos-tite Windows	Bilt-Well Combination Doors
Bilt-Well Basement Windows	Bilt-Well Ironing Board Cabinets
Bilt-Well Carr-dor Garage Doors	Bilt-Well Bathroom Seats
Bilt-Well Lok-tite Trim	Bilt-Well Breakfast Nooks
Bilt-Well Stair Parts	Bilt-Well Medicine Cabinets
Bilt-Well Telephone Cabinets	



BLUEPRINTS FOR YOUR HOUSE of TOMORROW

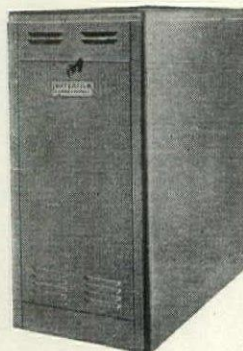


YOU MAY HAVE A LANDING FIELD ON YOUR ROOF.

Aviation progress may result in a private landing field for your plane.

BUT -

*Your Heating Plant will
be KOVEN WATERFILM*



DE LUXE MODEL
For Better Grade Homes

Tomorrow's home will have even higher standards of excellence than your home of today, and the question of perfect heating is answered by the unit incorporating the latest scientific improvements—the KOVEN WATERFILM BOILER. Its patented construction provides you with quick heat throughout the house, sustained room temperatures, and plenty of domestic hot water at all times. You'll find real economy of operation with KOVEN WATERFILM BOILER as it is the fastest steaming boiler on the market, and made for automatic firing with oil, stoker or gas.

Leading architects and builders recommend the WATERFILM BOILER for perfect heating comfort, for its smart design, and for giving you the most for your heating dollar. You'll find a WATERFILM BOILER for every type of home or factory.

WATERFILM BOILERS, Inc.

154 OGDEN AVENUE

JERSEY CITY, N. J.

PLANTS: JERSEY CITY, N. J. • DOVER, N. J.

18 MINUTES AND A SCREWDRIVER

—all that is required to assemble

FIAT'S *Volunteer*

The shower cabinet that was ready for quantity production when the government called for a durable war shower using a minimum of critical materials.

★ The Volunteer embodies the trim beauty characteristic of all Fiat showers and at the same time conforms to government regulations in the restricted use of steel. The Volunteer is approved and accepted by Army, Navy and Federal Housing Engineers for military and essential civilian use in cantonments, war housing projects and alteration jobs. One new construction feature incorporated in the Volunteer, is the spring tension corner joint that makes assembly on the job remarkably easy and also serves to give the rigidity and strength essential to a good shower cabinet. The non slip, precast, reinforced concrete receptor is a time tested Fiat product that has proved its advantages on thousands of installations. The walls are constructed of tempered, hard-pressed, treated, fibreboard finished with a baked-on enamel.

The Volunteer is a truly prefabricated shower cabinet. The pilaster columns are permanently fastened to the front of the side panels at the factory. The spring tension joints in the rear are fastened to the back panel wall before shipping. Only a few self threading metal working screws placed in holes punched in the side walls are required to complete the fastenings.

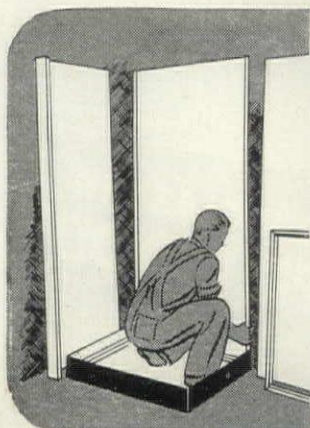
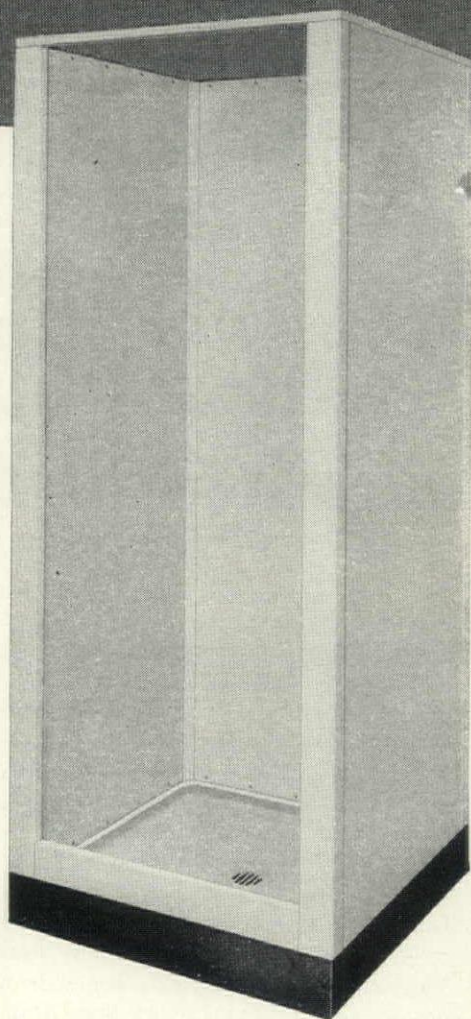
The Volunteer is available on adequate priorities through plumbers.

FIAT METAL MANUFACTURING COMPANY

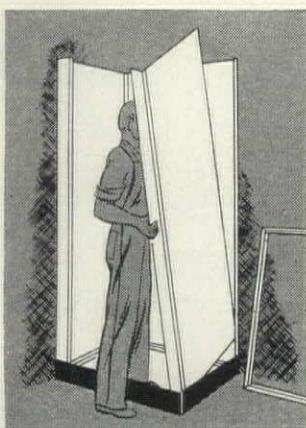
1205 Roscoe St., Chicago, Ill.

21-45 Borden Avenue, Long Island, New York

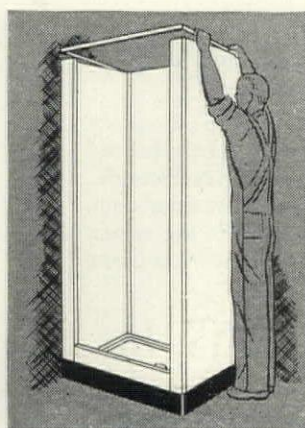
32 So. San Gabriel Blvd., Pasadena, Calif.



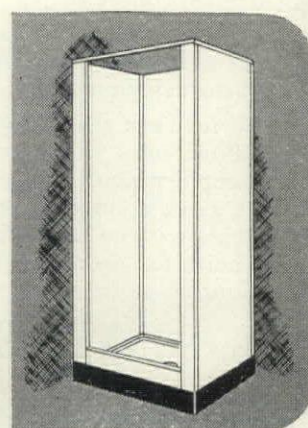
5 MINUTES—Mechanic is shown putting enameled fibreboard back panel in place on receptor.



11 MINUTES—Side panel is snapped into place in tension joint, attached to back panel at factory.



15 MINUTES—Mechanic puts one-piece top in place. Front stiles are attached to side panels at factory.



18 MINUTES—With the installation of a few screws job is done. Shower stall completely assembled

SONNEBORN'S

LAPIDOLITH LIQUID

Patented
Concrete Hardener
and Dustproof

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

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

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

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

The new patented features found only in Lapidolith assure even greater effectiveness—deeper penetration, and greater hardness.

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

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

Write Dept. F10 today for the free booklet, "Concrete & Lapidolith," with a Lapidolized sample which is suitable for a paperweight. It gives accurate, factual performance data. It shows why Lapidolith Liquid is the wisest choice for protecting old and new concrete floors.

L. SONNEBORN SONS, Inc.

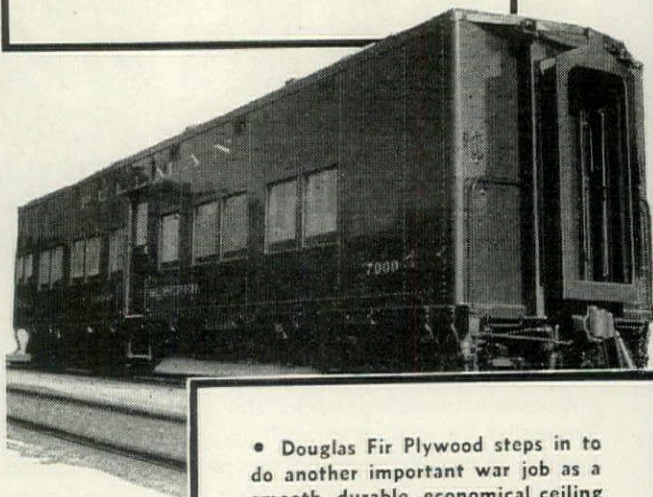
SECTIONS 5 17
21 18
88 LEXINGTON AVENUE
NEW YORK, N. Y.



Where Results Count—Count on Sonneborn

DOUGLAS FIR PLYWOOD

cuts cost of building
Troop Sleepers



- Douglas Fir Plywood steps in to do another important war job as a smooth, durable, economical ceiling and wall paneling for Uncle Sam's new-type Pullman troop sleeper.

- Designed to carry 30 fighting men in triple-deck berths, these cars were produced at a small fraction of a standard sleeper's cost . . . are the first in U. S. history to be built exclusively for carrying troops.

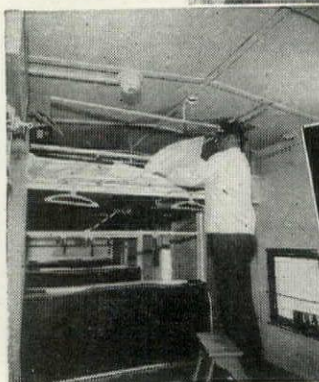
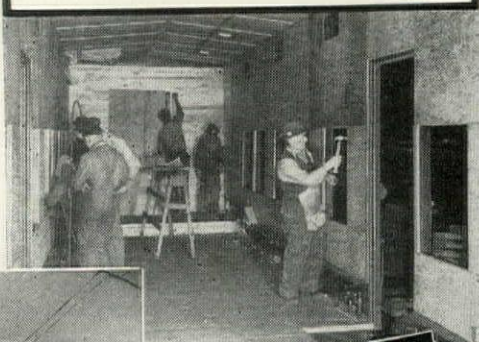
- Such war-time applications broaden the post-victory uses of versatile Douglas Fir Plywood. In YOUR future planning consider this modern miracle wood's many outstanding advantages. Write for information to Douglas Fir Plywood Association, Tacoma 1, Wash.

TO HELP SPEED VICTORY

the Douglas Fir Plywood Industry is devoting its entire capacity to war production. We know this program has your approval

- Workmen apply 3/8 inch Douglas Fir Plywood to the interior walls of the new Pullman sleeper.

- A Pullman porter makes up a berth on the sleeper. The new cars were produced at a rate of 12 to 18 a day. Emphasis was on comfort and efficiency.



**DOUGLAS FIR
PLYWOOD**

Real Lumber
MADE LARGER, LIGHTER
SPLIT-PROOF
STRONGER

POUND FOR POUND STRONGER THAN STEEL.



"I hope you don't mind, Mr. Floorwalker, if I spend the day here?"

Comfortable customers make critical tenants!

WHAT customers learn about air conditioned comfort in their favorite department stores (or restaurants or theaters) is creating a new set of values for judging the desirability of apartments, hotel rooms, store and office space. That's why this cartoon . . . reproduced from an advertisement carrying the story of G-E air conditioning to the retail executive readers of Chain Store Age, Retail Management, and Department Store Economist . . . has a message for architects and building management interests as well.

Far-sighted management groups—and the architects who work with them—are already planning to capitalize on the public's growing interest in air conditioning. Perhaps you too will want to investigate more fully its rental-stimulating features . . . to assist you in retaining present ten-

ants and attracting new ones in the keen competition of the post-war era.

G-E engineers will be glad to assist you in your planning. Remember that General Electric has *always* offered air conditioning users the advantages resulting from G-E's unified responsibility in the design of all important system components . . . from widespread servicing and installation facilities through authorized dealers and contractors. And *after* the war, G-E air conditioning equipment will offer still further advantages in greater economy, compactness, and flexibility.

General Electric Company, Air Conditioning and Commercial Refrigeration Divisions, Section 4132, Bloomfield, New Jersey.

☆ BUY WAR BONDS ☆

Air Conditioning by
GENERAL  ELECTRIC

Hear the General Electric Radio Programs: The "G-E ALL-GIRL ORCHESTRA", Sundays, 10 p. m., EWT, N.B.C., . . . "THE WORLD TODAY" News, Every Weekday 6:45 p. m., EWT, C.B.S.

Jeepers,—

THEY'RE EITHER TOO HOT OR TOO COLD!

A PROBLEM familiar to every architect and builder. But...
Cheer up, Junior! After the war, your family
can enjoy **PAYNE ZONE-CONDITIONING**

... successor to the old-fashioned central furnace. Dependable, economical gas heating and fresh air circulation, controllable by zones or individual rooms. ★ Not available now; we're producing for war. But before writing any post-war specifications, consult your PAYNE Dealer. ★ Meanwhile, let's all back the boys with Bonds.

PAYNEHEAT

NEARLY 30 YEARS OF LEADERSHIP



**GAS FUEL
HAS
EVERYTHING**

Payne

FURNACE & SUPPLY CO., INC.
BEVERLY HILLS • CALIFORNIA

Follow through

A GOOD BUILDING JOB



WITH THE BEST STAIN

Protect a building for years to come by using Cabot's Shingle Stains. They do not peel or blister even when used on green lumber. Leading architects have always used them to enhance a building's beauty. Today when war necessitates hurried construction, you can't gamble on materials. Rely on Cabot's Shingle Stains to beautify and protect them at minimum cost.



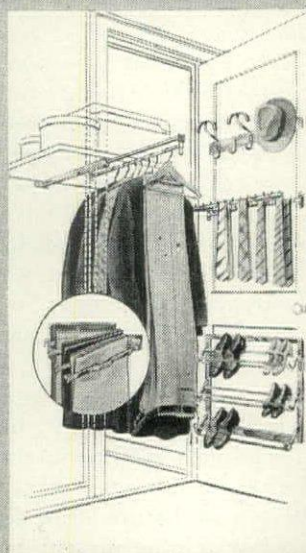
FREE BOOKLET — "Stained Houses" Informative, Illustrated. For your copy and color samples write to Samuel Cabot, Inc., 1266 Oliver Bldg., Boston 9, Mass.

CABOT'S SHINGLE STAINS

Creosote

Heavy-Bodied

WHAT DO PEOPLE WANT MOST IN THEIR POST-WAR HOMES?



**K-Veniences Double the Hanging
Space... Keep Closets
Always Shipshape**

92% want the latest clothes closer fixtures according to a recent survey. K-Veniences are the answer with over 40 metal fixtures (for all apparel) that double the hanging capacity of any closet. Also roller tracks for sliding doors, adjustable shelf supports and extension drawer slides. At Hardware and Building Supply Dealers *right after the war*. In the meantime, include K-Veniences in your plans and—

Buy More War Bonds!



KNAPE & VOGT MFG. CO.
GRAND RAPIDS, MICH.

Because there's a
Manpower Problem
at every **TURN**



Be Sure to
"TALK TOOLS" with

JOHN WATTS
Electrical Contractor

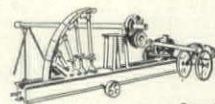
● IT'S JUST A TWIST of the wrist to the draftsman, but that curve in the entrance conduit can start the man-hours climbing and the work-schedule falling — if you overlook the importance of tools to modern electrical installation work.

Actually, the pipe bending method shown is completely obsolete with the well-equipped electrical contractor. One GRAYBAR customer, for example, has four hydraulic bending machines plus a specially designed unit of his own which will handle 4-in. conduit with ease.

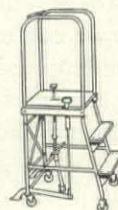
Electric welders, pipe threading machines, metal cutting bandsaws, mobile

elevator scaffolds . . . these are some of the tools that now regularly augment the pliers and the screwdriver, and the latter may be electric driven! JOHN WATTS has grown up with electrical construction.

Whether your plans cover a big public works project or just a few simple homes, it will *always* pay you to talk tools and installation techniques with an electrical specialist like JOHN WATTS. And all over the country, you'll find well-equipped electrical contractors keeping themselves well-equipped . . . via GRAYBAR.



Specially
built pipe
bender



"Mobiladder"
Scaffold



Greenlee
hydraulic
bender

Graybar

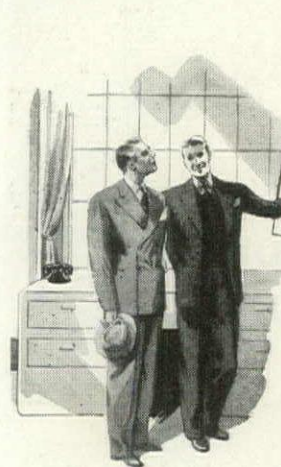
Executive Offices: Graybar Building, New York 17, N. Y.



Give Your Electrical Work to "John Watts"

a qualified electrical contractor—heading a well-established firm with the trained organization, tools and know-how to give you specialized assistance on wiring, lighting, signaling, power supply, electronics. From offices and warehouses in over 80 cities, GRAYBAR serves a nation of JOHN WATTS, helping them to help you by supplying the newest and best in electrical materials.

THIS BOOK gives the ANSWERS TO TODAY'S MOST PUZZLING QUESTIONS



How will tomorrow's homes be built? Who will build them? Who will sell them? How much more will the home-owner get for his money?

This new book deals with conventional construction, speculative building, prefabrication—and Precision-Building. Tells of the progress made under the impetus of War needs. Explains the aims of mass production when applied to house construction.

The home-owner learns how to plan and buy a home of any size, any type, anywhere—and to be sure of receiving sounder values for his money. The architect learns how he can maintain complete flexibility of design—while employing the advantages of engineering technique and mass production—and how he can handle even small homes at a profit. The builder learns how to eliminate "guess-timating" and make sure of his normal profit on every house—large or small. Real estate developers and brokers, building material dealers, department and furniture stores, chambers of commerce, banks and lending institutions—all find, in this book, suggestions as to how they can play a part in post-war housing—on a larger scale than ever before.

"Not houses, but Homes" was written largely to the prospective home-owner. Its primary aim is to clarify the differences between Homasote Precision-Built Construction and all other mass production methods of house-building. But its scope and interest are wide. We will welcome the opportunity to send you a copy.

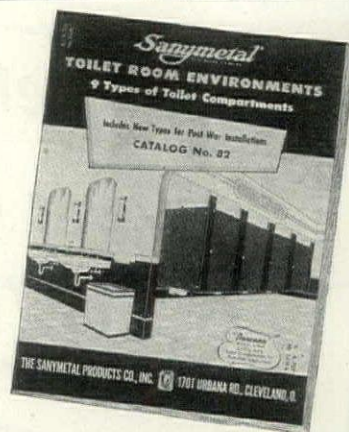
To date, \$8,000,000 of private homes and \$30,000,000 of Government housing have been built by Homasote Precision-Built Construction—always with local labor and the cooperation of local suppliers and contractors.

HOMASOTE COMPANY, Trenton, N. J.

6 Ways to Create Unusual

TOILET ROOM ENVIRONMENTS

Next to the entrance lobby, the greatest impression creators in most buildings are the most used rooms—the Toilet Rooms. Toilet Room Environment impresses more persons, either favorably or adversely, than any other one feature of a building. When planning postwar buildings, be sure to have this, the most complete catalog of Toilet Room Compartments ever issued, including the superb Sanymetal Hung-from-the-Ceiling "Porcena" (Porcelain on Steel) Toilet Compartments and many others—with complete formal specifications. Get your copy today. Ask for Catalog No. 82.



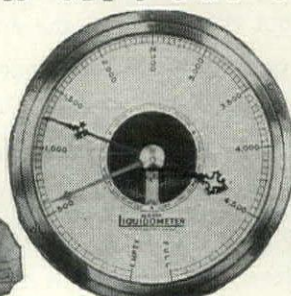
THE Sanymetal* PRODUCTS CO., INC.

1687 URBANA ROAD

CLEVELAND, OHIO

* TRADE MARK REG. U. S. PAT. OFF.

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.

This

permanent

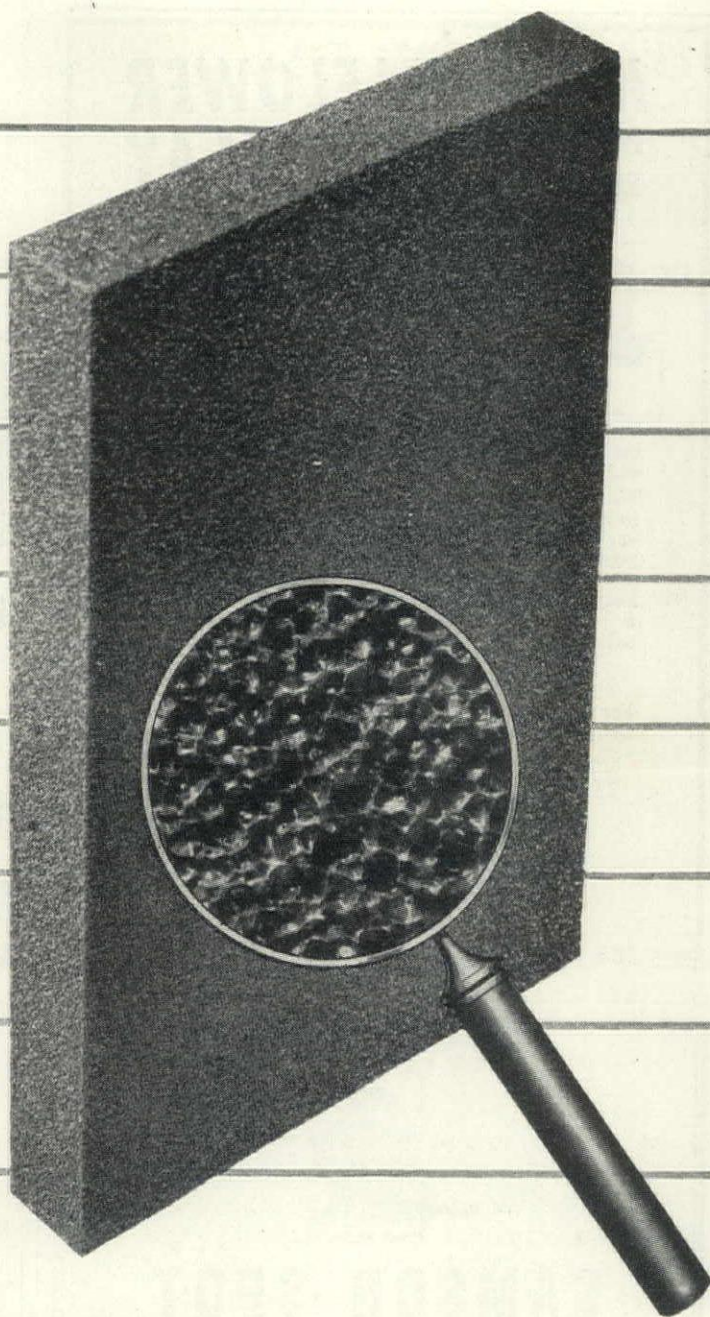
insulating

material

is

9 parts air

1 part glass



PC FOAMGLAS INSULATION is of cellular construction. It is impervious to the deteriorating agents which attack other insulating materials. Therefore, it retains its unique insulating qualities throughout the life of buildings in which it is installed.

Since it is glass, PC Foamglas is proof against moisture, vapors, acid fumes, vermin and fire. It is rigid,

durable, light in weight, easily installed and needs no maintenance.

When used on roofs, PC Foamglas has proved its ability to help maintain predetermined temperatures and desired humidity levels. In walls, floors, ceilings, partitions, insulated screens and shields, PC Foamglas also solves insulating problems in a wide variety of plants and other buildings. It comes in blocks 12" x 18", from

2" to 6" thick, packed in cartons.

We shall be glad to send you complete engineering data, charts and graphs which indicate where and how you can use PC Foamglas advantageously. Just fill in and mail the convenient coupon and your free copy of our new folder on PC Foamglas Insulation will be forwarded promptly. You incur no obligation.

PC FOAMGLAS

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

PERMANENT INSULATION

9 parts air · 1 part glass

MAIL COUPON TODAY

Pittsburgh Corning Corporation
2074-4 Grant Building, Pittsburgh 19, Pa.
Please send me, without obligation, your FREE literature on PC Foamglas.

Name _____

Address _____

City _____ State _____

NO WALLFLOWER IN THE WAR EFFORT IS... **BARCLAY**

THE PLASTIC-COATED WALL BOARD
FOR WALLS AND
FOR CEILINGS



Barclay is on active duty, serving in Barracks, Cantonments, Hospitals (even on Medical Corps tables), Housing, Factories, Planes and Airports.

What Barclay's engineers have learned in meeting war's demands will be at your service some happy day—Barclay with an even better plastic surface and a complete gamut of colors.



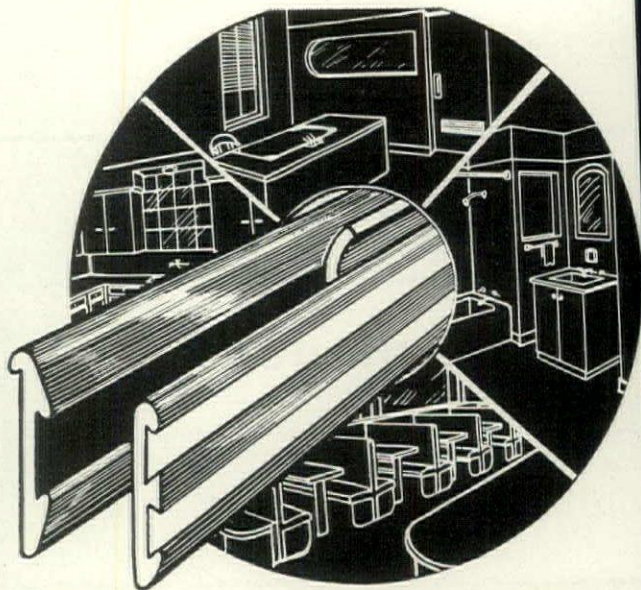
For lasting wall beauty, economy and ease of erection, build and re-build with Barclay.

Write now for the Barclay Catalog
for your post-war planning.

BARCLAY

MANUFACTURING COMPANY, INC.

385 Gerard Ave., Bronx 51, N. Y., Dept. A



Good Decoration Centers Around

B & T

METAL TRIMS *trademarked*
CHROMEDGE

Trademark Reg. U. S. Pat. Off.

The B & T METALS COMPANY
Columbus 16, Ohio



SAMSON SPOT SASH CORD

*the most durable
material for hanging
windows*



WHERE THE NEED IS GREATEST
Samson Braided Cords Serve Best
Now and Always

SAMSON CORDAGE WORKS
BOSTON 10, MASS.

SAMSON SPOT SASH CORD



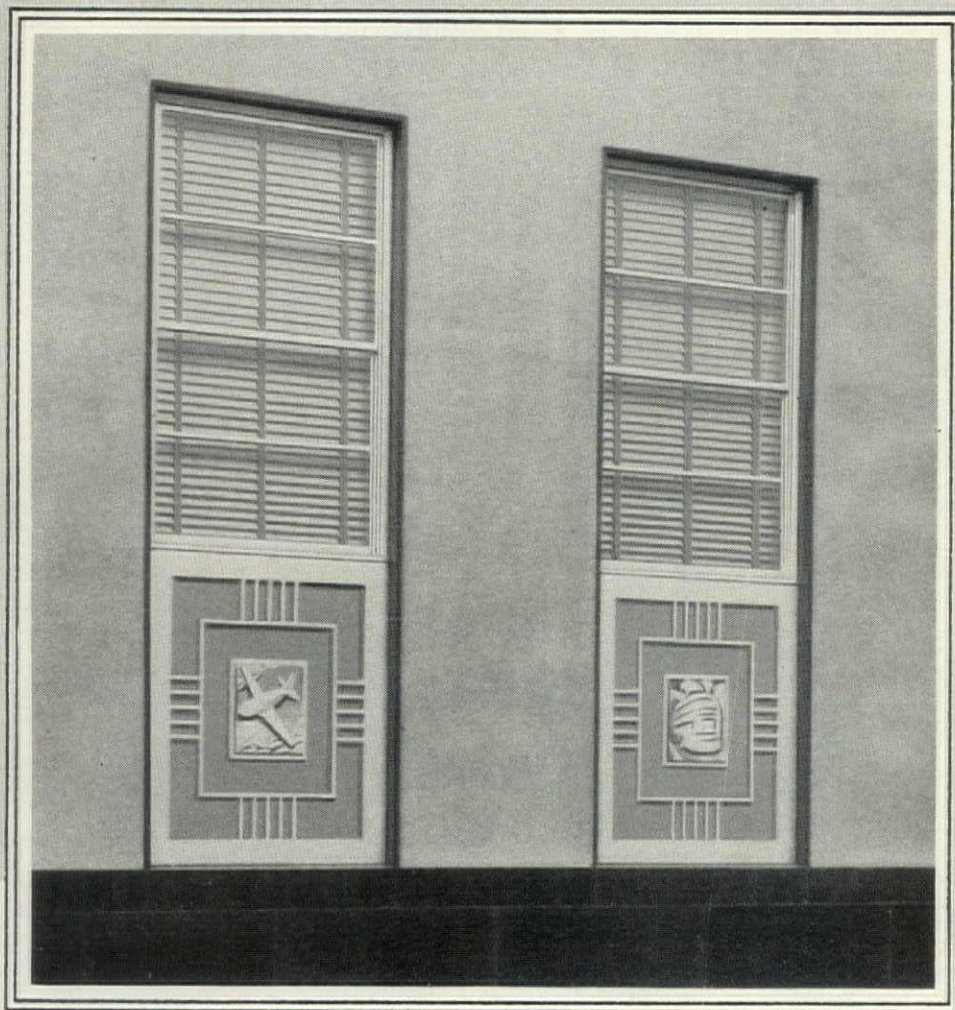
Reg. U.S. Pat. Off.



For Victory today . . . and prosperity *tomorrow*, keep the War Bond Pay-roll Savings Plan rolling in *your* firm. Get that flag flying now! Your State War Savings Staff Administrator will gladly explain how you may do so.

If your firm has not already installed the Pay-roll Savings Plan, *now is the time to do so*. For full details, plus samples of result-getting literature and promotional helps, write or wire: War Savings Staff, Section F, Treasury Department, 709 Twelfth Street NW. Washington, D. C.

ADLAKE
ALUMINUM WINDOWS
AND SPANDRELS



Windows... *in Harmony with GOOD Design*

OUTSTANDING architectural design may be only a little different from the ordinary. But those little differences are the very things which the extraordinary designer does not overlook!



THE ADAMS & WESTLAKE COMPANY

ESTABLISHED IN 1857

ELKHART, INDIANA

NEW YORK • CHICAGO

MANUFACTURERS OF ADLAKE NON-FERROUS METAL WINDOWS

BRIEFLY TOLD:

The Timken-Detroit Axle Company has won for the second time the Army-Navy Production Award for meritorious services on the production front. The award was accompanied by congratulations from Under Secretary of War Robert P. Patterson who said, "You may well be proud of your achievement." All three Timken plants received the citation and star. Timken is the nation's largest supplier of Axles, Brakes and Transfer Cases for the Armed Forces. Although Timken military shipments were at high levels early in 1940, they have been constantly increased until today they are more than 800% in excess of 1940 shipments.

★

TSA has more dealers today than at any other time in its long and successful history. Another sure sign of the high esteem in which Timken products are held by the trade.

★

More than 3/4-million helpful pieces of literature have been mailed to Timken users during 1943 (we'll mail you sample copies on request). Timken's recent 16-page booklet on how to keep equipment in good condition and reduce the need for service, mailed free to all Timken users, has brought a flood of letters of appreciation.

★

Samples of a new correspondence sticker are in the mails to all Timken Dealers. The sticker contains the welcome message, "After Victory—plenty of all fuels for heating homes automatically at reasonable costs." Encouraging news on postwar fuel oil supplies, backed up by expert opinion, will be released shortly.

★

TSA engineers are burning the midnight oil on postwar plans. Details of progress—new developments, new products, and product improvements—will be announced from time to time in Timken Heat (Timken's magazine for dealers and their employees).

★

* We'd like to send you sample copies. Please write on your letterhead and mention this ad.



For better business —

A BETTER PRODUCT

We are proud of the performance records of Timken Silent Automatic Oil Burners under wartime fuel restrictions.

Not only have Timken owners enjoyed warmer, more comfortable temperatures per gallon of rationed oil, but Timken Burners have required substantially less service than the ordinary pressure or gun type.

This is due to the famous Wall-Flame principle, and the fact that Timken Burners have only One Moving Part.

We're working *now* with only one

thought in mind — building still better products for the postwar era.

We'll be ready, then, not only with improved heating and air conditioning equipment, but also with other new products for the home.

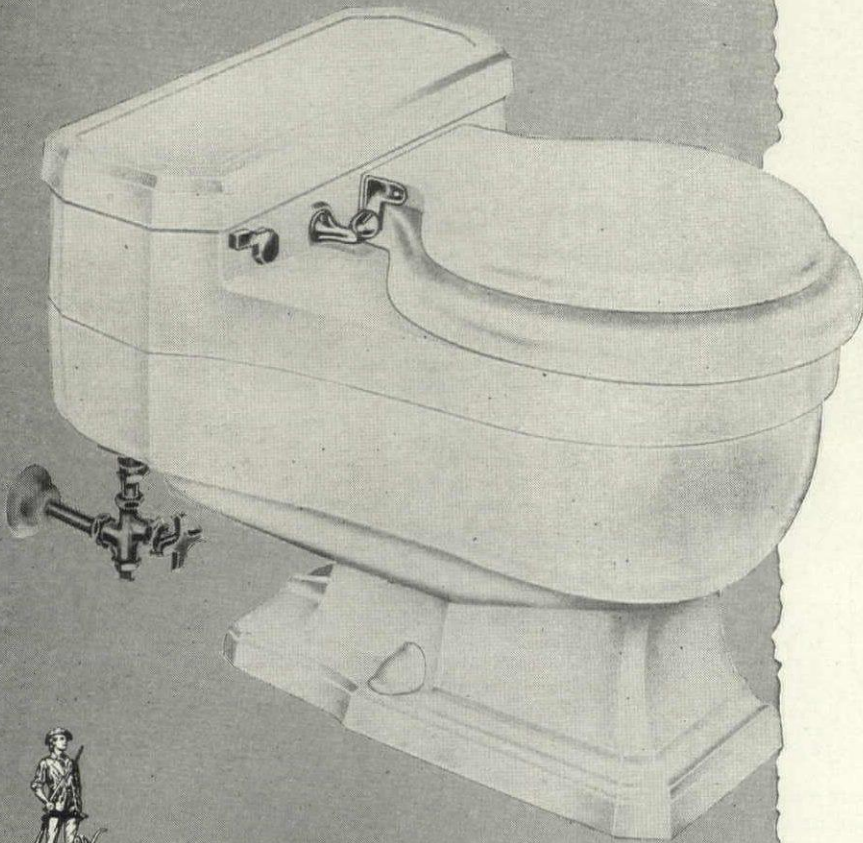
For Timken, this program is instance of continued — and steadily growing — user good will. For the architect it assures greater client satisfaction, well as the knowledge that he is recommending the best equipment in its field.

TIMKEN *Silent Automatic*

Quality Home Appliances—for Comfort, Convenience and Economy

Division of THE TIMKEN-DETROIT AXLE COMPANY, Detroit 32, Michigan

What the past *tells you* about the future...



The best attempts to picture the "Post-War" home are, basically, logical outgrowths of experience, of ideas and products that time has shown to be good. In a previous post-war period the "revolutionary" idea of a *one-piece, non-overflow* and *quiet* water closet became a reality when Case introduced the famous "T/N"—the outcome of experience and good ideas.

Winning immediate acceptance by the architect, engineer, builder and merchant plumber—and the homeowner—the "T/N" has become a mark of excellence in America's finest homes and public buildings, and at an average price of only \$50 to \$60. At present the "T/N" is available only for essential replacements. But our experience, and your own too, makes this a reasonable promise—that after the war the "T/N" will be better than ever. W. A. Case & Son Mfg. Co., Buffalo 3. Founded 1853.



BRING PEACE
QUICKER
Boost the 4th
War Loan

CASE HISTORIES: 1—Serving on the Pacific Front...

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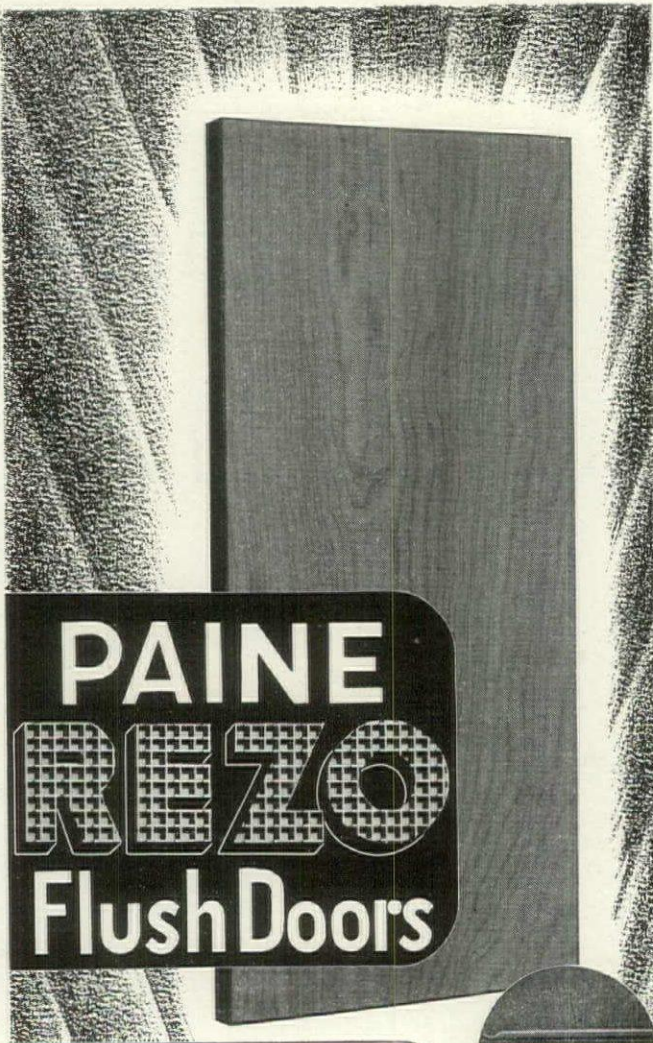
✓More than two thousand of the popular Case *Avon* Lavatories are being installed in one large housing project serving the war workers of California's busy Richmond and Berkeley areas.

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✓IF YOU LIVE ON THE COAST, your Case Distributor is ready to serve you, and well-equipped for the job. Look for "Case" under "Plumbing Supplies" in the Classified Directories of Los Angeles, San Francisco, Oakland, Portland, Seattle, Spokane, Tacoma. For other locations, write us.

Case

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U. S. Pat. 1,887,814
The exclusive interlocking grid core within the Rezo door provides constant air circulation, adds extra strength and greater rigidity.

When your plans for postwar interiors call for flush doors—write Paine Rezo in your specifications. You and your client will both find advantages in this decision, for the patented Rezo air cell door provides greater strength plus extra rigidity. In terms of use and service these construction features mean no swelling or shrinking, no future alignment troubles, quiet, smooth operation for the lifetime of the building.

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Modern Kitchen

IS AVAILABLE NOW!



FOR WAR HOUSING- POST-WAR PLANNING

● Here's a Kitchen Maid modern kitchen—a combination of units from its line of advanced cabinetry which is available today for war housing; ready to be specified in peace-time plans as well. With Kitchen Maid's factory producing 50,000 war kitchens, there is no serious re-conversion problem, and the entire line will be quickly available for all residential purposes after V-Day.

Developed before the war, proved by extensive war housing experience, this new cabinetry is the fulfillment of present and early post-war needs. It is constantly being specified for projects of all types. And composite construction is the principal reason for its wide acceptance.

Made of hardwood, plywood, and other compositions, Kitchen Maid Cabinetry combines all the advantages of the best materials available—each used where it serves best, gives greatest strength and longest life. Remarkably flexible, too—with standard units to fit practically any arrangement. Before planning another war or post-war job, see your Kitchen Maid dealer, or—

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The Kitchen Maid Corp., 442 Snowden Street, Andrews, Indiana.
Please send new folder on "Kitchen Maid War and Post-War Cabinetry."

Name _____

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☐ Architect ☐ Builder

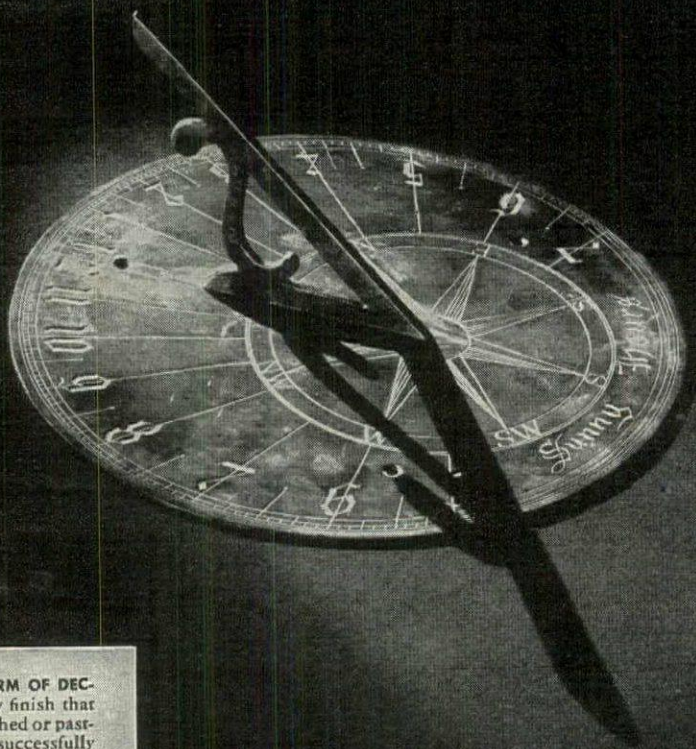
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FOUNDER OF MODERN KITCHEN UNITS



"Sets Building Time Ahead" ..



TAKES ANY FORM OF DECORATION—Any finish that is sprayed, brushed or pasted on may be successfully applied on Sheetrock; or it may be purchased already decorated—ready to apply.



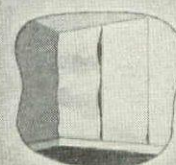
FIREPROOF—Made from Gypsum rock that will not burn, Sheetrock walls and ceilings form a fire-armor that fights the spread of fire and protects the building framework underneath.



"WELDED WALLS"—Panel joints concealed and welded together by Perf-A-Tape ... stronger than the panels of Sheetrock themselves.



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WON'T WARP OR BUCKLE—Sheetrock is like a stone wall. It does not twist and pull out of shape with changes in temperature and humidity conditions.

SHEETROCK

Fireproof WALL AND CEILING PANELS

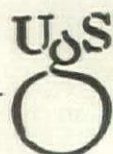
Processed wall and ceiling panels, ready to apply—that's what Sheetrock*, the *fireproof wallboard*, means. These new Sheetrock building ways save hours and days : : : save precious man-power : : : save all along the line ... no waiting or wasting time.

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For Sheetrock is made from gypsum rock that will not burn. When fire strikes, Sheetrock fights a delaying action and protects the structure underneath. Sheetrock may be purchased in various sizes and thicknesses, joints may be concealed and "welded" with Perf-A-Tape* or made a part of the decoration with "Panel-Wall" method.

Proved in the past with an eye to the future, Sheetrock enters the new era of building at the head of the "preferred list" as the most widely used and best known name in gypsum wallboard.

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UNITED STATES GYPSUM

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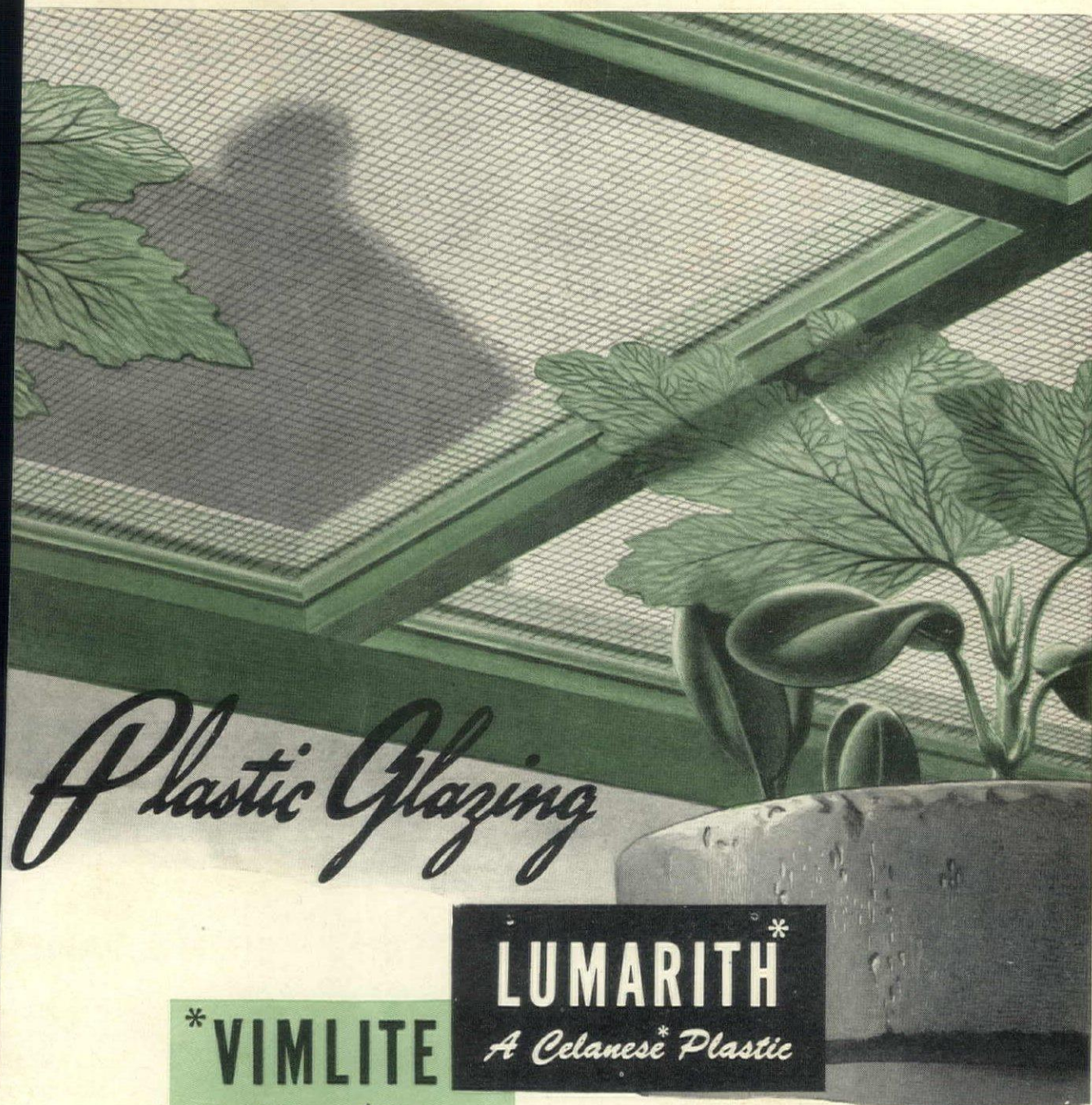
This famous trademark identifies products of United States Gypsum Company—where for 40 years research has developed better, safer building materials

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FIREPROOF GYPSUM

The World's most widely used Mineral for making Fireproof Wall and Ceiling Materials

LASTIC GLAZING FOR A STARTER



Plastic Glazing

***VIMLITE**

A Celanese Plastic*

LUMARITH*

A Celanese Plastic*

Lumarith* and Vimlite* plastic glazing give seedlings a better start. They transmit sunshine—its radiant heat and ultra-violet rays, holding the heat and protecting against sudden cold snaps by superior insulating qualities.

Lumarith and Vimlite, in panes and rolls, are light in weight, flexible, non-breaking and extremely tough. In the greenhouse, solaria, poultry building and storm sash, they do a major job of bringing health benefits to living and growing things.

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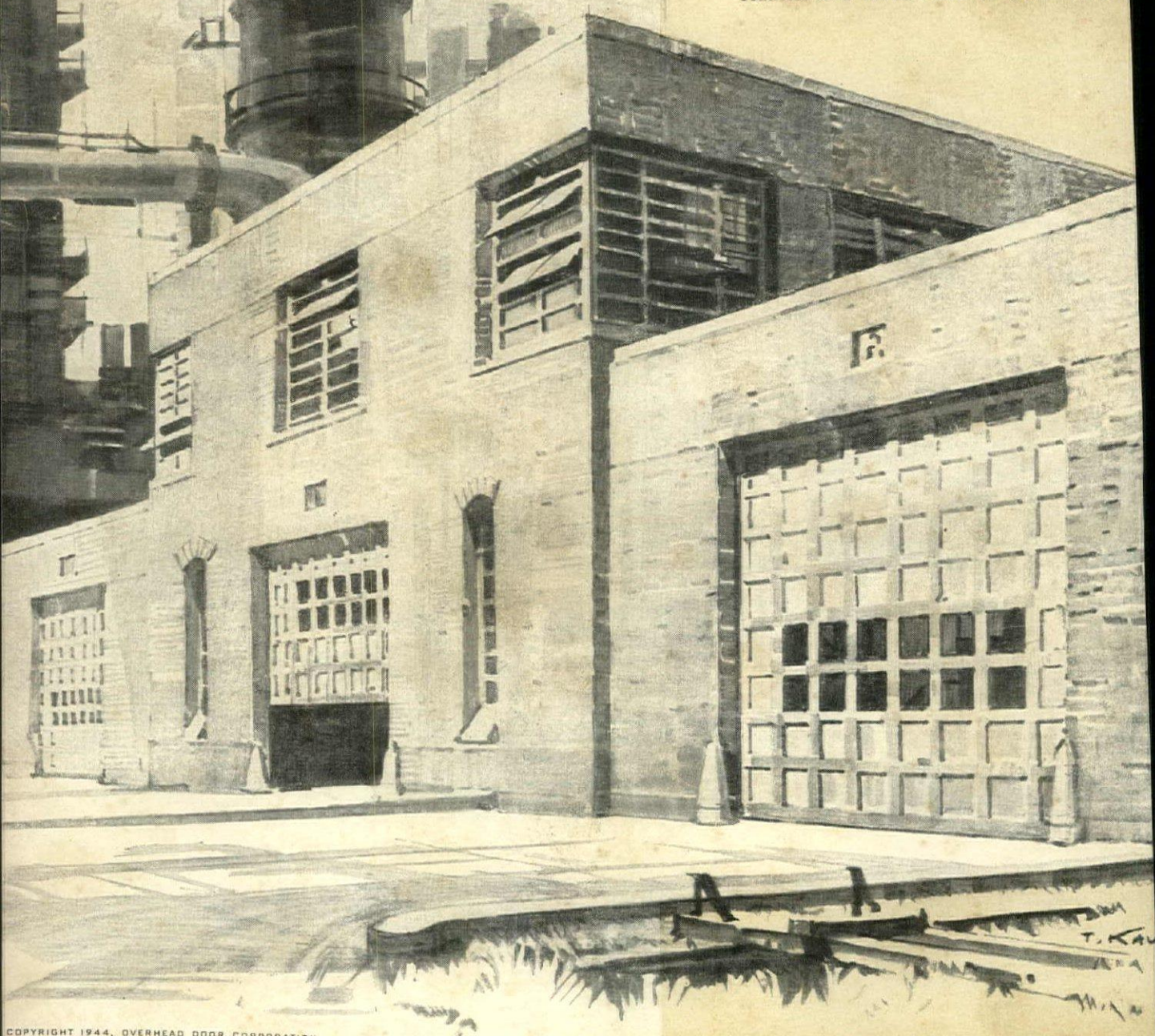
Write for the Celanese booklet on plastic glazing. It contains samples to stimulate your imagination. Celanese Celluloid Corporation, the first name in plastics, a division of Celanese Corporation of America, 180 Madison Avenue, New York City 16.

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Filed in Stacks

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