

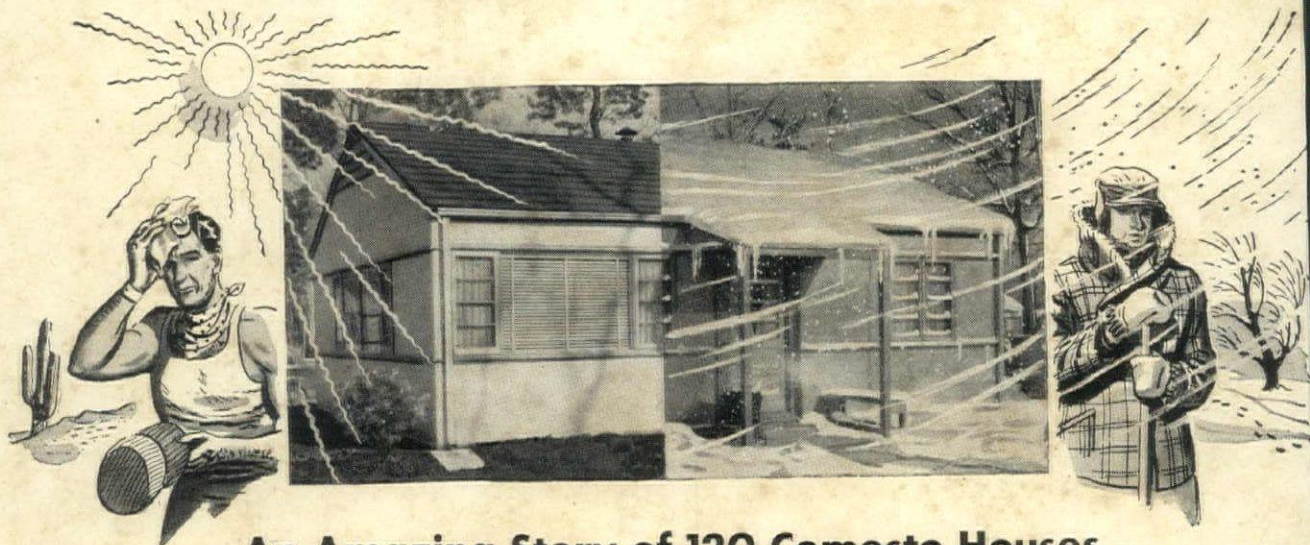


THE ARCHITECTURAL FORUM

MARCH 1944

QUICK, SNUG SHELTER FOR WORKERS

In 90° Above... to 65° Below!



An Amazing Story of 120 Cesto Houses On a Secret Mission in the Sub-Arctic!

► This story begins in a New York office. Then it shifts to Baltimore, thence via Oregon to the rugged fastness of the sub-arctic—the most inhospitable region on the continent.

Into this wild land of violent extremes went materials for 120 Cesto Houses to shelter workers building a secret project. Every piece of material was packed overland on tractor-drawn sleds!

The houses had to meet these requirements: they must be light in weight and easy to transport. They must be erected with a minimum of labor. They must provide ample protection from *temperatures ranging from 90 above zero to 65 below zero!*

The Cesto House selected met all these requirements. It had been tested and proved while sheltering thousands of workers in U. S. industrial plants and shipyards. 1000 were built at the Glenn L. Martin Baltimore plant alone. It was 24' x 28', with living room, dining alcove, kitchen, storage room, two bedrooms and a bath. It provided snug, permanent shelter at emergency building speed.

The exterior walls are composed of 1 9/16" Cesto Insulating Wall Units. Interior partitions are 1 1/8" Cesto. The construction method used was developed by The John B. Pierce Foundation of New York. Full information concerning the Pierce System is available to architects and engineers.

★ ★ ★

Cesto is a multiple-function material, combining exterior and interior finish plus insulation in one complete fire-resistant wall unit. Cesto construction can be pre-engineered and Cesto panels can be factory pre-fabricated to exact size. The result is great saving of field labor, amazing building speed and economy, and sturdy permanent, attractive and comfortable buildings.

Cesto comes in panels ranging from 4' x 4' to 4' x 12'. Can be used in vertical or horizontal construction. Color is warm gray and the surface need not be painted.

Two free booklets on Cesto and Cesto construction for architects and builders are now ready. Send for yours, today.

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INSULATING WALL UNITS



THE CELOTEX CORPORATION, Dept. AF 3-44, Chicago 3, Ill., publishes two technical booklets on Cesto Wall Construction. Check the one you want.

- ☐ Cesto in Wood-Frame Industrial Buildings—Booklet W-1.
- ☐ Cesto in Housing—Booklet "A Vital Contribution."

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MARCH 1944

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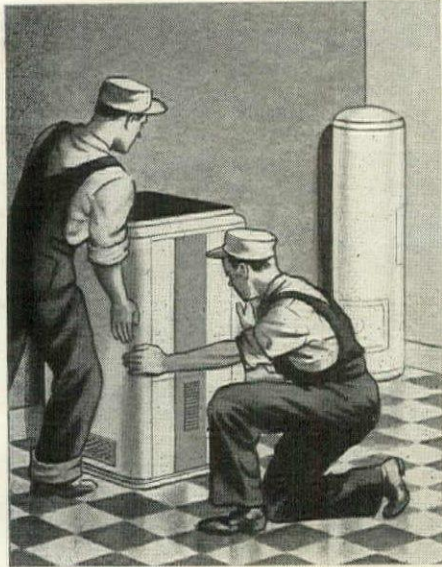
NEXT MONTH A special issue on postwar protected neighborhoods, continuing the theme begun last October . . . projects by outstanding architect-builder-banker teams . . . a symposium on the subject: How can the planned neighborhood be achieved?

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.

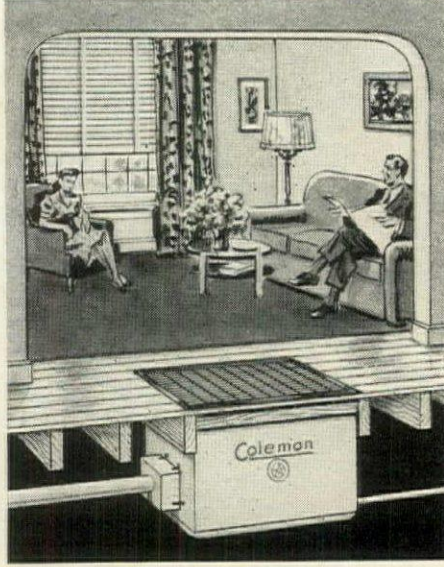
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Already architects from coast to coast are planning on building Coleman heating comfort into post-war homes. For Coleman designs—like Coleman floor furnaces and wall furnaces, and the compact central plants—save space that can be used for other features. Coleman engineering helps provide greater comfort, with true fuel economy and automatic heat.

And the completeness of the Coleman line, with either gas or oil models to suit the mass market provides the *right* heat-plant for every house you plan. Finally, Coleman's position, as the firm that, in 1941, built the largest number of major heating units in America, insures you stability plus a willingness to guarantee satisfaction that backs up your own good name.

89,000,000 Magazines Pull Inquiries For This Book!

As many insertions as the paper shortage will permit, in such magazines as Saturday Evening Post, Better Homes & Gardens, American Home, and others are winning acceptance for Coleman post-war heating equipment. Over 3,000 requests for our booklet, "The Inside Story", were received the first 5 days after it was offered. Here's proof of public faith and interest in Coleman.



NOTE: Free copies also sent to Architects, to see how we are promoting "the heating of tomorrow which all can afford". Send for yours now.



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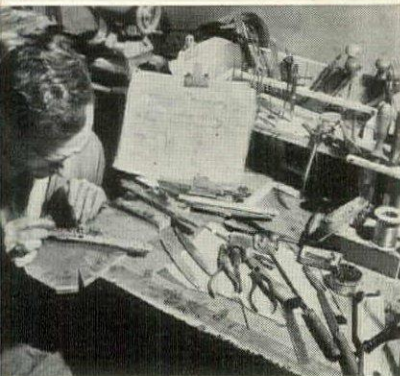
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FORUM OF EVENTS

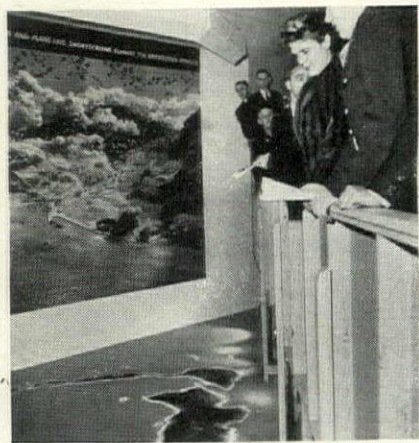
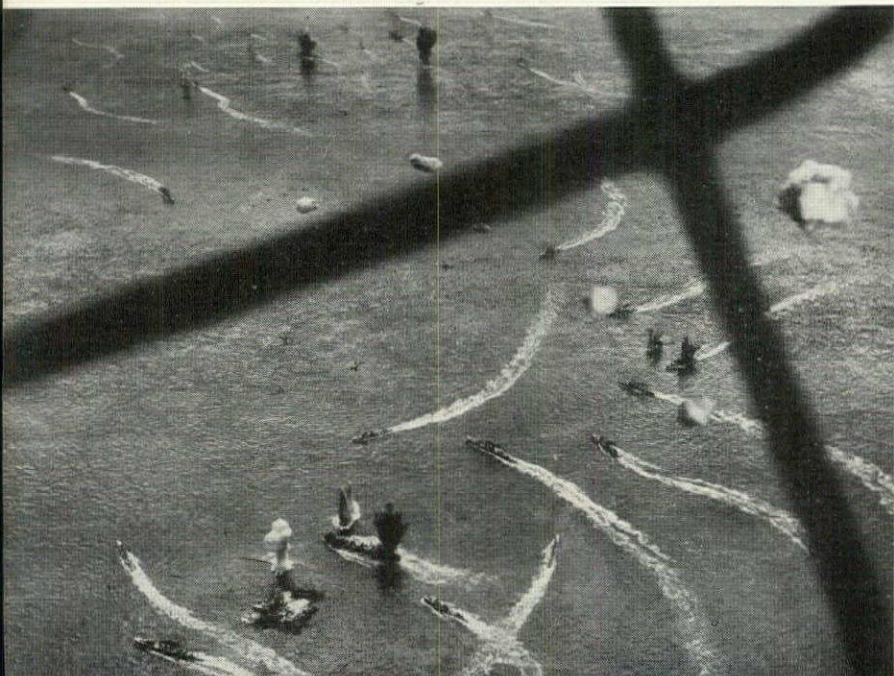
Prefabricated history: designer Geddes makes battles to order for *Life* magazine before they happen.



TINY SCALE REQUIRES HAIRBREADTH PRECISION AND A STEADY HAND



RUSSIAN TANK ACTION AND CORAL SEA BATTLE SHOWN IN MINIATURE



MUSEUM OF MODERN ART EXHIBIT

Norman Bel Geddes' models do not as yet include the entire surface of the earth but progress in that direction should not go unnoticed. So far, he has recorded in miniature the major fronts and battles since America's entry into the war as well as some potential points of action and invasion. More peaceful subjects such as cloud formations are used as educational illustrations. Models are no mere hobby with designer Geddes. They are executed on an assignment basis dictated by the prognostic eye of *Life* magazine. The principle followed in scheduling construction is apparently to be prepared for the worst. If the worst doesn't happen, it is always possible and interesting to point out what might have happened. Such was the case of an elaborate model for the Battle of Gibraltar which never occurred. The most recent cat to be let out of *Life's* bag was the building of two pre-invasion models, one of the north coast of Germany, one of Norway. It can only be hoped that these will soon become factual recordings.

The detail and workmanship that go into the making of these relief maps and battle scenes must be seen to be appreciated. The area shown and scale used varies according to the subject. One model may show the entire Aleutian chain with Alaska in the background, while another may represent a single river crossing. The variations in terrain, foliage and climatic conditions represent a technique which the Geddes office has developed to an astounding degree of refinement and accuracy. All sorts of odd materials

(Continued on page 6)



Pictured here are a few from hundreds of wartime DOOR PROBLEMS solved by Peelle DOOR ENGINEERING. We also know the answers to many peacetime DOOR PROBLEMS. When you come to a DOOR PROBLEM—come to PEELLE—the finest name in doors—backed by over fifty years of DOOR ENGINEERING experience.

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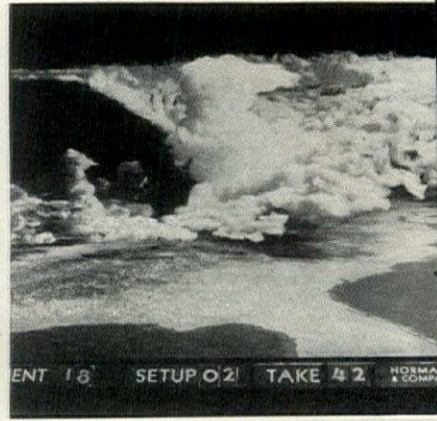
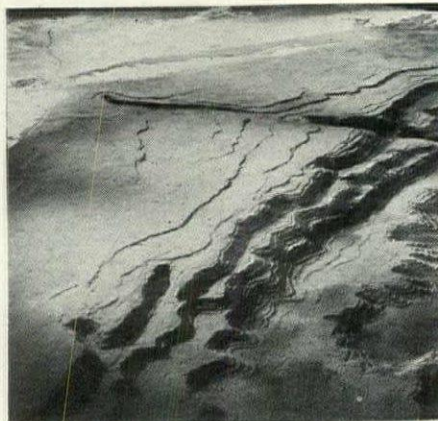
47 STEWART AVENUE • BROOKLYN, N. Y.

FORUM OF EVENTS

go into the making of a model, from bicarbonate of soda to simulate ship wakes, to slanting wire threads to give the effect of distant rain. Smoke trails are usually made of cotton batting on a framework of wire.

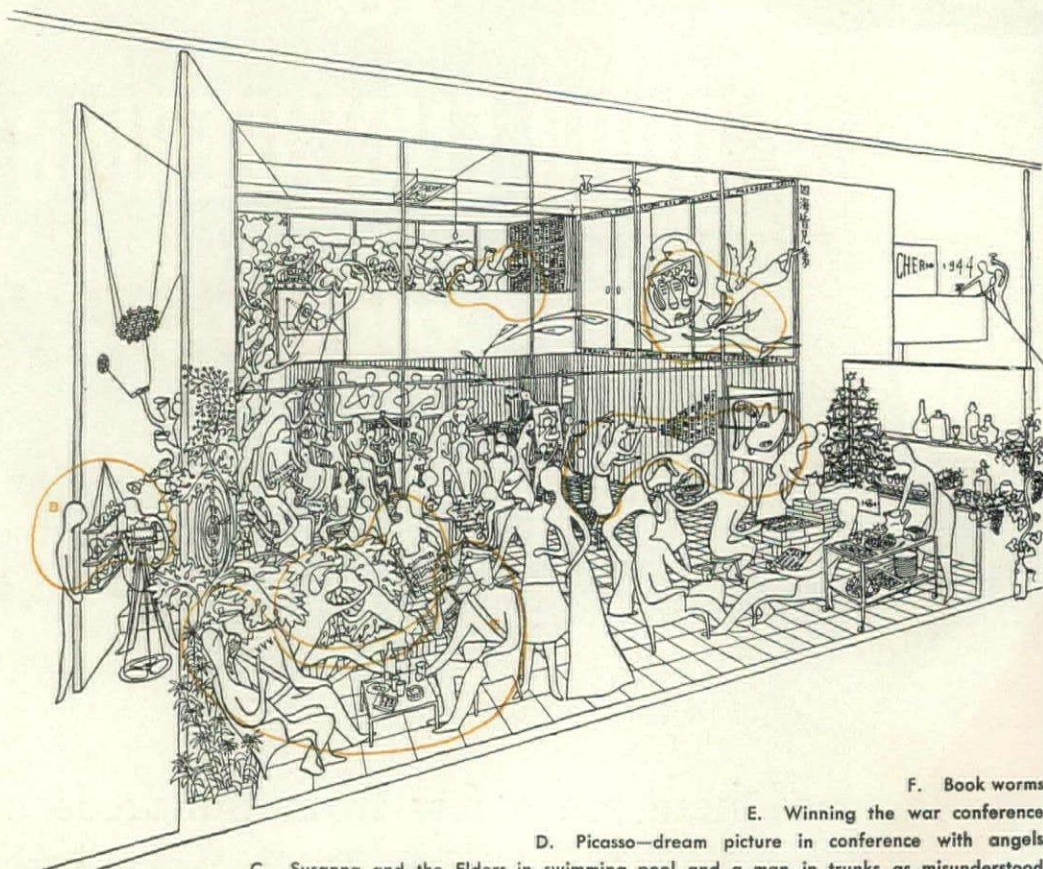
After a model has been completed and photographed it is broken up and the material salvaged for new models. Small individual pieces are kept in libraries of battleships, trees, armies, etc. In this way, a large model of a naval engagement, a landing operation or an attack can be assembled in very short order.

(Continued on page 150)

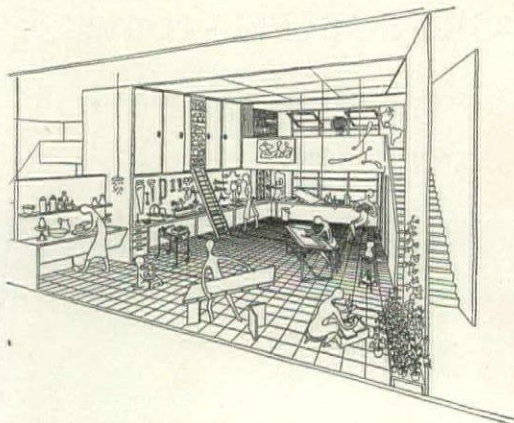


SUB-MARINE SHELF AND CLOUD FORMATIONS ARE EDUCATIONAL MODELS

POSTWAR DESIGN OF THE MONTH: The Heythums' home sweet home converts into a bistro for bourbon bibbers



- F. Book worms.
- E. Winning the war conference.
- D. Picasso—dream picture in conference with angels.
- C. Susanna and the Elders in swimming pool and a man in trunks as misunderstood.
- B. Assistants to Man Ray in catching close-ups of ocean treasures gathered after stormy nights by Santa Monica beach poet.
- A. Observing through a precisely balanced telescope the flickering eyes of the Halloween masquerade in the picture "Dents Masques". The counter balance of the telescope always attracts attention of younger visitors.



Antonin and Charlotta Heythum's greeting card (above) pictures a post-war brawl held in the postwar workshop which they designed for a recent issue of *Interiors* magazine. This frank admission of what can happen to any home loving family on any night of the week is as refreshing as it is courageous. For one reason or another ethics prevent architects from presenting either bars or baths as rooms with a function and though much has been made of the rumpus room, the true meaning of the word has been all but lost in suburban basements that boast only a handful of barstools. The Heythums are to be complimented on real flexibility of plan and on their conviction that workaday is no more important than playanight.



Post-War Formica

IS

"UNDER WRAPS"

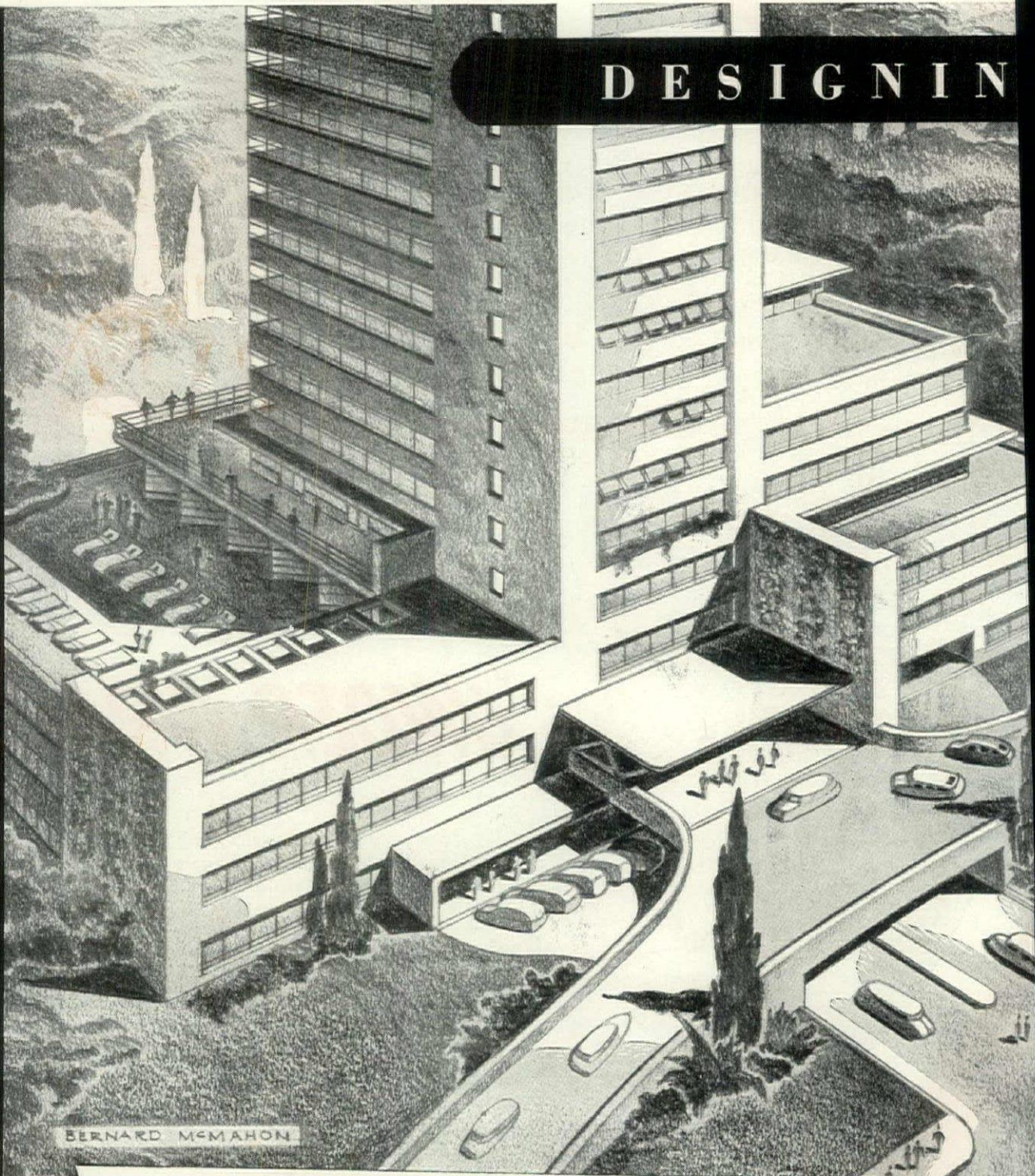
You won't see it till the barrier on civilian production goes up, but the post-war Formica is here. In war's workouts it is out-performing all previous records. The surface is more durable; it is better adapted to the needs of architects and furniture and fixture designers, and there are more colors, shades and harmonious combinations with which your remodelers and decorators can delight the eyes of your clientele and attract new patronage.

Formica is the laminated plastic that won so much prewar acclaim wherever smart people eat and drink in style. The customers admire the always clean, always colorful surfaces of table tops, fixture tops and paneling. The owners thrive on the fact that a customer can't ruin a top with fruit juice, or alcohol, or lighted cigarettes. It does not check or chip or tarnish, nor ever require abrasives, or much elbow grease to keep it brilliant. The infrequent swish of a damp cloth does all that.

"The Formica" Story is a moving picture in color showing the qualities of Formica, how it is made, how it is used. It is available for meetings of designers or others interested.



THE FORMICA INSULATION COMPANY, 4620 SPRING GROVE AVENUE, CINCINNATI 32, OHIO



Speaking of Pre-War Mesker Windows

STEEL SASH "MERIT-METER"		POINT NUMBERS																			
POINT	NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
NUMBER	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SASH-A	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SASH-B	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SASH-C	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SASH-D	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
SASH-E	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Remember the Merit Meter?
Based on sworn facts from
Sweets Catalog, it proved
Mesker's pre-war quality su-
premaccy. War-time precision
experience will assure even
finer post-war Mesker Win-
dows. That you can bank on!

POST-WAR HOSPITAL?

Here it is . . . a book designed *for* architects *BY* an architect . . . *Mesker Brothers' Book of Hospital Windows!* Like our new Book of School Windows, this Hospital Book isn't the kind you'll "file"! *This* you'll use! The sixty standard-type Mesker Hospital Windows shown, you can work into post war plans *today* . . . and count on *getting* them later. More than "just another catalog", this Book is filled with Hospital Window ideas, new uses, helpful architectural renderings, *plus* an invaluable Detail Supplement. Paper shortages definitely limit quantities. Requests will be filled in the order received. Avoid disappointment by mailing the coupon **NOW**.



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HOSPITAL WINDOWS

AF34



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Careyduct AIR CONVEYING SYSTEMS

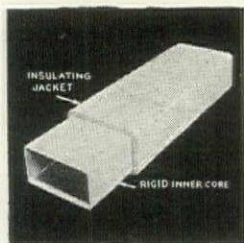
CAREYDUCT, development of the Carey Research Laboratory, is the scientific, highly improved, truly MODERN air-conditioning duct. It is easily and quickly installed, efficient, dependable, economical, and much quieter. Due to its insulating and acoustical features, it is superior in every way to insulated metal duct.

Because of these outstanding merits, plus its war important conservation of metals, this prefabricated duct has had a tremendously increased popularity. And in the future, these same advantages will undoubtedly win for CAREYDUCT even more universal acceptance throughout the air-conditioning and sheet metal industry.

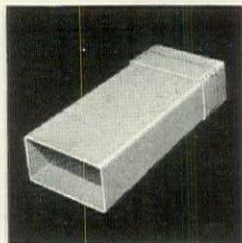


*All types of CAREYDUCT carry the Underwriters' label.
Send now for Careyduct Manual — address Dept. 20*

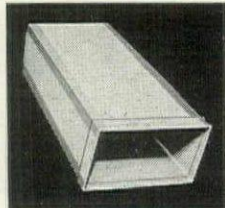
5 DIFFERENT TYPES...TO MEET ALL NEEDS



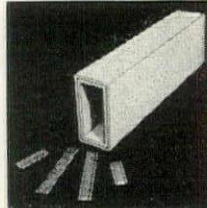
1. INSULATED AND ACOUSTICAL TYPE—Made of Asbestos—combines both duct and insulation. Simple slip-joint construction and standardized parts provide easy and rapid fitting on job.



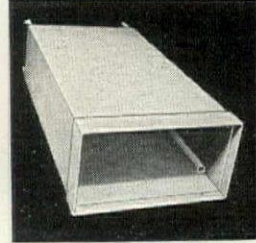
2. SINGLE-WALL TYPE—For heating and ventilating systems; an all-asbestos product and is the same as inner core of the Insulated and Acoustical Type.



3. HINGED-CORNER TYPE—For residential heating jobs; fabricated of $\frac{1}{8}$ " asbestos board. In cartons ready for assembly. Above: Duct assembled with connecting strips.



4. KEY-LOCK TYPE—For high temperature applications. Impervious to water, and effective for temperatures up to 500° F. Made from Carey Firefail panel and delivered knocked-down, with asbestos key for locking. Above: Assembled duct showing metal connecting strips in foreground.

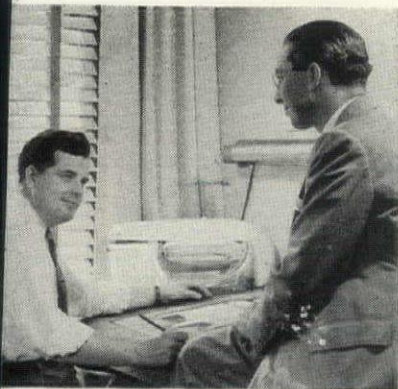


5. ASBESTOS-CEMENT TYPE—Made of different thicknesses of asbestos-cement wall board, in sizes from 23½" up. Supplied with special asbestos corners and shipped knocked down, complete with duct turns, connector pieces and adhesive. Above: Duct assembled with connector strips.

THE PHILIP CAREY MFG. COMPANY, Lockland, Cincinnati, Ohio

Dependable Products Since 1873

In Canada: The Philip Carey Co., Ltd. Office and Factory: Lennoxville, P. Q.



Carl Sundberg and Montgomery Ferar form a team well and favorably known for many outstanding design achievements. Combining their talents in the firm of Sundberg and Ferar in 1934, they have established a reputation for the creation of sound workable designs in virtually every major field of consumer merchandise.

DESIGN FOR A REFRIGERATOR TO FIT THE "PACKAGED" KITCHEN

THE household refrigerator has probably been designed and redesigned for the postwar market more often than any other product of American industry. This suggestion by Sundberg and Ferar of Detroit, however, seems by all odds one of the best yet published.

Arranged horizontally to match other units in the "packaged" kitchen, Sundberg and Ferar's model would provide additional work surface and more accessible storage space, two strong selling points with any housewife.

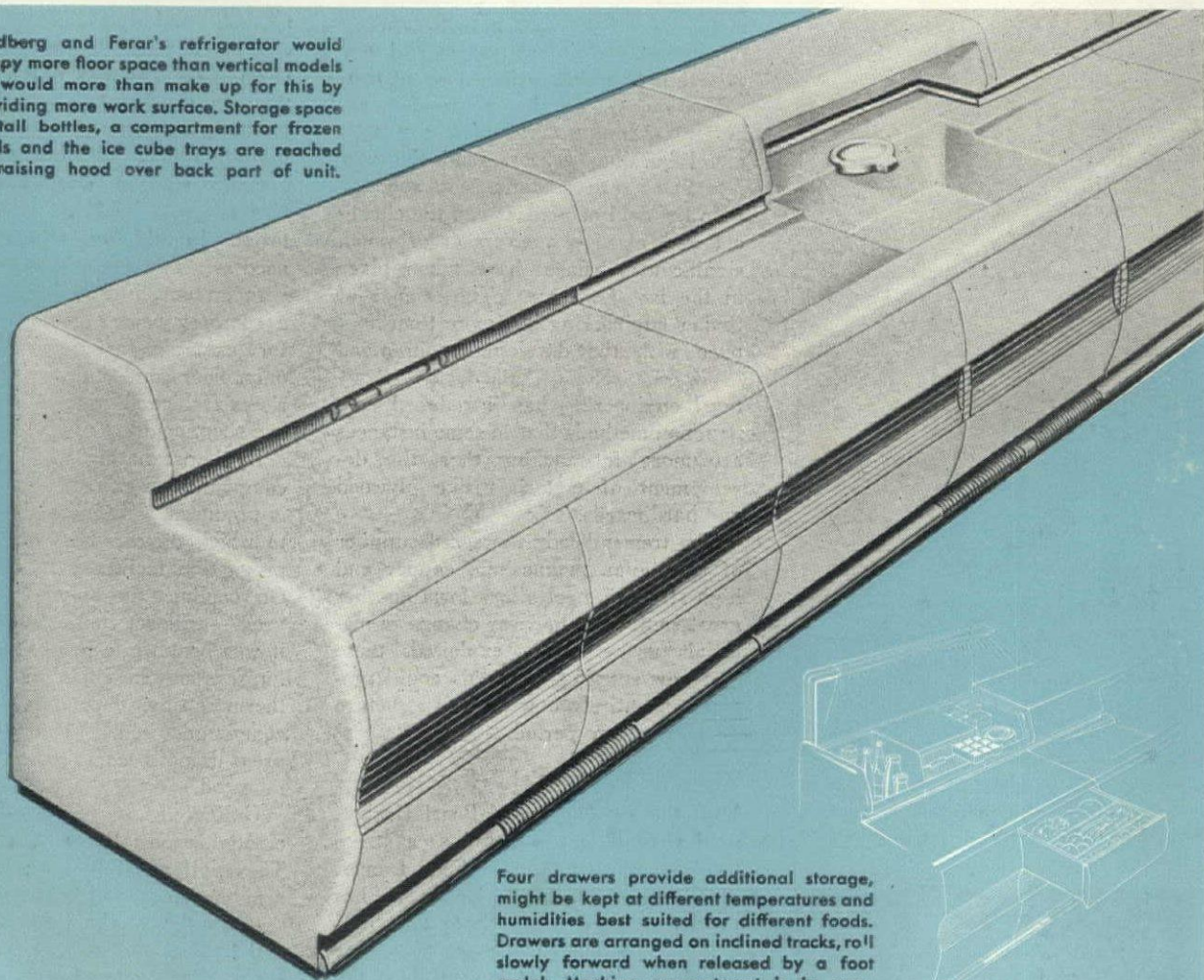
Of course, only a refrigerator production man could say with authority that this design would be practical for mass production at mass-sale prices . . . and no one today can say

definitely what part plastics might take in its construction.

Some parts, however, will undoubtedly be molded from Monsanto's Lustron which had already won a place for itself in late prewar models by its dimensional stability, light weight, acid and alkali resistance and its increasing strength at low temperatures.

Larger parts, such as the drawers and even the cabinet, might possibly be molded from more recent combinations of Monsanto plastics with pulp fibres or with special fabrics—at production savings high enough to compensate for this more complicated design.

Sundberg and Ferar's refrigerator would occupy more floor space than vertical models but would more than make up for this by providing more work surface. Storage space for tall bottles, a compartment for frozen foods and the ice cube trays are reached by raising hood over back part of unit.



Four drawers provide additional storage, might be kept at different temperatures and humidities best suited for different foods. Drawers are arranged on inclined tracks, roll slowly forward when released by a foot pedal. Machine compartment is in rear.

The broad and versatile family of Monsanto Plastics includes: Lustron polystyrenes • Safflex vinyl acetals • Nitron cellulose nitrates • Fibestos cellulose acetates • Opalon cast phenolics • Resinox phenolic compounds • Forms in which they are supplied include: sheets rods • tubes • molding compounds • castings • industrial resins • coating compounds Vuepak rigid, transparent packaging materials



FOR FACTS ON POSTWAR PLASTICS . . .

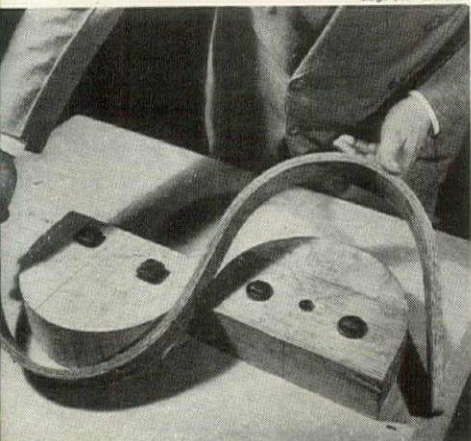
New plastic materials and fabricating techniques developed to meet urgent war needs may or may not help to make mass production of a postwar refrigerator like this practical, but one point is certain: They *will* play a big part in making many postwar products better—at lower costs. When the time comes to talk postwar on *your* problems and products, you will find Monsanto an excellent source of sound advice on the possibilities of plastics. And you will find the Family of Monsanto Plastics one of the broadest, most versatile groups of materials offered by any one plastics manufacturer. MONSANTO CHEMICAL COMPANY, Plastics Division, Springfield, Massachusetts.

PRODUCTS AND PRACTICE

MATERIALS FOR 194X. Wartime developments have provided an idea storehouse for postwar designs.

The subject matter of this article was suggested by Frederick Pearson, Manager, Plastics Division, Lyon Metal Products, Inc.

Myron Davis



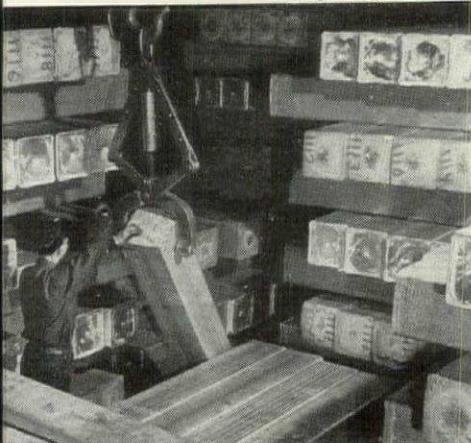
BENDING PLYWOOD which has been impregnated with a urea compound. New shape is held as the urea hardens.

Signal Corps Photo



TRANSPARENT PLASTICS are at their best bomber construction. Can they be as well used in building?

Margaret Bourke-White



ALUMINUM production has been vastly increased. After the war this huge supply may profoundly affect building.

The popular pastime of dreamy speculation about the architectural and structural potentials of materials developed during the war is like all fantasy, pleasant. But it can remain harmless only if the limitations of the new materials are kept firmly in mind, and if most of them are recognized not as immediate probabilities but as ultimate possibilities. There are notwithstanding this caveat, certain new usages and new materials to which serious present consideration should be given—for example, semi-structural plastic panels, metal building veneers, and the new found structural advantages of wood.

In the field of plastics and the chemical and physical conversion of wood, significant advances have taken place in the last few years. The science of timber engineering has more than kept pace with the development in wood itself: research in this branch of structural engineering has introduced construction methods that in some instances are more far-reaching than the development of materials like plywood and hardboards.

The tremendously increased supplies of aluminum, magnesium, copper and high strength steel alloys form another great source for postwar change in materials usage. Fully exploited, these vast new supplies of metals could produce an entirely new type of structure in the postwar period.

Wood, The New Material

With the suddenness of Pearl Harbor, steel virtually disappeared as a structural material for building frames. Wood, however, in replacing it, has proven so good a substitute that it is undoubtedly slated for a peacetime popularity it has not known since the introduction of steel construction. With war, long span wood trusses, made possible by the now familiar Teco Connector, in turn made the rapid erection of hangars and shops possible. The wartime structural usages of laminated wood arches and plywood girders are developments which designers are eager to adopt for 194x's buildings.

One of the most interesting innovations in converted forms of wood is "compreg." Compreg is made by impregnating and compressing natural wood. The impregnation and compression give it tensile and shear strength

equal to that of the original wood, but compression squeezes this strength into thinner sections and also greatly increases allowable unit stresses. Compreg is at its best as a material for airplane propellers. Its density is decreased as the propeller tapers out. Thus, the greatest strength and density are concentrated where they are most needed, and unnecessary weight is eliminated where it would do the most harm. Compreg may well find applications in wooden building construction where great strength is required in limited space. Because of its great wearing surface durability compreg also suggests itself as a flooring material. In addition, compreg may be used as a thin surface layer in alliance with an uncompressed material. With a compreg veneer bonded to plywood for example, as a wearing surface only, floors and stairs with treads and risers fashioned from a single continuous sheet could easily be prefabricated.

By impregnating wood with a urea compound, an extremely pliable plastic is produced. The initial heat treatment to which the wood is subjected in impregnation facilitates its easy shaping. On cooling, the wood—now an "impreg"—will set in the shape in which it was bent while being heated. These impregs may be either thermoplastic or thermosetting, depending on the urea compound used. (Thermosetting impregs do not become plastic again when reheated.)

Unlimited uses for impregs are anticipated, especially in furniture design. They will certainly be used for chair arms and legs, and it is quite probable that complete chairs, tables and cabinets will be bent and molded from impregs. In buildings, curved stair railings and other fittings which have always required highly skilled carpentry may be fabricated from impregs by less skilled workmen, at greater speed.

The recent introduction of plywood tubes suggests a means of simplifying the manufacture of curved plywood furniture parts. If these tubes were manufactured with a thermoplastic bonding compound, the process of reheating and shaping the tubes could be carried out in small shops not equipped for the heavier work of fabricating the plywood. With such a product on the market, curved plywood furniture

would be built in home work shops. Because the whole tube could be formed into a versatile squarish shape, cabinets, chair arms and seats, and table parts could be made from it.

With a new type of press in use today, it is possible to produce plywood over a foot thick. In seeking uses for plywood of such great thickness, one company hit upon the idea of using slices cut from the end of the sheets, as flooring. Divided into narrow strips, these end slices provide an end grain flooring which is comparatively cheap, easier to apply than other edge grain floors because of the lengths of the strips. Among several other novel applications suggested for this type of plywood is its use in the manufacture of freight car wheels.

A glance at the chemical composition of wood shows clearly why this ancient material affords an exciting new product or by-product periodically. Wood is composed of lignin and various kinds of cellulose. The cellulose occurs as long hair-like fibres, and accounts for 65 to 80 per cent of the wood. The lignin, which makes up most of the remainder, binds the fibres together. Separated from cellulose, lignin has thus far been used chiefly as a binder for plastics. But scientists regard lignin as a compound which is rich and plentiful enough to be a great industrial potential. Cellulose, which has already received a great deal of chemical study, produces such diversified materials as paper, yeast, rayon, alcohol, wood wool and many chemicals.

Plastics Again

A great deal of discussion has raged around plastics. Their potentialities have been blown up to gigantic proportions by their proponents and deflated and debunked by their opponents. A

few basic facts about plastics, however, emerge from the area of contention. Plastics have already arrived as an important supporting material for use in small extruded shapes, and as cast and molded parts of large products. At present plastics' chief limitations are in production rather than in usage—it is always a surprise to realize that a press of several tons capacity is required to produce products as small as lamp shades.

Laminated plastics, which are blood brothers of plywood, are probably most significant architecturally. They are the only plastics capable of being pressed into large, tough, workable panels. The strength of laminated plastics is sufficiently great so that bathtubs and lavatories are among their prospective uses. But an inherent disadvantage of all laminates—the meticulous hand work involved in arranging the layers for forming into compound curves—at present virtually precludes such uses. In plywood and laminated plastic furniture, this difficulty results in an al-

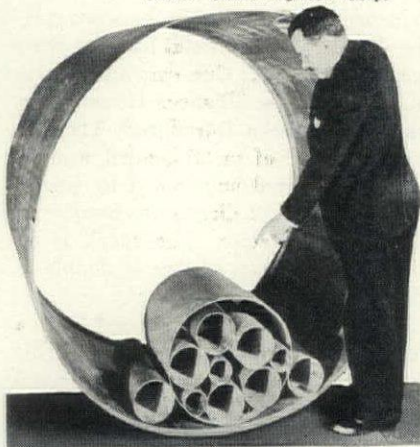
most prohibitive price for pieces with surfaces which curve in two directions.

Glass, one of our oldest plastics, still leads its competitors in durability and transparency. The transparent synthetic plastics continue to scratch easily and are only made more brittle in the effort to overcome this handicap. The familiar bomber noses and blisters are notable examples of the appropriate use of transparent plastics. When peace puts these clear synthetics on the market, it is likely that new civilian usages will be found for them.

Translucent plastics are often at their best as lighting panels. An especially effective panel of this sort may be installed by using plastic tiles. These tiles are formed with projecting flanges on the back, made with matched holes through which metal clips are passed to fasten the tiles in place. Fluorescent or incandescent lights behind the translucent panel allow an even glow to pass into the room.

Although such a usage is chiefly decorative and only semi-structural, we

United States Plywood Corp.



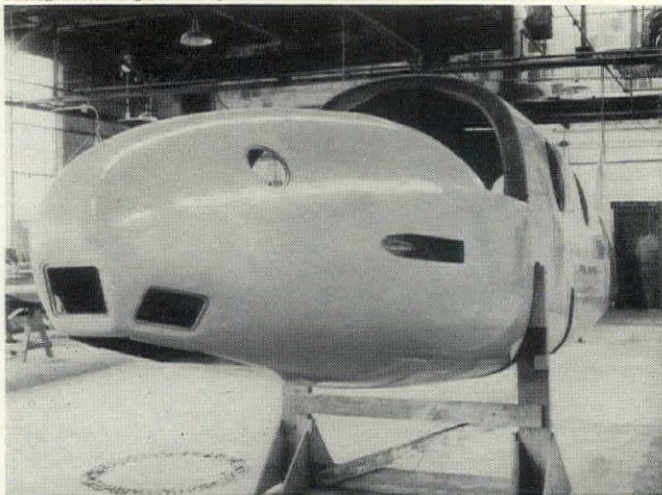
PLYWOOD TUBES in mass production create design units ready for innumerable diverse postwar applications.

Bob Leavitt

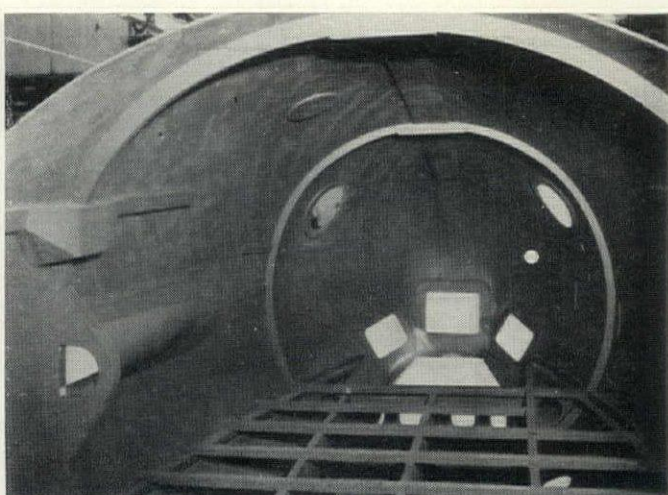


"COMPREG" may also be bent by hand. Impregnated and compressed, this product has strength as yet unknown in wood.

United States Plywood Corp.

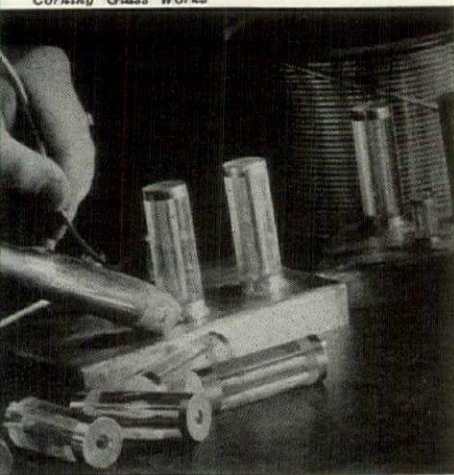


PLYWOOD AIRPLANE FUSELAGE beautifully demonstrates the structural potentials of plywood in stressed skin construction. The small wooden support shows the extreme lightness.



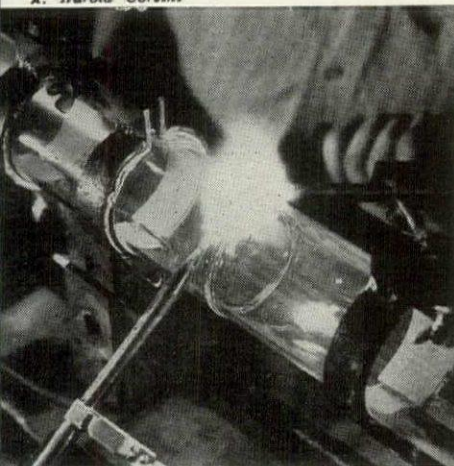
Unobstructed interior surface, free from structural framework, is peculiar to the rigid strength of plywood and cannot be achieved in fuselage of thin metal construction.

Corning Glass Works



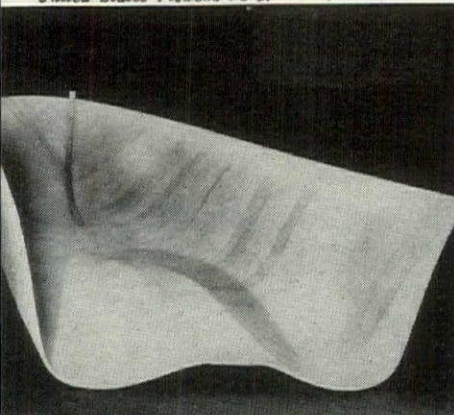
SOLDERING GLASS. Metal coatings, bonded to glass by a new process, enable pieces of glass to be joined by soldering.

A. Harold Corsini



WELDING GLASS. Here pieces of glass, aligned in clamps, are being fused together with gas-burning torch.

United States Plywood Corp.



INTRICATE SHAPES in molded plywood while possible, are still difficult and expensive to fabricate.

ROLLS AND ROLLS of light metals are now going into the manufacture of airplanes; after the war these rolls may produce aluminum and magnesium panels which will provide a light durable veneer for all types of framed buildings.

may expect the post war era to yield many structural uses for plastics. Laminated plastics in stressed skin panels may well point the way for significant structural applications of the tougher compounds. With the shift of front page publicity to electronics, plastics may now be allowed to develop more normally.

Metals

Outstanding recent developments in metals are the introduction of new systems of plating and coating and the manufacture of composite panels of metal, wood and plastic. Bonded steel and plywood sheets, developed for the Army to replace all-metal powder boxes, present great potentialities in the fabrication of kitchen cabinets and durable furnishings. These sheets make an exceptionally versatile type of panel because they provide the rigidity of plywood with the protection and strength of steel. They also lend themselves to good and easy cornering, for the plywood may be V-grooved simply and the steel bent easily to the desired angle. A similar bond which uses plastic sheets instead of plywood is further evidence of the kinship between plywood and plastics. Metal has also been bonded to glass. One commercial application of this alliance, Thermopane, has already been introduced. Thermopane is a set of metal-bonded window panes, separated and joined by soldering copper strips directly to borders of the layers of glass. The result is an extremely compact system of double or multiple glazing.

Steels are now being plated with a coating of scarcer materials. This development may foreshadow new steel flashing materials coated with a layer of non-corroding metal which may be only a few thousandths of an inch thick.

Tremendously significant for the post-war use of metals is the great increase

in their production brought about by the war. The production of aluminum and magnesium is now on such a large scale that after the war it may really be feasible to use them as architectural materials. As building veneers, these metals would provide a durable, attractive surface. Further, they would constitute ideal insulation when prefabricated into panels of two or more layers with an insulating filler. In high buildings, such panels would greatly reduce the dead load on the structure.

Aluminum window frames, heretofore a real luxury, are bound to be more common after the war. Such non-rusting window frames, reasonably priced, would do much to eliminate the age-old nuisance of windows that stick because of too many coats of paint or because of swelling. Aluminum will be available for bathtubs, lavatories, and many other uses which were unfeasible before the war because of high cost. Used externally, the advantages of aluminum may be efficiently exploited.

The war has already brought forth a significant development in the metal reinforcing of concrete. (See ARCH. FORUM, Dec., '43.) Karl P. Billner, President of Vacuum Concrete Inc. of Philadelphia, Pa., introduced, by coating the steel with a thermoplastic material, a method for "prestressing" concrete reinforcing after the concrete has hardened.

Such entirely new concepts are indicative of the unplumbed potentialities of the materials and methods which have grown out of the war. If these developments should end now it would still take years for industry to begin to plumb all of their possible applications. The old saw that only Science benefits from war is concretely attested to by the technological storehouse of materials and methods thus far produced by World War II.

Bernard Hoffman



References Required

● Wherever men fight for the cause of freedom, "Connecticut" communications and aircraft ignition products are helping them win. When the boys come home and peacetime competition returns, ask their opinion of the products we make. They are our references.



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Switchboards
Radio Headsets
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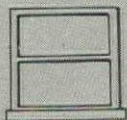
Connecticut Telephone & Electric Division,

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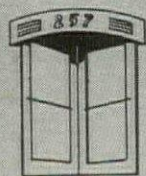
© 1944 Great American Industries, Inc., Meriden, Conn.



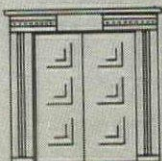
WINDOWS



**TO THE ARCHITECTS
who are now planning
7998*
NON-RESIDENTIAL
BUILDINGS**



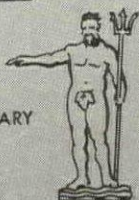
REVOLVING
DOORS



ARCHITECTURAL
METALWORK



TABLETS



STATUARY



CRIMINAL COURTS BUILDING, NEW YORK, N. Y. Chas. B. Meyers—Harvey W. Corbett, Architects

Let the Leaders IN BRONZE AND ALUMINUM FABRICATION help you with your Post-War Plans!

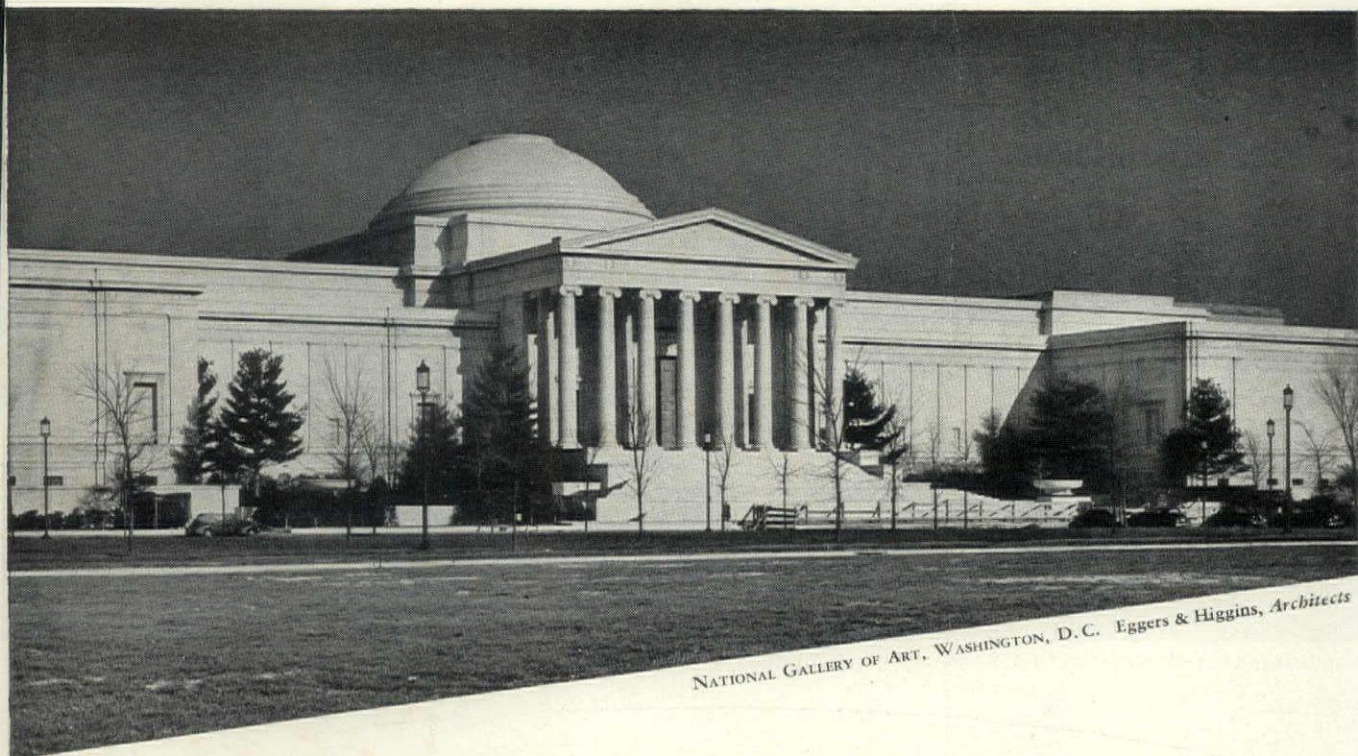
For over a quarter century architects have looked to General Bronze for fine precision workmanship—for superior craftsmanship.

Architects selected General Bronze windows, doors and architectural metalwork for many of the nation's outstanding architectural masterpieces, including the Criminal Courts Building, New York City and the National Gallery of Art, Washington, D. C., pictured above. They chose products of General Bronze also for thousands of other buildings where fine quality was appreciated. Their continued specification has made General Bronze the leader in the fabrication of non-ferrous metals.

Today we are all out for war. Tomorrow, with enlarged facilities and newly acquired techniques in mass production methods, we will be in a better position to serve you. New and finer windows of bronze and aluminum will then be available to your clients on a production, as well as a custom, basis—and with considerable savings in costs.

Whether you are designing schools, hospitals, apartments, public or office buildings you can depend upon General Bronze products for lasting beauty and many years of satisfactory service.

*From "Statistical Summary of V-Day Projects" tabulated by F. W. Dodge Corporation.



NATIONAL GALLERY OF ART, WASHINGTON, D. C. Eggers & Higgins, Architects

WHAT GENERAL BRONZE OFFERS ARCHITECTS NOW PLANNING V-DAY BUILDING PROJECTS

WE HAVE WORKED CLOSELY with hundreds of architects on both large and small building projects. We know what features architects want most in bronze and aluminum windows, in revolving doors, and in architectural metalwork. We know, too, the kind of help architects appreciate most—the kind of help that makes their jobs run smoother and easier.

Below, are some of the reasons YOU will find it to your advantage to call upon General Bronze, as you make your plans for post-war building.

LONG EXPERIENCE

Years of experience in the design and construction of bronze and aluminum windows (casement, doublehung and projected), revolving doors, etc. enable us to give you the benefits of many exclusive features that assure more efficient operation.

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Craftsmanship and precision manufacture have long been features of all General Bronze products. During the current war period they have reached new heights of perfection. After the war they will assure faultless operation of all our products.

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Close cooperation between the architect and our engineering staff has always been an outstanding General Bronze service. We are ready and anxious to develop details for you or offer helpful suggestions without obligation.

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IF YOU ARE NOW WORKING on post-war building plans we suggest that you take full advantage of our helpful detailing service. Consult Sweet's or write today for complete information on any or all General Bronze products and the name of our nearest representative.

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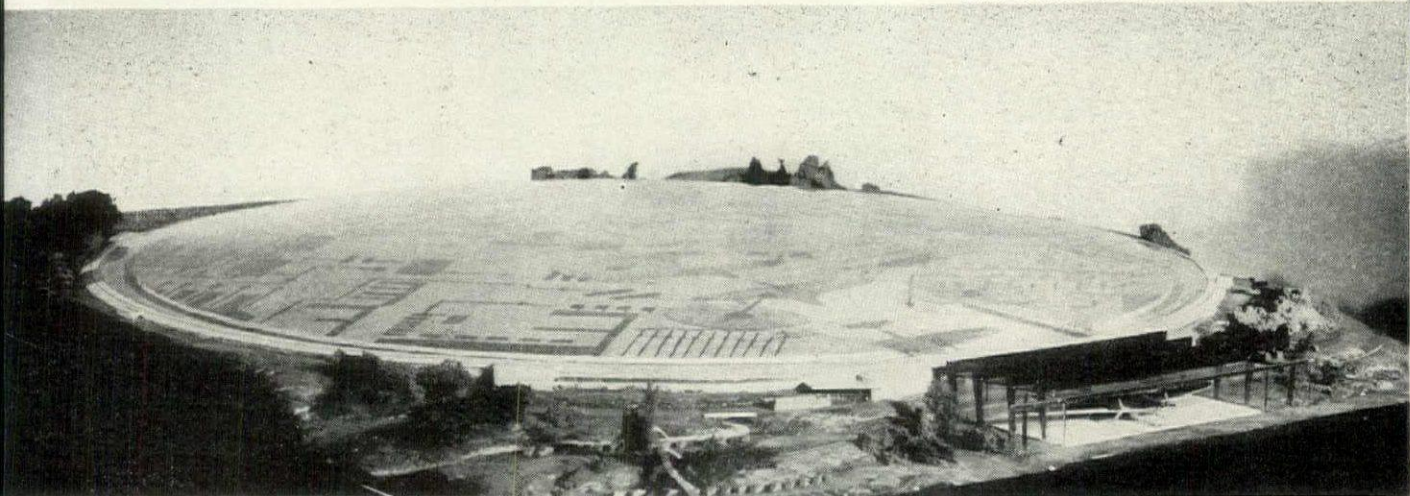
34-19 TENTH STREET

LONG ISLAND CITY, N.Y.

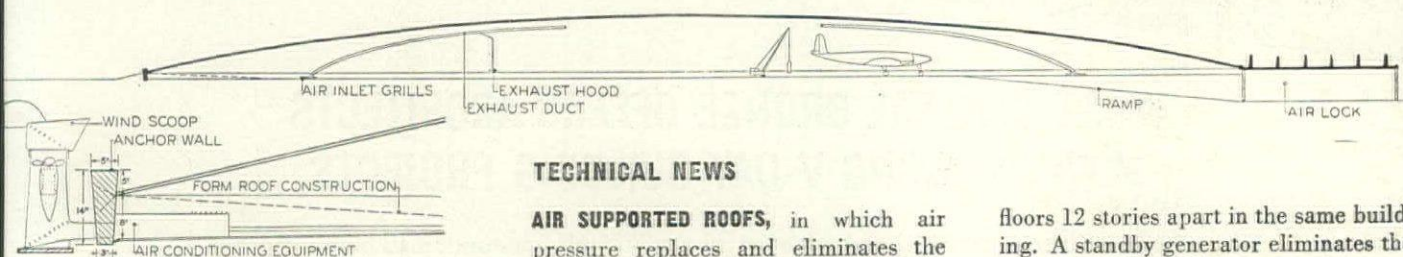


FIVE CONSECUTIVE ARMY-

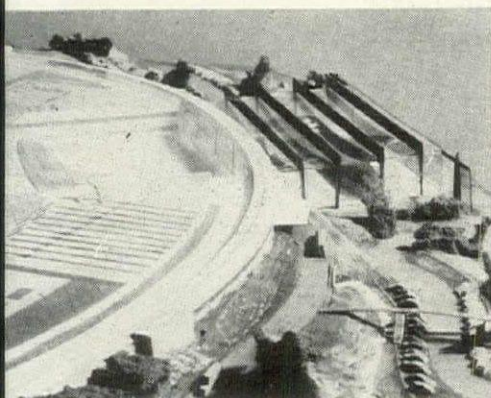
NAVY "E" AWARDS FOR PRODUCTION



MODEL OF 1200 FOOT CLEAR SPAN AIRPLANE FACTORY WITH AIR SUPPORTED ROOF WHICH ELIMINATES COLUMNS



AIRLOCK MAINTAINS AIR PRESSURE



TECHNICAL NEWS

AIR SUPPORTED ROOFS, in which air pressure replaces and eliminates the many columns and roof beams used in conventional construction have been developed by Herbert H. Stevens, Jr. In factories, storage plants and industrial buildings, the elimination of structural members would provide unobstructed working areas, and construction costs would be reduced substantially. The roof consists of a thin steel membrane, which is anchored to a horizontal circular concrete anchor ring on the ground or raised on columns. Air pressure from ventilating fans raises the roof and maintains it. So little increase in air pressure is required, that occupants experience no discomfort. The difference of pressure between inside and outside air is only equal to the pressure difference between

floors 12 stories apart in the same building. A standby generator eliminates the danger of power failure. The fans, sized for ventilation purposes, are larger and more numerous than required for the roof support alone. Pressure is automatically controlled by deflection of the roof itself; it is reduced when high winds tend to raise the roof, and increased when rain or snow loads tend to depress the roof. A slight excess pressure keeps the roof tight and prevents ripples due to wind. The inward pull of the membrane is resolved into compression around the concrete ring. The model illustrates an aircraft factory with a 1200 foot clear span and a 250 foot airlock. The plastic dome shows how the roof membrane looks when it is blown up to shape from its original position on the ground.

A CONTINUOUS ELECTROPLATING PROCESS

in the tin plating industry is producing tin plate for cans many times faster than older methods permitted. In this method, known as the Halogen Tin Process and developed by the Electroplating Division of E. I. du Pont de Nemours & Co., the plating unit requires only eight seconds to apply a tin coat to both sides of the strip as it passes through a battery of 24 plating cells. This electroplating method applies coats in the exact thicknesses required to meet varying specifications. The flexibility of continuous tinning promises the process a wider course of

postwar development when restrictions are relaxed on the use of tin. Also, it will offer means of depositing coats in whatever weight the package industry may demand. Because the sides of the strip may be coated alternately, it is possible to tin one surface, and apply a different metal to the other. One man can operate the entire process from a central control panel with assistants to load the uncoilers and unload the coilers at each end of the line. It is estimated that the yearly savings of tin resulting from the use of this process would total over 1,000,000 lbs.

(New Products appear on page 170)



Thousands Plan Homes with Electric Kitchens

proved by Hotpoint's "Bond Wagon" drive

WIDE INTEREST, both in home building and electric kitchens is shown by results of Hotpoint's "Bond Wagon" campaign, which for two years has featured "Buy War Bonds Today — Electric Kitchens Tomorrow!"

Thousands Write for Home Planning Files

The "Home Planning File," offered for 25¢ in Hotpoint National magazine advertisements brought thousands of letters. Nearly all the writers plan to build new homes after the war—and they want Hotpoint Electric Kitchens. Many thousands more of these Home Planning Files were distributed to home planners through retailers, utilities, and building trades.


It's Your Bond Wagon too — Climb On

Naturally, with such results, Hotpoint's advertising for 1944 will continue to promote the many benefits of the electric kitchen. And remember this campaign is doing an important job for the entire building industry too... and specifically for you. Take full advantage of it by cashing in on the ever-mounting trend for modern Hotpoint All-Electric Kitchens.

Write for New Kitchen Planning Book

"Your New Kitchen by Hotpoint," now on the press, will soon be offered to the public in Hotpoint National advertising. You will find it both interesting and helpful. Get an advance copy by writing for it now.

Edison General Electric Appliance Company, Inc.
5651 West Taylor Street, Chicago 44, Illinois

FOR OUTSTANDING ACHIEVEMENT  IN WAR PRODUCTION

ELECTRIC **Hotpoint** KITCHENS

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

For Distinguished Service in the WAR AGAINST WEATHER!

A great many decades ago, when this Country's home builders first sought something more than rude shelters against the wind, they called upon two principles which in the old country had served them well — *build for the generations, protect for the ages.*

Pressed into service in those early years were the skill of America's architects and the quality of the world's finest materials — materials like pure white lead.

And there grew and flourished an American architecture which was destined to survive its humble beginnings . . . which was, in fact, to come down to our generation—inspiring tribute to America's architects and their ally, Pure White Lead.

So today, when the Nation must conserve its irreplaceable buildings, safeguard even its temporary barracks and other military structures, you will find these veteran weather fighters giving distinguished service in the war against the elements.

And in Dutch Boy you will find all the weather-defying tradition of White Lead at its purest and best. Paint made from this rugged pigment doesn't crack and

scale . . . digs in and holds on and on . . . helps make buildings stand out today, stand up tomorrow.

Yes, if home front medals were given, the Architect's and the Dutch Boy's would read "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 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!

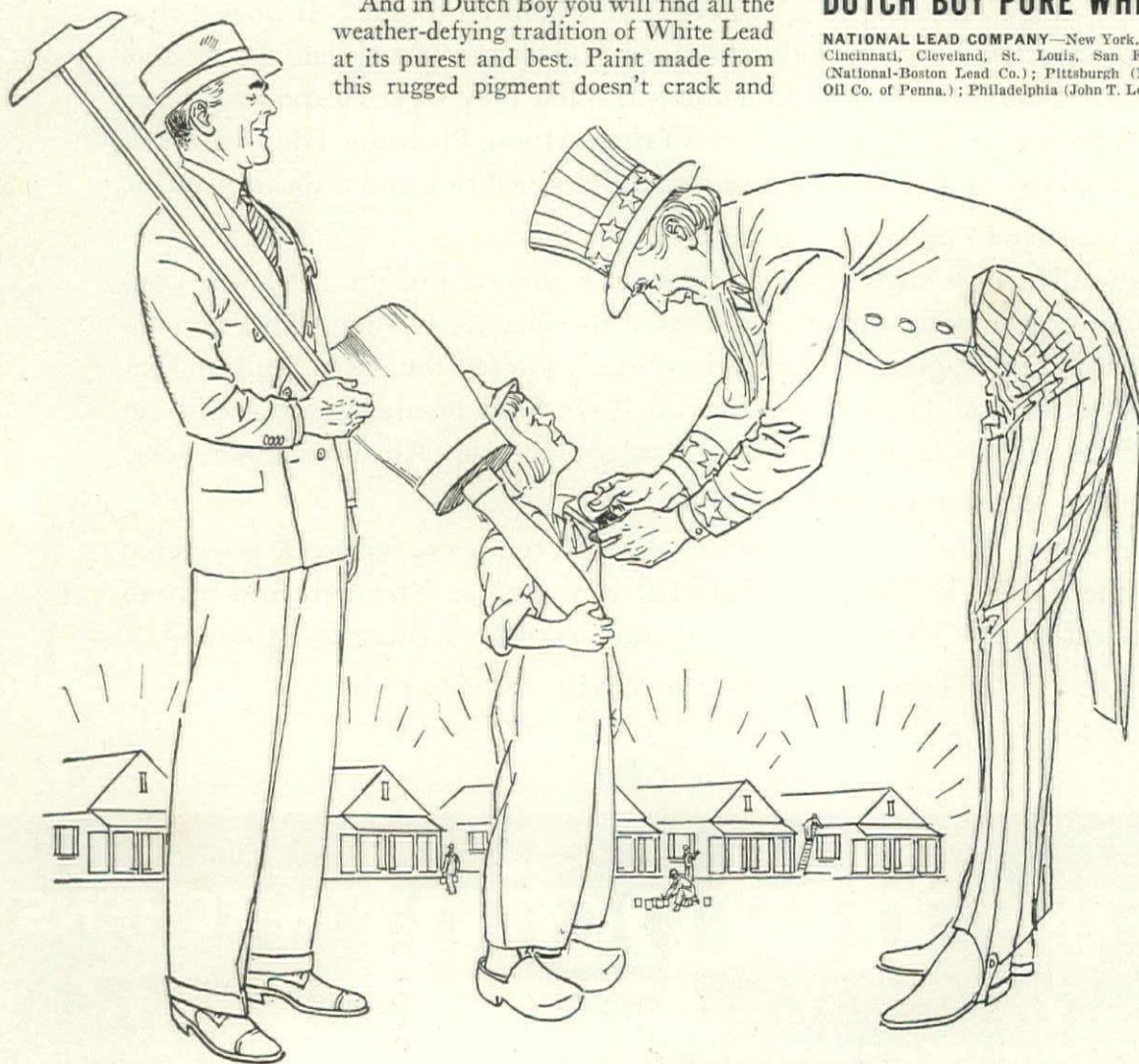


PASTE OR PAINT

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.).

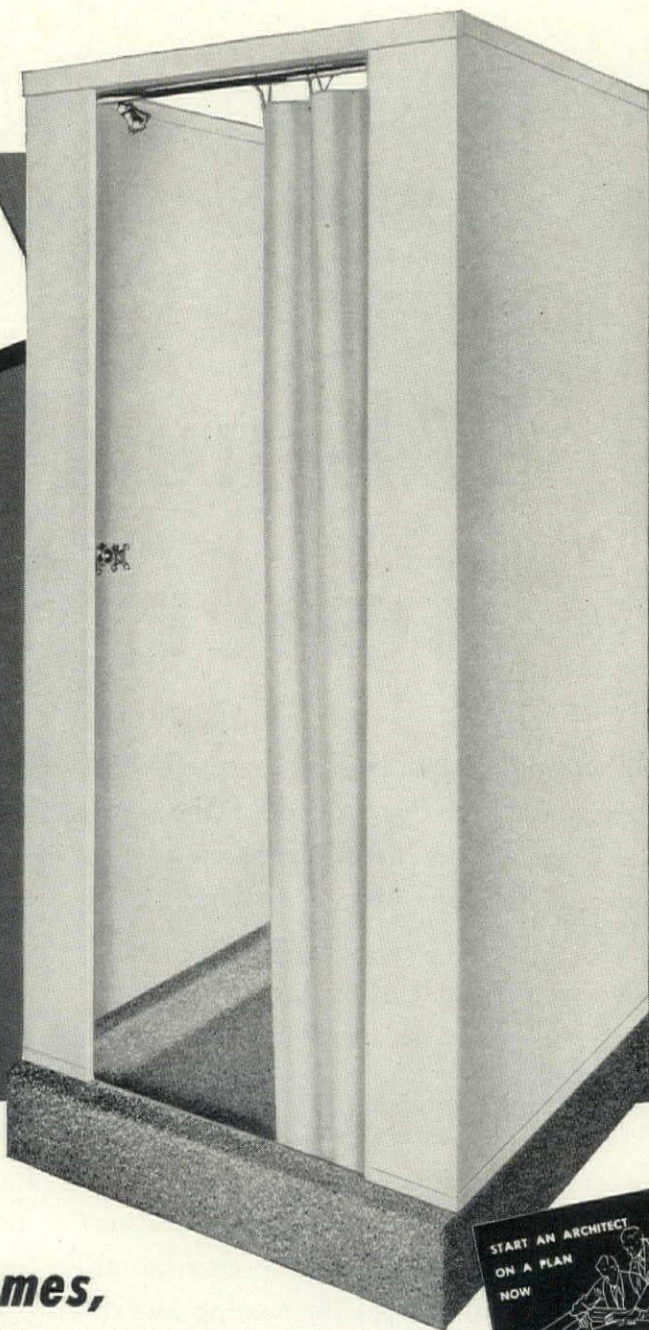


The Best Shower Made

under wartime material restrictions

FIAT
No. 85

- ★ 36" x 36" x 78" full size
- ★ Standard Ensign terrazzo receptor 6" deep with cast in drain
- ★ Heavy Duty Walls full 1/4" S-2-S Masonite hard board, coated inside and out with waterproof baked-on enamel



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

The Fiat No. 85 is a shower cabinet we are proud to present. While this unit was engineered to conform to wartime restricted use of steel, the No. 85 has the essential features of a quality

shower — beauty, structural strength and leak-proof construction. The No. 85 is now available for immediate delivery through the plumbing trade on low priorities.



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A "Blue Print" for Better Heating

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"Install a steam heating system that will guarantee prompt heating up, balanced distribution of steam and even room temperature throughout the building."

The Webster Moderator System of Steam Heating answers all these requirements—economically. Waste of valuable fuel through overheating is minimized, due to an outdoor thermostat which automatically changes the heating rate to agree with changes in outdoor temperatures. Through actual surveys made by Webster Engi-

neers, we have learned that seven out of ten buildings in America (many less than ten years old) can get up to 33 per cent more heat out of the fuel consumed.

More Heat With Less Fuel

If you are planning building construction or modernization now or after the war, let us show you our "blue print" of better heating... Write for "Performance Facts" and see the great savings possible with the Webster Moderator System of Steam Heating. This free booklet contains case studies of 268 modern steam heating installations in commercial, industrial and institutional buildings. Address Dept. AF-3

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Pioneers of the Vacuum System of Steam Heating : : Est. 1888
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The Webster Outdoor Thermostat automatically changes heating rate when outdoor temperature changes. This device is part of the Webster Moderator System, a central heat control that is saving fuel for hundreds of America's commercial and institutional buildings.



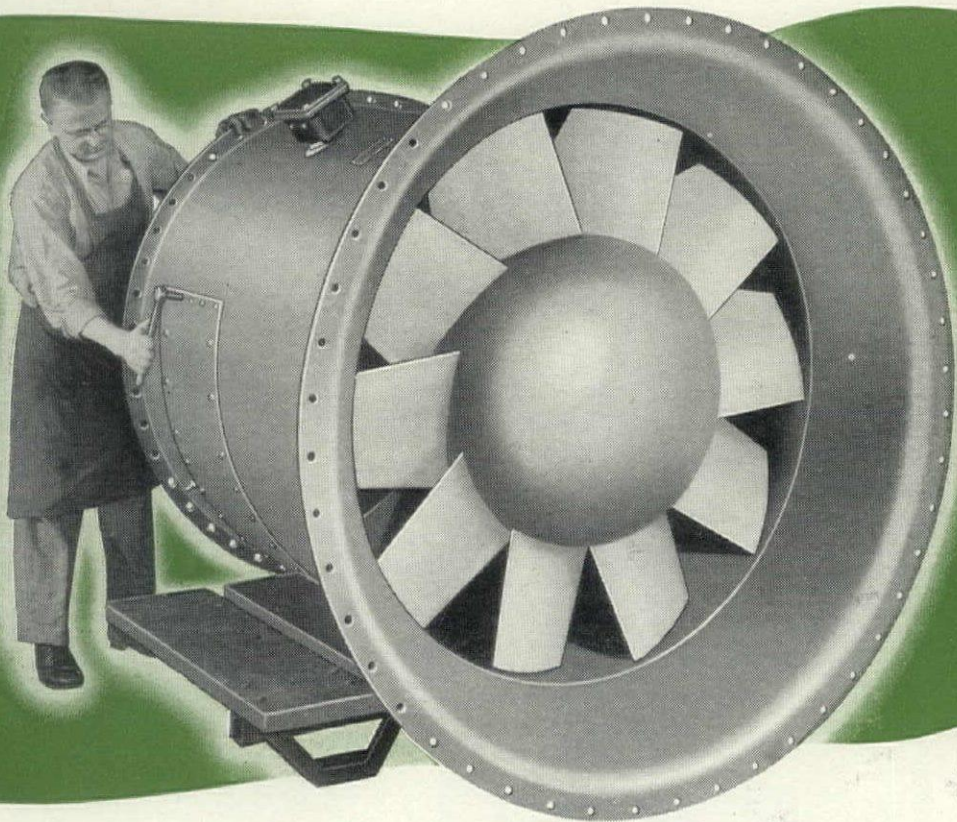
Making Boosters for
U.S. Army Ordnance

Webster
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AXIAL-FLOW FANS



...and you'll get an "earful" of warm praise! For these *extra-rugged* "man-size" ILG Axial-Flow Fans have established an enviable reputation aboard ship for stamina, for highly efficient operation, for unrivaled ease of installation and maintenance. Sensibly designed, soundly engineered, available in a wide range of sizes and capacities, you will find many uses for this ILG line in your post-war plans requiring air moving equipment in duct mounting for vertical or horizontal operation. Models for indus-

trial and commercial use are not available at present, because Uncle Sam's needs come first. But soon, we hope, announcement can be made of models for your use. Watch for it.



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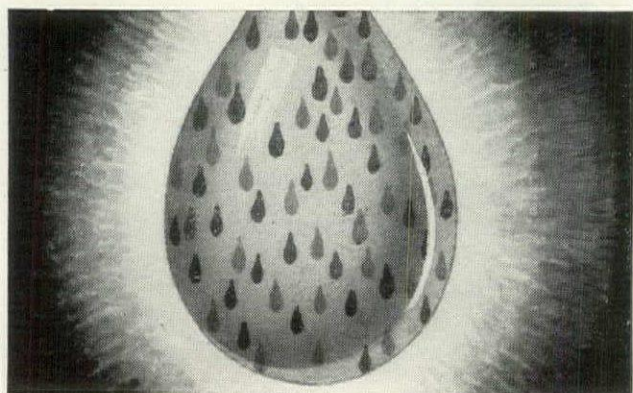
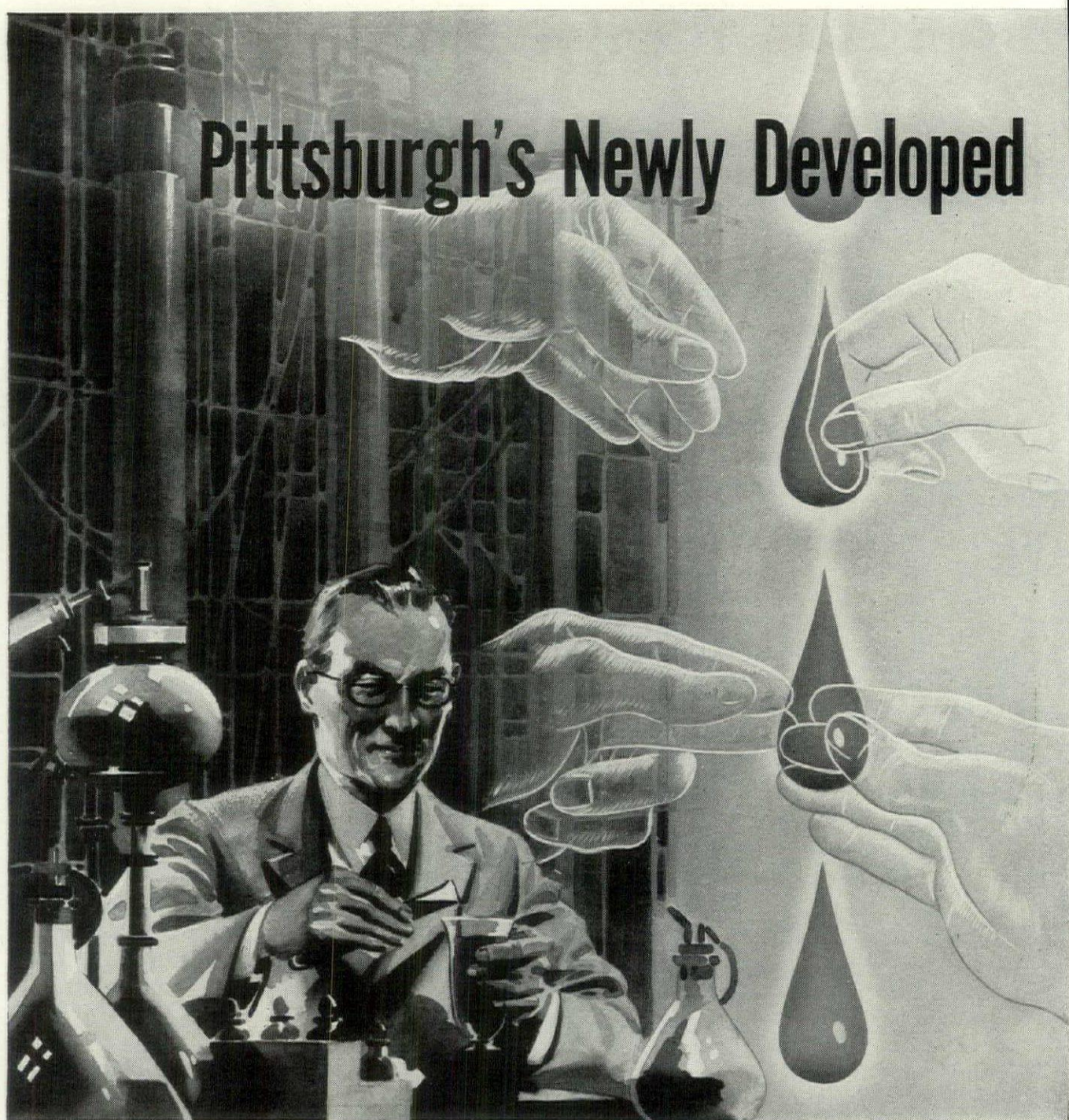
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Individual _____ Title _____

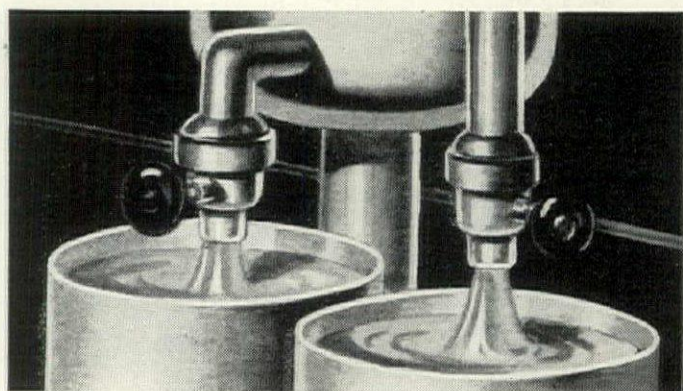
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City _____ State _____

Pittsburgh's Newly Developed



Inside Story of Oil—This diagram shows the "dual nature" of a drop of good quality linseed oil. The dark "droplets" represent molecules that are more valuable for paint-making. The lighter ones indicate molecules which are less desirable in a paint film but possess other commercial applications.



Two Oils From One—As if possessed of magic fingers, a special solvent divides each drop of oil and selects the molecules that are most useful for paint making. The result is that two streams of different oils, never before available, flow from the tower. One is an improved drying oil urgently needed for high-quality paints.

"Molecular-Selection" Process Is Of Special Interest To Architects

As if by magic fingers, a complex natural oil is taken apart to produce a superior drying oil urgently needed for many Pittsburgh paints

THE toughness and all-round goodness of any paint depend to a high degree on the quality of the oil that goes into it. That is why Pittsburgh's pioneer work in developing the "molecular-selection" process, which provides brand new oil products superior to nature's best, should be particularly interesting to architects.

"Magic Fingers" In Action

"Molecular selection" starts with natural oil rising in continuous flow, in a 70-foot tower. At the same time, a special solvent cascades down through the tower. As if possessed of magic fingers, this solvent reaches into the drops of oil—seeks out and selects those molecules that are best suited to paint-making—segregates the molecules that add nothing to a paint film.

One natural oil enters this tower—two new oils come out. The first is a paint-making oil which vastly improves the drying qualities of the many Pittsburgh paints in which it is used and enables Pittsburgh to control uniformity

of paint performance. The second oil is of value to other industries.

Combines With Exclusive "Vitolized Oil" Process

In formulating paints and finishes, Pittsburgh scientists not only have at their disposal the new "molecular-selection" oils but also the famous "Vitolized Oils" which have long been used in Pittsburgh products. "Vitolized Oils" have the advantage of remaining in paint film long after application.

They keep it *live*, tough and elastic—provide *live-paint protection*.

Only in Pittsburgh Paints will you find "Vitolized Oils" plus "molecular-selection" oils. Thanks to this unique combination of improved oils, the architect can specify Pittsburgh Paints with complete confidence. He is providing his client with a product in which uniformity of performance is scientifically controlled—a quality product which will reflect credit on the professional judgment of the man who writes the specification.

Where Magic Fingers Work

• The only structure of its kind in the world, this 70-foot tower is now converting ordinary oil into a superior drying oil for many Pittsburgh paints and finishes, plus a second oil of value to industries in which its non-drying qualities are an asset.

PITTSBURGH PAINTS

PITTSBURGH PLATE  GLASS COMPANY

PITTSBURGH PENNA.

PITTSBURGH STANDS FOR QUALITY PAINT AND GLASS

Robsjohn-Gibbings uses all strip and no tease to rip the lavender and old lace from period decorating.



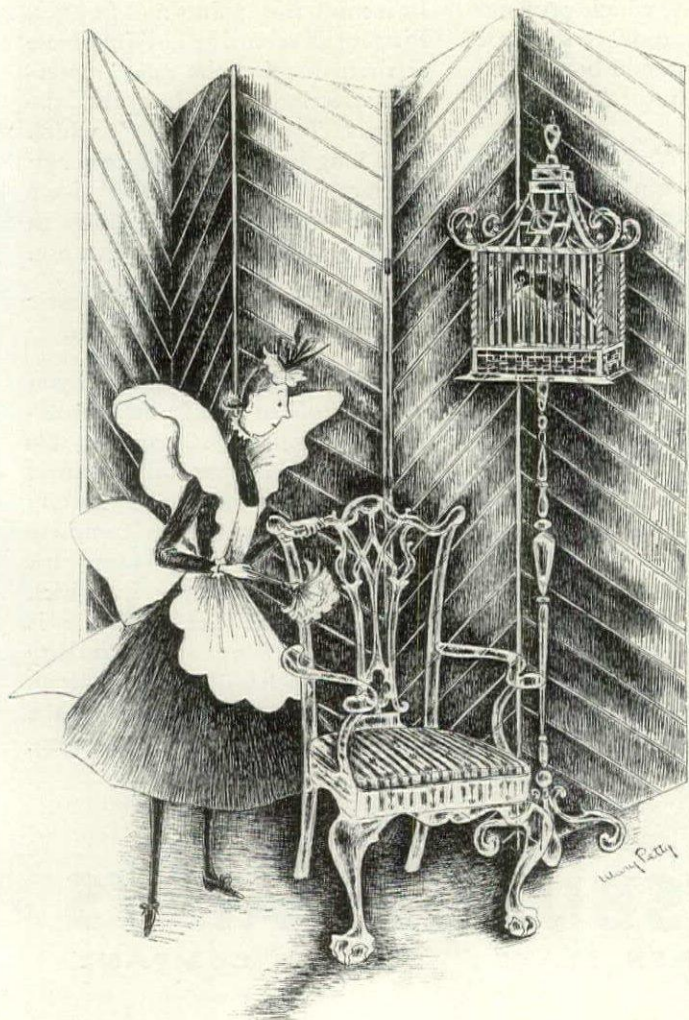
"She dotes on ruffles and frills."



"... a gilt sedan chair in the hall."



"The Turkish corner."



"Chippendale in plastic."

GOOD-BYE MR. CHIPPENDALE. By T. H. Robsjohn-Gibbings. Alfred A. Knopf, New York. 128 pp. Illustrated. 5¼ x 8¾. \$2.

In a recent volume, Dorothy Draper claimed, "decorating is fun!" To Robsjohn-Gibbings, that's poppycock. He is a modern decorator himself and a merry heretic to boot. His book, *Goodbye Mr. Chippendale*, is an anti-antiquarian burlesque happily illustrated by Mary Petty in the best *New Yorker* fashion. What *Skin Deep* did to deglamorize the cosmetic business, this book will do to period decorating. Gibbings passes the vitriol to every competitor in the field from Chippendale, the father of cabinet makers, to his progeny, the Madison Avenue frillies. The result of this single handed purge is a stack of indecently exposed experts. Collectors without masterpieces and decorators without valences are strewn all over the lot. All in all the author succeeds in unearthing a thoroughly pungent little scandal, which to his way of thinking, lasted more than 150 years, deluded a large portion of the civilized world and involved all famous designers who had the misfortune to be born after Chippendale and before Gibbings. One of the world's most recherche professions is presented as a billion dollar racket teetering between bootlegging and gatelegging.

The Gibbings version of the whole nasty business starts in England with the advent of the industrial revolution when the the bourgeoisie really came into its own. This vulgar society turns out to be none other than that of our stalwart Victorian forebears. Being ill-bred and without heirlooms, they first delighted in

(Continued on page 28)

Specify These New

Improved Douglas Fir Doors*

For today's essential jobs—and for EVERY job tomorrow—you can specify Douglas Fir Interior Doors with even greater assurance that these fine doors will be approved by builder and owner alike. Check the several new features now available:

First: The new FACTRI-FIT line offers Douglas Fir Doors pre-fit at the mill, trimmed and ready to hang.

Second: These new FACTRI-FIT doors may be ordered completely machined, too—gained and mortised by high-speed precision tools. Savings on the job more than offset the slight additional cost of FACTRI-FIT features.

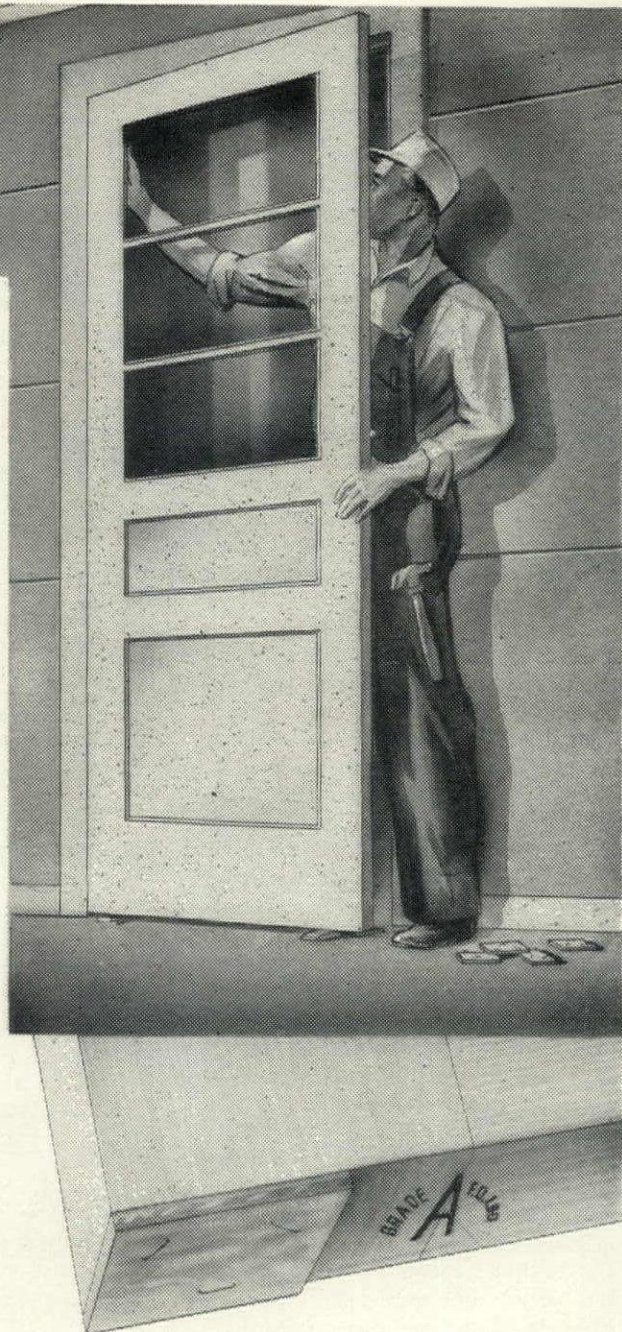
Third: To the Stock line of famous Douglas Fir Interior Doors we've added new, attractive 3-panel designs—basic all-purpose designs—adaptable to all types of building.

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Advantages

- 1** Every door is grade-marked, easy to order and specify. You select the exact door for the job—and you GET that door. No guess-work or confusion.
- 2** FACTRI-FIT doors are pre-fit, trimmed to standard size. With FACTRI-FIT, the hanging job is simple. Slow, laborious trimming and fitting are eliminated.
- 3** FACTRI-FIT doors are scuff-stripped for protection in handling and shipping—added assurance that these fine doors will reach the job **READY TO HANG**.

BOOKS

(Continued from page 26)

concocting some peculiarly horrible objects of their own design but were quickly sneered into a sense of class inferiority by embittered and broken down blue-bloods. Cast iron went out of the window and social ambition flew in. Everyone knows the story of that expensive ascent. The industrial bullies were well heeled and managed to buy their way to heaven via baronial manse deep in the English countryside; the aristocracy got a few coins to rub together by selling their ancestral seats. The exchange worked out satisfactorily for everyone and when genuine antiques were lacking crafty manufacturers were on the spot to supply indistinguishable imitations. Says Gibbings, "Only one more thing was needed to foment the fanaticism to the limits of the preposterous, and the moment was at hand. The millionaires of America were landing at Southampton and Cherbourg."

At this point, things assumed the proportions of a first class racket. Everyone wanted more money, more breeding, more ornament, more works of art. While the nouveaux riches spent themselves outdoing the other nouveaux, the antique dealers were sitting pretty—usually in the first class bar of a transatlantic liner. According to Gibbings, the whole fiasco would have toppled of its own weight but for a certain group of fiendish souls who persisted in periodically exhuming antiquity and reselling it to a naive and unsuspecting public. The more recent ones leagued up with fashion magazines and furniture manufacturers. Outstanding among the members of this sinister ring were Stanford White, Elsie de Wolfe and that wraith from *Harper's Bazaar*, Diana Vreeland.

"Stanford White's idea of a cozy American pied-a-terre," says Gibbings, "was the house he put together for William C. Whitney, formerly at 871 Fifth Avenue, New York City. The entrance hall (which must have been something to walk into after a bicycle tea at Claremont) looked like a combination of the tapestry department at Wanamaker's and the lower level of Grand Central Station. There were tapestries lapping the stone stairs, tapestries draped as portieres and tapestries cut up as pillows on the red velvet sofas.

"If the dining room, with its coffered ceiling, Renaissance stone fireplace, table scarf and chairs of Genoese velvet, had more than an undertone of Nesselrode pudding, the drawing room with its distinct cornstarch and Louis XV flavor,

(Continued on page 162)

IN THE FORUM

One anticipated result of universal television is to liquidate the old gag about "working late at the office". Fore-runner of this improved moral plane is the notion that offices should be fun to work in early as well as late. Among the

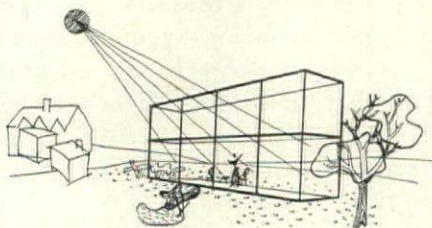
pioneers of this movement are three bright firms, Dohner & Lippincott, E. Creston Doner (who has come out of his Libbey-Owens-Ford kitchen at long last), and Ketchum & Gina (now Ketchum, Gina & Sharp) represented in the office portfolio (page 98). We take this occasion to salute Mr. Sharp who in record time has gone from captain of his football team to captain of his destiny as a brand new member of the latter firm.



Richard Neutra, architect for the Channel Heights housing project (page 65) has his own recipe for Utopian living. We aren't very clear about the details but try this . . . never never bliss hinges on right living, harmonious surroundings and a certain spiritual exaltation which the architect calls "socio-mental acoustics".

We can hear it now—the soft murmur of breezes drifting across a sunbaked plain, turtles humming to themselves of a spring evening and in the next apartment, the gentle clatter of dishes being washed.

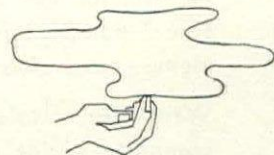
The Kleenex people were worried. Sales had slipped to a mere dribble in Glenview, Illinois. The trail led their best operative to a covey of houses erected by Howard M. Sloan from designs by George Fred Keck (page 85). Folks who lived in these houses simply did not snuffle even when the breeze was off Lake Michigan. Solar houses, a brave conspiracy of Sloan, Keck and Sun, do the trick. Though the latter partner is at times conspicuously absent.



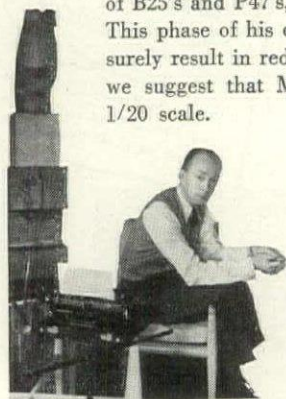
Following Park Commissioner Robert Moses' aesthetic canonading of the "Cathedral of Asphalt" (page 109), hostile neighbors have accused it of cutting off their view of the Gracie mansion. Personally, we'd compose the whole business by putting Mr. Moses in the asphalt plant, rewalling the Gracie mansion with plate glass and spend our time observing its impish tenant, Mr. LaGuardia, the mayor we—yes, love.

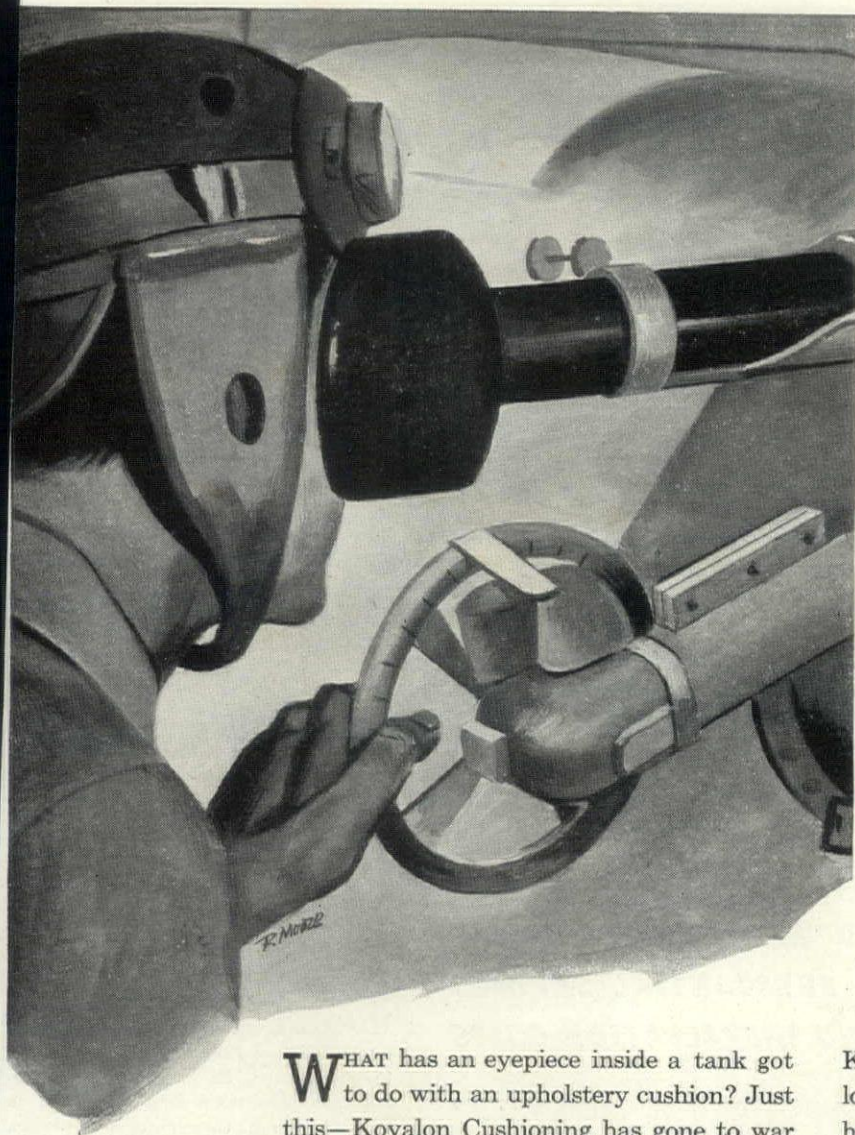


Norman Bel Geddes, our twentieth century Gulliver, has created a pigmy world all his own, except for *Life* magazine which holds a first mortgage. No armchair strategist, Norman is seen these days more or less flat on his tummy pushing around little sterling silver battleships, tanks and jeeps under a protective cover of B25's and P47's, all parts for his war manoeuvre models (page 4). This phase of his career following on the heels of the Futurama will surely result in reduced perspective. By way of occupational therapy we suggest that Mr. Geddes duplicate the Colossus of Rhodes at 1/20 scale.



Convertee of the hour is T. H. Robsjohn-Gibbings, author of *Good-bye, Mr. Chippendale* (page 26) who took his life in his hands when he abandoned antique rustling for modern decorating. From that day on the ghosts of the old masters have hounded him unmercifully. Seeking a talisman to ward off this eerie retinue Gibbings has apparently taken up where the Indians left off. Word is now awaited of his first sale at \$24.





A SOCK IN THE EYE EVERY FOOT OF THE WAY

WHAT has an eyepiece inside a tank got to do with an upholstery cushion? Just this—Koyalon Cushioning has gone to war in foam rubber eyepieces for the U. S. Army Armored Tank Corps.

The gunner inside a tank can get a terrific sock in the eye every foot of the way, except that the eyepiece absorbs shock and vibration. The Army uses Koyalon, because foamed latex rubber is the only material that can withstand constant knocks and repeated compression, yet return to its original shape.

You know those same qualities of pliability and stamina (soft, yet durable) in

Koyalon Cushioning for upholstery. Koyalon's construction—one piece of latex foam—has millions of springy latex particles which adjust themselves exactly to the body's curves and hollows.

Koyalon simplifies furniture construction because it replaces the loose padding and inner parts of upholstery with one simple, squeakless, sagless piece.

Thousands of letters from Koyalon enthusiasts all over America tell us that it is the modern miracle of upholstery comfort—that they await eagerly, the day when Koyalon will be back.

Koyalon
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FOAM CUSHIONING



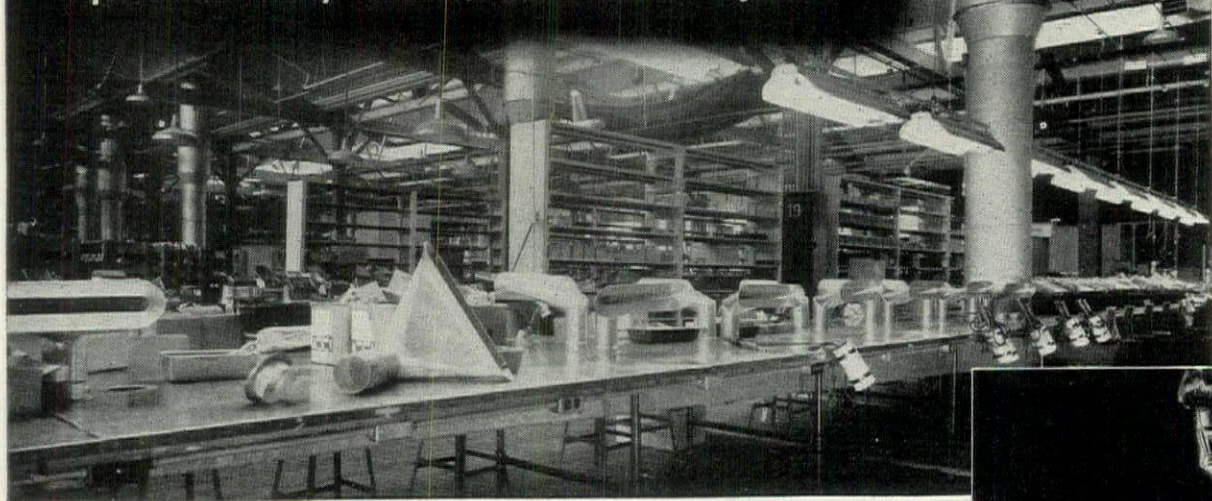
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UNITED STATES RUBBER COMPANY

1230 SIXTH AVENUE, ROCKEFELLER CENTER, NEW YORK 20, N. Y.

"DOING A PERFECT JOB REMOVING SOLDER FUMES!"

reports Mr. Harry Tendick, Maintenance Engineer



PROPELLAIR #CD24K FAN, 24" IN DIA., INSTALLED IN STACK, draws fumes through 24" x 24" air duct, underneath tables (85' long) extending both ways from stack. There are 44 inlets on each table (each fan). Each inlet spreads out from 3 1/2" dia. at neck to slot or nozzle which is 1 1/2" x 12". Each nozzle has a flaring edge through which air enters at 100 f.p.m. velocity.

PROPELLAIR FANS, COMPARED WITH CONVENTIONAL BLOWER-TYPE FANS, EFFECT SUBSTANTIAL SAVINGS IN BOTH OPERATING COSTS AND INSTALLATION COSTS

In the words of Mr. Tendick, Belmont's Maintenance Engineer, here is the result of a trial installation of Propellair Fans:

"Our efforts were well rewarded. Since that experiment we have installed them (Propellair Fans) on all of our production lines and I can truthfully say they are doing a perfect job."

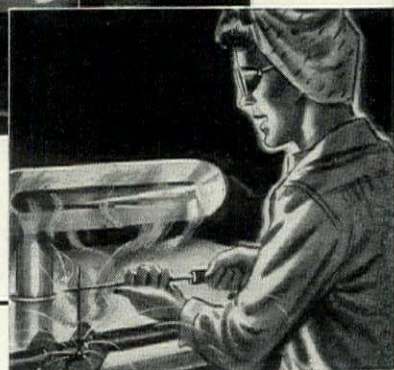
Belmont Radio Co., of Chicago, on the recommendation of the Cross Ventilating Co., made a trial installation of Propellair Fans two years ago. That they accomplished all Mr. Cross promised is proved by the fact that Belmont has installed them on all production lines.

FUMES, MOISTURE, DUST or HEAT present problems that are quickly and efficiently solved by Propellair's two exclusive features: Axial-Flow Airfoil Propellers and Curved Entrance Ring.

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Submit your ventilating problems to the Propellair Fan Testing Laboratory where Propellair Engineers work continuously solving industrial ventilation problems. No obligation. Use coupon for complete information.

MAIL THIS COUPON TODAY!



SOLDER FUMES NEVER REACH WORKER'S FACE. Long narrow slot of intake gathers fumes before they reach breathing zone. An otherwise nasty job becomes pleasant work. Efficiency no longer impaired. Output increases. Health inspectors commend the performance of this installation.

EXCLUSIVE PROPELLAIR FEATURES



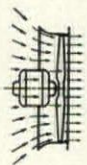
**AXIAL-FLOW
AIRFOIL
PROPELLERS**



Exclusive Propellair design results in air-flow that is even over all parts of blade ... not just tips. Non-overloading propellers give maximum air with minimum horsepower.

CURVED ENTRANCE RING

Eliminates air-flow restrictions almost 100%. Thus, full fan capacity is utilized and more air per horsepower is delivered.



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(AF1)

Please send me complete information on Propellair Ventilating Equipment.

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Firm Name.

Street Address. City & State.

My ventilating problem involves:

☐ Heat

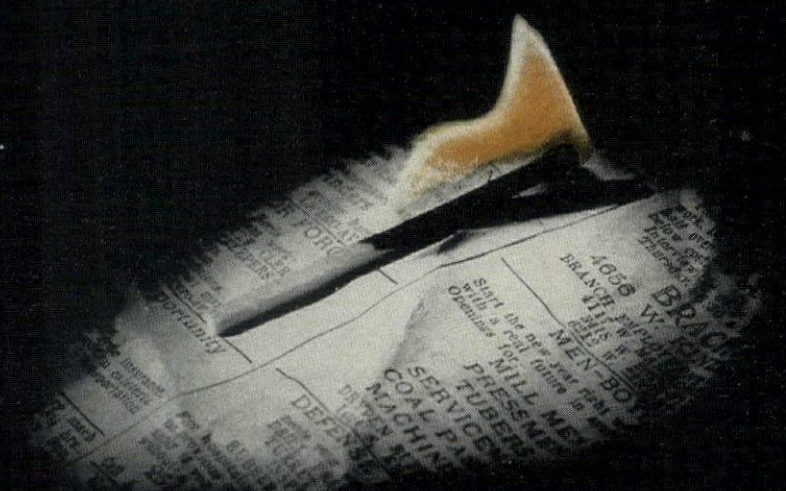
☐ Fumes

☐ Moisture

☐ Dust



Incident... or Disaster?



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.

"WELDED WALLS"—Panel joints concealed and welded together by Perf-A-Tape... stronger than the panels of Sheetrock themselves.

VERMIN-PROOF—Sheetrock has a mineral core... it does not attract or support vermin of any kind.

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

First a tiny spark—then a small blaze that's soon snuffed out—that's *just an incident*. But when flame ignites "tinderbox" walls and ceilings—sweeps on unhindered and leaves a trail of smoking ruins behind—that's *a disaster*.

The time to control fire is before it gets a "head-start"—with walls and ceilings of Sheetrock*, the *fireproof wallboard*. Made from gypsum, Sheetrock opposes fire with a fire-fighting mineral that cannot burn—and acts as a fire-armor to shield the structure over which it is applied.

Thanks to Sheetrock, you can have fire protection *and more*. There's no waiting

before decorating—no delay in applying trim—no lost motion, time or material.

Sheetrock lends itself to any form of decoration—provides sweeping, unbroken surfaces—reinforced and "welded" into one unit with joint-concealing Perf-A-Tape*; or joints may be featured as part of the decorative plan with "Panel-Wall" method. Pre-decorated Sheetrock comes in pastel shades or woodgrain effects. Walls are finished and done as the board goes on.

No wonder Sheetrock—after 20 years and more of use and proof—has become the best known and most widely used gypsum wallboard in the world.

*Trademarks Reg. U. S. Pat. Off.



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300 WEST ADAMS STREET, CHICAGO, ILLINOIS

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

GYPSUM WALLBOARD • SHEATHING • LATH • PLASTER

FIREPROOF GYPSUM

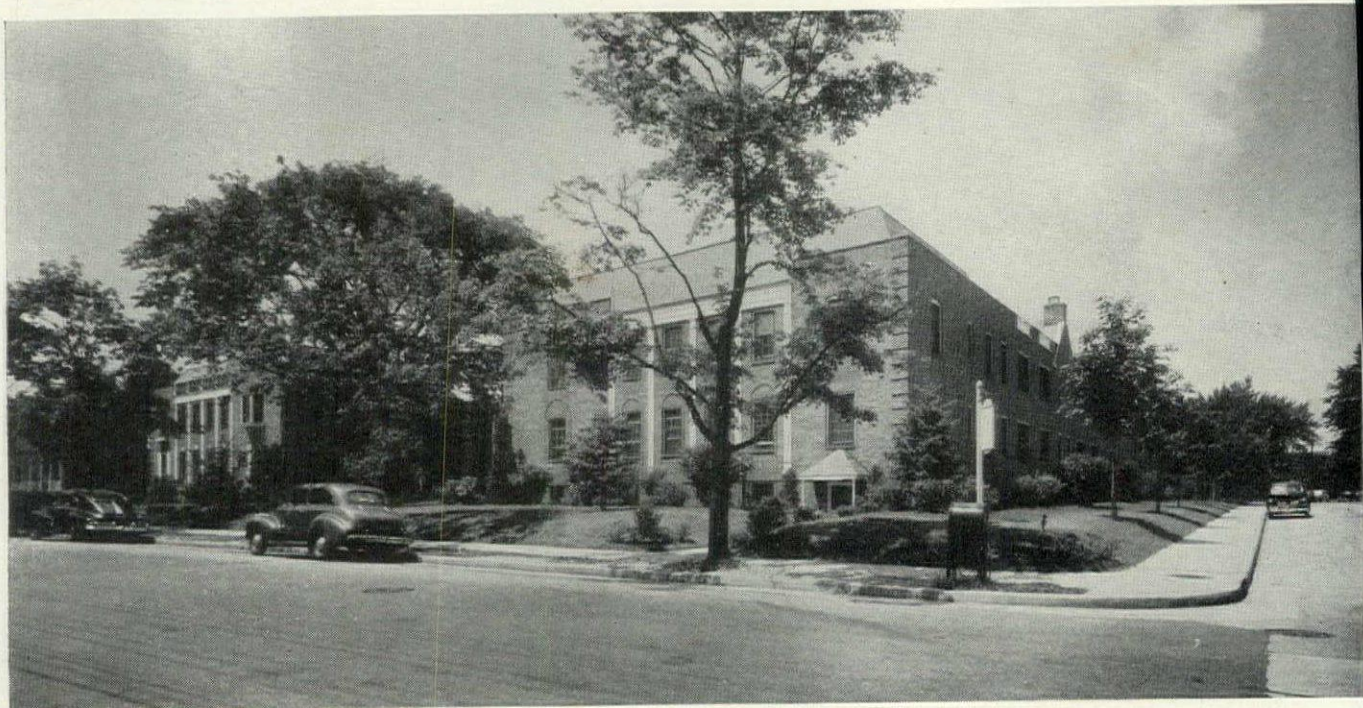
The World's most widely used Mineral for making Fireproof Wall and Ceiling Products

GYPSUM FIREPROOF ROOF DECK AND PARTITION TILE

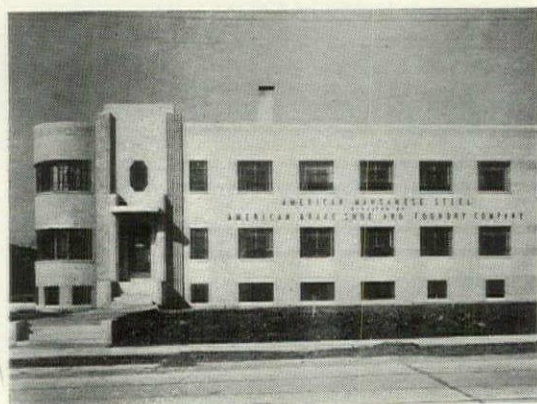
GYPSUM PRODUCTS • STEEL • INSULATION • ROOFING • PAINT

NINE ZONES OF COMFORT

ALWAYS ENOUGH HEAT . . . NEVER TOO MUCH . . . IN THIS GARDEN APARTMENT



Colonial Garden Apartments, Hempstead, N. Y., heated by a nine zone B & G Monoflo System.



An industrial application of B & G Monoflo System. This modern factory office building is heated with a four zone system.

To a post-war world demanding new and improved ways of doing old things, the B & G Monoflo System contributes better apartment house heating at lower fuel cost.

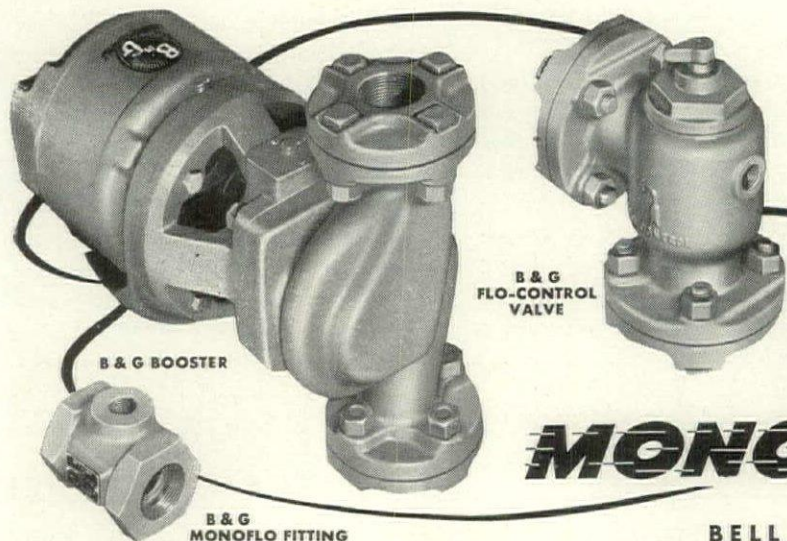
The ideal heating system is one in which the heat input can be closely balanced with the heat output . . . *which makes forced hot water the obvious choice!* Water can be circulated through a long range of temperatures, thereby permitting close adjustment of the heat delivery to the actual need for heat.

Easy zoning is a further asset—the nine zones in the apartment illustrated above assure greater tenant comfort, and by eliminating over-heating, save materially in fuel. Important, too, is the Monoflo method of piping used in this building, which enables one pipe main to do the work of two. Less designing time, easier installation and lower cost all help account for the phenomenal growth of B & G Monoflo Heating.

B & G HANDBOOK GIVES COMPLETE DESIGN INSTRUCTIONS

An authoritative source of information on the design and installation of Forced Hot Water Heating Systems and Service Water Heating Systems. The B & G Handbook presents a simplified outline of instruction, easy to understand and based on accepted engineering practices. Your copy will be sent on request.

B & G
HANDBOOK



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FLO-CONTROL
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MONOFLO FITTING

B & G MONOFLO SYSTEM

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BE READY —

The construction industry has met the unprecedented requirements of war. Now it is prepared to serve the peace with renewed experience and vigor.

The contractors of America are ready to fulfill the gigantic demands of those who look to the construction industry to supply the mounting need for private and public postwar construction.

But, planning must precede modernization, conversion and new construction well in advance of ground breaking. The time to plan is now. **THIS IS BLUEPRINT TIME.** Call in your architect, engineers and general contractor, they can help you to **BE READY** for construction, with plans, specifications and reliable cost estimates.



THE ASSOCIATED GENERAL CONTRACTORS OF AMERICA, INC.

NINETY CHAPTERS AND BRANCHES THROUGHOUT THE COUNTRY
NATIONAL HEADQUARTERS—MUNSEY BLDG., WASHINGTON, D. C.

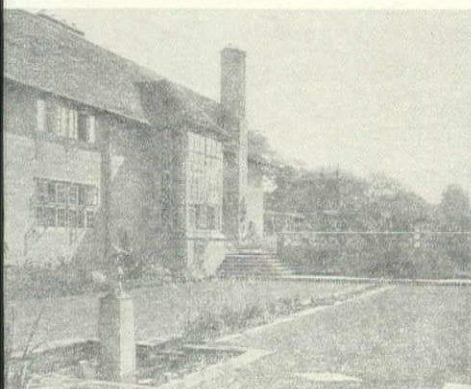
SKILL, INTEGRITY AND RESPONSIBILITY IN THE CONSTRUCTION OF BUILDINGS, HIGHWAYS, RAILROADS AND PUBLIC WORKS



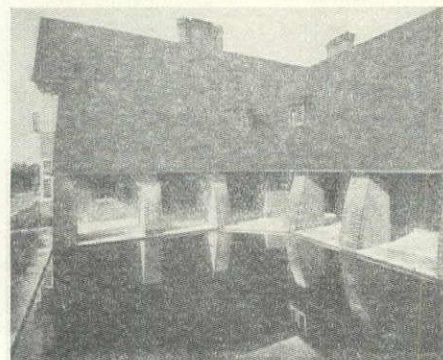
ORCHARDS, 1899 "... splendid mass composition and thoughtful garden design."



RUCKMANS, 1894 "... corner windows, large areas of glass."



DEANERY GARDEN, 1900 "... beautifully integrated with the garden."



FOLLY FARM, 1901 "... skillful use of water in relation to architecture."

An appreciation of the residential work of Sir Edward Lutyens ... A sharp criticism of the Malcolm Duncan house.

LUTYENS' MASTERPIECES

Forum:

The passing of Sir Edwin Lutyens brings back vividly the magnificent country houses that he designed during the years from 1890 to 1910.

From that date on he seemed to become more and more preoccupied with archeology, symmetry and pomposity. The tremendously imaginative, powerful and direct qualities of his earlier work seem to have disappeared as the years brought him honor, wealth and government approbation.

Nevertheless for twenty years he produced houses comparable in design with the best work of his contemporaries and a few that will probably go down in history as masterpieces. The Deanery Garden has an interesting floor plan beautifully integrated with the garden design and the garden elevation is a superb asymmetric composition.

It is interesting to realize that Mr. Lutyens in 1900 was thoroughly acquainted with many of the ideas that today we think of as modern—a direct handling of materials, asymmetric composition, windows flush with the outside wall line, corner windows, large areas of glass, integration of house plan and garden plan, strong contrasts of horizontal and vertical motifs.

The Orchards is another example of splendid mass composition and thoughtful garden design.

It would be interesting to compare in a general way the human qualities of these houses with the best houses of the present day. The obvious advantages of automatically controlled heat, electric lights and plumbing are taken for granted. In some other respects I think that we have not improved. One of these is garden design. It is indicative of the architectural frame of mind that one rarely sees a garden design published in conjunction with a house plan. Most modern architects know nothing about garden design and do nothing about it.

The second human element that I think we are losing is the skillful use of water in relation to architecture. Apparently most modern architects look upon water solely as something to drink.

A third intangible quality that we are definitely losing is that subtle warmth, color and aroma that emanates from the full-bodied substance of brick,

stone and natural hard woods. For a time it was the fashion to stain wood with a dark, unrecognizable color. Now our architects equal beauty parlor operators in their bleaching and dyeing techniques.

I think it is the privilege of THE ARCHITECTURAL FORUM to keep us cognizant of the great work of the past and remind us of our foibles.

For twenty years we were victims of Beaux Art foolishness. What will we use for a substitute in our own time?

SHELDON BRUMBAUGH, *Architect*
Klamath Falls, Oregon

RE DUNCAN

Forum:

I beg you not to be absurd! You don't fool we professionals, but you have a duty to dreamy home planners to praise only sensible workable homes, and really everything is wrong with pages 81, 82 and 83, Jan. '44 re the Duncan house.

First the price of \$6,300 for the bare building. There seems to be 1,000 sq. ft. of floor area without the garage portion. That would show a cost of \$6 per sq. ft. (\$6,000 plus \$300 for the single garage). This is about twice too high. Certainly \$4 per sq. ft. will give a better house.

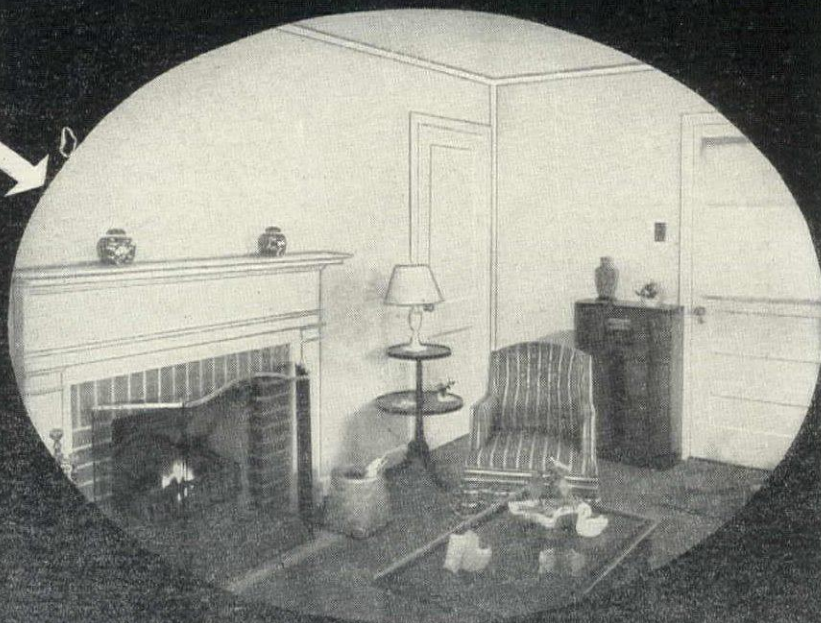
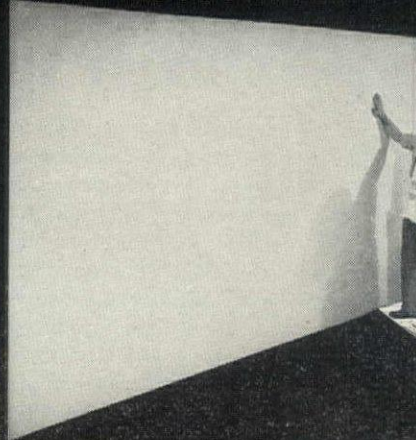
Add to \$6,300 a reasonable \$750 for land and 10 per cent for the builder and architect and you get \$7,680—which is not a low cost property.

Then your figure of \$33 per month carrying charge is very misleading. Actually, with taxes at \$55.70 (too low for most districts), fire insurance on \$6,300 in the suburbs plus interest at 5 per cent is exactly \$33 per month. You have made no allowance for the necessary amortization. Actually the payment would have to be \$41.58 per month for 20 years for interest and principal retirement alone. With taxes and insurance it would probably be \$50 per month in most districts, not \$33.

And when you are through, what have you? A small house, too small. Miserable kitchen, no place to hang laundry, or iron, or work at that big, important job. There is no spot for a snack—every crumb must be carried in and out of the living room.

Concrete floors will ruin a horse's feet and I don't want to have them

(Continued on page 36)



**NOW...it's been done
in 50,000 homes!**

There's distinction in handsomely pebbled Upson walls and ceilings.

Yes—by hundreds of builders operating from coast to coast, under every conceivable condition.

Dry-Built, Full-Wall Construction is fast fulfilling the predictions made by its adherents four years ago.

Leading builders praise full-wall size Strong-Bilt Panels as the solution to the old problems of brittle interior walls and panel joint troubles. They're enthusiastic, too, about the added dollar value Strong-Bilt Panels contribute to the job.

Fully 85% of wartime users say Dry-Built, Full-Wall Construction is the system for homes of tomorrow. Are *you* ready to benefit from its advantages?

For details and booklets, phone, wire or write The Upson Co., Lockport, N. Y.

Upson Quality Products Are Easily Identified By The Famous Blue Center



**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 structural settling. 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 nor chip. Does away with annoying and costly plaster repairs.

TOUGH AND STRONG! Laminated construction. Withstands impact up to 6 times heavier than needed to shatter boards with a brittle core.

FINEST PAINTING SURFACE ON ANY WALL MATERIAL! Beautifully pebbled and presized at the factory. No fuzziness. Can be painted immediately after application.

under mine.

Ah, no, my dear fellows, you shouldn't praise such houses at such high costs as possible plans for post-war building. And you should get someone to check your financing figures before publication. You'll only disappoint the layman and cause the rest of your readers to lose confidence.

ALLISON H. DEAN

Builder
Portland, Oregon

The figures which Builder Dean finds "absurd" are all actual costs and payments. Mr. Duncan's house was built in a rising market as a single house operation. It naturally cost more than would have been the case in a large-scale development. Its construction cost of \$6,300 included an unusual number of building features, as well as contractor's overhead and profit. At the time of construction (1941) bids as high as \$7,500 and \$8,000 were received.

The monthly carrying charge of \$33 quoted was the actual figure for interest and amortization on a bank mortgage of \$5,000. Architect Duncan's cash investment (\$3,000) may be said to have "cost" him another \$90 a year, if figured at war-bond interest. With taxes \$111 annually, his total monthly expense, including loss of interest on his investment, was just under \$50.

If these figures are "absurd," neither the bank (which valued the property at \$10,000 in making the loan) nor the present owner (who bought it for \$8,000) think so. And its sale at a profit despite inordinately high construction costs does much to validate our thesis that the kind of features incorporated in the design will pay real dividends in the house-for-sale. As for Mr. Dean's criticisms of the design itself, we have asked Architect Duncan, whose letter appears below, to comment.—Ed.

Forum:

Of course it's a small house—it was intended to be—but it was certainly easy to take care of and very comfortable to live in. As for the kitchen with "no spot for a snack," many breakfasts and Sunday night suppers were eaten sitting on two stools within handy reach of the refrigerator, sink, stove and dish storage. When we ate in the living room, steps to and from the dining table were saved by passing things through the service opening, which proved a very practical feature.

"No place to hang laundry"? On the contrary, the heater room provided an excellent place, only a step from the Bendix and always warm enough to dry the clothes in a very short time. In addition to many feet of clothes line, we utilized the exposed supply pipes of the radiant heating system for real quick-drying.

Ironing was done in the living room just outside the sewing closet (it was

(Continued on page 144)

Dear Reader:

One picture of a dead German is more dramatic than any building, which underlines one wartime problem in publishing a building magazine. The spectacular stories of war building cannot be told now. Post-war planning, however important, has not reached the thrilling stage yet. Add to these the more mundane but pressing shortages of manpower and paper. The sum of these troubles is not to preface a plea for sympathy, but to place the background against which FORUM editors have been working.

War has brought a number of changes to THE FORUM, some fairly obvious, others less so. In April, 1941, shortly before the Nazis invaded Russia, we dropped our spiral binding. No one has figured out exactly how many anti-aircraft guns this saved steel would make, but it adds up because in 1940 we used 2½ million feet of wire. Last July we reduced our page size to meet WPB paper cuts, and at the same time adopted a new binding which permits the magazine to open flat, thus retaining the major advantage of spiral. Not all of the bugs are out of this binding yet, but we expect to exterminate them soon.

All of this was fairly easy. What has been harder is the job of keeping THE FORUM's content in line with the requirements of total war, and what we hope will prove to be total peace. Our November, 1940 *Building for Defense* issue was the first of a series of special issues and special departments designed to give FORUM readers quickly information needed to participate in war developments. In January, 1942, a few weeks after Pearl Harbor bombed out our complacency over enemy air attack, we published our *Civilian Defense Reference Number*. This involved throwing out a completed issue and doing a tough, new one in no time flat. Other links in the same chain were our *War Housing* issue (May, 1942) outlining a workable approach which later became national policy, and the three "194X" issues, focusing attention on postwar problems.

But while special issues provide the skeleton of an editorial policy,

regular issues are its flesh and blood. Here we have tried to maintain a balance between the questions of war and postwar and the ordinary, recurrent demands of a well-rounded coverage of Building. Few civilian structures are being built, but many remain unpublished. New products are constantly developed and new technical trends must be evaluated. And as we get further into the period when planning for tomorrow becomes as important as doing for today, articles on the theory of Building and, for example, real estate, may prove more useful than showing how building's theories have already been applied.

By balancing these various demands we now see THE FORUM's pattern. If you will examine the contents of this issue you will find three more-or-less distinct types of material. Moreover, you will find them in three separate parts of the magazine. This is not an accident. As a matter of fact, for the past six months we have consciously divided THE FORUM into three distinct sections. Here is what they are and how they dovetail:

The first section we call *Building for War*. In this issue, it extends from the beginning of the News (page 59) to the end of Prefabrication (page 78), and includes Richard Neutra's excellent war housing project, Channel Heights. The second section, *Planning for Peace*, begins with the final installment of the postwar house series (page 79) and includes the account of Louisville's preparations for the postwar period in Planning With You, which ends on page 97. The third section, *Contemporary Design*, starts with the office portfolio on page 98 and extends through the presentation of New York's municipal asphalt plant to the back of the magazine.

This organization of our pages makes certain that each issue of THE FORUM contains material corresponding to these three main divisions of reader interest. And if it has done this, it has moved us closer to the kind of magazine Building's practitioners will read avidly, from cover to cover, from month to month.

H.M.

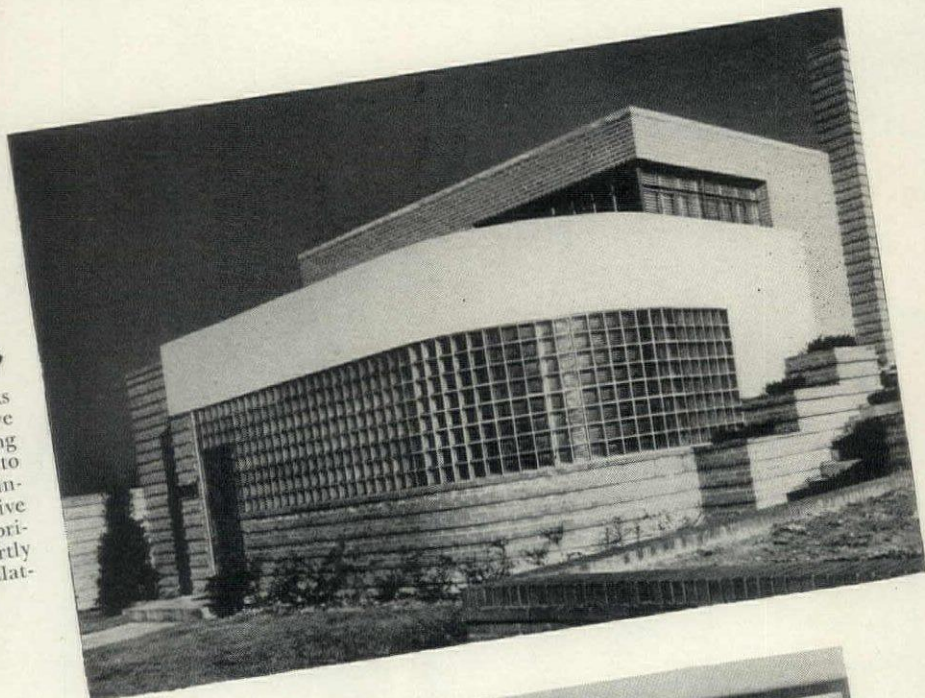
IN HOMES OF DISTINCTION

PC GLASS BLOCKS

INSURE COMFORT AND ECONOMY

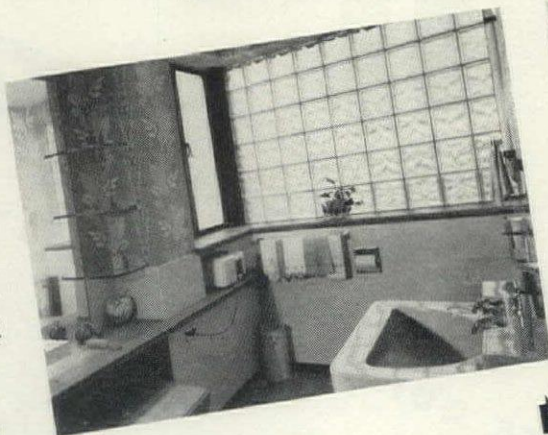
Modern House

The versatility of PC Glass Blocks makes them appropriate for extensive use in residential design. They bring cheerful floods of diffused daylight into modern—and more conventional—interiors. Available in many attractive patterns, PC Glass Blocks insure privacy, are easy to keep clean. Expertly fashioned, they possess definite insulating value.



Bathroom

In this luxurious bathroom PC Glass Blocks admit ample daylight and enhance the beauty of color and design. They insure privacy and exclude drafts. You can recommend PC Glass Blocks to your most exacting clients, with full confidence in their satisfying performance.



Music Room

This curved panel of PC Glass Blocks contributes an attractive note to a charming room. A lavish source of cheerful light by day, it glows with friendly welcome when lamps are lit, helps to maintain temperatures conducive to living comfort, winter and summer.



GLASS BLOCKS

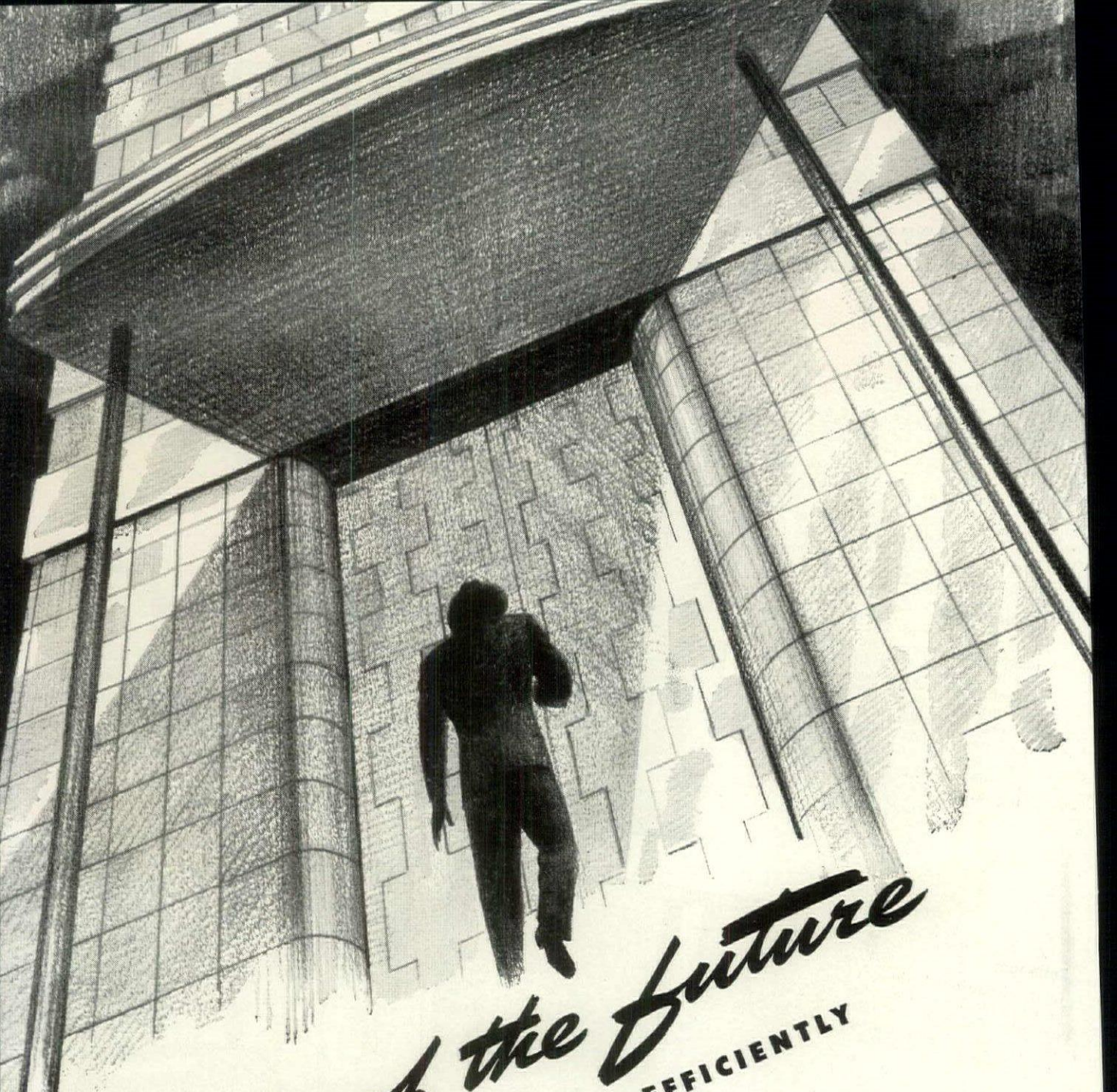
Distributed by

PITTSBURGH PLATE GLASS COMPANY
and by W. P. Fuller & Co. on the Pacific Coast

PITTSBURGH CORNING CORPORATION
GRANT BUILDING - PITTSBURGH, PA.

• PC Glass Blocks are produced by the Pittsburgh Corning Corporation, the combined result of years of research, leadership in processing technical glass and thoroughly modern facilities for the production of glass products.

We have collected technical information—detailed figures on thermal insulation, solar heat gain, surface condensation, light transmission and construction data—which we shall be glad to send to you, without obligation, upon request.



Doors of the Future

... MUST CLOSE QUIETLY, EFFICIENTLY

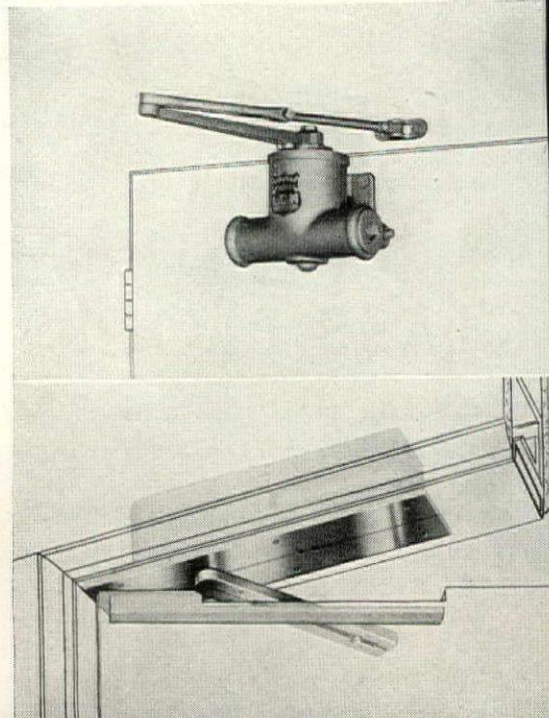
Design and mechanism of LCN Door Closers will set the standard for the future, as they have in the past.

DOOR CLOSERS



NORTON LASIER COMPANY, 466 W. SUPERIOR ST., CHICAGO

Copyright 1944, Norton Lasier Co.



TAKHINI RIVER BRIDGE on the Alaska Highway, built with the Teco Connector System of Construction.



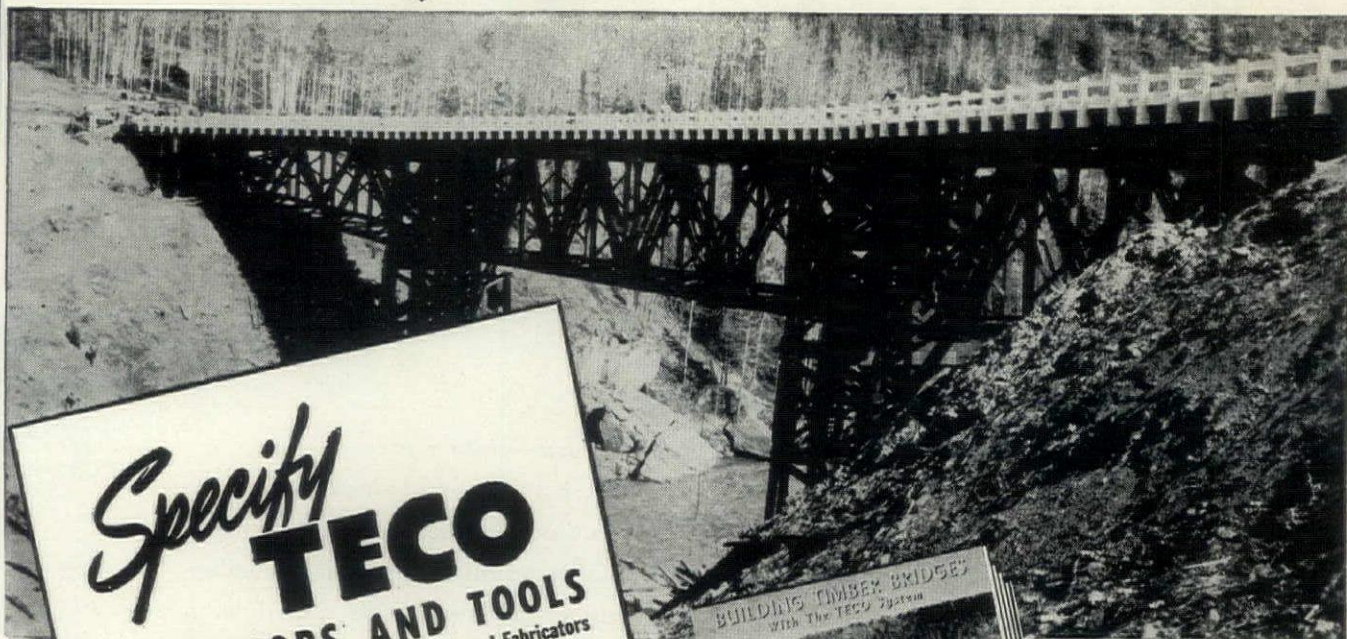
THE ARMY BUILDS WITH WOOD

Spanning rivers and gorges along the Inter-American and Alaska Highways are many modern bridges built of treated timber prefabricated and engineered under the Teco Connector System of Construction.

The Army Engineer Corps has demonstrated the advantages of timber construction for—Strength—Economy—Permanence—not only in bridge construction but in hangars, warehouses, towers and other industrial types of structures.

These advantages are yours for present and post war planning.

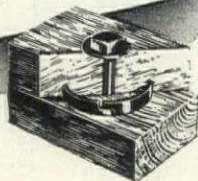
THE KISKATINAW RIVER BRIDGE, one of the major crossings on the Alaska Highway, designed by the U. S. Public Roads Administration. The timber superstructure was prefabricated and pressure-cresoted by the Canada Cresoting Co. The Timber Connector System was used.



Specify
TECO
CONNECTORS AND TOOLS

Endorsed by Leading Lumber Manufacturers and Fabricators

TECO Grooving Tools are manufactured exclusively by Greenlee Brothers & Company—one of the world's largest manufacturers of wood-working tools.



FREE PICTORIAL BOOK
Shows the Government's extensive use of timber in bridge construction in the United States and Canada.

TIMBER ENGINEERING COMPANY

NATIONAL MANUFACTURERS OF TECO TIMBER CONNECTORS

WASHINGTON CHICAGO MINNEAPOLIS NEW ORLEANS PORTLAND

TIMBER ENGINEERING COMPANY
1319 18th St., N. W., Washington 4, D. C.

Please send me by return mail a free copy of "Building Timber Bridges With The Teco System."

Name.....

Firm Name.....

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

...and now No. 10 in our series TO DIRECT POSTWAR PLANNING *....to you!*



NINE of the advertisements shown here have appeared in **NEWSWEEK**—each one of them reaching 550,000 readers—businessmen, school and hospital officials, and others who must *start* postwar plans.

The tenth advertisement, shown at the extreme right, will appear in the March 27th issue of **NEWSWEEK**.

We have devoted our advertising pages to this message because we think it is important, not only to our fighting men, but also to business and America's general welfare, that postwar jobs be planned up to blue-

print form—right now.

We have received many letters from architects commenting favorably on this campaign. A number of these architects have asked us for reprints of this **NEWSWEEK** advertising. Just how they are using them, we are not sure—although they are probably posting them in their offices and sending them to their prospective clients. If you would like to have reprints of the latest advertisement of this series, just write to us. Be sure to let us know the quantity desired.

DETROIT STEEL PRODUCTS COMPANY
Now Chiefly Engaged in War Goods Manufacture

s this your id
of your postw



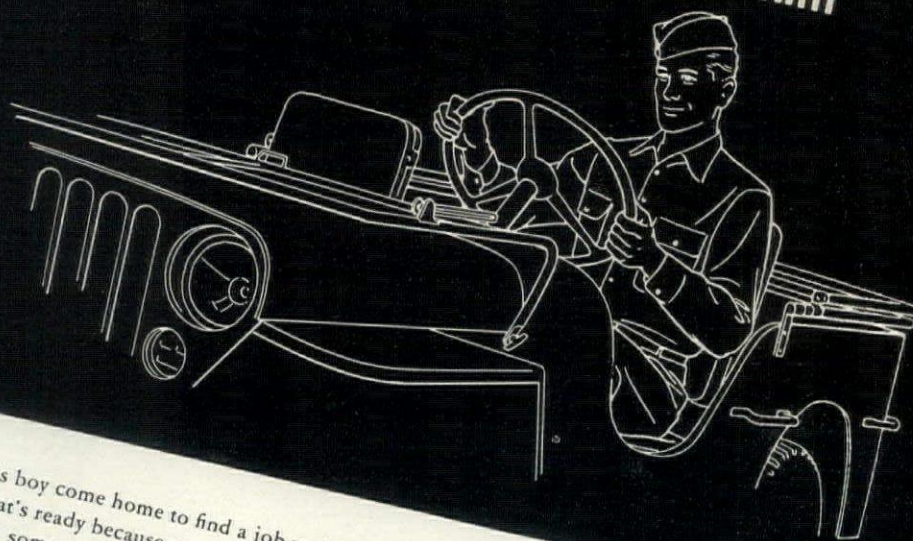
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have a right to ea
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that can I do about
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The



He'll be wanting a new job
...and you can make it for him



Will this boy come home to find a job waiting?
A job that's ready because you—and others like
you—did some sound planning while he was
at the fighting front?

Think for a moment of the things you want
in the postwar period—perhaps a new home, or
a wing on the old one. Think of your com-
munity's needs—possibly a new school, a
better hospital. Or the new store or new ware-
house for your business.

Doesn't it make sense to plan for those im-
provements now—to get all the details worked
out and blueprints made—so you can start
construction as soon as this war ends? It's a
sure way to provide immediate jobs for our
fighting men—jobs in their own communities.
How important is one plan? For example,

just one small house provides, on the site and
getting materials to the job, the equivalent of a
year's work for two men. A new school or a new
hospital can provide jobs for hundreds of men.
Project your thinking into your postwar
needs—and your community's needs. Talk it
over with your school and hospital authorities,
with your local, state and federal
governing bodies. Urge them to use
the talents of architects, engineers,
contractors, realtors and builders
to make plans now to provide for
postwar employment.



DETROIT STEEL PRODUCTS COMPANY
Now Chiefly Engaged in War Goods Manufacture
Dept. NW-3 • 2270 East Grand Blvd. • Detroit 11, Mich.
Pacific Coast Plant at Oakland, California

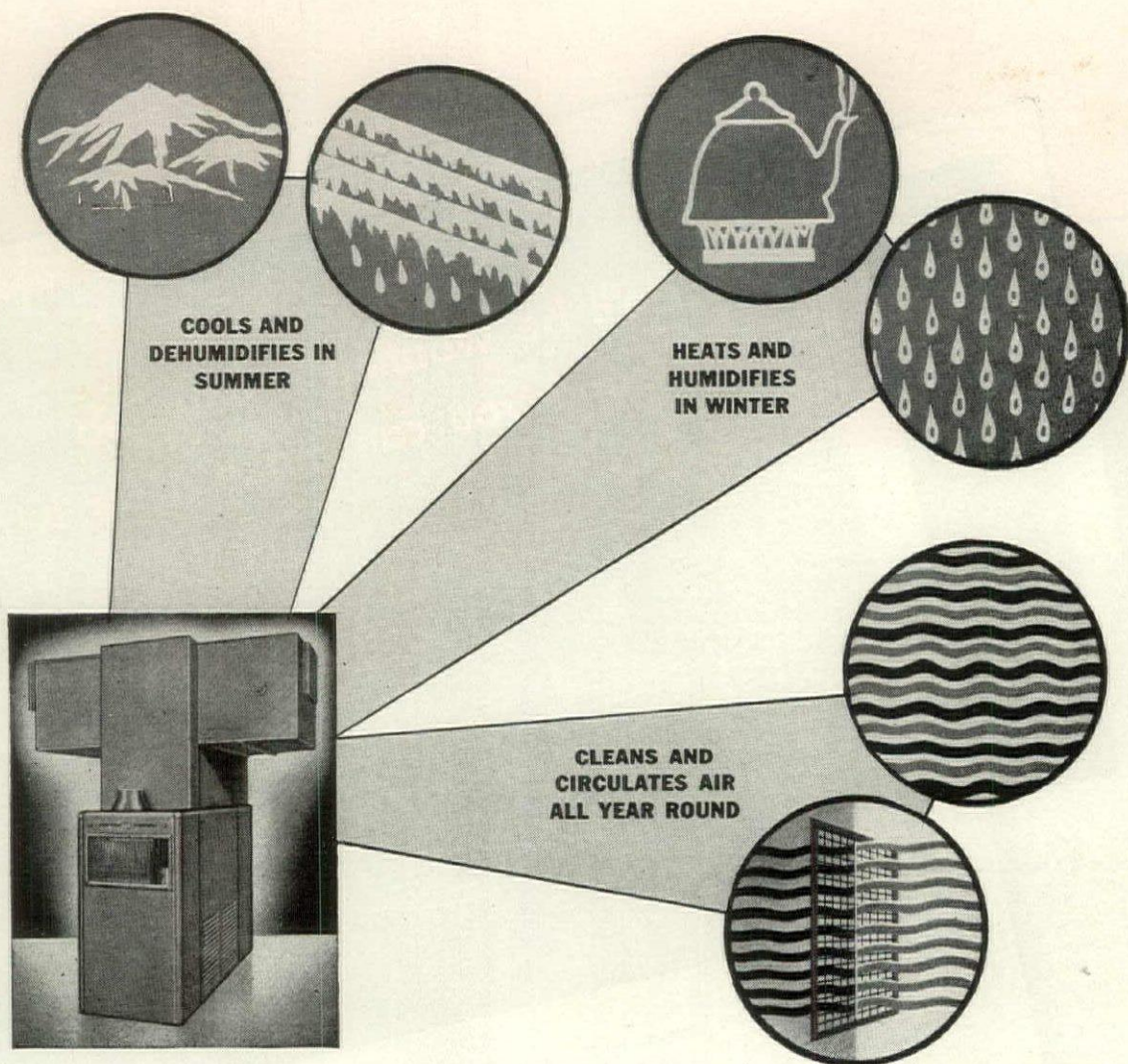
Fenestra SUGGESTS

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

This advertisement appears in Newsweek, March 27, 1944



Dept. AF-3, 2252 East Grand Blvd., Detroit 11, Michigan
Pacific Coast Plant: Oakland, California



One simple unit does the whole job

— Servel's New *all-year* Gas Air Conditioner is the Next Essential for the Home of Tomorrow

It's so simple and easy to operate! That's one of the big reasons for the enthusiastic approval accorded Servel's New *All-Year* Gas Air Conditioner in more than 340 test installations.

One compact, gas-fired unit does the whole job . . . provides cooled, dehumidified air in summer; moistened, warmed air in winter; and filtered, clean air the year round. This unit combines all the advantages of indirect fired heating and absorption refrigeration.

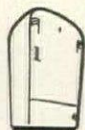
A thermostatic control permits selection of the desired room temperature, a flip of the switch for the specific function required, and the rest is automatic. No wonder one happy user writes in, "We believe all modern houses in the future will be equipped with it."

You'll be able to offer the Servel *All-Year* Gas Air Conditioner to your clients just as soon as the coming of peace permits resumption of production. So start now to familiarize yourself—and those of your clients who are already planning postwar building—with all the details of this "Next essential for the home of tomorrow."

Write today for complete information about Servel's New *All-Year* Gas Air Conditioner. Address Servel, Inc., Evansville 20, Ind.

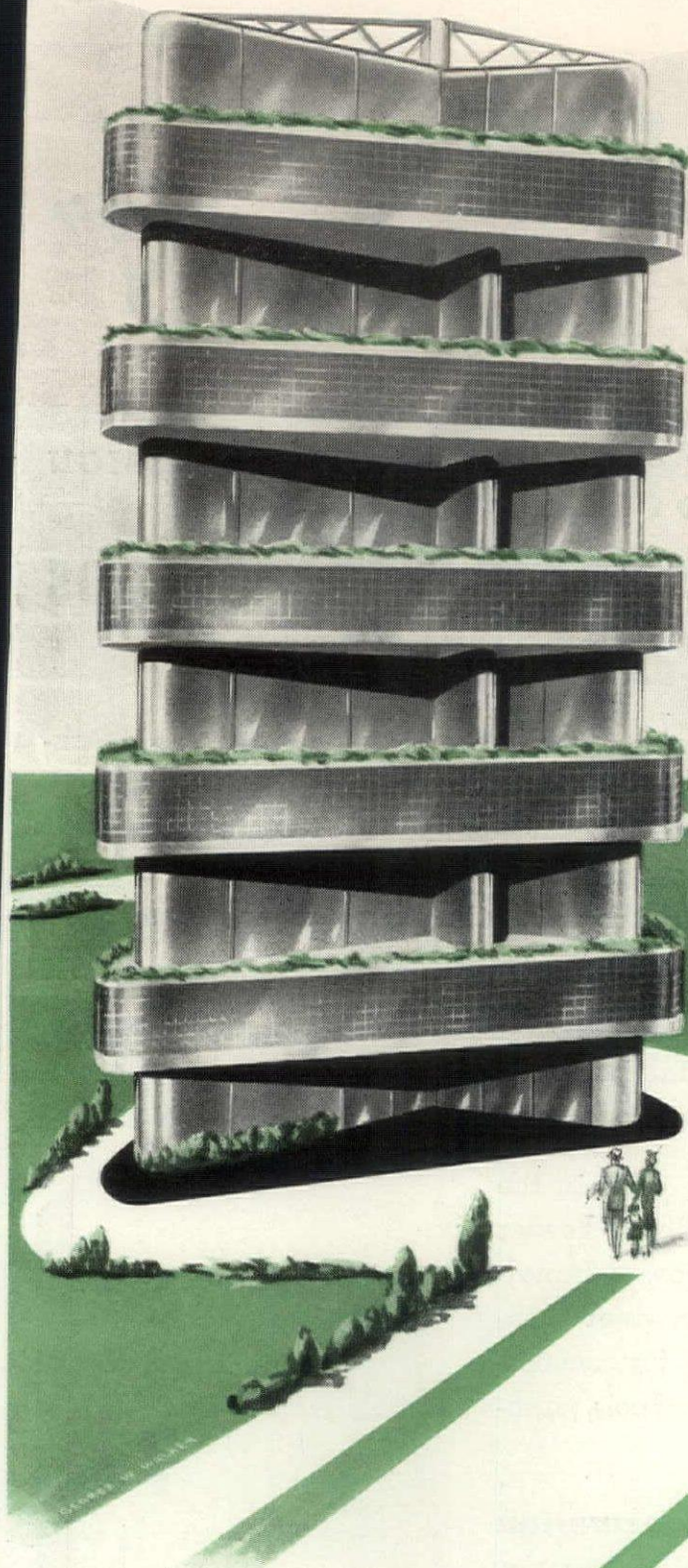
SERVEL GAS REFRIGERATORS are standard equipment in the nation's finest apartment houses.

SERVEL



Inc.

America's Leading Makers of Modern Gas Appliances



FUTURE HOUSING DEVELOPMENTS

RESearch of the Bohn organization will aid materially in developing future housing. An example of a duplex apartment of tomorrow is shown above. Rooms will be flexible—can be made larger by merely pressing buttons. Greater beauty and improved construction will be possible. Homes will be warmer in the winter—cooler in the summer. After the war, the great resources of this company will be at the disposal of the architects and engineers interested in new light alloys by Bohn. These advanced materials undoubtedly will hold first place with many industries in the shape of things to come.

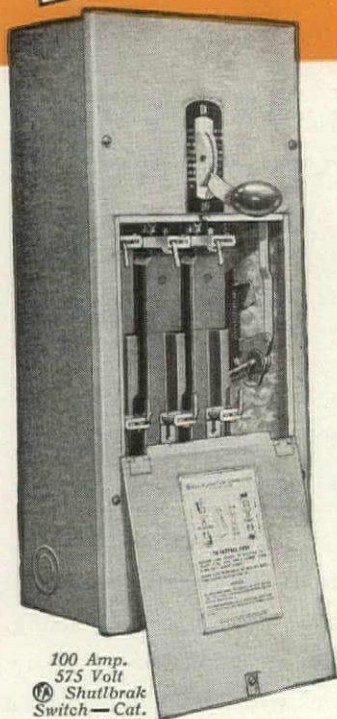


BUY
WAR
BONDS



DANGER

SAFETY— with a capital "S"



100 Amp.
575 Volt
Ⓢ Shutlbrak
Switch—Cat.
No. SA10633

In each unit, the roller type main contact and auxiliary contacts are enclosed in an insulated shuttle. Shuttle assembly is entirely surrounded by insulating material.

There is an arc-resisting barrier at all times between the line and load contacts.

Ⓢ Kamklamp fuse-holders assure copper-to-copper connection under strong compression.

Properly engineered springs insure quick make and quick break.

All current-carrying parts are silver plated for low resistance.

Ⓢ Pressure type (Solderless) Connectors make possible quick, sure connections. There is ample wiring space at top, bottom and rear of switching mechanism.

Unit capacities: 30 to 1200 amperes, inclusive, for 250 volts AC or DC, and 575 volts AC, in 2, 3 and 4 pole types.

Ⓢ Shutlbrak Switches are approved by Underwriters' Laboratories, Inc.

SAFETY IS THE PRIME FACTOR IN THE DESIGN AND CONSTRUCTION OF



SHUTLBRAK SWITCHBOARDS and PANELBOARDS

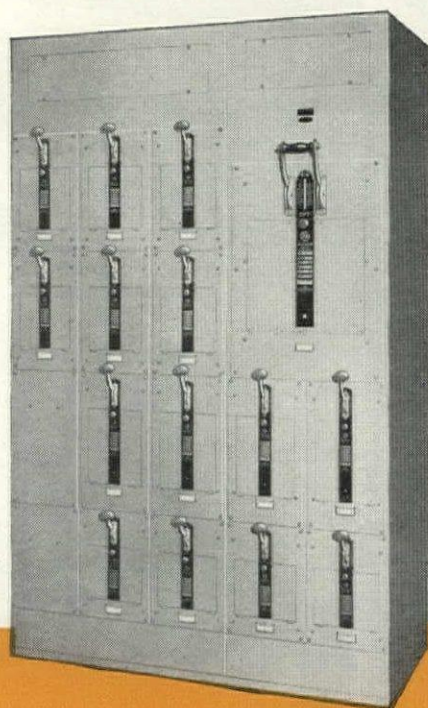
Protection against contact with live parts is assured. The switching mechanisms are completely enclosed. The door of each Type A unit has an interlocking arrangement which prevents it being opened when the switch is "on." When the door is open, the current is "off"—thus eliminating the danger element.

Unit construction of Ⓢ Shutlbrak Switchboards makes expansion of facilities easy and economical. End walls are removable, for placing additional panel sections at either or both sides. Ample size pull boxes are integral with each section.

The same units are used in the assembly of Ⓢ Shutlbrak Feeder Distribution and Power Panelboards, enclosed in steel cabinet, with door. Ideal for commercial installations, schools, institutions, etc.

For detailed information

and suggested specifications for Ⓢ Shutlbrak Switches, Switchboards and Panelboards, write for illustrated Bulletin 70 . . . Frank Adam Electric Co., Box 357, St. Louis, Mo.



Ⓢ Shutlbrak Dead Front Safety Type Switchboard



THE TIME:
After Victory

THE PLACE:
→

THE CHARACTERS:
*You!...
Your Customer!*



CUSTOMER: How soon can we move in?

YOU: (*mumbling to yourself because it's been such a long time since you've had to answer that one*) I wish I knew!

CUSTOMER: What did you say?

YOU: (*hurriedly*) I said 'It's up to you.' The house ought to be ready by Saturday.

CUSTOMER: (*highly pleased*) The roof looks beautiful, doesn't it?

YOU: (*always the salesman*) It's the finest in the block. That greater thickness of the shingle butts makes it look particularly good with the afternoon sun shining on them.

CUSTOMER: You were right about the heavy shadows they cast.

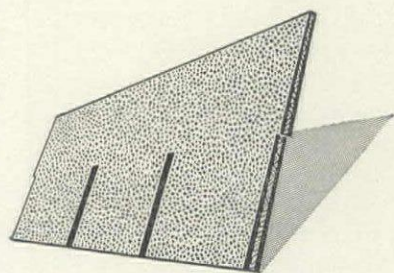
YOU: And in about 10 years you'll see I knew what I was talking about when I told you Flintkote Tapered Strips were tops in roofing quality. The tapering makes them fit snugger, and the greatest amount of protective asphalt is right where it should be... where the wear is greatest.

CUSTOMER: Then why would anybody ever want any other kind of shingle?

YOU: They wouldn't! But during the war they couldn't get them. WPB restrictions didn't permit Flintkote to make them.

CUSTOMER: Sort of a war casualty?

YOU: Yes indeed! Tapered strips "went to war."*



*Yes, Tapered Strips have "gone to war."
But after Victory, they will be back!

★

THE FLINTKOTE COMPANY

30 Rockefeller Plaza, New York 20, N. Y.

Atlanta, Boston, Chicago Heights, Detroit, East
Rutheford, Los Angeles, New Orleans, Waco

Figure on FLINTKOTE for 'Forty-Four!



"Since this hotel put in Air Conditioning they always spend their vacation here."

They'll expect comfortable stores and offices too!

YES, the air conditioned comfort enjoyed by guests and patrons of progressive hotels, department stores and restaurants will materially influence public preference in apartments, stores and office space in the years to come.

So this not-quite-factual cartoon... reproduced from a G-E advertisement originally directed to the readers of *Hotel Management* and *Hotel Monthly*... has an after-the-smile thought for architects and building management too.

You've probably already joined the forward-looking group that is planning to stimulate post-war rentals—by anticipating the growing public demand for the comfort of air conditioned space. Isn't *now* a good time to develop and organize

your plans—by taking advantage of the practical "know how" of trained air conditioning engineers?

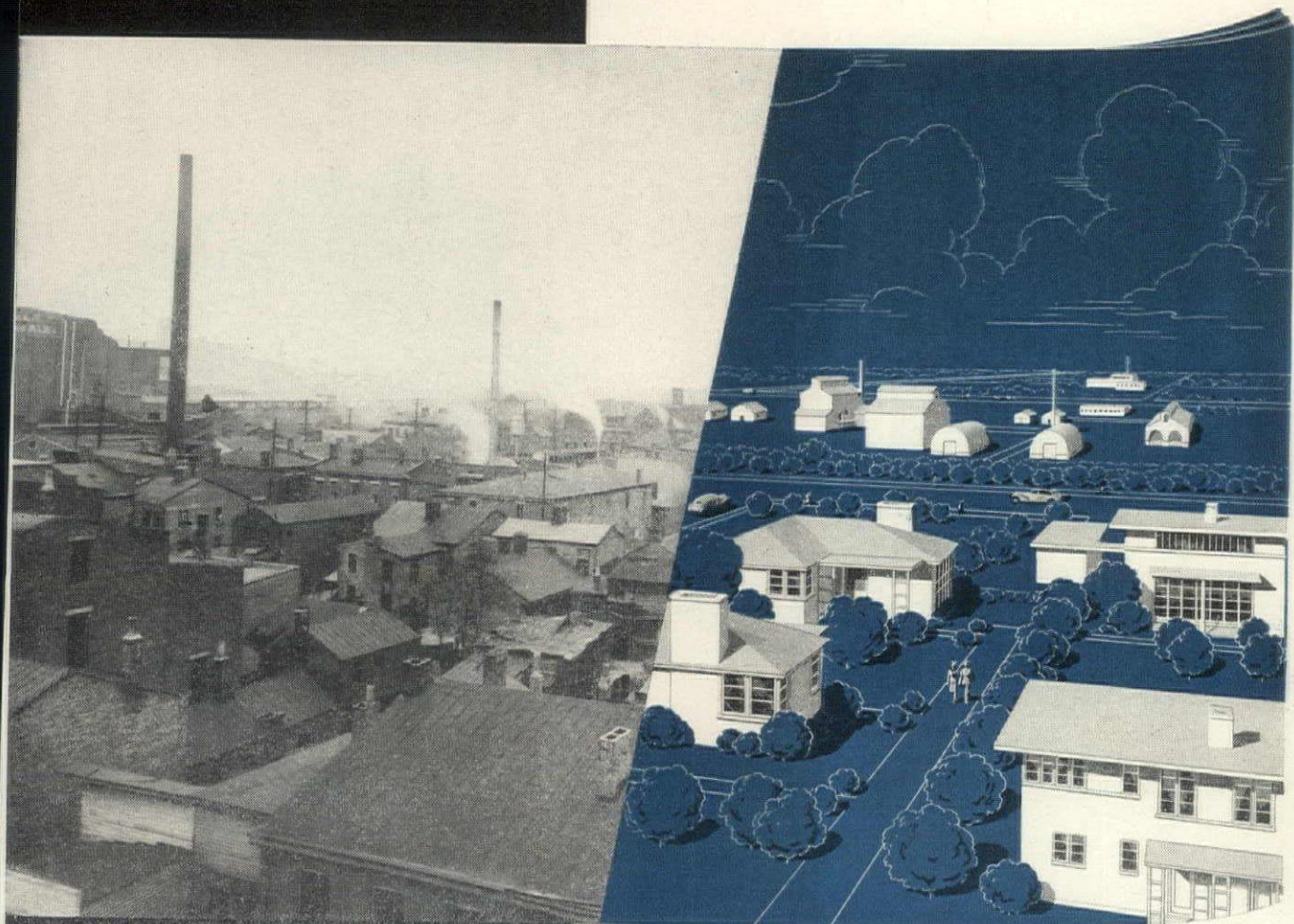
G-E Air Conditioning offers users the advantages resulting from unified responsibility in the design of all important system components—and from widespread installation and servicing facilities, through authorized dealers and contractors. And G-E's *postwar* equipment will provide a new degree of economy and compactness.

☆ BUY WAR BONDS ☆

General Electric Company, Air Conditioning and Commercial Refrigeration Divisions, Section 4133, Bloomfield, New Jersey.

Air Conditioning by
GENERAL  ELECTRIC

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



DECENTRALIZATION

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

STRAN STEEL

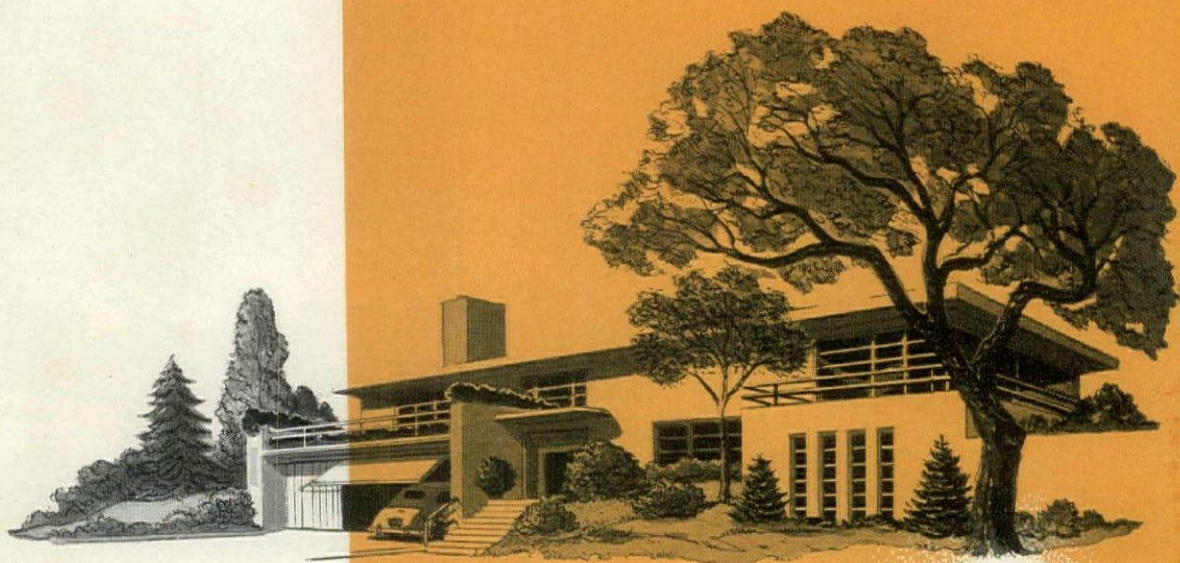
DIVISION OF GREAT LAKES STEEL CORPORATION
1130 PENOBSCOT BUILDING, DETROIT 26, MICHIGAN

Prominent among forward-looking plans for the post-war era is the decentralization of manufacturing areas. Residences and industrial plants will be segregated, with resulting efficiency in manufacturing and pleasanter living conditions for working people.

Stran-Steel framing systems adapt themselves especially well to the construction of residential and industrial buildings. A durable, economical building material, strip steel by Stran-Steel affords exceptional flexibility in design and construction, and permits speedy erection.

The wide experience gained by Stran-Steel engineers in applications of this versatile material on wartime assignments is at the service of architects and contractors for post-war planning.

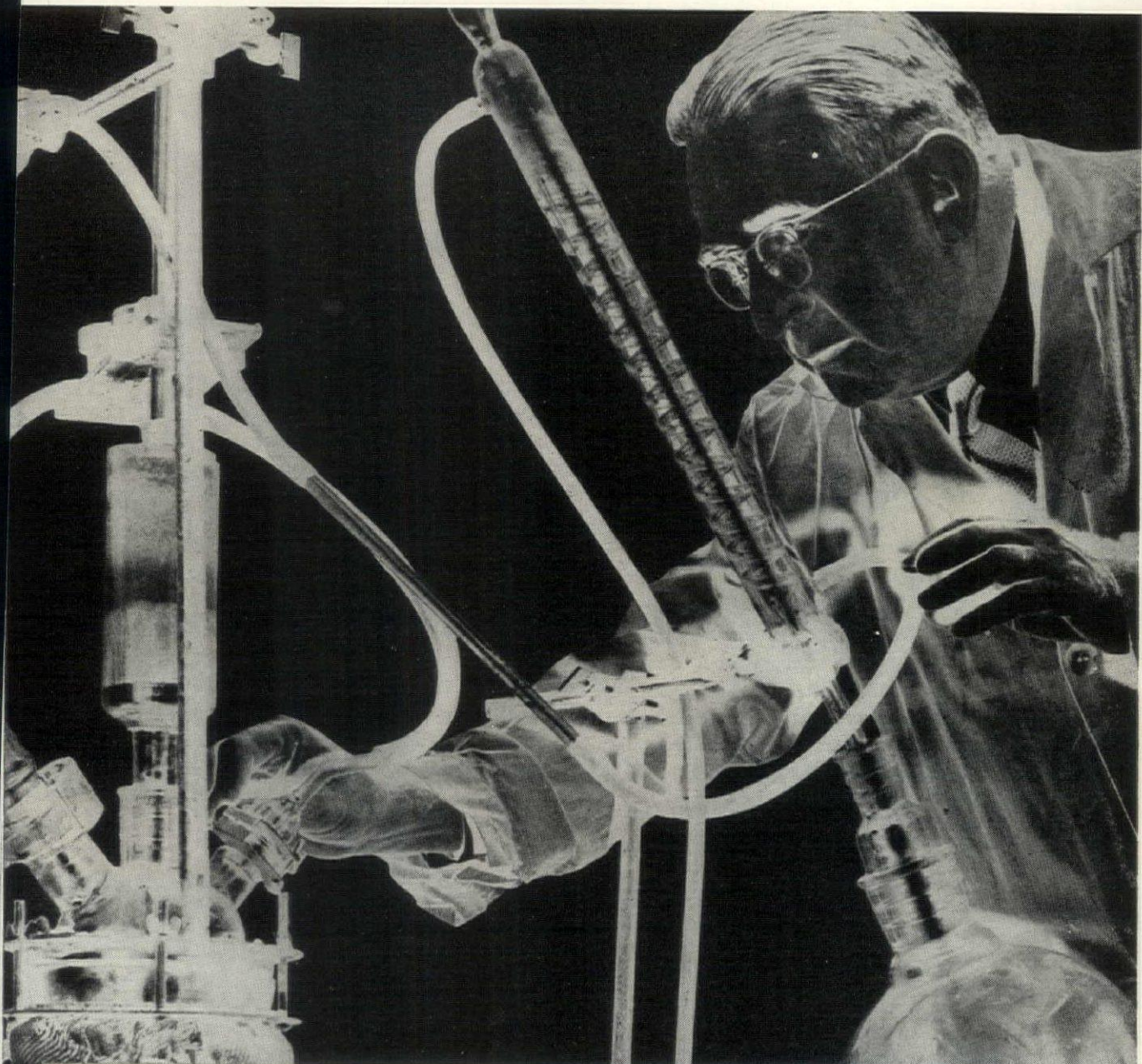
UNIT OF NATIONAL STEEL CORPORATION



The Postwar House will have **ORANGEBURG PIPE** Sewer Connections

In postwar construction the architect's up-to-date knowledge of the properties of new building materials available...his use of the best of the old familiar products along with the best of the new...will make the postwar "dream house" a reality. Among new materials you'll use after the war and may want to know about now is Orangeburg Fibre Pipe—for sewer and septic tank connections, filter beds, soil drainage, irrigation, and other non-pressure uses outside the house. Stronger than clay; outlasts iron. Tight joints prevent root growth and infiltration. Economical. Send now for descriptive booklet.

THE FIBRE CONDUIT CO., ORANGEBURG, N. Y.



raincoats for building exteriors

Ten years ago our scientists started working on a more effective way of restoring the masonry surfaces of concrete, stucco or brick buildings. Today America's buildings are able to profit from our long research. For we have created a coating which welds itself mechanically and chemically to exterior surfaces. It is called Waterfoil and is manufactured of irreversible inorganic gels. It forms a hard, heavy, fine textured surface coating from which water vapor

may escape. Water absorption, however, is impeded, thus preventing serious reinforcing bar rust and spalling. Waterfoil contains only non-critical materials and is now available so that you can decorate and restore your disintegrating masonry walls and preserve your buildings for tomorrow. Any careful workman can apply Waterfoil. Send for the literature on Waterfoil now; all maintenance executives and property administrators should have it.

A. C. Horn Company Established 1897

Building Materials Division
Long Island City 1, New York

WATERFOIL
THE UNIQUE TREATMENT FOR EXTERIOR MASONRY SURFACES



HERMAN NELSON PRODUCTS

in post-war building

Since our country started preparations for this war, the building industry has made every sacrifice needed to achieve victory. Until the peace has been won, this industry will continue its efforts in that direction.

However, architects, engineers, contractors and manufacturers are looking forward to post-war achievements. All of them are thinking about city planning, slum clearance, more efficient manufacturing buildings, stores designed for better merchandising, and schools which serve the entire community. Many are actually doing something about it.

The Herman Nelson Corporation has also been

busy manufacturing war products. As long as the war lasts our facilities will be available for the needs of our armed forces.

However, we have not lost sight of the fact that we are fighting for peace — a peace which will permit the building of a better nation, larger airports, more comfortable homes, more attractive theatres, more inspiring churches. We are not only thinking about this building. We are continuing to improve our products, looking for new uses and applications for them and developing new products. We want to cooperate with the building industry in heating and ventilating their post-war projects.

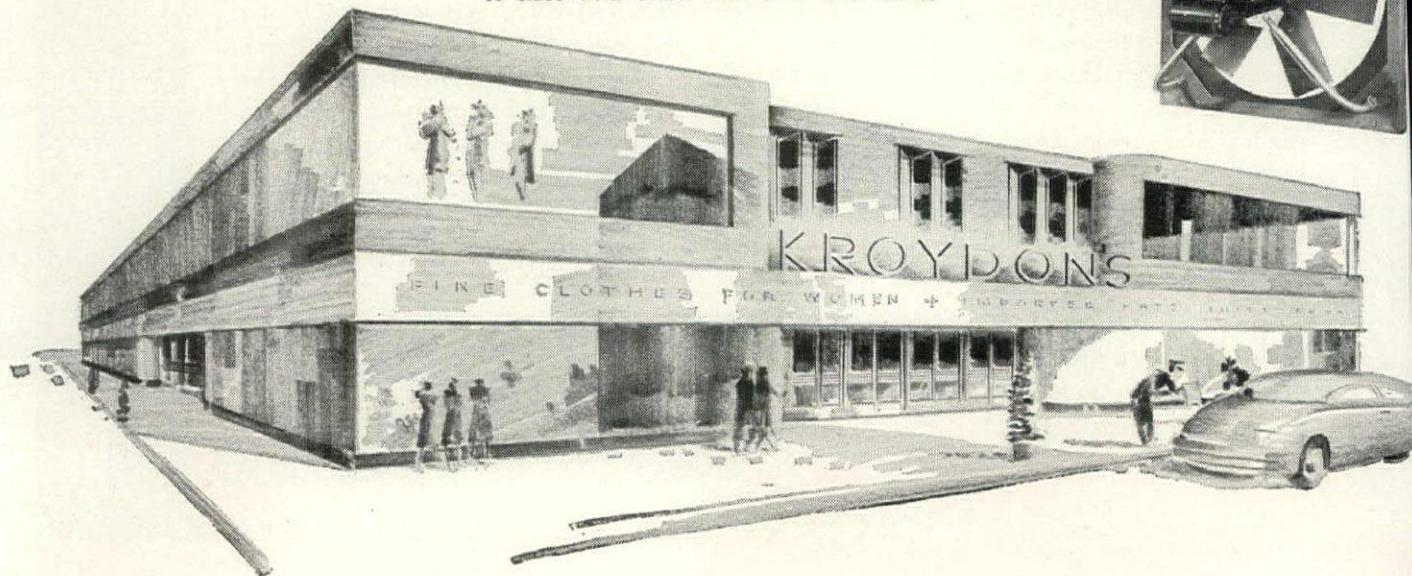
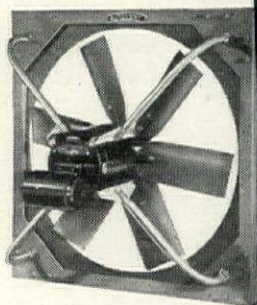


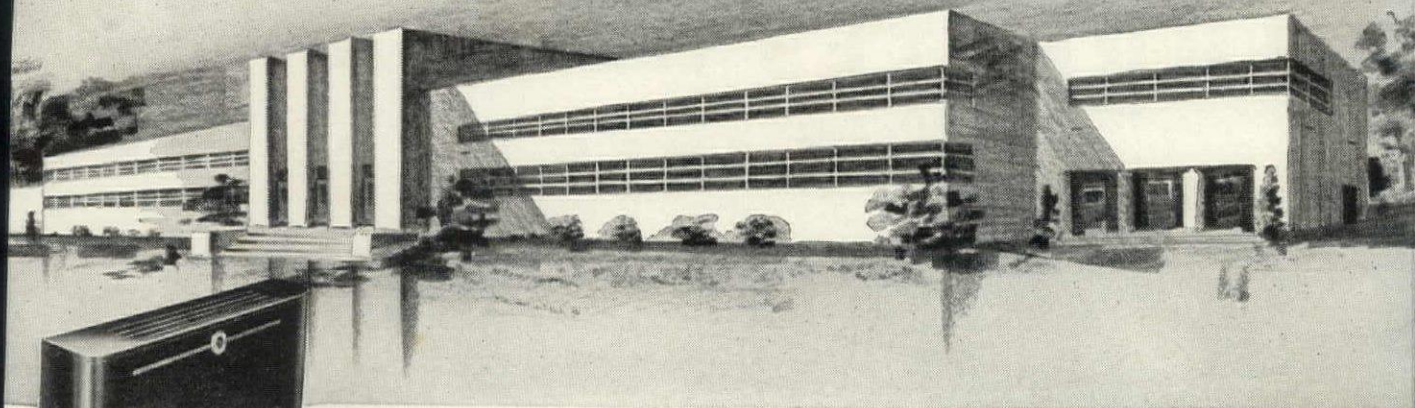
THE HERMAN NELSON CORPORATION

MANUFACTURERS OF QUALITY HEATING, VENTILATING AND AIR CONDITIONING PRODUCTS

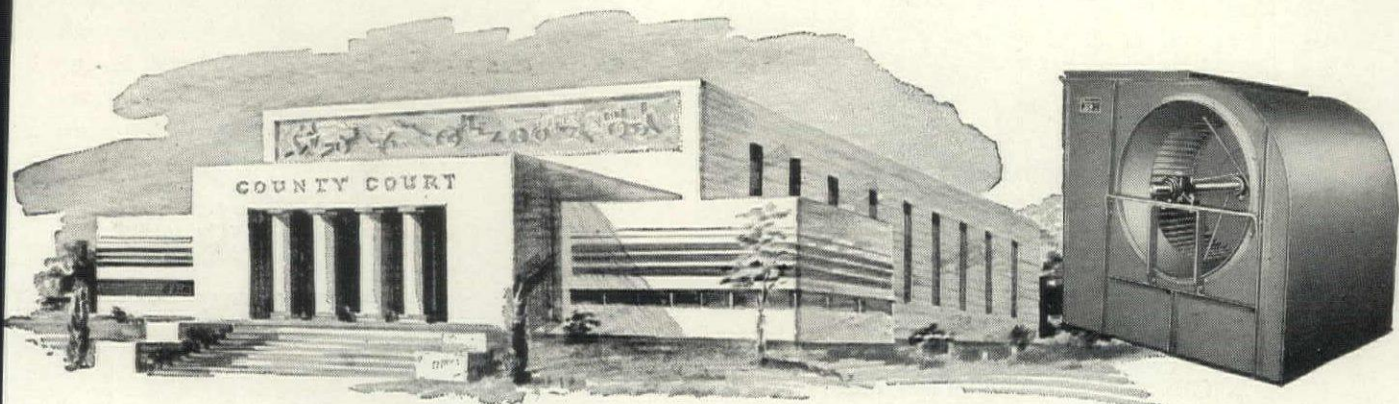
MOLINE, ILLINOIS

Commercial buildings of all types present many ventilating problems which can be solved with Herman Nelson Propeller Fans. These fans are available in a wide range of sizes with either direct or belt drive.





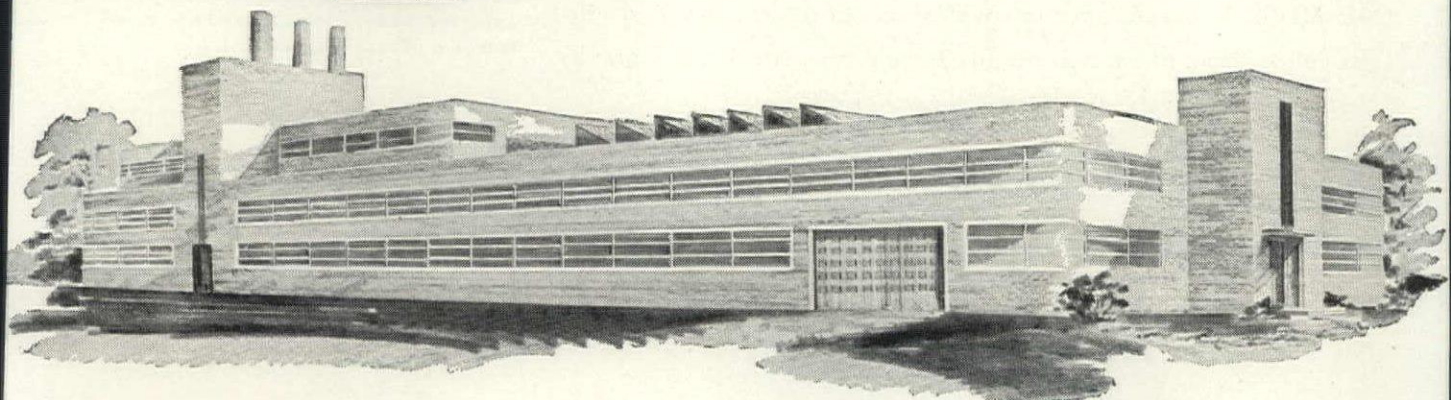
Herman Nelson is the leading manufacturer of Unit Ventilators for schools. For over twenty-five years Herman Nelson Unit Ventilators have been maintaining proper air conditions for the protection of school children's health and comfort.



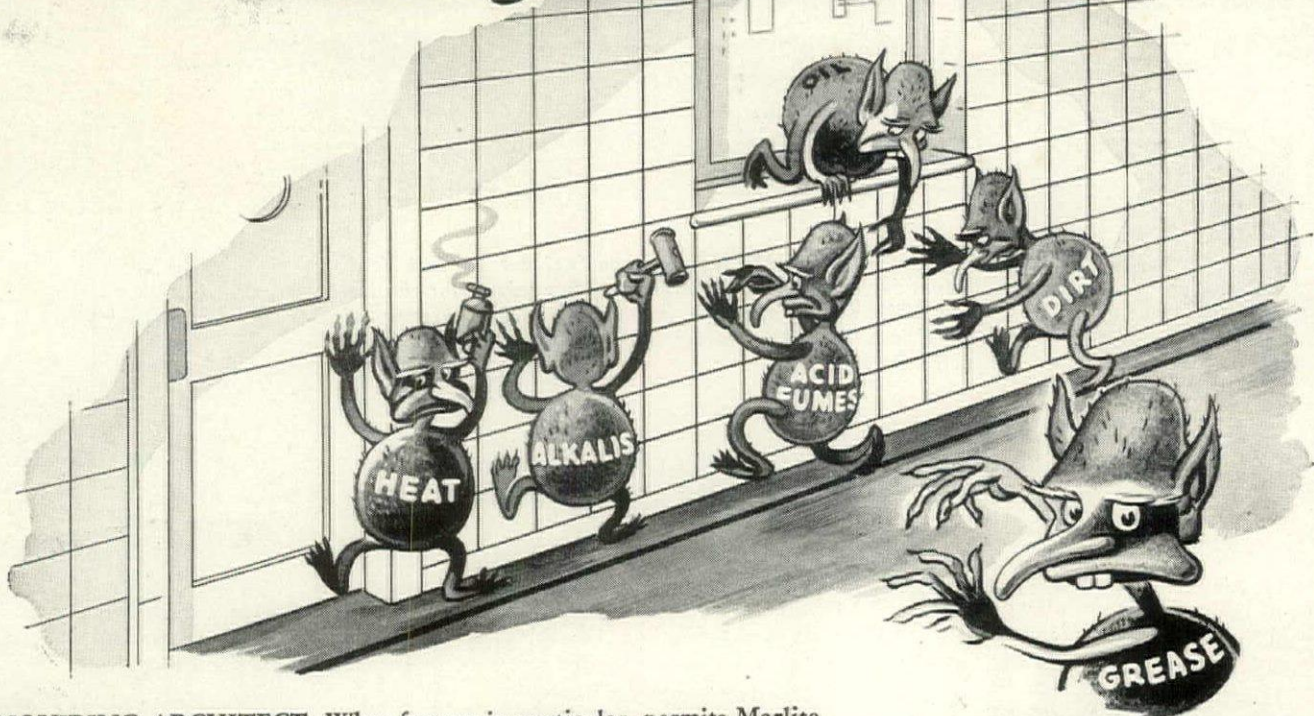
Heating, ventilating or air conditioning systems in public buildings require large blowers. Herman Nelson manufactures blowers with capacities ranging up to 300,000 CFM. They are available with either forwardly or backwardly curved blade wheels.



Unit Heaters are recognized as the most efficient and economical method of heating industrial buildings. Herman Nelson Propeller Fan Unit Heaters are manufactured in both the horizontal and vertical shaft type.



BLURMITES can't harm *Marlite* INSTALLATIONS!



INQUIRING ARCHITECT: What feature in particular, permits Marlite to withstand the actions of Blurmites?

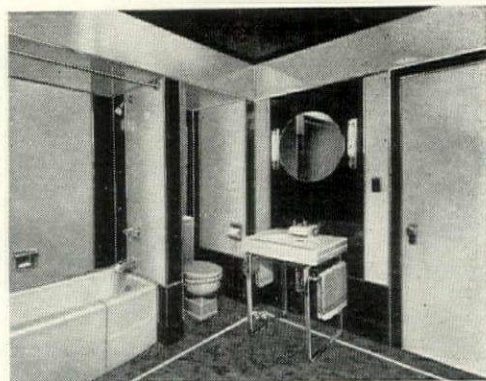
MARSH ENGINEER: It's the high-heat-bake finish that does the trick! This exclusive Marlite formula seals the surface permanently, giving positive protection against dirt and moisture penetration.

IA: As a pre-finished interior surfacing material, what other features make Marlite newsworthy to architects and designers?

ME: Marlite is durable, versatile and moderate in cost; quickly and easily installed for new construction or remodeling; easy-to-clean; retains original luster and beauty permanently; never needs refinishing or repainting.

IA: Does the Marlite line offer a wide choice of colors and patterns, and is it immediately available?

ME: Marlite is manufactured in a wide choice of colors and patterns that give full-freedom to creative imagination and stimulate design ingenuity. *Marlite is immediately available on suitable priorities.*



Marlite is ideal for bathrooms, kitchens, rum-pus rooms, living and dining rooms in homes; for restrooms, toilets, cafeterias, corridors, offices and reception rooms in commercial and industrial buildings.

See Sweet's Section 11 for complete information... or write for the service of a Marsh Engineer.

FOR POSITIVE CUSTOMER SATISFACTION—SPECIFY MARLITE!



Marlite
REG. U. S. PAT. OFF.

MARSH WALL PRODUCTS, Inc.
31 MAIN ST., DOVER, OHIO

duty-free

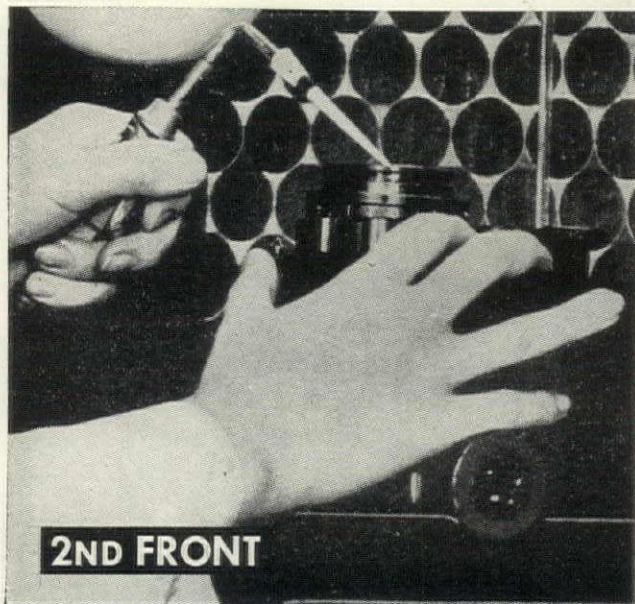
PLASTIC-FINISHED WALL PANELS • FOR CREATING BEAUTIFUL INTERIORS

How to defeat one enemy on four fronts



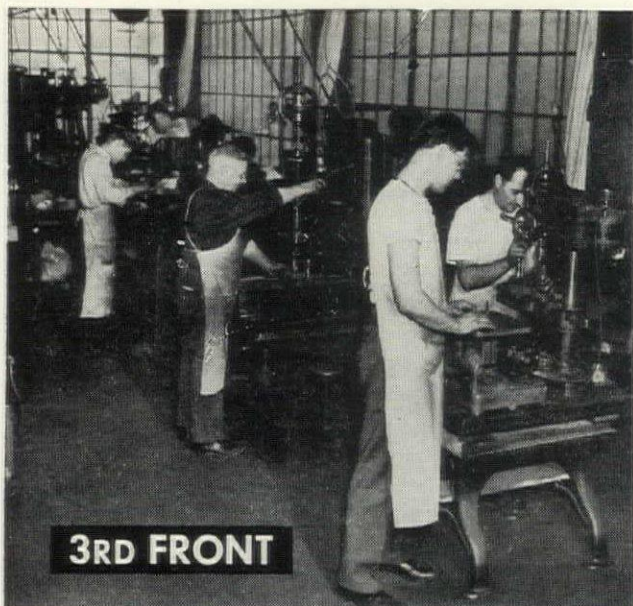
1ST FRONT

Dust is the deadly enemy of electric motors. To keep dust out of the motor shown above Dust-Stop* Air Filters were installed in front of the blower fan so that the air used for cooling the motor would be free from damaging dirt and grime.



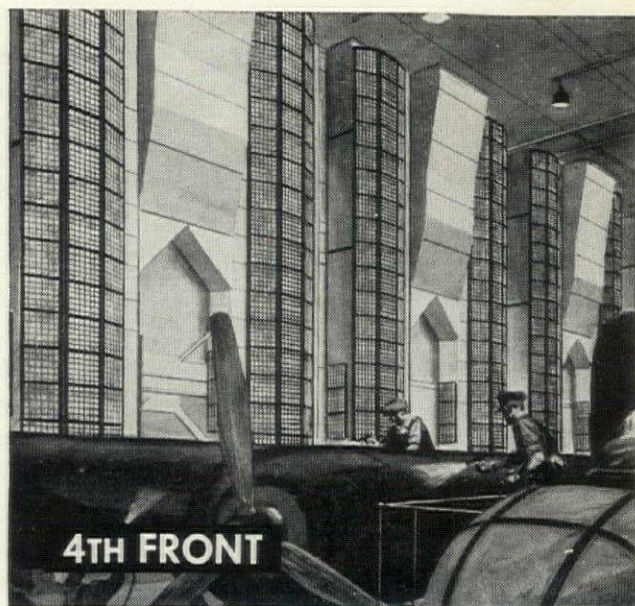
2ND FRONT

Dust also is the enemy of precision instruments. That's why the girl shown above is working in a current of air blown through Dust-Stop Air Filters. This prevents dust or grit from settling on the delicate parts she is assembling.



3RD FRONT

In drafting rooms, laboratories, machine shops, and offices, dust-laden air is an enemy of efficiency. Employers know that Dust-Stop-equipped air-conditioning systems increase efficiency.



4TH FRONT

Dust is also the enemy of freshly painted surfaces. That's why Dust-Stops were installed in the world's largest paint spray booth to keep the air clean . . . surfaces flawless.

The above are only a few of the many "fronts" on which Dust-Stops are serving war industries today—and will serve peacetime industries tomorrow.

Find out how economically these filters can help defeat the enemy dust. For complete information, write *Owens-Corning Fiberglas Corporation, Toledo 1, Ohio. In Canada, Fiberglas Canada, Ltd., Oshawa, Ontario.*

FIBERGLAS*

DUSTOP

*T. M. Reg. U. S. Pat. Off.

AIR FILTERS



FORMULA *for* VICTORY



Photo by Office of War Information, Overseas Picture Division. Photographer, Miss Collins.

UNITY OF PURPOSE — see it expressed in the photo above. Representing industrial management, Homer Addams, the shirt-sleeved, hard-working President of Fitzgibbons Boiler Company, Inc. . . . Two inspecting officers of the Allied armed forces . . . And to represent the might of America's mechanical skill, a welder who has just finished the last seam on a General Sherman tank. All in the same casually grouped, unposed picture taken in the Fitzgibbons plant.

Fitzgibbons is a steel boiler making plant—or rather it *was*, and *will* be again. Right now, with the amazing adaptability of American industry, it is a production center for combat tanks, tank-destroyers, naval gun shields, locomotive boilers, heat transfer apparatus for wartime process work, and other equally vital material, now serving on practically every fighting and industrial front on the globe.

The organized skill to build this equipment rapidly and well, is based upon almost sixty years of Fitzgibbons progressive development, just as the experience gained in present production will be invaluable in building the Fitzgibbons steel boilers of tomorrow.

FITZGIBBONS BOILER COMPANY, INC.

101 PARK AVENUE, NEW YORK 17, N. Y.

Works: OSWEGO, N. Y. • Branches in Principal Cities



**BUY WAR BONDS
and STAMPS**

FITZGIBBONS

STEEL HEATING BOILERS SINCE 1886

Money-saving tips for your post-war carpet installations

BUY
WAR
BONDS

If you want the most for your after-the-war carpet dollar, you'll want the advice of experts on three major considerations: 1. Length of wear. 2. The application of styling to fit the "atmosphere." 3. Short-cuts that will lower the cost.

You can get accurate answers to these problems and many others through the advice and services of Bigelow Carpet Counsel at no extra cost per square yard.

TRAFFIC AREA FIGURES —>

The Bigelow Carpet Counsel wear formula will help you select the carpet you need for heavy traffic areas. This estimate of wear will weigh every factor: The number of people who will cross the specified area, the additional shock the carpet must receive from different types of flooring, allowances for wet feet and many other considerations that will sum up to the carpet quality you need.



A graceful modern design for the new Washington Statler.

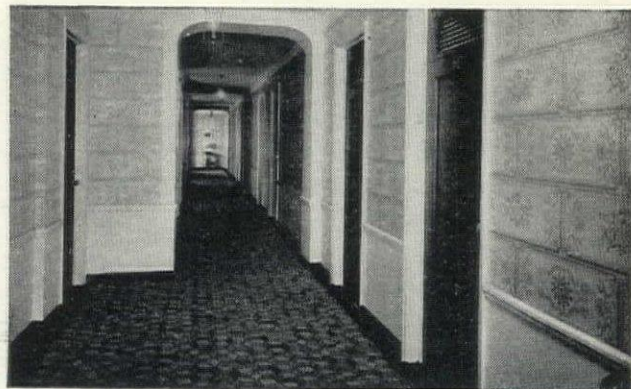


The Airlines Terminal Restaurant in New York has Bigelow heavy duty carpet.

← PROFITS IN GOOD STYLING

There is a real dollar and cents value in choosing the right patterns and colors. Some rooms demand a riot of gay color, others require soft restrained tones.

Get the carpet that will help you build the "atmosphere" that you want. Bigelow Carpet Counsel will be glad to help you.



PLANNING PLUS . . . —>

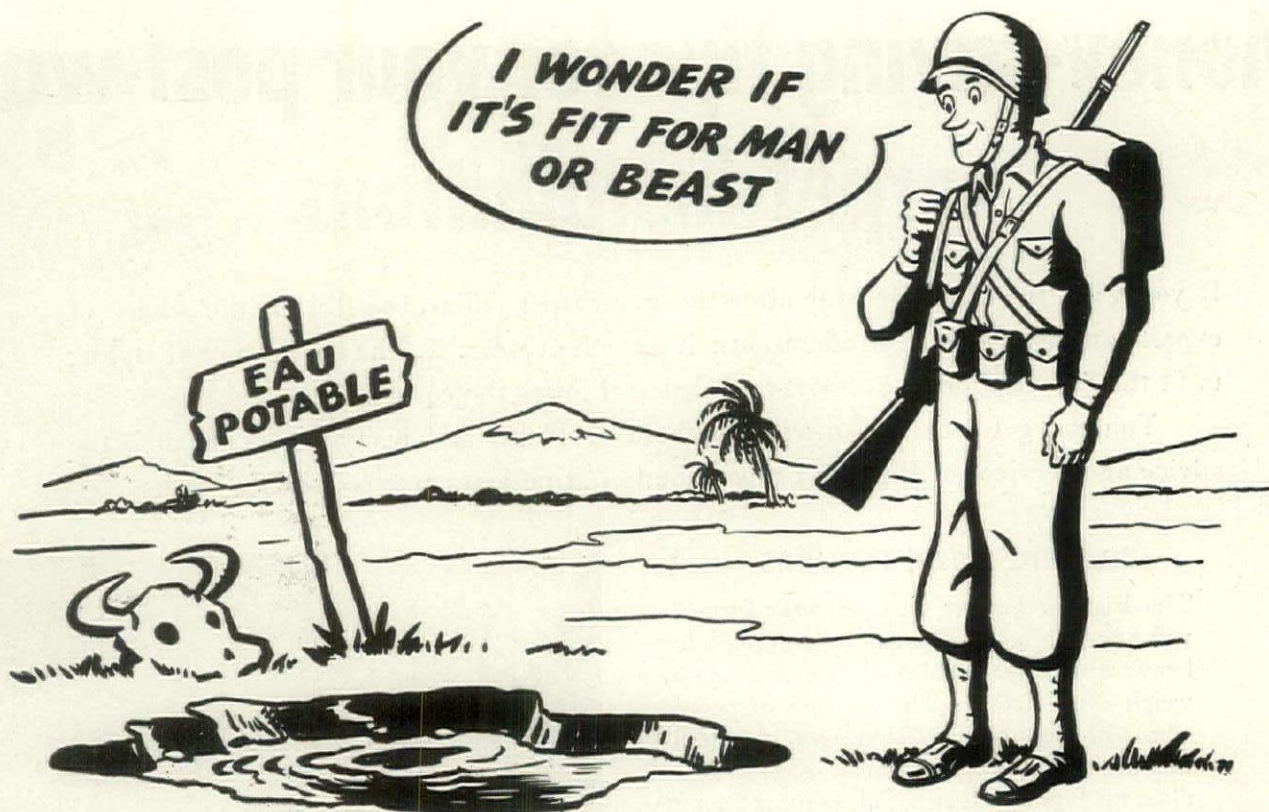
Bigelow Carpet Counsel can help you eliminate waste during the planning stage. Such cost-saving plans as expert advice on the quantities of carpet that should be held in reserve for future wear spots will take many of the headaches out of your post-war carpet installations.



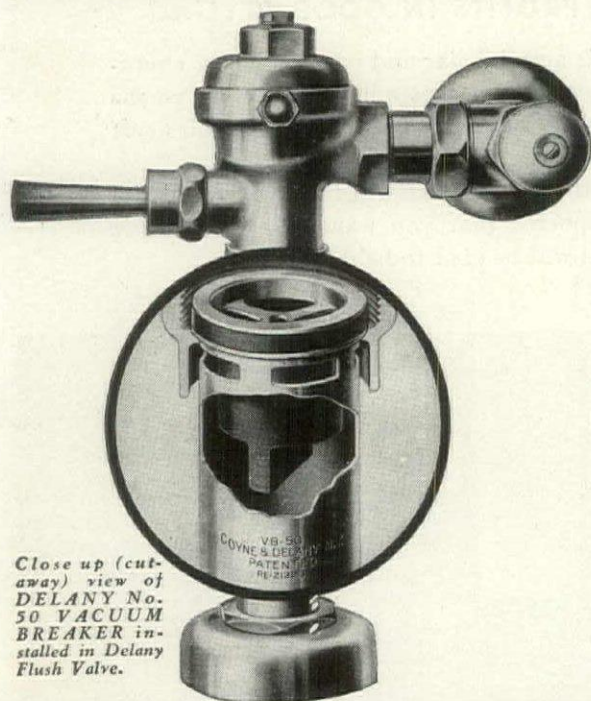
"When it comes to carpet come to Bigelow"
BIGELOW-SANFORD CARPET CO., Inc.

140 MADISON AVENUE, NEW YORK 16, N. Y.





THE DELANY No. 50 VACUUM BREAKER IS SELF-POLICING IN ANY MAN'S LANGUAGE



Close up (cut-away) view of DELANY No. 50 VACUUM BREAKER installed in Delany Flush Valve.

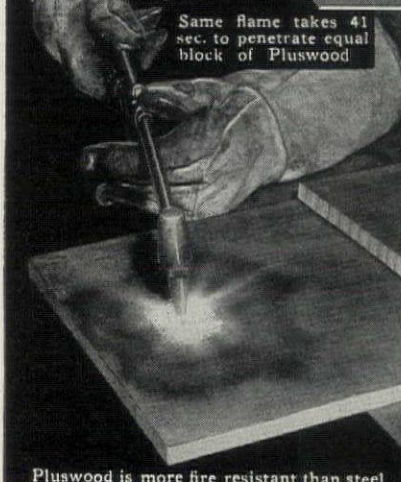
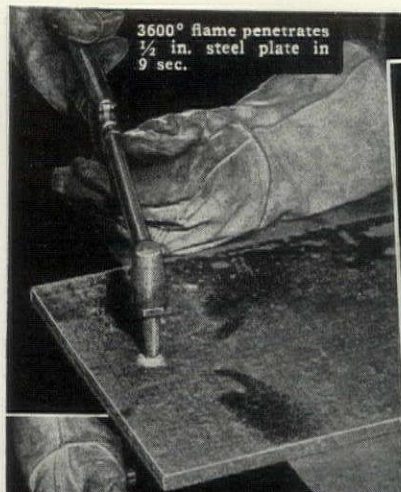
The DELANY No. 50 VACUUM BREAKER in design and functional operation eliminates any necessity for inspection to ascertain if protection against back-syphonage is constantly provided. It's self-policing on any make Flushometer, old or new.

Should a DELANY No. 50 VACUUM BREAKER become defective through stoppage, sabotage, or faulty installation, fair wear and tear, such a condition will be made known to the user by the spilling of a small amount of water through its vents each time the valve is operated. This obviates the "usual" daily inspection.

Moreover, should any fault or stoppage occur and repair be delayed, the unit is fully capable of preventing back-syphonage should a vacuum develop while in a defective condition. This is the essence of full and constant protection—and why we call the No. 50 "Self-Policing." We know of no similar device that is.

Uncle Sam polices "water conditions" to protect our boys at home and in combat. Unpalatable water definitely contributed to the defeat of the German army in Africa. Chlorination, purifying tablets, up-stream bathing; and the installation of No. 50 VACUUM BREAKERS in many thousands of projects, home and abroad, are preventing water contamination.

SINCE 1879
Coyne & Delany Co.
BROOKLYN N.Y.

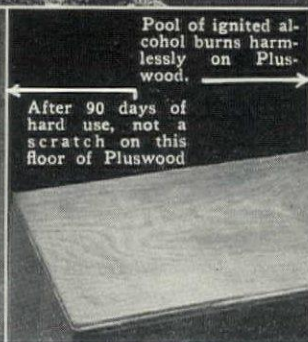
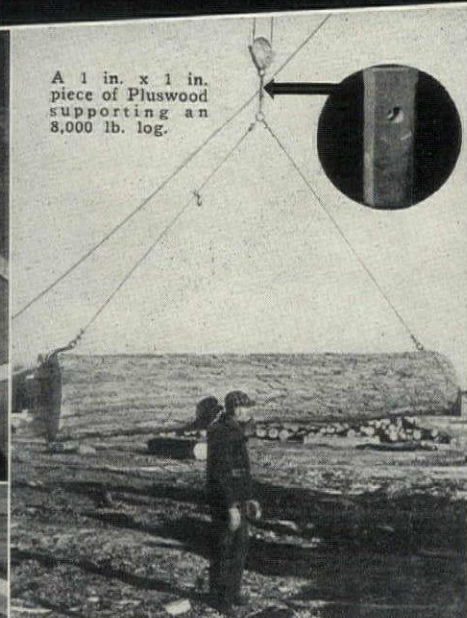


Pluswood is more fire resistant than steel

This is PLUSWOOD

A Wood Alloy

You are invited to investigate this remarkable postwar material with a great potential for building



Unmarred is beautiful Pluswood surface.

There have been many promises of new materials for building to come after Victory. Pluswood is one of these war developments now ready for your consideration—a high density wood alloy with an exciting weight-strength ratio. Made by a chemico-mechanical process, Pluswood has the strength of many metals plus metallic qualities of toughness and resistance to abrasion. It is a non-conductor, inert to mild acids and alkalines, and impervious to water. Add all of these advantages to the natural aesthetic qualities of wood, and you have a material to inspire any interior or exterior design.

Pluswood invites your ideas as to its application in your postwar plans—for it will be available to your order, made to any pre-determined description, in a wide range of woods, and at a moderate cost. Back of this new wonder material is the Lullabye Furniture Corporation — since 1897 America's foremost manufacturer of juvenile furniture. Write today for an interesting engineering data bulletin that will give you more complete information.

PLUSWOOD, Incorporated. Oshkosh, Wis.

Associated Companies

LULLABYE FURNITURE CORPORATION, Stevens Point, Wisconsin
NORTHERN HARDWOOD VENEERS, INC., Butternut, Wisconsin
ALGOMA FOREST PRODUCTS, LTD., Bruce, Ontario, Canada





Will your post-war Dream House be a Pipe Dream?

IT'S fun dreaming about that house you're going to build right after the war. And it will be a lot more fun if it turns out to be a real dream house and not just a pipe dream.

Speaking from 25 years experience, I'm betting you won't be disappointed—if you keep a couple of things in mind:

1. As you plan your dream house, keep an eye peeled for the new building products that reputable manufacturers have ready for post-war.
2. Don't be misled by the "crystal gazers" into wasting too much time figuring on amazing gadgets that aren't even in the laboratory stage!

MANY NEW PRODUCTS

Just as there is talk about flying railroad trains and transparent automobiles, there is a great deal of talk about sensational new developments in housing. Some of this makes sense. But a lot more is like the Ginger Bread House in the fairy tale—strictly pipe dream stuff. Worse, it absolutely overlooks

the really important developments in building materials within the past few years.

For example, new high-efficiency rock-wool insulation that cuts heating costs and insures warmer homes in winter, cooler in summer. Fireproof gypsum sheathing at less than the cost of old-style inflammable sheathing. "Floating type" plaster walls and ceilings that reduce room-to-room noise and practically eliminate repair expense. Colorful wall finishes that are washable, plus scores of other features that houses lacked before. They can be specified *now* and will be available the moment building restrictions are lifted.

BETTER VALUES

These things will mean better houses for the same money. And speaking of money, you will probably be able to borrow up to 80% of total cost. You can pay it back on a basis that will often be even less than rent.

START NOW

Get started with plans now. If you don't, you may get left when the rush begins. The first step is to see your local lumber or building

material dealer, contractor, or architect. These men know what's new and good and practical, and how to get it built without unnecessary delay when Uncle Sam gives building the green light!

M. H. Baker

M. H. Baker, President
National Gypsum Company, Buffalo, N. Y.

TO ARCHITECTS!

This is another advertisement in the new National Gypsum series appearing in national magazines. The entire campaign is built around one thought ... to curb some of the fantastic predictions that have seriously impeded post-war home planning. It also urges that planning be done now to insure quick resumption of building as soon as restrictions are lifted.

BUILD BETTER WITH GOLD BOND

Wallboard • Lath • Plaster • Lime • Metal Products • Wallpaint • Insulation • Sound Control

THE MONTH IN BUILDING . . . NEWS

Umpteen ways to avoid postwar depression (this page) . . . Ruml points at Building (page 60) . . . Urban rebuilding via twenty-cent building dollars (page 61) . . . FPHA thumbs down "temporaries" for permanent use (page 62) . . . Wallace and Bricker clash on housing (page 63) . . . Public housing without subsidy (page 122).

WRITE YOUR OWN

With less and less to do and more and more time for talk, last month Building set a new high for impassioned debate. While the air was as full of words as a Berlin sky of ack-ack, much of the commotion sounded like an echo from the "this is where we came in" department. To check how well you've been listening, we offer a paragraph or two in which you can try your hand at filling in the blanks:

Everybody had a reconversion plan last month, WPB, the Army, and big and littlewigs all over Washington, but the spotlight was on a substantial report on postwar adjustment policies, the maiden effort of the _____, and on a still lengthier plan for demobilization proposed by _____. Prime author of the first found between the two reports an irreconcilable difference. Major issue, he said, was whether the nation's economic destiny shall be settled by _____ or by _____.

But Building had plans of its own. Genial economist _____ warned that public works expenditures could not be expected to stabilize the economy as a whole, but might be used effectively to increase the yield and efficiency of _____. As the first step, he proposed a Congressional commission to _____. Long-time proponent of urban redevelopment, agile real estate thinker _____ had a new formula, which would encourage acquisition of blighted urban land and low-cost housing by means of _____. New head of the National Public Housing Conference, veteran houser _____, immediately challenged the argument that the new proposal would prove to be less costly than direct housing subsidy.

Although war housing was still short on the West Coast and the National Housing Agency was still asking Congress for more building money, public attention was rapidly shifting from the building job to the almost-as-large job ahead: disposal of publicly-owned temporary war housing. With a considerable show of amazement, the *New York Times* discovered and front-paged the

fact that at war's end the government would have to get rid of some _____ dwelling units, counting demountables. But this was no surprise to FORUM readers, who know that under the terms of the _____ Act the government must dispose of all temporary war housing within two years after the the end of the emergency. Last month the Federal Public Housing Authority made it clear that none of the temporary units would be sold for postwar _____ use.

WPB was working on a new way to lick the biggest present material shortage, _____. Better news to both builders and manufacturers was the word that there would soon be a new material allotment for more _____. But WPB made it clear that orders for this badly needed commodity must come only through five claimant agencies: the _____, turned down a small request from the _____. WPB also said that brass would also shortly be released for _____.

Housing showed up as a Presidential campaign issue in speeches made in California by _____, and in Washington by _____ who, unsurprisingly, failed to agree. A possible new pattern for low-cost housing without _____ emerged from the continuing fight in Washington between the _____ and the _____.

If you find your memory needs jogging, you will find on the next five pages all the answers to fill in the blanks.

REQUIRED READING

Conscientious Washington newsmen rubbed their eyes wearily. Scarcely had they finished scanning the crowded pages of the first substantial piece of Congressional postwar thinking when Bernard Baruch's 120-page, 30,000-word report on postwar adjustment policies dropped with a heavy thud on their desks. Hopefully the newsmen showed up at Baruch's press conference, plotted the usual leading questions. Most got a brisk reply: "You'll find the answer in the report." Nor did they have more luck with the President, who said that

Acme



POSTWAR THINKERS are (front row, l. to r.): Sen. Joseph C. O'Mahoney (Dem., Wyoming); Sen. Alben C. Barkley (Dem., Kentucky); Sen. Walter F. George, chairman (Dem., Georgia); Sen. Charles L. McNary (Rep., Oregon); Sen. Arthur H. Vandenberg (Rep., Michigan). Standing: Sen. Robert A. Taft (Rep., Ohio); Sen. Claude Pepper (Dem., Florida); Sen. Scott W. Lucas (Dem., Illinois); Sen. Warren R. Austin (Rep., Vermont); Sen. Carl Hayden (Dem., Arizona).

he had not yet had time to read more than half of it.

But Senator Walter F. George, whose postwar economic policy and planning committee was still fingering freshly-printed copies of its own weighty consideration of demobilization problems, had apparently found the time both to read and to form an opinion of the lengthy Baruch document. Said Senator George: "The two reports sharply outline the question of whether the economic destiny of the country is to be settled by executives or by general policies established by the elected representatives of the people. That issue is so basic that the two viewpoints can never be reconciled."

The powerful George Committee hopes to reserve reconversion policy-making powers for Congress and looks with undisguised suspicion on the Baruch recommendation that demobilization operations may best be carried out under the direction of Jimmie Byrnes' Office of War Mobilization. Apparently concluding that the fellow who took the clock apart is not the best person to put it together again, the George Committee urges establishment of a new Office of Demobilization, which would work closely with a Congressional supervisory committee.

Nevertheless, the Congressional thinkers inevitably found themselves in agreement with Baruch & Co. on many points. A major one: prompt payment for terminated war contracts. Baruch presented an eight-point financial kit, containing something guaranteed to kill almost any conceivable postwar pain, opposed any extensive government post-mortem of terminated contracts. The

George report also underlined the obvious need for immediate payment of all claims against the government, but displayed considerable interest in setting up complete post-audit machinery to "detect and punish fraud."

To gauge the immensity of the demobilization job, the George Committee pointed to these facts:

►The government now owns \$15 billion-worth of war plants.

►Upon contract termination the government may own as much as \$75 billion worth of goods. Some of this material will be so critically scarce as to require disposal safeguards lest it all be grabbed by a few hands. Some of it will be so plentiful that dumping it would mean that some manufacturers "could not turn a wheel for years to come."

►The Army alone will cancel 100,000 prime contracts, which will result in the cancellation of 1,000,000 or more important subcontracts. So far the government has cancelled only 10,000 prime contracts, but the average time required for settlement has been from six to eight months.

SWEAT-AS-YOU-GO PLAN

For a man of Beardsley Ruml's rate of cerebration it is easier to think than not to think. In his comfortable office at New York's R. H. Macy and Co. astute Mr. Ruml devotes himself largely to sniffing the economic winds. Whether Ruml's well-developed perceptivity is immediately reflected in the price of Macy's ties is a matter known only to the management. But since Ruml burst resplendently on the national scene with his deceptively simple pay-as-you-go tax

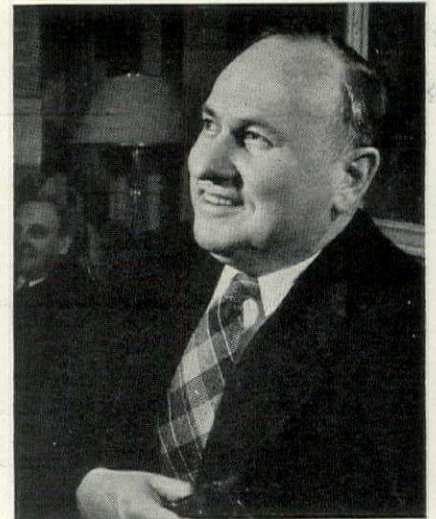
plan it has been clear to the public at large that his area of mental activity stretches far beyond the confines of even the world's largest department store.

Last month in an odd half-hour Ruml went to work on Building, clicked along smoothly to reach an ample and un-elaborate formula for ridding the nation's biggest industry of most of its ancient woes. For Ruml the step between a thought and an audience is always a short one, and in no time at all he was telling the House Public Buildings and Grounds Committee, the Real Estate Board of New York and the Institute of Distribution all about it.

No Small Gain

To Mr. Ruml it seems reckless optimism to expect public works expenditures to act as a balancing factor for the economy as a whole. "The most we can expect, and this is no small gain, is that public works can be planned and undertaken in such a way as to even out the activities of the construction industry itself. A reasonably continuous level of activity in the construction industry within the year and over the years would greatly increase the efficiency of the

Life Photo



RUML seeks Building regulation

industry and any given level of employment would yield a larger and larger product as the years went by. The traditional recurrent idleness of men and equipment in the construction industry has forced for sheer survival the adoption of practices which all deplore . . . All the abuses in the building field would yield to a well-regulated public works program because the handling of contract letting—at the federal, state, and municipal level—would enforce the changes needed."

As a necessary preface to a skillfully-implemented public works program Ruml proposes a thorough Congression-

al inquiry into the construction industry, "of the scope, dignity, and competence of the National Monetary Commission, following which the Federal Reserve System was established. It is possible that such an inquiry would find that certain of the restrictive practices of the industry should be continued even under high stabilized production. If so, they should be sanctioned by law and supervised by an appropriate regulatory body."

No End of Competition

Nor would such regulation mean the end of competition in the industry, according to Ruml. Competition might, in fact, be keener than it is at present. "Certainly, earnings of workers would be larger and profits higher. The dominant factors in the industry would turn to innovations and economies as their way of bidding for a larger section of the construction pie."

Careful planning, Ruml said, is imperative to restrain public expenditure for construction at times when private demand is extremely high. "It is likely that immediately following the war, and for some years thereafter, we shall have a considerable boom in private residential building . . . If this should happen, and if at the same time there should be substantial unemployment, there would be a temptation to accelerate postponable public works, even though a full quota in the construction industry had already been reached. Barring urgent need, it would be wiser to hold back public works, in spite of the presence of some unemployment. There are other effective weapons that can be used to fight unemployment, and it would only make the business outlook worse to create so high a level of employment in the construction industry that it could not be maintained."

To many these words sounded wise and, somehow, familiar. The newest Ruml formula had the ring of a sweat-as-you-go plan.

FISCAL FACE

As director of the Bureau of the Budget, perspicacious Harold D. Smith is accustomed to looking unpleasant reality square in its fiscal face. Convinced that federal public works dollars will be no super axle grease for turning the national postwar wheels, Smith last month offered a few cold figures as demonstration:

From 1933-38 federal dollars spent for new construction averaged a whacking \$1,600,000,000, nine times the average yearly expenditure of the 1925-29 period. But state and local retrenchments offset 90 per cent of the increase and shrinkage of private construction cut the total even further.

Observed Mr. Smith: "The problem we face after the war in trying to keep the economy on an even keel is much greater than the problem we faced during the depression." The Budget Director agrees that expenditure for public works will be a necessary part of post-war effort to maintain high employment levels, but he hopes that expenditure will be planned to meet realistic need, reminds that now is the time for cooperation to that end among municipal, state and federal governments.

TWENTY-CENT BUILDING DOLLARS

For as long as any real estate man can remember, Herbert U. Nelson, executive vice-president of the National Association of Real Estate Boards, has wrestled vigorously with what seems to him and to others the major real estate problem of our times: how can urban slums be cleared and rebuilt by private enterprise? His major contribution to this complex field of inquiry has been an evangelic one; for urban real estate dealers and downtown property owners failing to discern their almost certain doom, Nelson has written many an impressive billboard showing the way to salvation. That public housers and others have been quick to find flaws in the Nelson billboards is not surprising, but an even more formidable obstacle has been a notable reluctance on the part of his own disciples to embrace wholeheartedly any one of a number of different ways to be saved. For while the eventual destination has remained a shining constant, the Nelson-endorsed path has varied markedly.

Last summer Herb Nelson was busy asking the federal government to put a good many nickels on the drum. But finding a certain coolness both among Congress and among his realtor following to the Wagner bill formula for direct federal aid for urban land acquisition (FORUM, July, 1943), Nelson dexterously turned the formula inside out. His newest proposal: leave some of the tax money at home by encouraging use of it for urban redevelopment and low-cost housing.

Invited to New York's Biltmore last month to meet the new NAREB president, energetic, politic-minded John Galbreath, was a glittering list of housing, real estate, and financial brains. It is not unlikely that they also heard something about the new Nelson plan which, roughly, runs like this:

Municipal redevelopment authorities would be given power of eminent domain and the right to issue bonds for financing assembly of blighted land. Redevelopment bonds would have low interest, long amortization, be tax exempt. Current income used for their purchase would not be subject to fed-

eral income tax.

Land would be sold or leased to any private developer who would rebuild the area in conformity to an over-all plan. Low-rent housing would be made possible by low land cost and by cheap building money through the same income tax exemption device. Any current income invested in low-rent housing would be exempt and the yield from the operation would also be exempt up-

Myron Ehrenberg

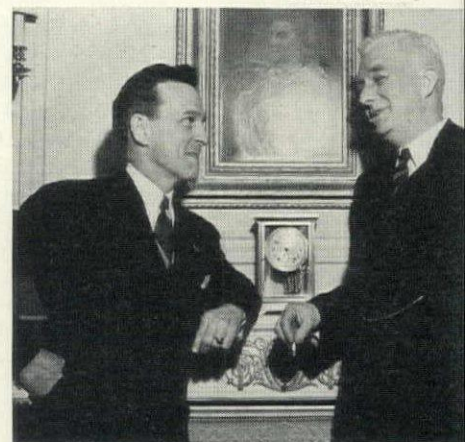


HERBERT NELSON (left) and houser Charles Abrams compare recipes for a revolution in land.

to a limited return. Full local taxes would be paid.

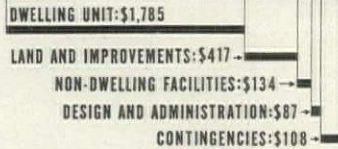
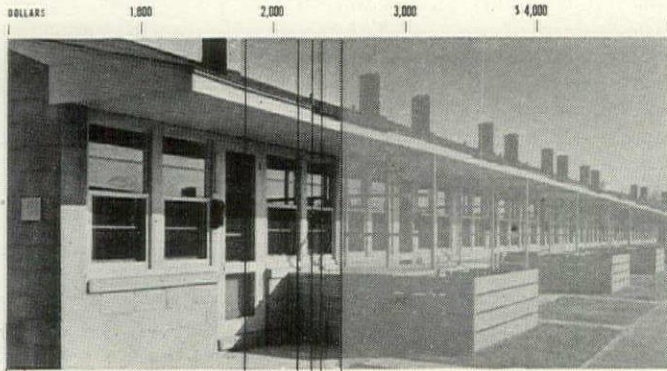
Few doubted that Nelson's 20-cent building dollars (for investors in 80 per cent income tax brackets) might be an enormous construction stimulant. But some also saw in it the prospect of an enormous raid on the federal treasury. Lee F. Johnson, new head of the National Public Housing Conference, was already at work on statis-

Myron Ehrenberg



JOHN GALBREATH (left) talks rebuilding with Cecil C. Fulton, vice-president, Home Life Insurance Co.

tics to refute Nelson's argument that tax remission for low-cost housing would cost less than direct housing subsidy. Johnson and others termed tax exemption a hidden subsidy, quibbled at the tenuous nature of the public controls proposed by Nelson. Big-time housing



TEMPORARY WAR HOUSING costs, on the average, about \$2,531 for each family unit, according to figures recently submitted by the National Housing Agency to Congressmen curious about how the \$1,725,000,000 appropriated as of October 31, 1943 for public war housing is being spent. Since land for the temporaries is leased wherever possible, site costs alone are less than half the average land expenditure necessary for permanent units. Temporary dormitories cost only about \$943 per dwelling unit, but most war workers have families. Dormitories show 68 per cent occupancy; family units, 96 per cent.

investors were aghast at the thought of what 20-cent building dollars might do to existing rents and interest rates. But Nelson was cheerfully taking on all comers. His immediate objective was won; once more he had stirred the boys up, set them thinking.

PLUMBING FRONT

What to do about trimmed-down victory models will soon be anything but an academic question for plumbing manufacturers. Almost ready to release brass for plumbing fittings, WPB is now trying to figure out some skillful timing so that neither manufacturers nor dealers will get stuck with large stocks of galvanized iron and black trim fixtures. Alternative solutions now being considered by WPB:

►Predating the reconversion order by three months. During this interim manufacturers would halt production of substitute models, already-manufactured stocks would be distributed for war housing.

►Persuading the United Nations Relief and Rehabilitation Administration to buy victory models whenever it fills orders for Europe's rebuilding needs.

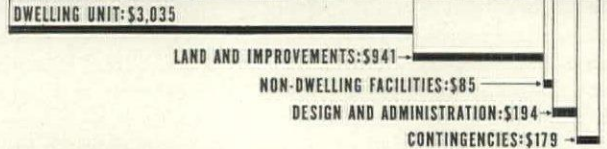
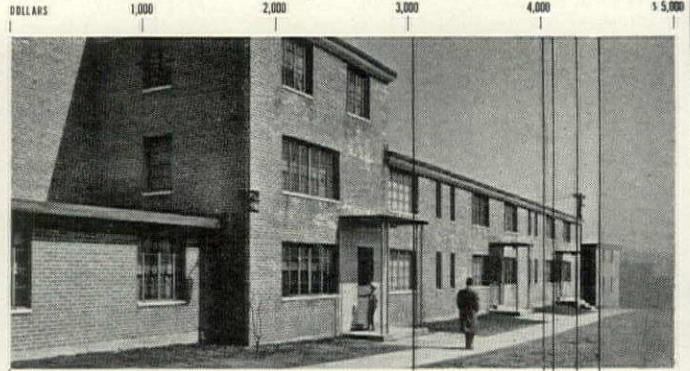
How many bathtubs the U. S. will make next year is still a military secret. Although the War Department is not yet ready to talk about any further easing of material restrictions, outlook is that sometime next month WPB will be able to get another allotment of cast iron for bathtub production.

Best guess is that the material allotment will be bigger than the current one, under which five manufacturers are now producing 50,000 badly needed bathtubs. Nor will production be allotted among specific manufacturers according to the present system. All plumbing makers able to convert from war production will be permitted to make bathtubs. But orders must come from the National Housing Agency, the Army, Navy, Maritime Commission, or WPB's Office of Civilian Requirements. The State Department, WPB recently said firmly, will not qualify. Fitting up Washington's historic Blair House for visiting dignitaries, the State Department got a brisk turn-down on its request for bathtubs.

TEMPORARY TURMOIL

To tear down all the temporary war housing built by the federal government would be something like razing all the houses in Detroit. That the government has to get rid of the temporaries somehow is a legal fact. That they might all be demolished and sold for salvage is the pious hope of many, who see in them tomorrow's slums. But even the most optimistic know that unless the half-million families now occupying government-owned homes have or can find jobs and good postwar income levels they will not be able to move away from the makeshift dwellings.

Size of the disposal job is oppressively



PERMANENT WAR HOUSING, on the basis of public projects built from October 1940 through October 1942, has cost about \$4,434 per family unit. Since 1942 almost no permanent war housing has been financed by public funds. Temporary units save nearly 50 per cent in structural costs alone, represent an average saving of \$1,900 for each family unit. Only cost factor that is larger in the case of temporary dwellings is expenditure for yard and recreation space, nondwelling buildings. Reason: many temporaries have been built as new communities, demanding shopping and service facilities.

clear: in January 400,851 temporary units were finished or under construction. Within two years after the end of the emergency, NHA will, therefore, have to unload almost as much housing as private enterprise built in any pre-war year since 1929. Nor can NHA wait for a postwar answer. Already vacancies are showing up; as the shape of war production changes at a steadily increasing tempo, whole projects will be affected.

Last month NHA reassured some of those worried about its disposal policies. One thing was clear: official thumbs are turned down firmly on making the temporary dwellings available for any housing use not connected with war need. Demountable and temporary housing no longer needed by war workers, NHA said, will be:

Moved to another locality to meet a public war housing need.

Sold or leased to private individuals or corporations to meet war housing quotas.

Transferred or reserved for use by public or quasi-public agency for non-residential use connected with the war.

Transferred or sold for nonwar use other than residential.

Demolished and the materials and equipment salvaged.

One disposal loophole: If NHA and local authorities agree that there is need, temporary housing may be retained longer than the Lanham Act limit.

Clue as to a possible destiny for some

of the temporaries came from California farmers who, in response to a survey, said they could make good use of 23,000 demountable units, were also in the market for 81,000 feet of salvaged lumber.

INTEREST TREND

In and out of the Federal Housing Administration's home office last month moved 62 state and district FHA directors. These were the men from the field, close to the brisk movement of the real estate market, able to tell Washington just how things were. They came a few at a time, but, whether from Maine or California, their story was the same. There was as yet no sign of a break in the bullish market for older homes. The battle for mortgages between bulging-pocketed lending institutions was growing keener.

Said many a field director: Wasn't now a good time to shove the maximum interest rate allowable on Title II and VI mortgages down another notch, from the present 4½ per cent to a flat 4 per cent? What about lengthening the permissible lending period from 25 to 30 years for houses costing not more than \$5,000? Why not permit 95 per cent mortgages on the \$5,000-or-less house.

The cigar smoke was dense, the discussion lengthy. But in the end FHA

chiefs said a considered and at least temporary no on all counts. Biggest objection was to slicing the maximum interest rate. Any such move, longviewers said, might seriously hit small-town lenders, many of them now operating on a slender profit margin because of their small volume of business. There was nothing, FHA officials reminded, to prevent any lender from reducing interest rates below maximum, and many are already doing it.

VICTORY OMNIBUS

With benefit of an imposing galaxy of senatorial names and whole-hearted approval from the American Legion, the long-promised omnibus veterans' benefit bill last month got off to an auspicious legislative start. Launched simultaneously by Senator Ernest W. McFarland (Dem., Ariz.) was a special side-car providing for federal loans of not more than \$1,000 to enable veterans to make down payments on homes and farms or to pay off delinquent debts or taxes on a home already owned. After both bills move through committee, they will be hitched together for a rapid ride through Congress.

Senator McFarland's formula for housing loans calls for joint supervision from the Federal Housing Administra-

tion and the Veterans' Administration. fixes the interest rate at 3 per cent, requires no interest payment during the first year. It would exempt veterans from FHA's ruling that no mortgagor may use borrowed money as an equity payment, but require FHA approval of the property on the basis of the agency's well-established construction and location standards.

Taking a preliminary look at what may be a long road ahead, thoughtful FHA officials can see more than a few potential bumps. Strict adherence to conventional appraisal procedure would mean ruling out many applications. Too lenient procedure might have the even more unfortunate result of tying the ex-service man to an inflated mortgage. FHA would, as usual, try to steer for the safe middle course. One logical way already suggested: creation of a new insurance title, which would at once provide for some additional flexibility in underwriting standards and separate any extra risks involved from the main body of FHA-insured mortgages.

HOUSING PLATFORM

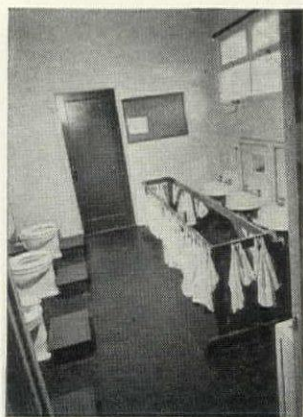
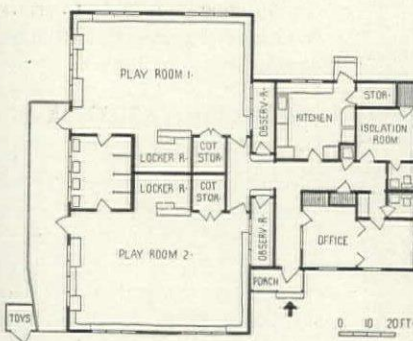
Since America's virgin lands were cut into homesteads, a resounding platform plea for a home for every voter has appeared somewhere in almost every

(Continued on page 64)

Photos: Rodner McCar Morgan



McLEAN GARDENS PREFABRICATED NURSERY



35 FEET OF PLAY SPACE FOR EVERY CHILD



Mrs. Emmerich

PREFABRICATED SCHOOLS offer wide postwar use possibilities. Since up-to-date school systems do not vary greatly, a school design lends itself to standardization with some ease. Moreover, the lightly-built, one-story school is now coming into wide use. This prefab nursery school was designed by Holden, McLaughlin & Assoc. and donated by American Houses, Inc. to the American Women's Voluntary Services.

Long before her husband became Federal Housing Commissioner, Mrs. Herbert Emmerich as an AWVS committee chairman was keenly interested in the provision of adequate child care facilities in Washington, worked hard to get this nursery school set up at McLean Gardens. The AWVS sponsors contributed some sound design ideas, including an isolation room. Other noteworthy features: easy circulation, direct exit to outdoor play space, ample kitchen counter space, closets for storing cots.

NEWS

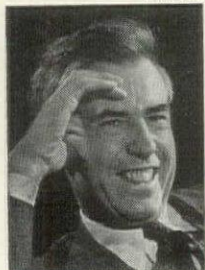
Presidential campaign. In times past this has been a reliably noncontroversial issue on which every aspiring candidate could sound off noisily and with a high margin of safety. But since the emergence of the public housing movement, the time-worn phrase, "a home for every American", has packed a full weight of potential political dynamite.

In the busy, booming month of February a Democrat and a Republican each had a telling word to say. Careful Governor John Bricker of Ohio made his debut in Washington, skillfully avoided many a reportorial noose, found countless variations for his major theme: "The New Deal is the American counterpart of the sweep of absolutism which has destroyed so much liberty around the world. It lacks faith in our people. It assumes that

people cannot take care of themselves, but must be taken care of by a paternalistic government." Nobody was much surprised when the earnest Governor Bricker declared himself solidly opposed to any continuance of a peacetime federal housing program. From the Governor's life-long friend and campaign treasurer, John Galbreath, president of the National Association of Real Estate Boards, came a hearty second.

In California Vice-President Henry Wallace was busy elbowing his way to a place on the Democratic ticket. It was plain that austere Mr. Wallace had lost none of his passion for ideas, none of his surprising knack for divining the well-springs of political action. Nor did veteran campaigner Wallace neglect housing. Said he:

Pix. Inc.



WALLACE

"Most of the houses of the United States are out of date and are seriously run down, especially on the farms. Governmental housing authorities, both in England and the United States, have learned a lot about cheap, good housing during the past five years. With money available at low rates and with various types of monopoly rackets eliminated, both government and private industry can build good houses at amazingly low cost. Prefabrication will play its part in bringing the cost down. As

soon as we have settled down after the war we should build at least a million houses a year until such time as we have completely modernized ourselves . . . If they can be assured of steady jobs, the ten million poorest U. S. families will furnish a market for at least a hundred thousand new homes every year. Also we shall have, instead of human waste and misery and burdensome charity, ten million busy, hopeful, forward-looking families."

LABOR SLUMP

No more than 600,000 men may be at work in the building industry by next summer, said the War Manpower Commission, taking a look at its newest figures. WMC records show that last year's drop in construction employment was a sharp one, sliding from a January peak of 1,470,000 to 865,000 in November. But this turned out to be less of a decline than experts had expected. Probable reasons: some job finishes are behind schedule; some layoffs have been postponed by slicing long work-weeks.

Most unskilled building labor laid off over the last year has been absorbed by other industries, WMC said. Some skilled construction workers have found other war jobs utilizing their skills, but many have been able to transfer to new construction projects, often on a shorter-week basis.

BRAZILIAN YARDSTICK

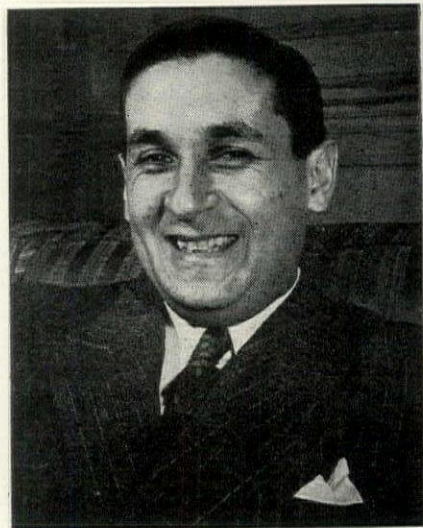
Many a modernist has caught his breath at the architectural panorama of Brazil's cities. Brazilian designers have found efficient solutions for the living and working needs of city dwellers in an architecture that is dramatic and exciting. U. S. architects have pointed to the chilling hand of the real estate entrepreneur as one reason why much of the recent urban building in this country seems pedestrian by contrast. From Henrique Mindlin, Rio de Janeiro architect who as a representative of the Brazilian government has spent the last six months getting his first look at the U. S., came some clues as to other factors in the Brazilian architectural equation.

Plans for all government buildings are chosen through public competition, and Mindlin believes this practice has gone far to discover and encourage new talent. Brazilians are very earnest about these contests, and Mindlin says that arguments are likely to be hot and vigorous among both judges and competitors. There was, for example, the first-prize winner who, convinced that the second-prize design was better than

his own, declined first honors and battled vigorously on behalf of his competitor. Mindlin himself is a recent prize winner, taking first place for a new building for the Ministry of Foreign Affairs.

The immense future of Brazil naturally has an exhilarating effect on the

Myron Ehrenberg



MINDLIN can't sleep nights

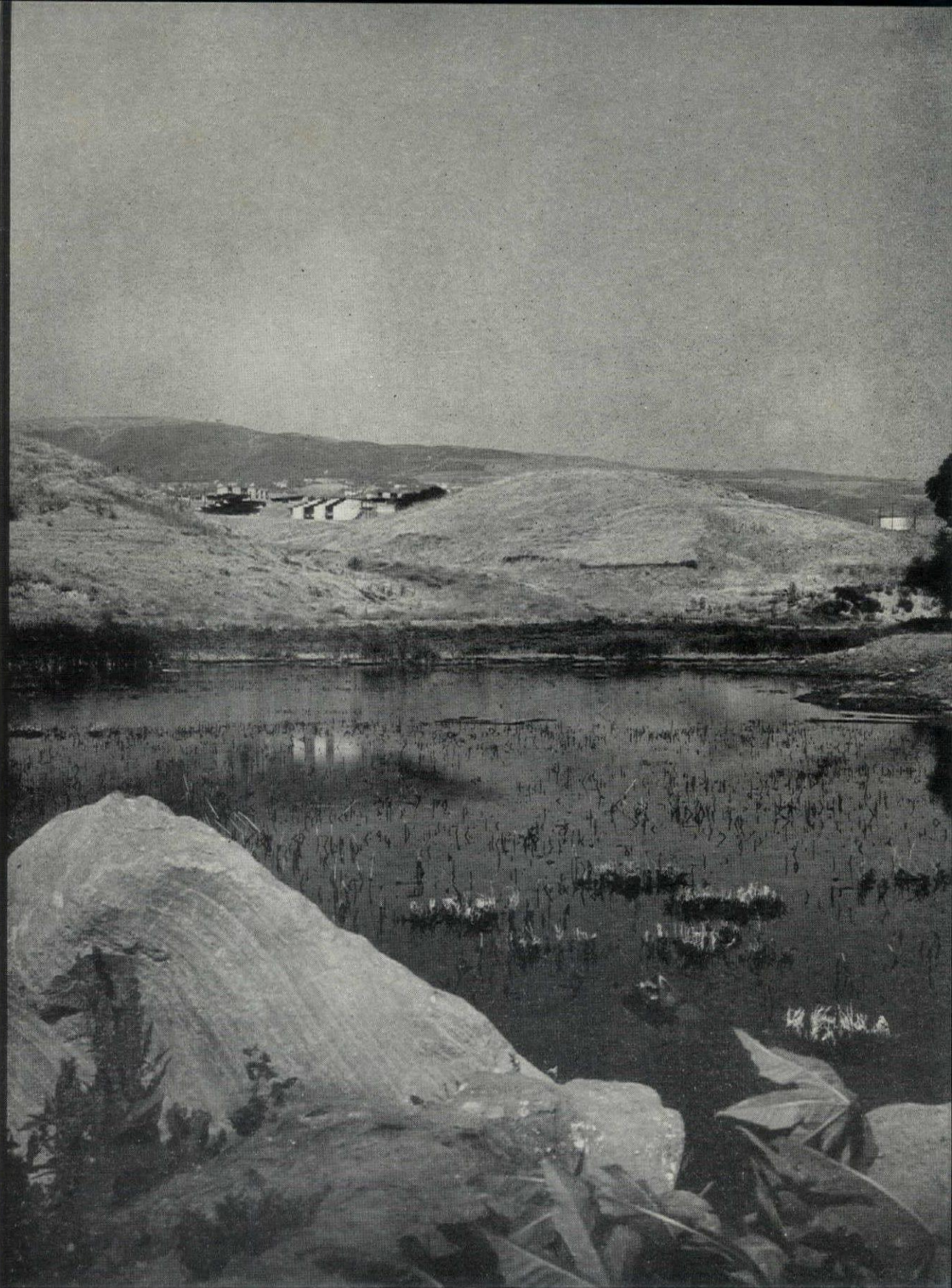
creative imagination. Mindlin, who works a long day, sometimes gets so excited about the enormous potentialities of his country's rich and only partly developed resources that he can't sleep nights.

With cities still rapidly expanding and industrial funding offering only limited investment opportunity, plenty of capital is available for real estate development, of which Rio's Copacabana Beach apartment sector is a spectacular example. But there is no opposition from private interests to government-subsidized housing, which is producing an impressive number of workers' apartments. "The job to be done is so big," Mindlin said, "that there is plenty of room for everybody."

If Mindlin's point of view is representative, Brazilian architectural philosophy is firmly grounded in humanism. "When I plan a house," he said. "I think first of all of the family who will make a home in it. While this is anything but a new idea, I constantly remind myself to evaluate the design by asking whether it is the kind of house in which a family can be happy."

Applying this yardstick to U. S. war housing, which he inspected from coast to coast, Mindlin, even after giving weight to time and material factors,

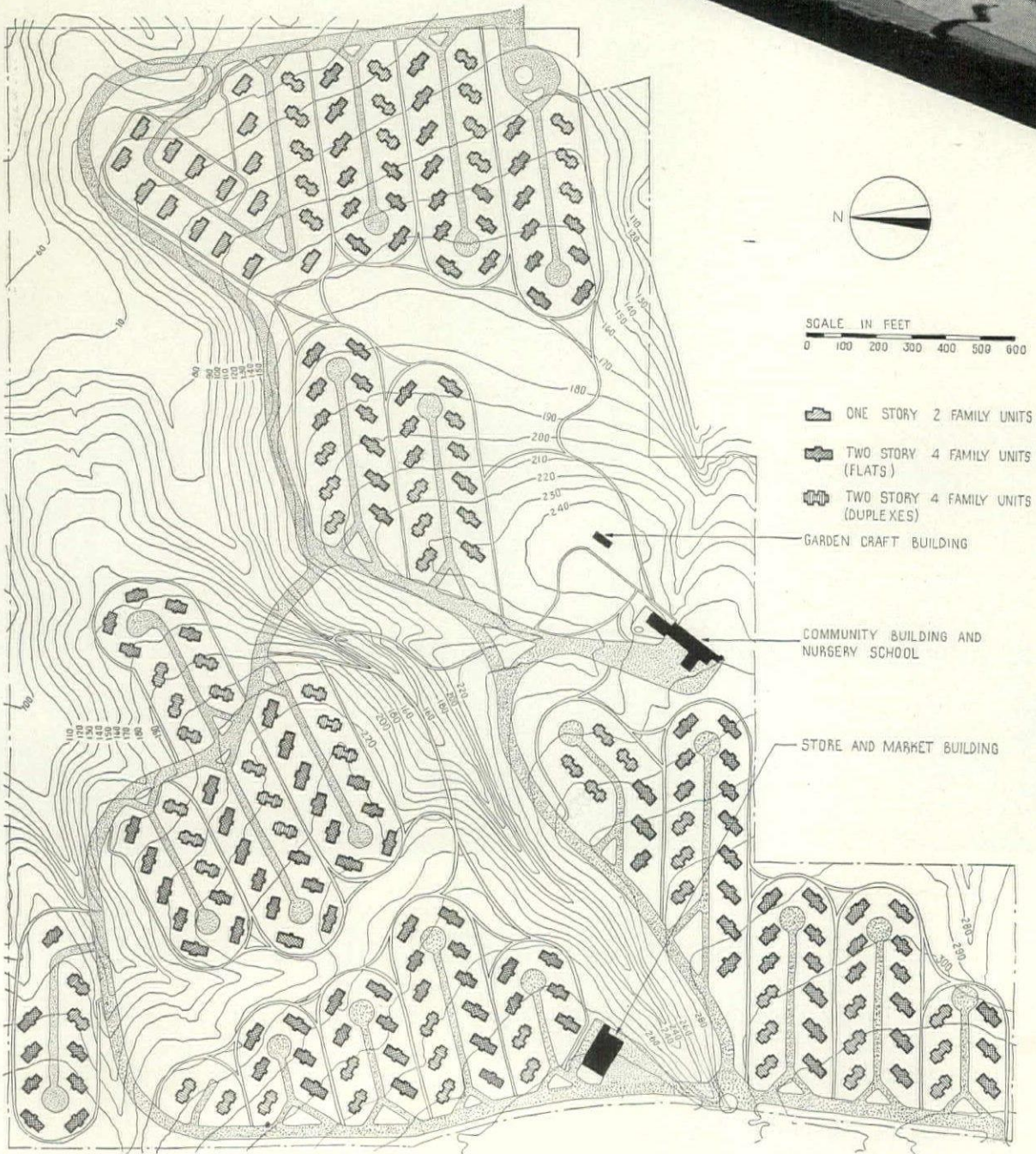
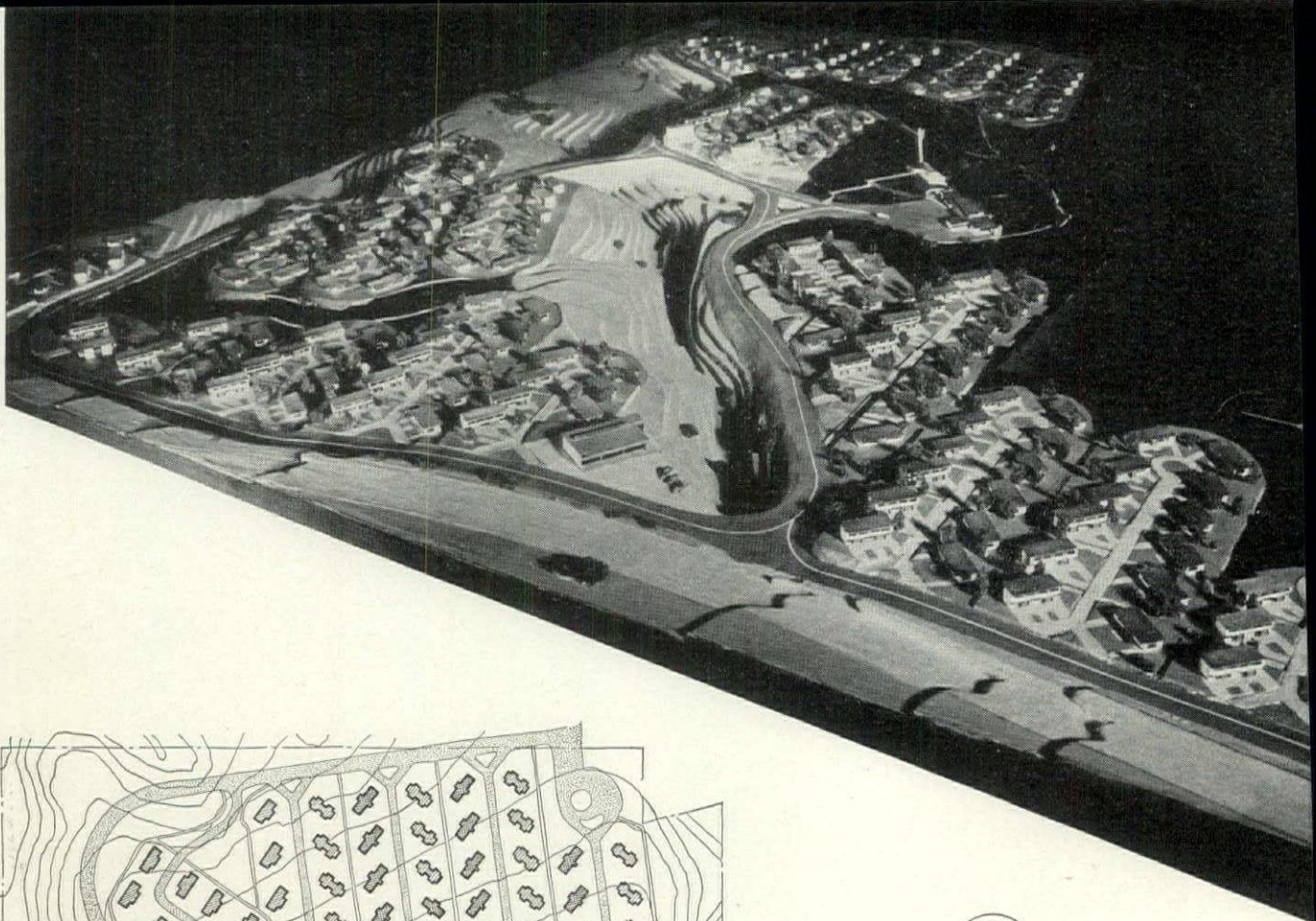
(Continued on page 114)



Photos: Julius Shulman

CHANNEL HEIGHTS HOUSING PROJECT

Richard J. Neutra designs a permanent project for San Pedro, Calif. shipyard workers. The rugged site—165 acres of hills, ravines and canyons—houses only 3.6 families per acre, one of the lowest densities ever achieved in U. S. public housing.





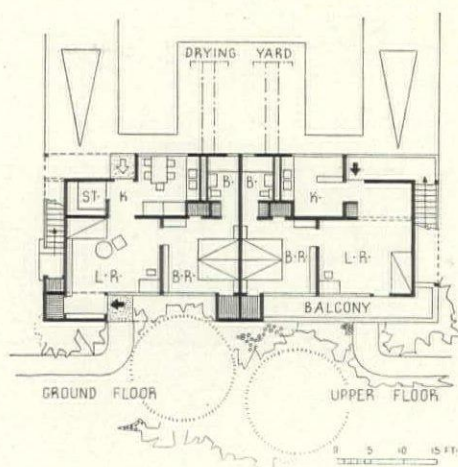
NEUTRA SKILLFULLY USED CEMENT AND REDWOOD TO CREATE A BOLD ABSTRACT DESIGN IN HOUSING UNITS

The irregular and picturesque site for the Channel Heights project has changes of grade remarkable even for California. An 85-foot canyon and several deep ravines cut into the property, and the difference between the highest and lowest points is over 240 feet. To make things more complicated, the character of the soil is not uniform, as earth and rock outcroppings alternate in a completely unpredictable manner. In describing this part of his problem, Neutra commented, with considerable restraint, "It took rather an out of the ordinary optimism and persistence to work a permanent project on such rugged ground at this date of history."

The technique used to insure a stable terracing job was to use cuts and avoid fills—there were plenty of depressions for disposing of surplus dirt.

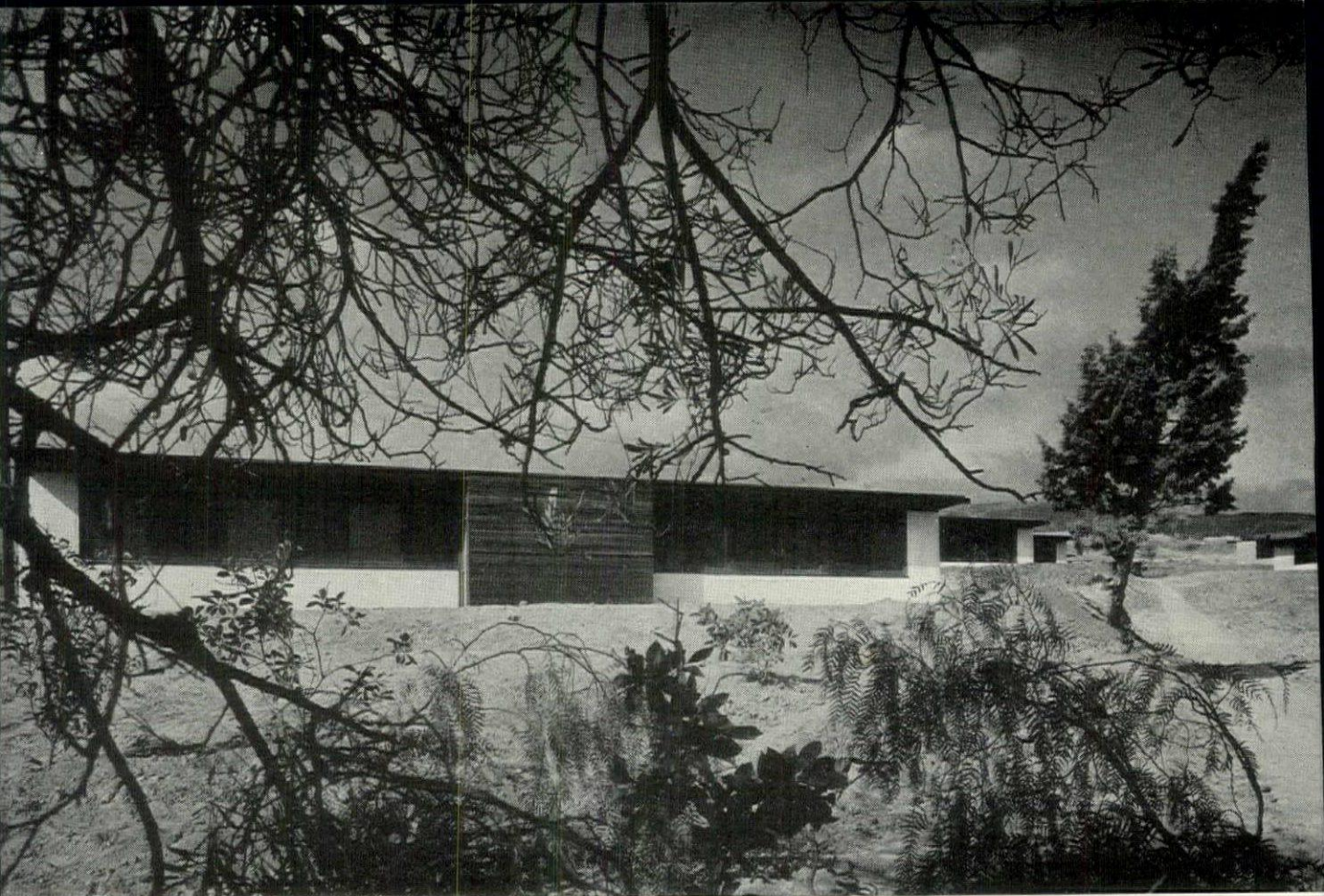
Orientation was a most important factor in the site plan: each house is so placed that the living quarters face the ocean and the blank ends face the prevailing wind, which is frequently too violent for comfort. The diagonal placing of the units was developed to increase car maneuverability on the access roads and to gain privacy for the tenants.

The houses on this page show one of the four different project types. Each unit is divided economically into four one-bedroom apartments, all of which have direct access to the outside. Second-floor apartments are provided with balcony space.

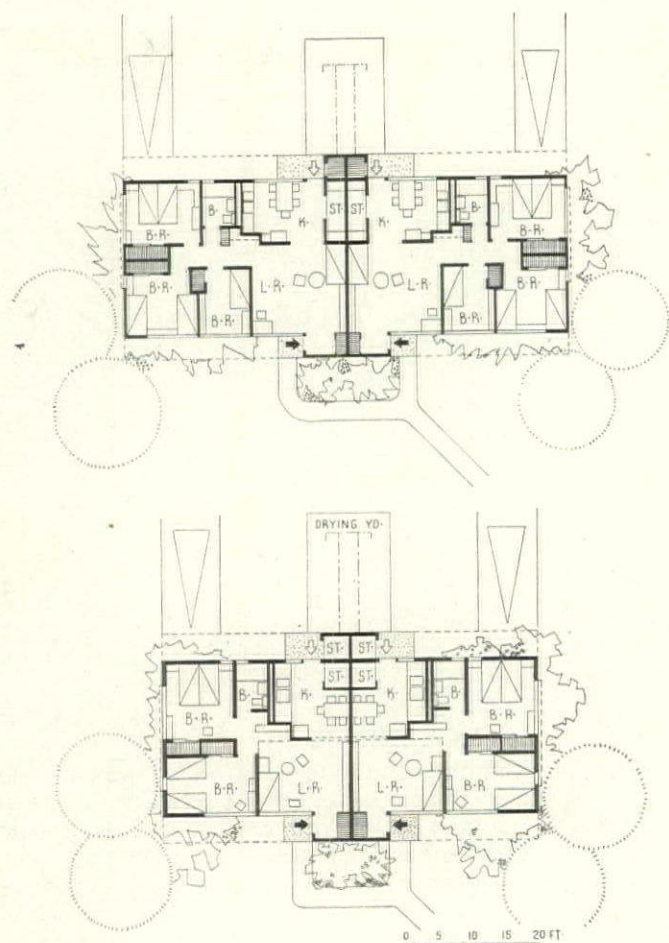


CHANNEL HEIGHTS

A FEDERAL PUBLIC HOUSING AUTHORITY PROJECT
LOS ANGELES HOUSING AUTHORITY (in charge)
HOWARD L. HOLTZENDORFF, Executive Director
L. E. WILSON, Consultant
RICHARD J. NEUTRA, Architect
BARUCH CORP., General Contractor

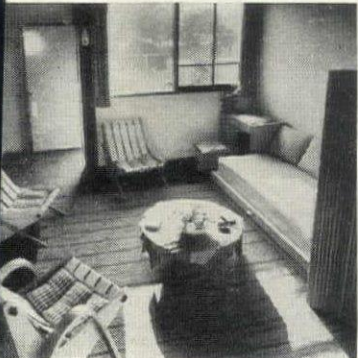
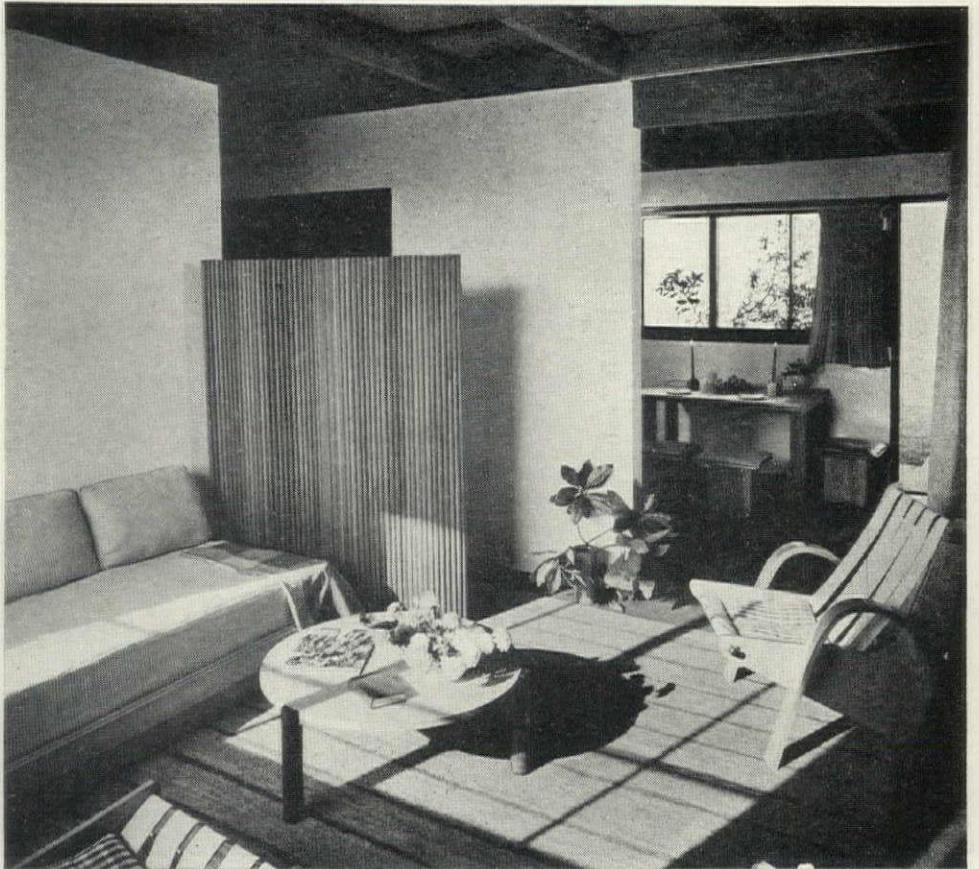


THIS TYPE OF ONE STORY UNIT CONTAINS TWO WELL SEGREGATED APARTMENTS OF EITHER TWO OR THREE BEDROOMS

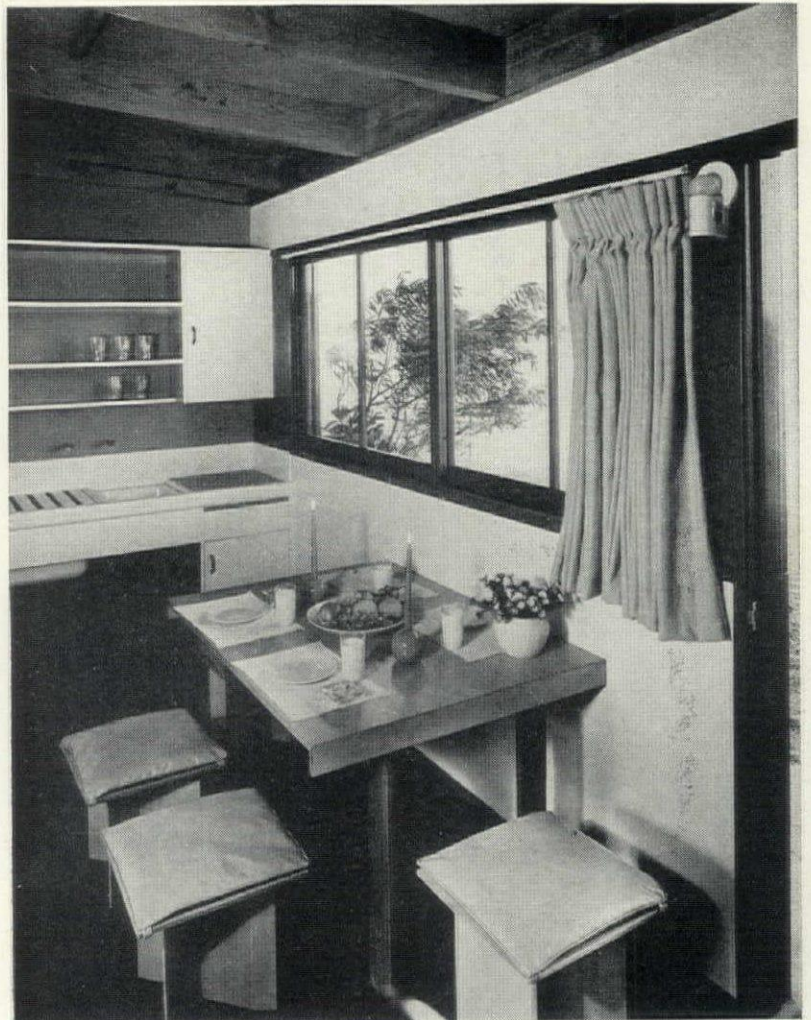


The one story two-family house is more spaciouly conceived than the usual project unit. The three-bedroom apartment for example, is provided with seven closets, including a large storage enclosure in the kitchen, and a smaller tool closet right outside the door. The unusually wide bedroom closets with sliding doors have come to be regarded as a Neutra trademark. By the simple device of moving out a section of the front wall, Neutra has managed to create an excellent coat closet and foyer—features somewhat unusual in this class of housing. The horizontally sliding windows are inexpensive and they are easy to maintain. Again, as in the four apartment unit, the kitchen-dining room is conveniently laid out and pleasant to eat in. Provision is made in the rear for drying clothes, and each family has its own parking space.

The rather startling use of a block of redwood to provide exterior accent seems more reasonable in these units than in the four apartment unit shown on the previous page. In the four apartment unit, the redwood is used with questionable effect as a decorative device. In the one story unit, the block is more pleasing aesthetically and more justified as accentuation of an important feature in any house—the entrance.

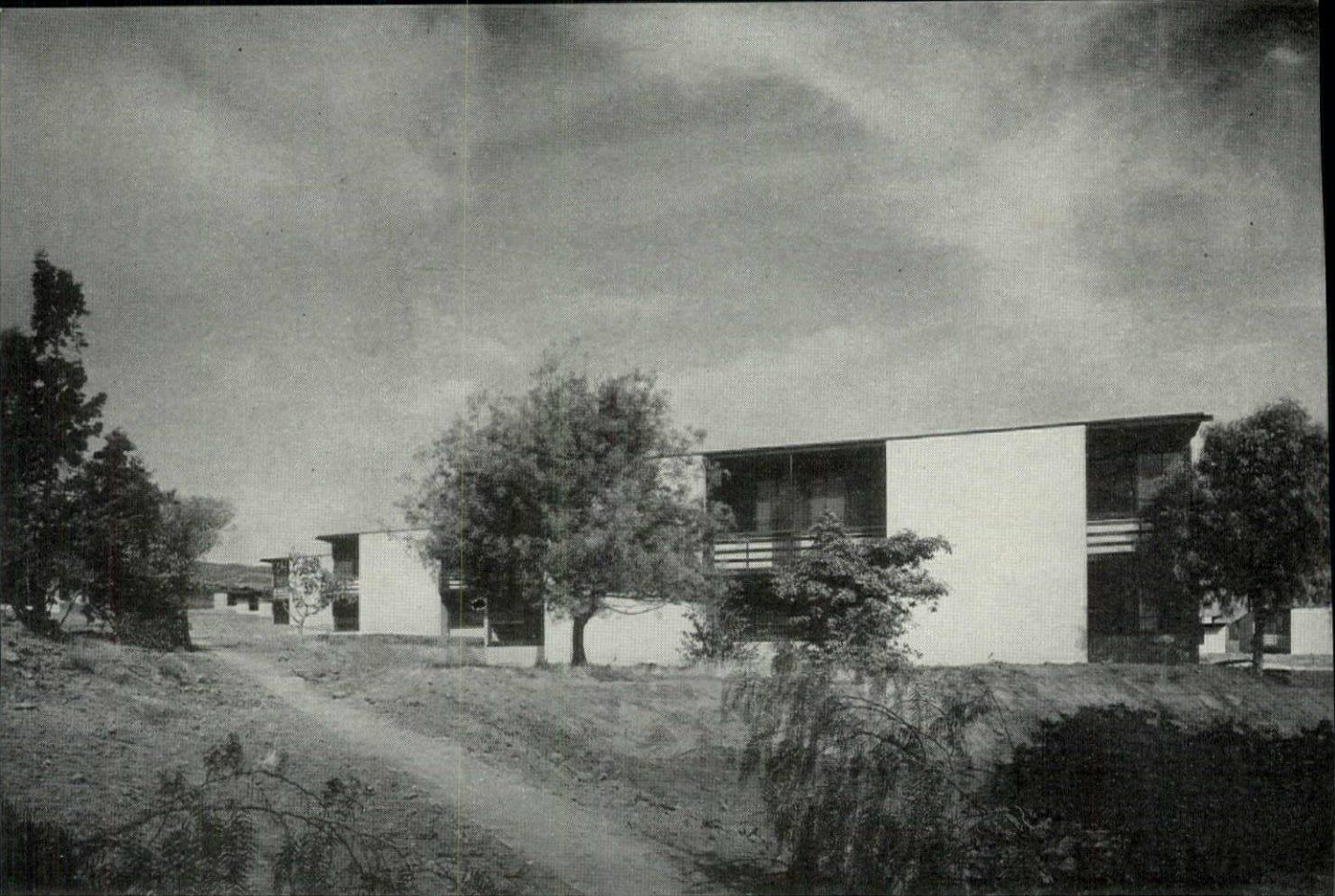


LOW-COST FURNITURE IN THESE ROOMS IS NEUTRA-DESIGNED AND IS AVAILABLE TO TENANTS WHO WANT IT
KITCHEN-DINETTE IS WELL PLANNED AND AFFORDS A VISTA

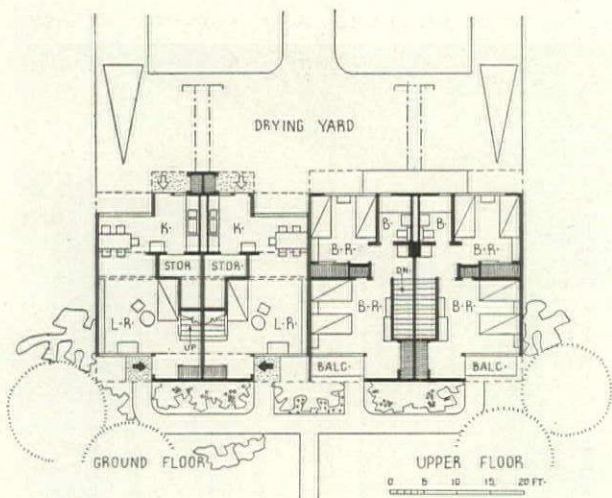


CHILDREN'S ROOM WITH TWO BUNKS

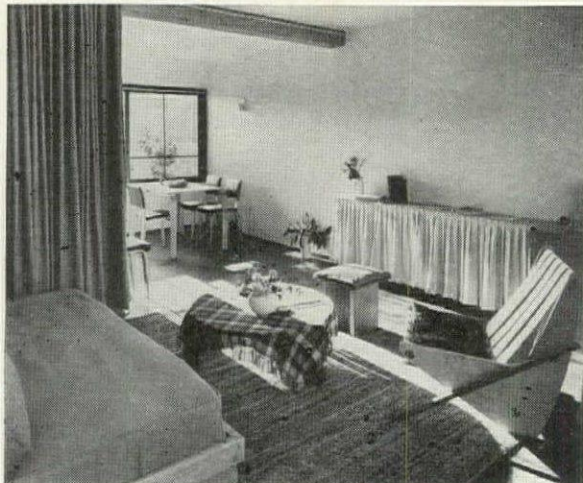




TWO STORY, TWO FAMILY UNIT IS A DISTINCTIVE NEUTRA VARIATION ON A FAMILIAR PUBLIC HOUSING THEME



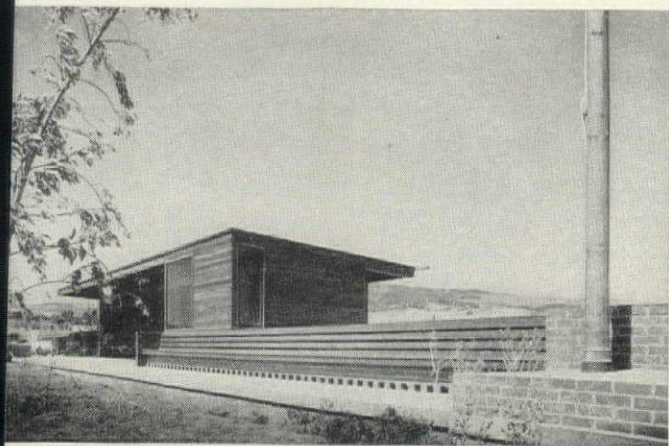
LIVING ROOMS AND DINETTES MERGE SMOOTHLY



Despite its unusual appearance, this unit is a variation on a standard plan which departs only in the matter of fenestration and in the provision of a vestibule and coat closet at each entrance. A further improvement is the arrangement for privacy, with the windows of each apartment well screened from those of adjacent units. The second floor balconies are part of the scheme of giving as much privacy as possible.

Channel Heights provides housing for 600 families at an average unit cost of \$2,600. Neutra's achievement on the project, which is a substantial one, was to create a distinguished site plan and excellent permanent dwelling units without deviating in any remarkable way from accepted technique, and without overstepping the stringent wartime limitations. For those who claim that mass housing can have no individuality, that all housing projects must inevitably look alike, Channel Heights is instructive.

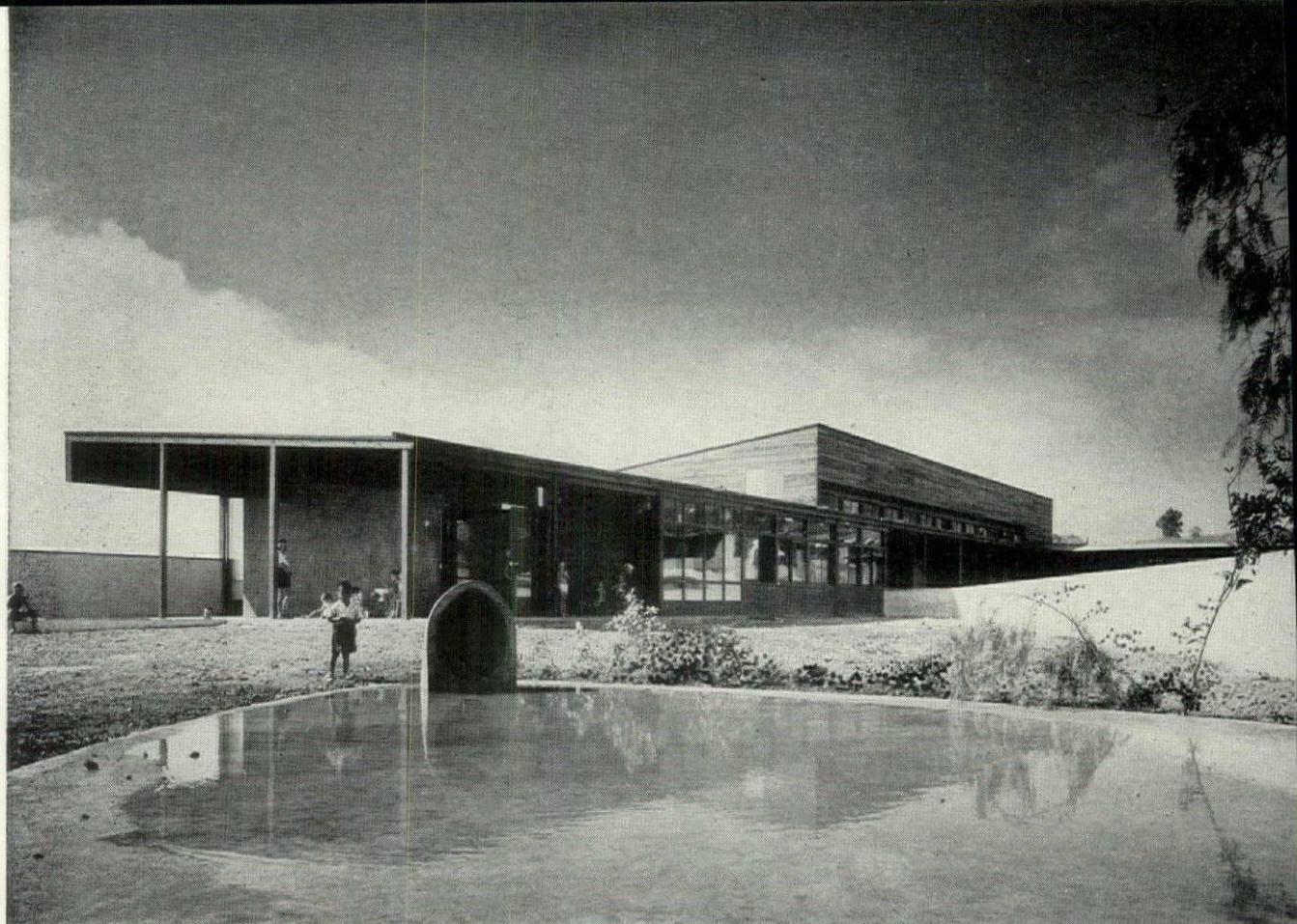
The Garden Craft building on the opposite page is a pleasant invention: a center where tenants can learn landscaping and carry out what they learn. An inexpensive structure, it should pay off quickly in tenant morale and improvement in the appearance of the project as a whole.



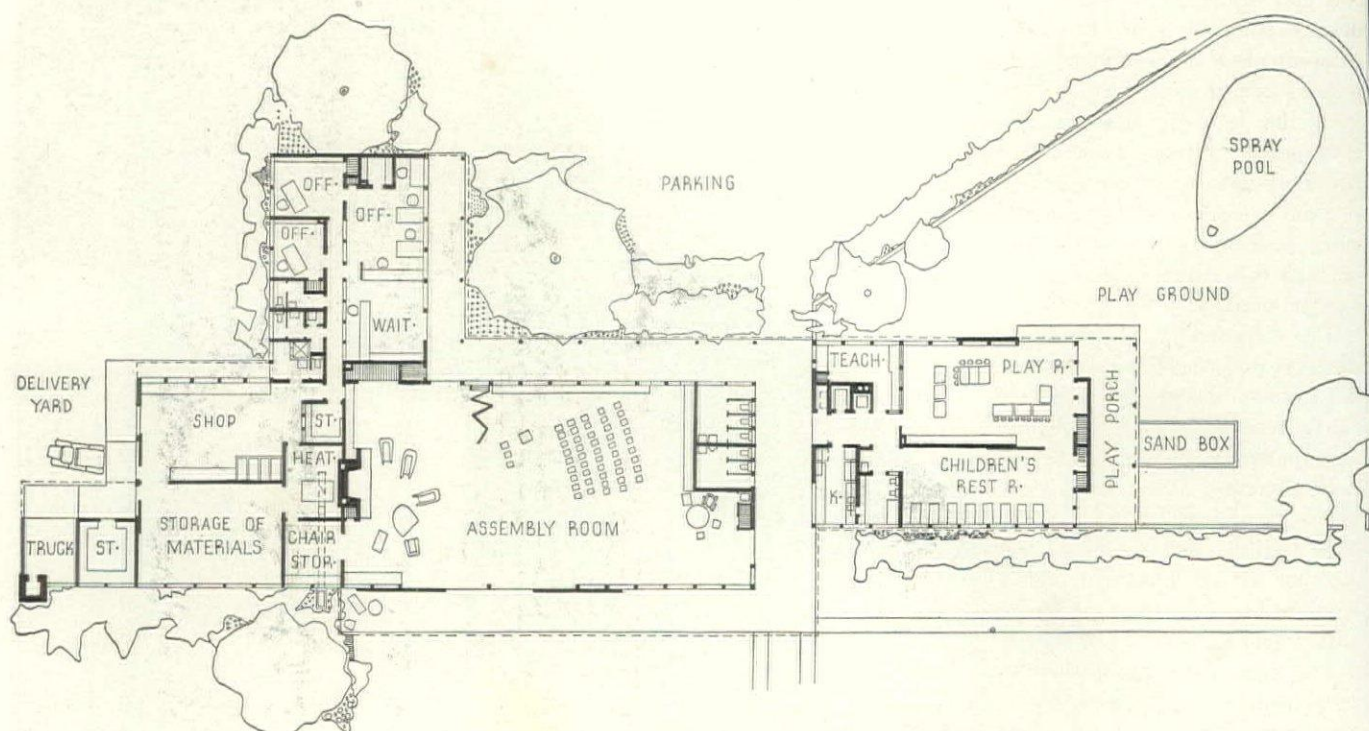
GARDEN CRAFT BUILDING: EXPOSED ROOF STRUCTURE IS USED AS A MAJOR DECORATIVE ELEMENT

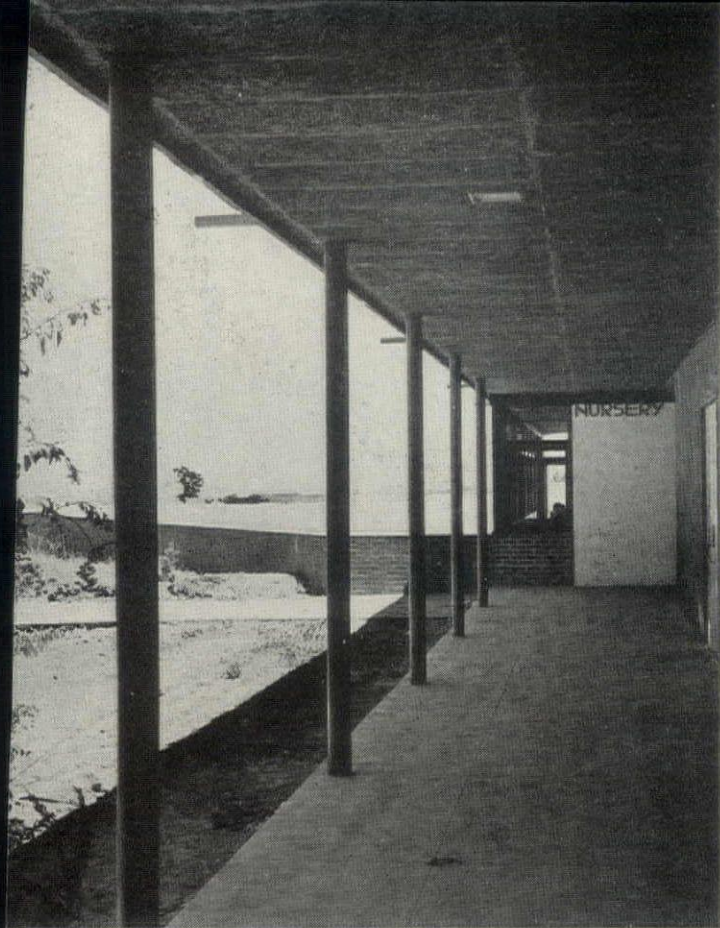
SERVICE BUILDING SHOWS FREEDOM POSSIBLE WHEN EXTERIOR WALL DOES NOT SUPPORT THE ROOF





IN THE FOREGROUND, THE NURSERY SCHOOL WITH SPRAY POOL. IN THE BACKGROUND, THE COMMUNITY C



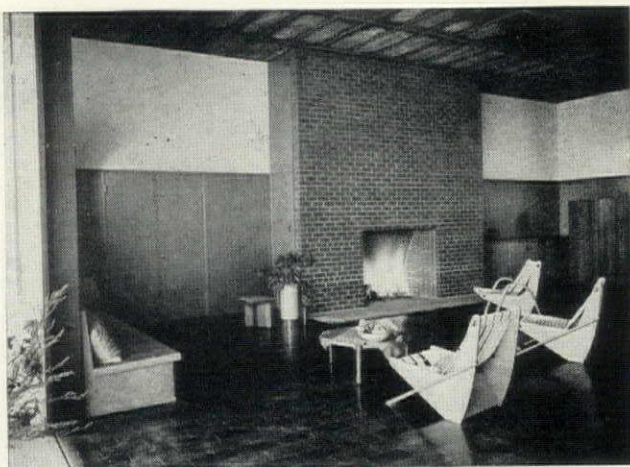


COMMUNITY CENTER ARCADE LEADS TO THE NURSERY SCHOOL

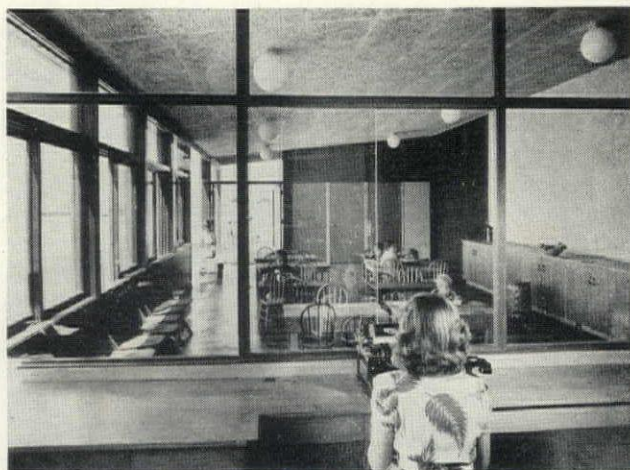


ASSEMBLY ROOM WING OF COMMUNITY CENTER

ASSEMBLY ROOM IS HUGE BUT CORNERS ARE COZY



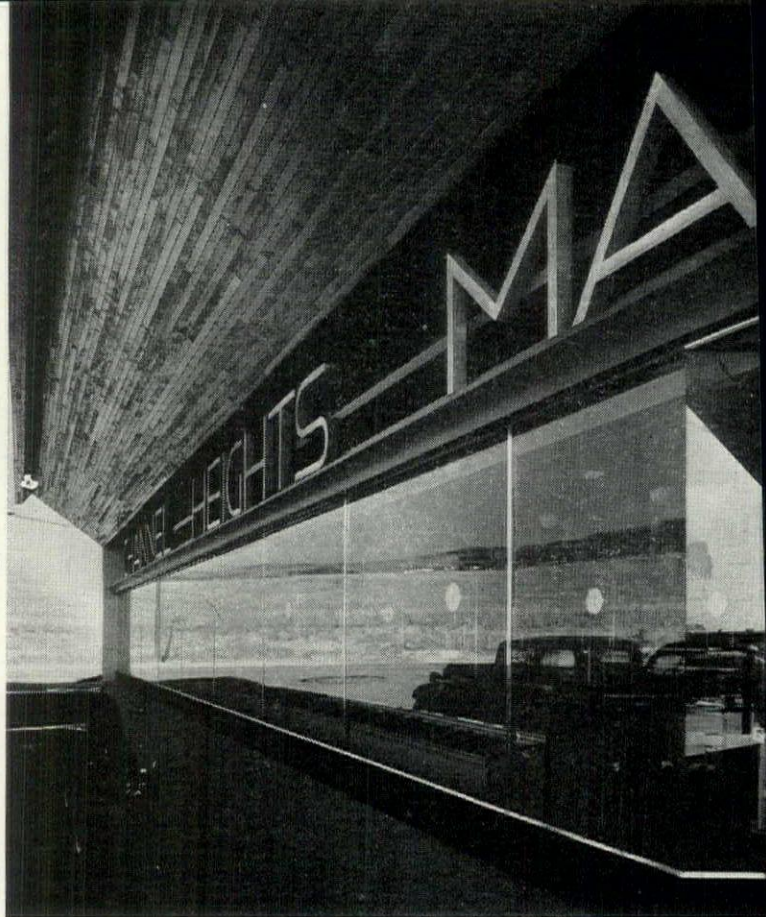
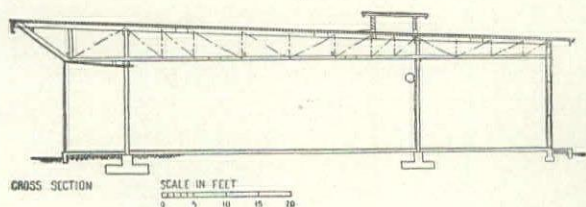
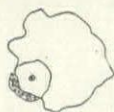
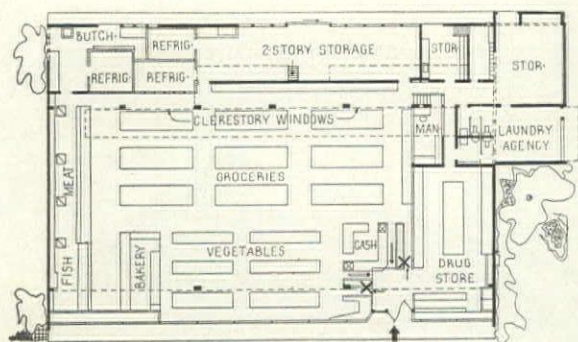
NURSERY SCHOOL PLAYROOM IS EASILY POLICED



Not only from an individual but from a community point of view, Channel Heights is a pleasant place to live in. Play space inside the nursery school is ample and easily supervised from the teacher's glass-enclosed office. The play porch provides a sheltered spot for the children's games, and the spacious outdoor playground is walled in to prevent straying. The spray pool would be a luxury that few projects on high cost land could afford, and indeed few private nurseries.

The Community Center building is both pleasant to look at and soundly executed. Like the nursery school, it is centrally located and can be reached by way of artificially illuminated underpasses without crossing congested roads. Administration offices have been segregated in one wing of the building, storage and maintenance facilities into another, leaving the biggest area for the assembly room. An effort has been made to break up the vast, bare assembly room with a folding partition.

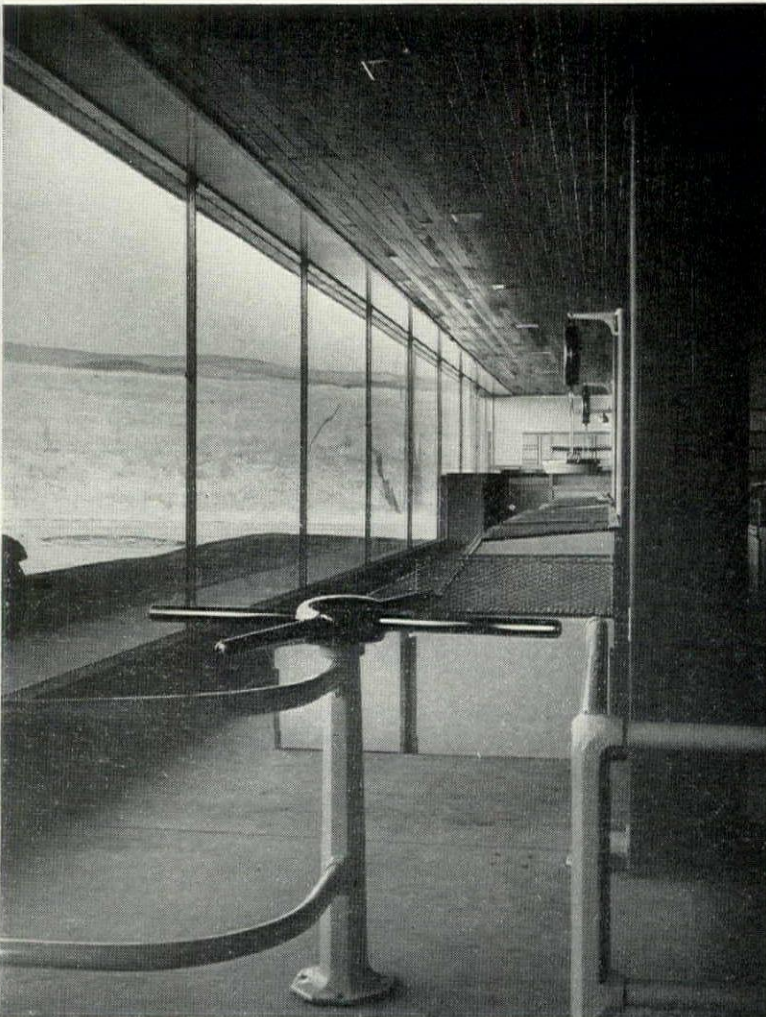
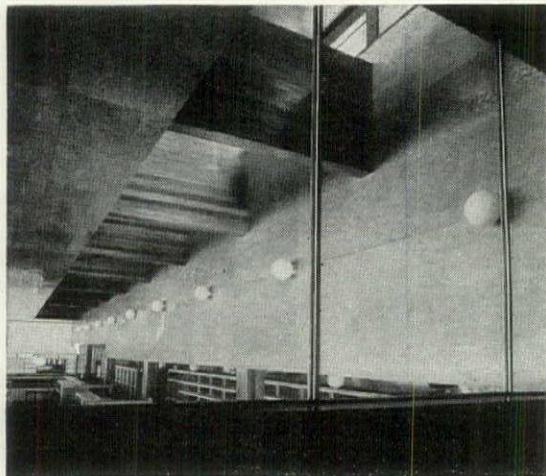
The great American preoccupation with sanitary facilities has led to a plethora of toilets in the Community Center. Separate toilets have been provided for male and female office workers, for maintenance workers, and for the male and female public.



CONTINUOUS STORE FRONT IS UNINTERRUPTED BY COLUMNS

CLERESTORY WINDOWS LIGHT STORE'S REAR

MARKET INTERIOR IS WELL LAID OUT, INVITING AND AIRY



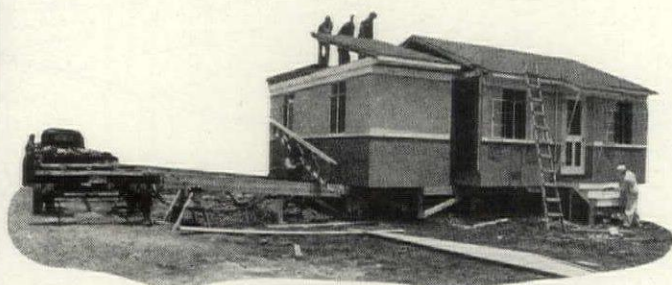
The 9,000 sq. ft. project supermarket, with its cantilevered roof and clerestory rear windows, has been designed as other project units have, to provide as much daylight and free floor space as possible. It contains all the concessions of a modern market—meat, fish, vegetable, grocery and bakery. In addition, a soft drink bar, stationery store, laundry and drug store have been included. Extensive storage rooms are provided to make up for any temporary stoppages in the delivery of foodstuffs.

PREFABRICATION

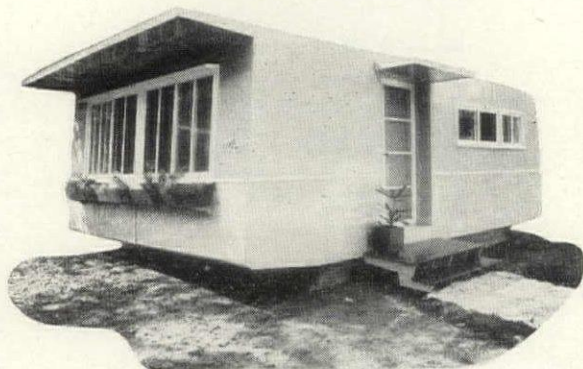
TVA "SECTIONAL" HOUSES with a background of several years of experimentation under widely varying conditions, now include two- and three-bedroom models made up from as many as six truckable units.



1940: Tourist Cabins, Pickwick Dam



1941: Workers' housing, Wilson Dam area



1942: "Trailer House," Fontana, N. C.

The Tennessee Valley Authority has been interested in prefabrication almost as long as it has been interested in dams. One reason for this is that it has always had the problem of providing temporary housing for workers on its huge construction projects, and has wanted to provide it with the least possible interference with its primary activities and to salvage as much as possible of the housing when it is no longer needed. More recently, as the scope of its activities has broadened to include assistance to war plants near newly-created power facilities, it has also been faced with the questions of housing for war workers, again with the provision that it be salvagable with minimum waste when, and if, it is no longer needed.

Throughout its successful experimentation in the prefabrication field—which now totals more than 1,000 houses built and lived in under a great variety of circumstances—TVA has stuck to a single, and somewhat unusual construction method which it calls "sectional" construction. By this method the house, instead of being prefabricated and shipped in the form of flat panels for walls, floors, roofs and partitions, is put together in the factory in boxlike sections of one or more rooms (or portions of rooms) just small enough for convenient trucking. And, while it is not the only organization which has employed this method for building complete houses, it is probably the only one which has functioned continuously for so long a time.

Main advantages of the sectional method, according to the Authority, include an absolute minimum of site labor (plumbing, wiring, fixtures and even furniture can be installed at the factory), speedy erection (always less than a day) and maximum salvage value and minimum moving expense when units must be relocated. The latter feature has proved of greatest importance under war conditions, since a number of groups of TVA houses have been used successively in as many as three widely-separated locations. Also of considerable significance, as evidenced by the units themselves, is the fact that "all-in-one" fabrication has led to a thoroughly integrated type of design which results in a considerable saving of material and labor, with cabinet work, and even built-in furniture acting as structural elements in the completed house.

Despite these advantages, most people have associated the sectional method of construction solely with "trailer type" housing, and have been reluctant to grant its practicability for standard-size houses. Moreover, the method has been criticized on the ground that a great deal of factory space is required for the production of a comparatively small number of houses, and also on the ground that shipment of the finished units, while fairly economical in the case of two-

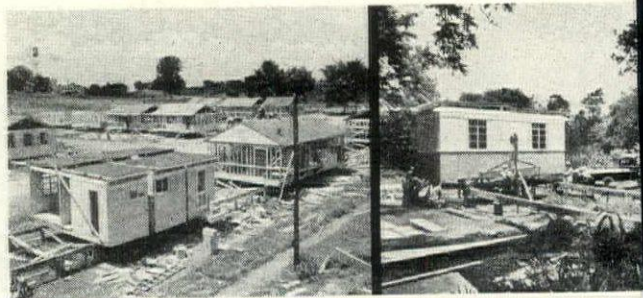
PREFABRICATION

unit houses, moved for short distances, would be prohibitive once the number of units or shipping distance was increased beyond these limits.

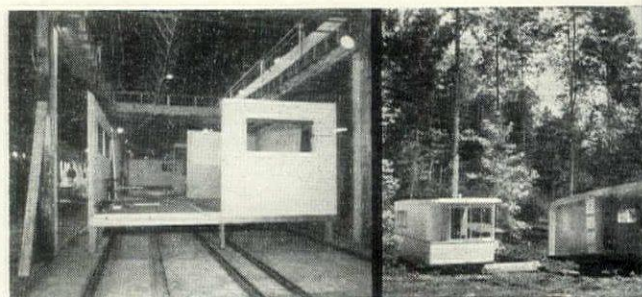
To both of these reservations, TVA has recently come up with new answers. It has designed generous two- and three-bedroom houses of as many as six sections each. Large quantities of three and four section houses are currently being manufactured and erected. Structural design has been developed to the point where, at the option of the builder, it is possible to ship houses from point to point either in the form of: a) precut lumber and sheet materials, b) flat wall, ceiling and floor panels or, c) sectional units, with or without plumbing, wiring, trim and painting completed. Thus, in a given instance, fabrication and shipment can be facilitated by employing the more conventional, panel type of assembly if analysis indicates that this is the most economical method, or panels can even be assembled at the site, in large-scale projects, in the manner of "site prefabrication." Or, one factory can be employed for the fabrication of flat panels, and another, nearer the site (or on the site itself), for assembly of sectional units.

Regardless of the method of assembly employed, no provision is made for subsequent disassembly of the panels used, although disassembly of the house into sections is provided for. According to TVA, "there is ample evidence that once a house has been built, it can subsequently be moved and re-erected on a new site by sections at lower cost than if disassembled into panels or individual pieces. The comparative costs of disassembly and reassembly are so heavily in favor of the sectional method that lower costs for transporting panels or building materials are outweighed for distances up to several hundred miles." Since transportation costs on the TVA houses have run only about 20 cents per section-mile, this is probably an understatement. Announced costs of the disassembly and re-erection of FPHA panel-type houses have run as high as \$2,000 per unit.

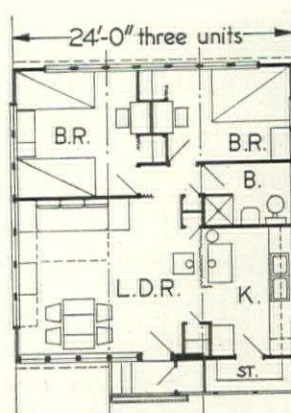
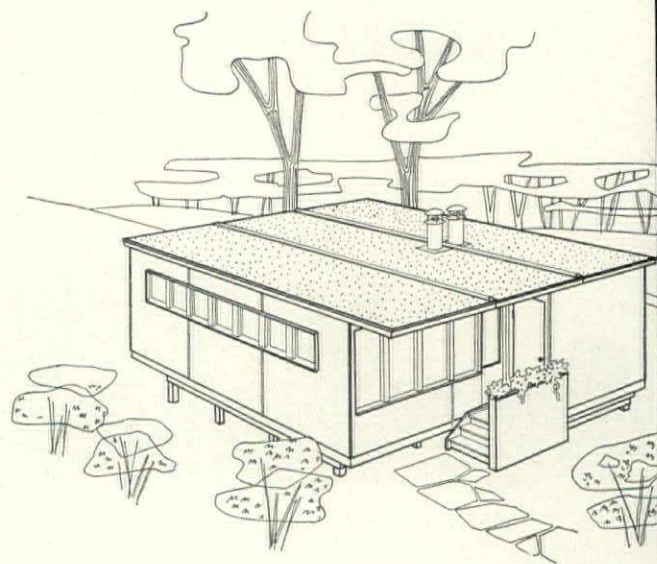
The postwar commercial implications of these new developments are considerable. The Authority, as a public agency, makes its designs and the results of its research available to private enterprise with only minor restrictions necessary to prevent their misuse. TVA architects have demonstrated the practicability of producing a wide variety of house types and sizes from standardized sectional units and have shown that this method of construction offers important advantages in the form of integrated space-saving design and tailored furniture and equipment. Point-by-point analysis of production procedures has eliminated most of the bugs from the sectional method, and has produced important savings of material over other types of construction. Manufacturers who have acted as contractors in the fabrication of TVA's various houses are reportedly enthusiastic about the possibilities of sectional fabrication, and may continue in the field after the war. Others may be encouraged to make experiments of their own, or to modify the TVA designs to their own purposes. And, just as TVA has tended in its latest houses to utilize to some extent the panel method of prefabrication, it may well be that the much more numerous manufacturers of panel-type houses have much to gain from a judicious admixture of sectional construction, which might well be applied, as a start, to storage units of all types, and later to more ambitious purposes such as unit kitchens and bathrooms.



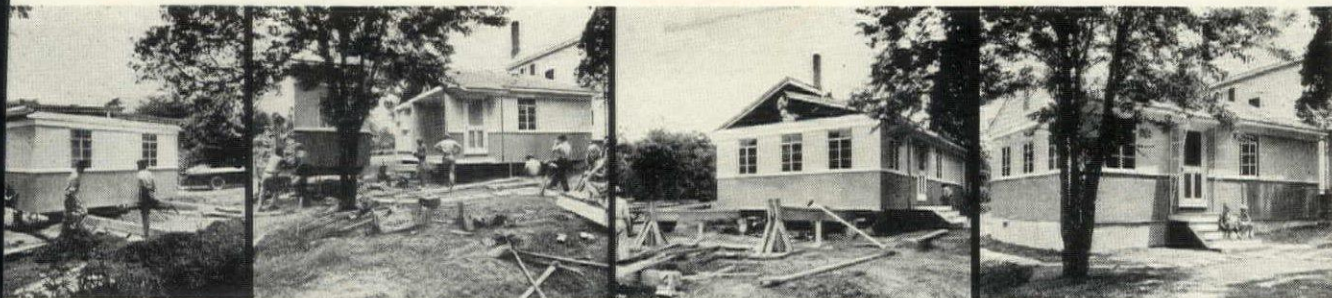
FIRST LARGE SCALE application of TVA's sectional method in the construction of 150 demountable defense houses in the Dam area (Muscle Shoals) in 1941. Houses were built out of



TRAILER TYPE house, used at Fontana, N. C. and in various locations, is best known of TVA's experiments to date. Frankly signed for emergency, wartime use, these houses have but one

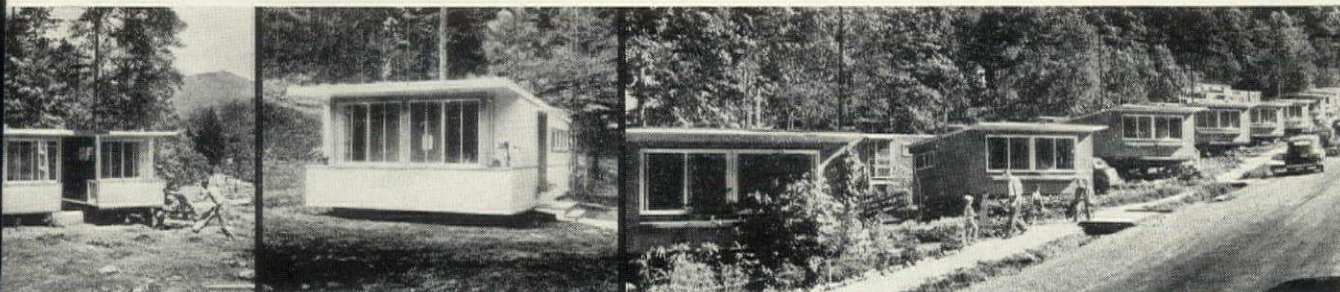


THREE UNIT house in the currently built TVA series provides two standard-size bedrooms, a generous living room and kitchen. Note that room size is not limited by the size of the site at any point.



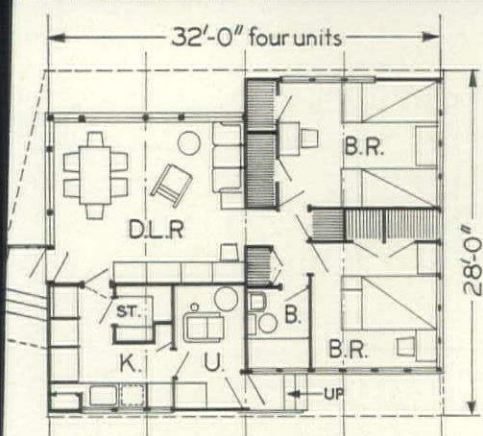
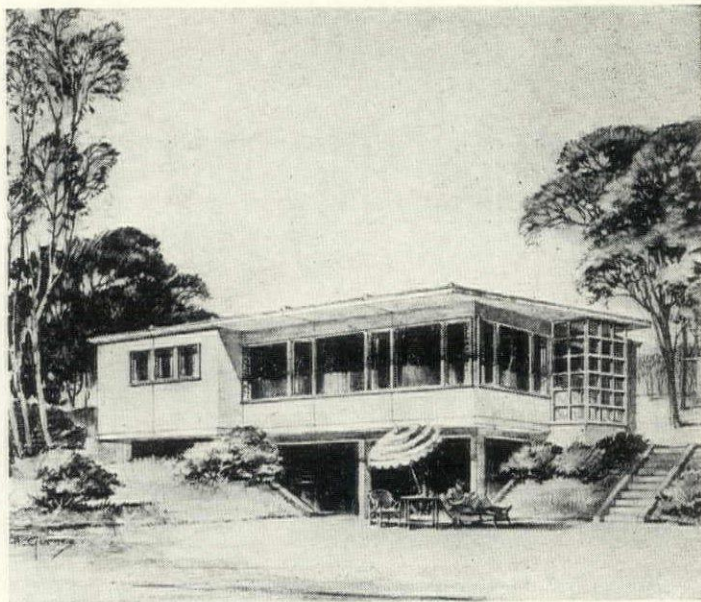
a central point, by assembly-line methods. One-, two-, and bedroom units were built, of three, four and five sections. Individual sections were $7\frac{1}{2} \times 22$ ft., two-bedroom house,

22 x 30 ft. They were set up in four different areas on scattered lots where utilities were available, thus achieving the economies of quantity production simultaneously with savings on site costs.

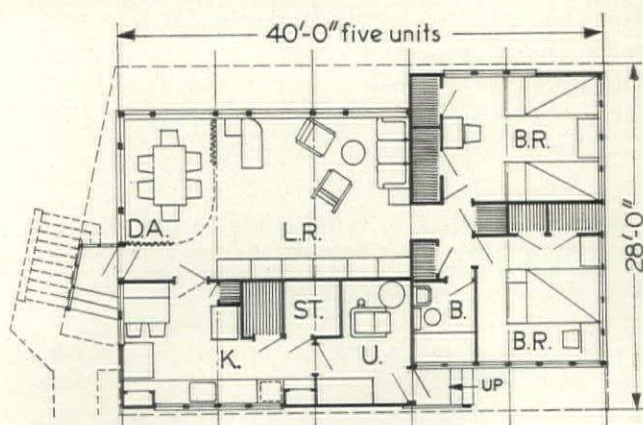


consist of two, 8×24 ft. sections, each open on one side. Sections are wood posts, connected by collar beams which act as a rack for rolling the sections in place. All equipment, plus a

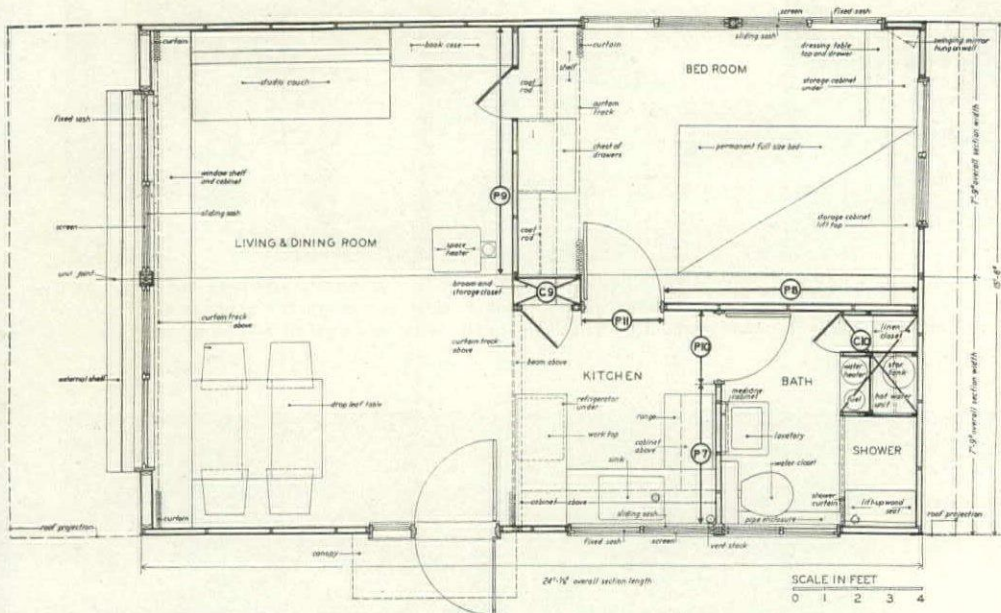
good deal of the furniture was built-in, and units were shipped to the site complete even to portable furniture and draperies. One hundred of these units were shipped 600 miles from Elkhart, Ind.



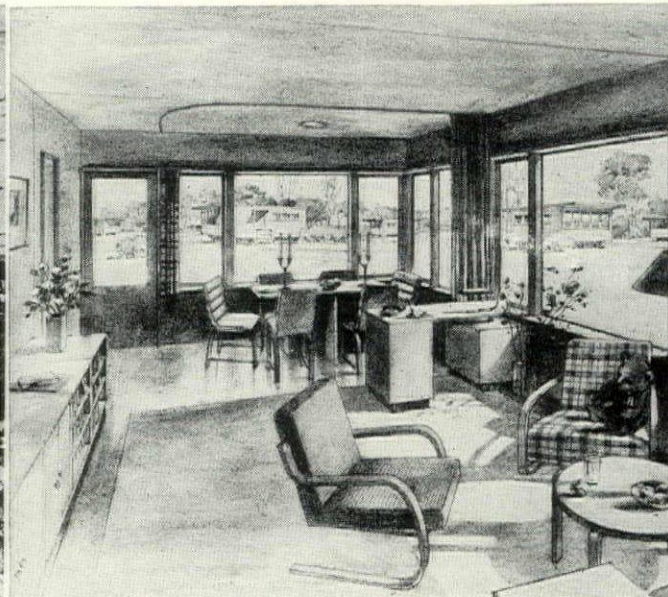
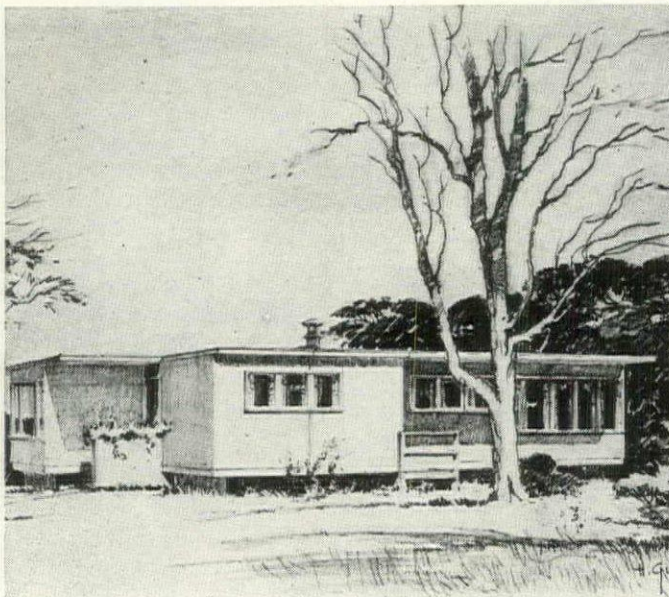
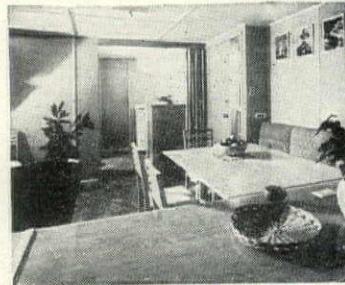
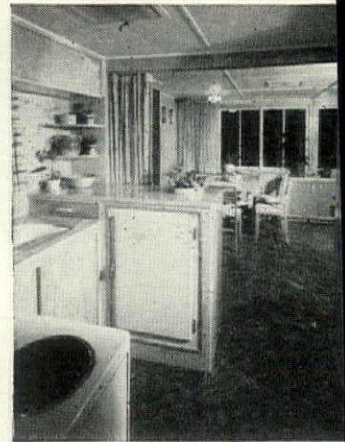
NIT house, also with two bedrooms, has larger rooms out, and utility room for standard warm-air heating equipment. Sections are offset for architectural variety.



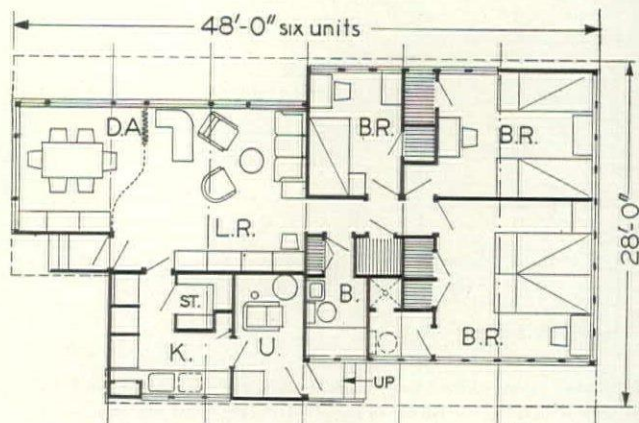
FIVE UNIT plan is a still more generous version of the two-bedroom house, with a large kitchen that includes a breakfast nook and a curtained dining alcove in the living room.

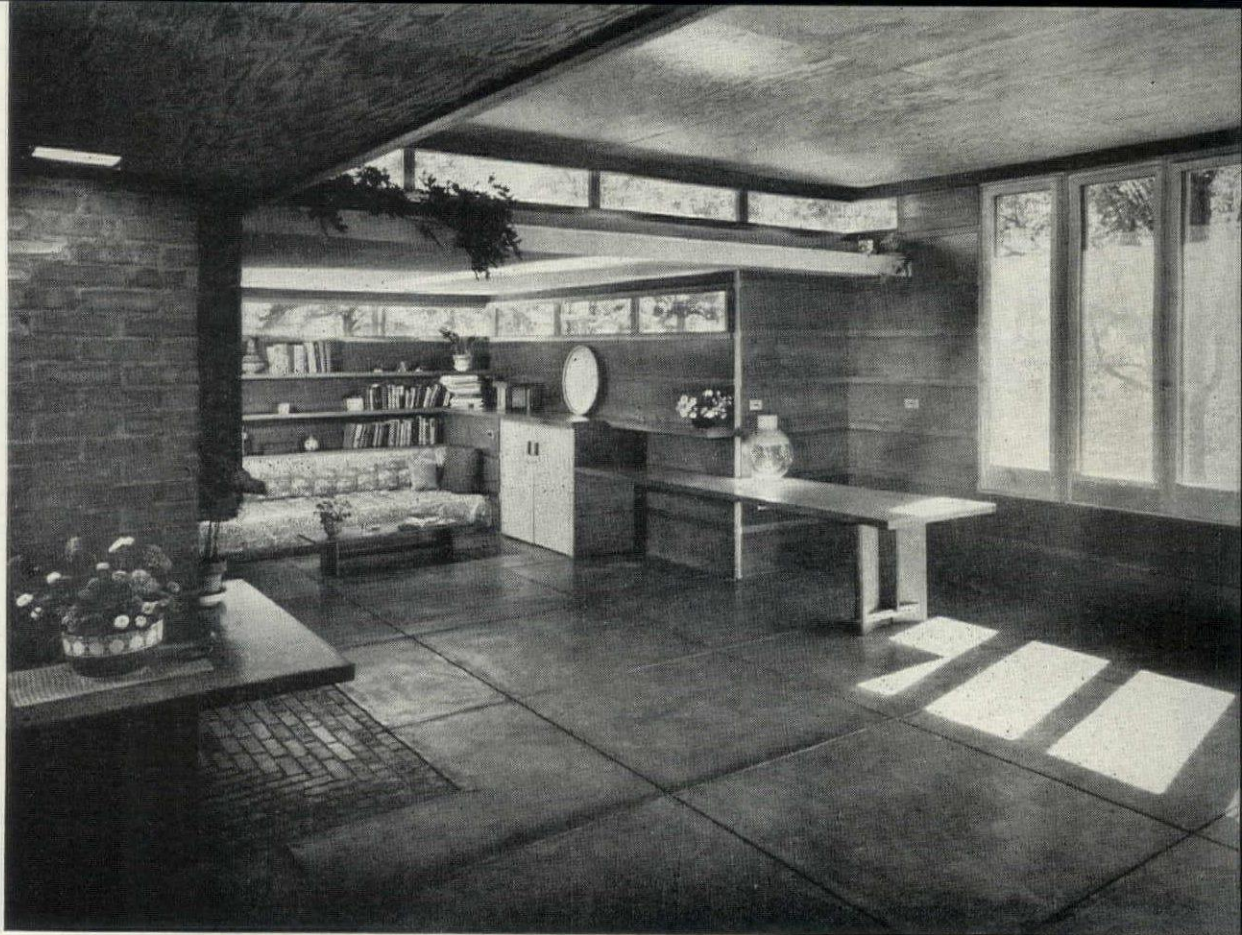


DETAIL PLAN of TVA trailer house shows highly efficient use of space achieved by use of built-in furniture, also use of panel and cabinet-type structural units in building up the sections. By this method, closets are fabricated as boxlike cabinets, rather than formed from separate panels, and may be built complete with drawers, shelves, etc., prior to their incorporation in the final structure. Note use of fixed and horizontally-sliding sash with insect screen in one half of fixed, outer sash.



SIX UNIT plan provides three bedrooms, space for an additional bath opening off the master bedroom. By interchanging sections, this bedroom plan can also be combined with the living room section on the preceding page.





WALLS WERE PLANNED AS CAREFULLY AS THE FLOOR IN THIS ROOM BY FRANK LLOYD WRIGHT

PLANNING THE POST WAR HOUSE III

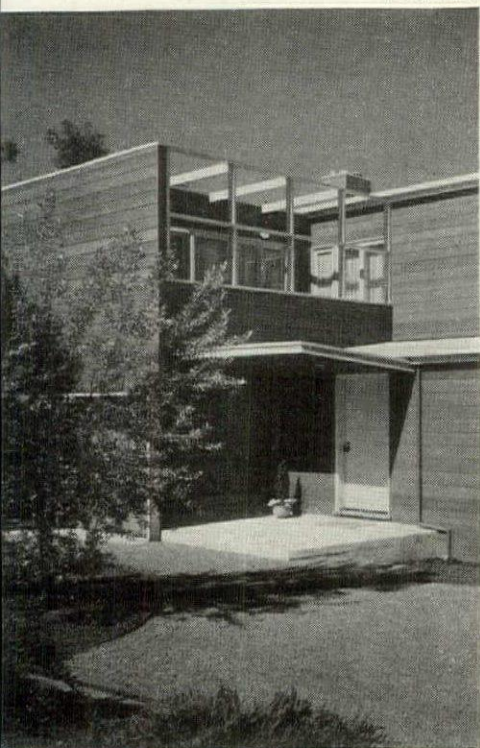
Modern architecture, with its ability to organize space and create built-in amenities out of nothing may be the trump card in the house-building game after the war.

PERHAPS the most perplexing of all the problems that face the small house builder is the question of space organization. While this may sound like some of the six-bit words the art critics are fond of using, the sense is clear enough. It simply refers to the manner in which space is distributed: within the room, within the house, within the development. An improvement in this regard is the one way in which the small builder can improve his product competitively—he is unable to match the large-scale operators on any other basis. Unfortunately, it is also something the builder, small or large, has tended to ignore. This is one reason his product offered the public less for its prewar dollars than it should have.

When a modern architect talks of space organization he is describing something which has esthetic overtones as well as a relation to the qualities of efficiency and livability. What it means to a house builder—or rather, should mean—is nothing more or less than increased salability through the use of new planning ideas as well as new equipment or quality materials. Generally speaking, superior space organization is not an item of cost at all, since it involves the arrangement of materials and equipment that must be purchased anyway. Actually, it is a cost item, because it involves the use of a competent modern architect—not just an architect—and top-flight professionals do not come wrapped in a set of blueprints for \$25.

BUILDER-ARCHITECT COLLABORATION

The history of the small house-for-sale shows few instances of architectural participation, and those which can be found do not always give cause for rejoicing. The past generation of architects acquired something of a reputation as exterior decorators, and many of the older architect-designed subdivisions justified it with shameful abundance. It has been said, and with truth, that the builder side-



PROTECTED SUN DECK, on second floor and generous hood over entrance are potent selling features in this modern house by Mario Corbett.

stepped the architect because it was an easy way of cutting corners. A ten per cent fee on a \$5,000 house is \$500; a five per cent fee is \$250; a two per cent fee is \$100—why bother with fees at all if plans can be had for one dollar up?

Sorry as this state of things has been, at least from the architects' viewpoint it is neither fair nor accurate to put all the blame on the builder. Too many of the pre-depression generation of architects either looked down their noses at the small house or considered it a secondary source of income. Certainly it was not a problem to be taken seriously. Moreover, the profession never acted in an organized way to work out a method for the provision of service on the small speculatively-built house. The various plan schemes merely produced a lot of plans, the idea being to reduce fees. The real issue, however, was not a question of fees but of service. Had the architect offered anything to increase substantially the salability of the builder's end product, the builder would have paid for it, for it would have been worth the money. As things were, the architect was reduced to the position of a hack draftsman and his "design" rarely went beyond changing one kind of door hood to another.

Beyond the question of inadequacy on the part of architect or builder, there was the background of the housing situation and public taste. As for the latter, the standards were (and are) so low that almost anything was acceptable. There was no need for competition on the basis of planning or design quality. Thus, even if architects had had anything to suggest that could have helped sell houses, their contributions would not have been sought very eagerly.

Two things have happened which seem likely to change this aspect of the pre-war house picture. One is the emergence of the modern architect. The other is the terrific barrage of propaganda for better houses and better living laid down by popular magazines and advertisers. Both work together to affect the market, and consequently the builder's operation.

THE MODERN ARCHITECT

Architecture is the only profession in which there are "moderns." There is no such creature as a "modern" lawyer or surgeon, for these men take it for granted that new and improved techniques are to be incorporated in their practice as circumstances dictate. Architecture, however, shows no such consistent progress because of the immensely complicated procedures involved in creating a building, the numerous interests involved, the need to rely on stock materials and equipment, and by no means least important, the impact of purely emotional factors where houses are concerned. The result of this situation was that one group of architects tended to maintain the superficial aspects of older styles while another tried to discard them. These divergent viewpoints split the profession from top to bottom, and by December 7, 1941 the odds were definitely on the younger, modern group. War building has tended to increase this lead.

The reason the modern architect is winning out—and this will be very evident in the house field after the war—is because he has a better product. An invariable characteristic of the modern architect is a flexible, creative attitude towards problems everyone had considered solved. Whether it was a question of sun or outlook, or storage, or quiet, the modern architect studied the problem for itself. He did not worry about having the windows come out even on the front or whether the shutters should be black or pink. As a matter of fact, when he looked at the shutters and found they weren't good for anything, he left them off. Expressions of this uninhibited approach to design were often rather startling; even the "conservative" modern jobs don't look like houses to the Colonial enthusiasts. But as examples appeared in one town after another, familiarity began to do its work and the houses looked practically normal after a while.

The modern architect can work with the builder, because both have the same interest in livability, efficiency and merchandising value. It was stated above that the builder could save money by eliminating the architect, that he could get his plans for a dollar. But actually, no operative builder worthy of the name has ever functioned on the basis of cut-rate plans. There is too much at stake. The successful small house plan for a given locality and price bracket is the re-



Ezra Stoller

GLASS WALLED living room, opening on patio, gives plenty of openness with plenty of privacy to this New England house by Coolidge, Shepley, Bulfinch & Abbott.

sult of the most painstaking effort. Any draftsman can turn out forty or four hundred small house designs, but what the builder has always needed was one or two that were foolproof in every respect.

Two steps have to be taken before the builder can learn to work with architects to get better plans. He will have to get over his fear of, or aversion to the modern house—at least to the extent of finding out why it is the way it is. And the second step is to rid himself of the notion, discussed in the first of these articles, that the public wants his prewar Cape Cod model. Before cars came into the picture the public “wanted” buggies, and the worst handicap of the house-for-sale business is that buggies are what it is still trying to sell.

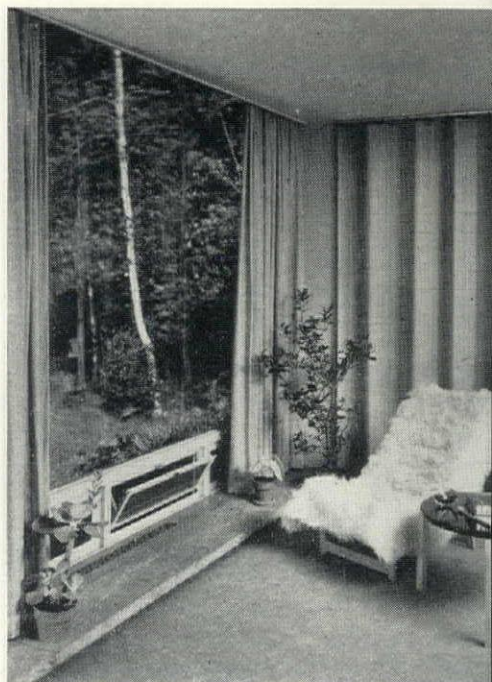
SPACE ORGANIZATION

In the discussion of equipment which appeared in the February issue it was very clear that modern architects had done a great deal to organize *conventional* fixtures in new and better ways. What is not so clear, perhaps, is how these organizing methods apply to other parts of the house, where the requirements of use are far less rigidly defined. There are many ways to attack the question; a very easy approach is through a fresh look at the walls.

The normal operating procedure for designing a house is to make a plan, which involves working with a floor. Yet there is more wall space than floor space in a house. Furniture sits not only on the floor, but against walls. Light comes in through openings in walls. Pictures hang on them. Curtains cover parts of them. Closets, corridors and other rooms open off them. Sounds penetrate or get stopped by them. Yet there are few houses of any kind where the walls have been designed with a fraction of the attention given to the floor plans. Perhaps you feel that you have troubles enough with plans without taking on the walls as well. But there is no better solution to the problems of more effective space organization.

If you will turn to the interior on page 79 some of the possibilities suggested will become more clear. The problem here was to create an alcove off a larger room, the purpose being to furnish space for reading and conversation. The first thing the architect did was to provide the *wall* space which made book storage practical and attractive. What was left between the top of the wall and the ceiling is window, although it resembles the ordinary window only in the fact that it uses glass. As it happens, no window could have been better placed to provide light for reading. Using the Colonial formula, such a space as this

Paul Davis

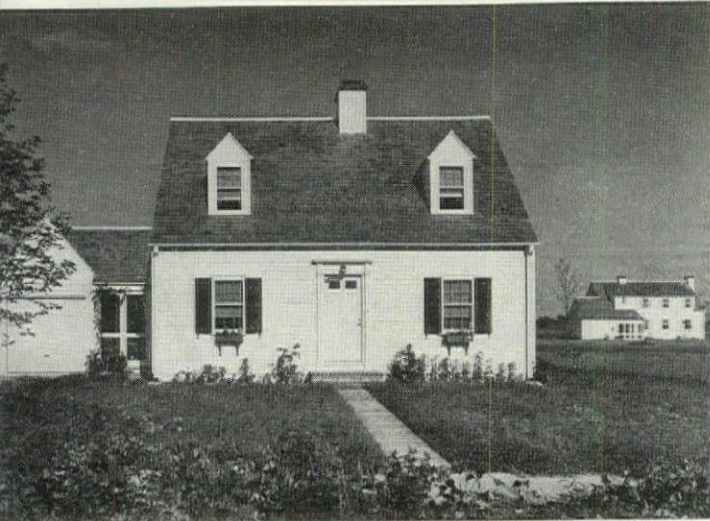


PICTURE WINDOW brings the outdoors in and increases the apparent size of this living room by Walter Bogner.

simply could not be built; vertical double hung windows would have cut up the wall space, spoiled the book shelves, interfered with proper lighting. This is an example of *wall design* as against conventional floor planning.

It may be protested that this kind of design is impossible without dictating the customer's choice of furniture. This is partly true, but it is not an insurmountable obstacle. The Grand Rapids product will also have competition after the war, and the customer's choice will be wider. If hundreds of model houses were built throughout the U. S. before the war, thousands will be built afterwards. For the developer they offer an unprecedented opportunity for aggressive selling of new and improved ideas. It is an old and accepted custom for the American family to get rid of its car when shown a better one; given half a chance it will do the same with its furniture.

Robert M. Damora



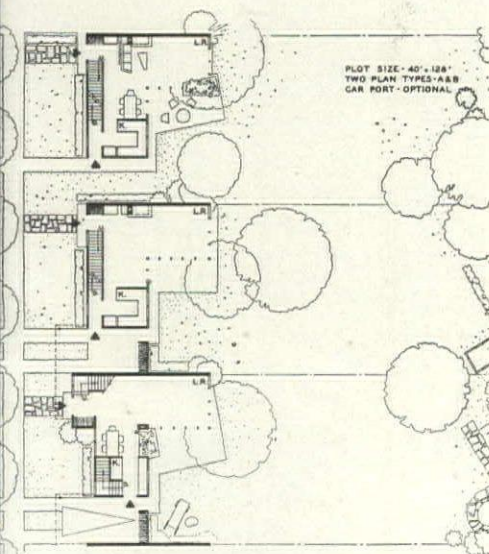
George H. Van Anda



"CONVENTIONAL" and "Modern" exterior treatments are now almost equally acceptable even to conventional homebuyers, but the modern approach offers greater opportunities for the introduction of selling features. House at right by Thorne Sherwood.

Another objection to the "open" wall design for the speculative house is its appearance, which, according to the diehards in the business, is something the public will not accept. There happen to be at least two answers. One is the experience of Howard Sloan, whose two subdivisions are shown on pages 85 to 94. Another is given in the two houses above, which provide a very interesting comparison. Both are rectangular boxes, gable-roofed, with rooms on two floors. Both, in other words, have the major characteristics of the Colonial house. The only difference (it is an important one) is in the wall design, the fenestration. If both were for sale in the same subdivision, it seems unlikely that the more modern would suffer because of its appearance. Far more likely is its prior acceptance, since any family would find the outlook more pleasing and the inside light infinitely better.

Designed walls also beget designed windows—in fact, window-walls. Note for example, the living room window on the bottom of page 81. Glass from floor to ceiling, it provides much space for no added money, since the landscaping immediately outside is virtually part of the room. Ventilators are kept low so that the outlook is not obstructed. If the occupant wants to reduce the apparent size of the room to its actual size he has only to pull a curtain. It may be said that this kind of thing is all very well for a house on acreage, but that it is impractical for the subdivision, where the houses are close together. This is true only of the subdivisions that have been built, not those which might be built. Proper space organization is as important for the development as a whole as it is inside the house. If it is decided that oversize picture window or glass walls are important items in the merchandising scheme, the development can be planned to permit the use of such features without loss of privacy. This small point, as a matter of fact, is a good illustration of the approach that the modern architect displays when confronted with a new problem. A tangible example of a solution is the series of plans for detached or row houses in an industrial section of Chicago (left). Those interested in studying the whole project will find it in the issue of last October.

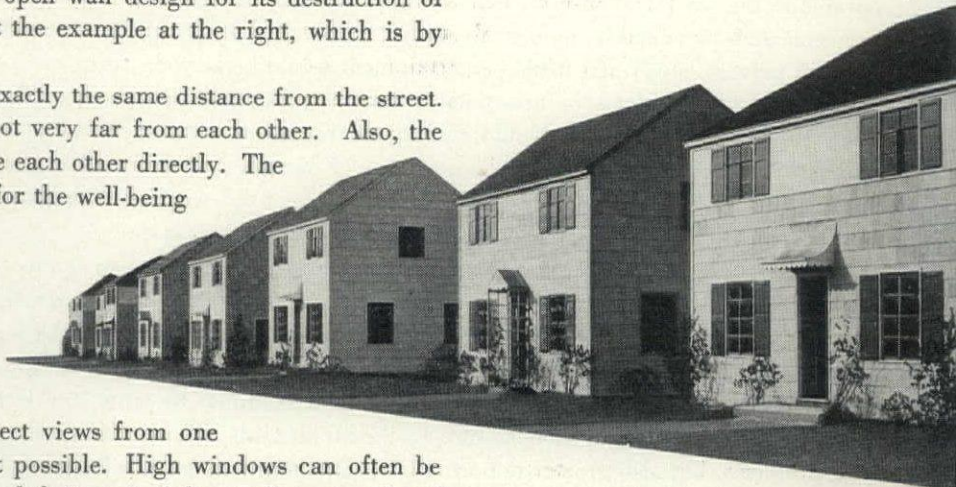


PRIVACY is possible even on narrow lots and despite big glass areas if houses are planned like these units by Skidmore, Owings and Merrill.

The builders who have criticized the open wall design for its destruction of family privacy might do well to look at the example at the right, which is by no means the worst of its kind.

You will note that the houses are all exactly the same distance from the street. Moreover, the sides of the houses are not very far from each other. Also, the windows in the sides of these houses face each other directly. The kind of stupidity and callous disregard for the well-being of the purchaser that produces this kind of "planning for privacy" hardly puts the developer in a position to criticize any suggestion.

Oddly enough, the solution for this kind of thing is not difficult. Windows in side walls can be so placed that direct views from one house into its neighbor's rooms are not possible. High windows can often be introduced. And plans can be so arranged that most of the windows are placed at the front or rear.

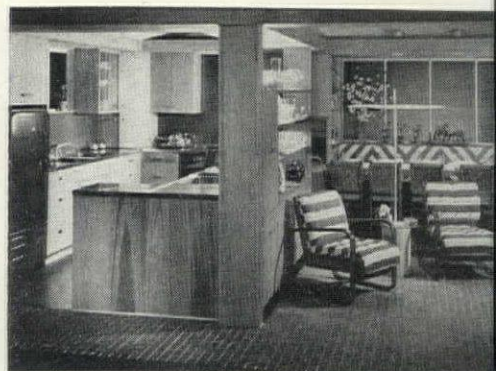
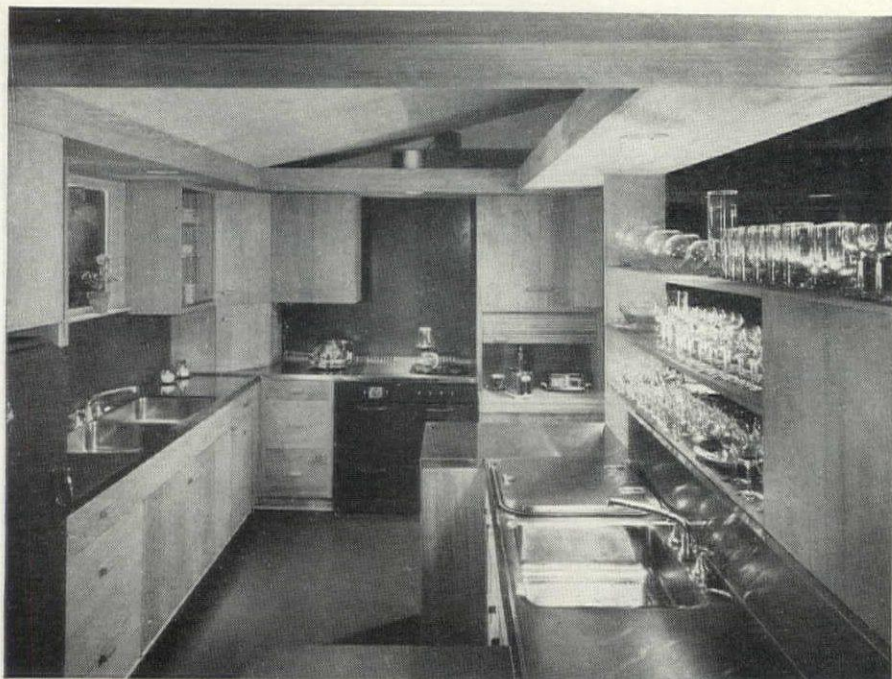


SPACE ORGANIZATION AND TRENDS IN LIVING

It is safe to say that the war has produced the greatest upheaval in national living habits this country has ever undergone. This will have its effect on the house-for-sale. It is not the servant problem which will affect it, since few in this market have had servants. Nor is it the current transportation problem, since private and mass transport will be far better a few years after the war than it was before. It is the long-term tendency of women to exchange domestic duties for jobs in commerce and industry that will change house planning. Cooking, child care and cleaning will be three of the items on which demands for improvement will be the greatest, and the solutions will have to fall into two categories: those dealing with spaces within the house proper, and those related to the neighborhood development. There are already hints of what is likely to happen.

Within the house, the old room categories are going to be reconsidered. As a matter of fact, they are already. The living room-dining room-kitchen arrangement has given way in favor of the living-dining room plus kitchen. Other combinations are emerging, however. One is the kitchen-living room, only an idea as yet, but a popular idea. Another, more acceptable, is the scheme one large-scale builder is planning to try, a layout in which the dining area can be merged with either kitchen or living room through the use of flexible partitions. In the house-

Richard Averill Smith



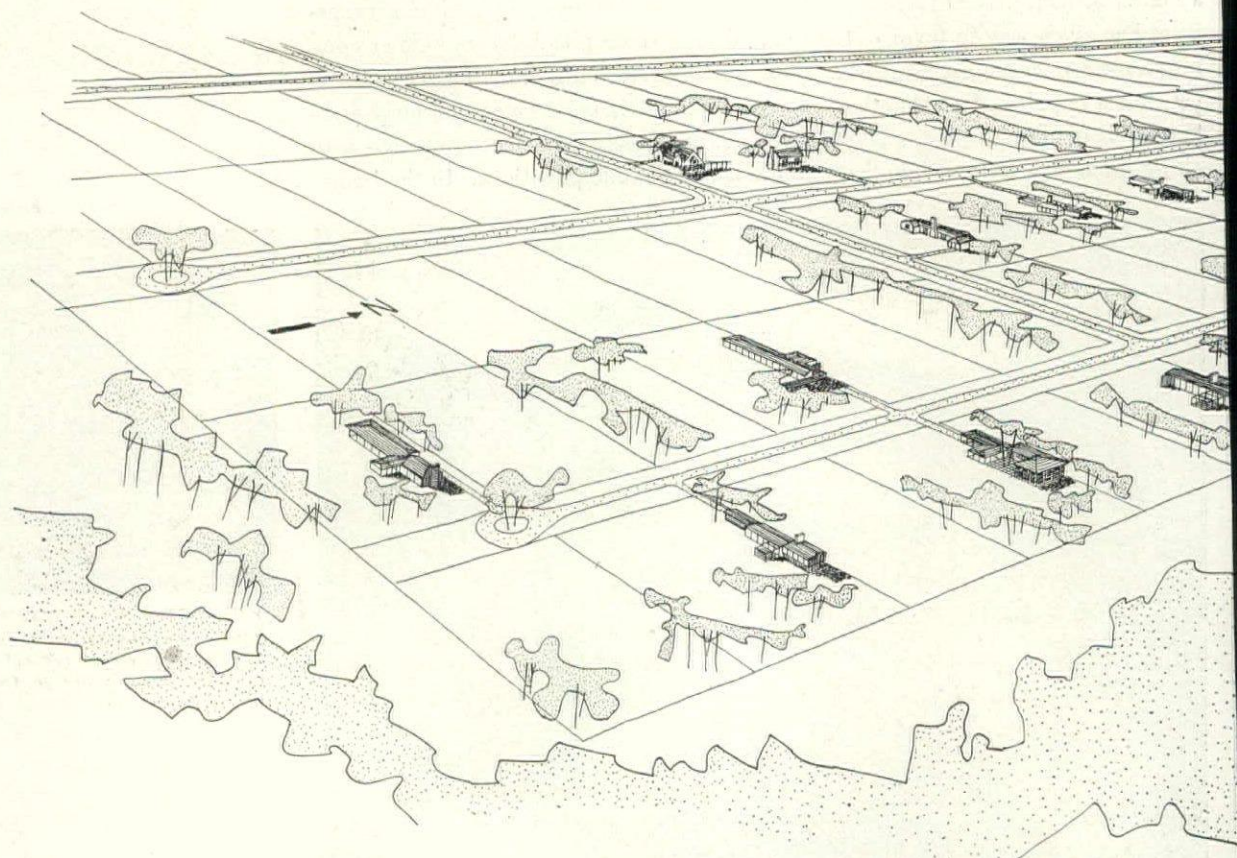
KITCHEN-LIVING ROOM, designed for the New York World's Fair by Allmon Fordyce shows a radical but increasingly acceptable design for new trends in living.

hold where there are no servants and the wife works, a general living space comparable to the old farmhouse kitchen would prove very acceptable. It would be supplemented, presumably, by a small study (a revival of the parlor?) where the needs of privacy, study and formal entertainment would be served.

Solutions for problems of maintenance and cleaning are already emerging. They are partly a matter of planning (organizing storage space, reducing the number of rooms, etc.), partly mechanical (use of improved air filters, etc.), and partly a matter of detailing and materials. Here the fixed window with louver ventilation—or mechanical ventilation—has decided advantages.

Child care is going to become more and more a social—rather than family—activity. The war has highlighted the movement of women into business, but the trend goes farther back than the war. The war has given prominence to the servant shortages and the need for nurseries, playgrounds, and so on, but even after the emergency the demand for these facilities will continue to grow, for it is rooted in the conditions of modern life. To the builder this will mean more planning problems, but also greater opportunities. The house business will become a “neighborhood business”, for recreational and child care facilities will be provided, along with shops. This concept favors the large builder, since he can work in the number of family units required to support the social facilities. But the small developer is far from licked if he takes advantage of the initial impetus that can be provided by the modern architect.

This series of articles closes very appropriately with a review of the two Howard Sloan subdivisions in Glenview, Illinois. Both developments, and particularly the experience of Sloan and the architects who collaborated with him, are not only instructive, but encouraging. These developments are far from large—even a small town builder would not consider the number of houses built remarkable—but through the use of advanced planning ideas, radiant heating, solar heating and other devices, *the developer put himself into a position where he had no competition.* The moral—and the opportunity—should be obvious.





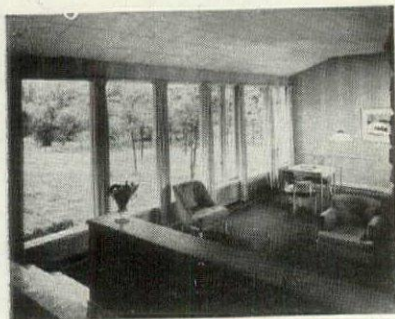
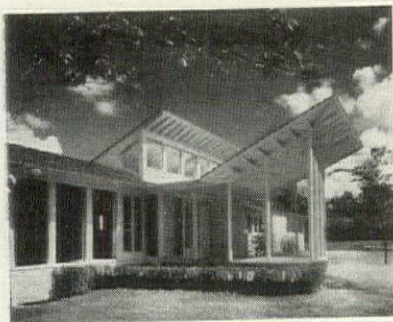
THE SLOAN LIVING ROOM IS SPACIOUS, WALLED WITH PLATE GLASS AND VENTILATED THROUGH LOUVERS

TWO DEVELOPMENTS

in Glenview, Ill. "It is my conviction," says Howard Sloan, "that any developer who employs a good modern architect to design a one-story house, and builds that house and exhibits it, will have all the postwar business he can handle."

The Sloan developments at Meadowbrook and Solar Park, considered from the viewpoint of house merchandising in relation to trends in design, are probably the most important in the U. S. Nowhere else has the question "Will the modern house sell?" been posed so sharply by an operative builder. Never has there been less of a compromise with conventional practice. And never has a developer gathered more precise data on the public reaction to the modern house. These facts are what make Meadowbrook and Solar Park important.

It would be possible, after surveying the limited accomplishment of Mr. Sloan and his collaborators, to challenge its significance. The war stopped both projects, just after they had gotten under way; as a result there are few houses. It can also be pointed out that these houses are in the \$12,000 to \$20,000 class, and that experience in this field does not reflect attitudes in the lower price brackets. The answer to the first point is that the developer sold his modern houses rapidly, and intends to finish the projects as soon as construction is permitted. As for the second, it is general merchandising experience to have low-cost items follow trends in the more expensive types.



THE FIRST SOLAR HOUSE, with up-tilted roofs to emphasize the sun trap feature. Living room view shows the obvious visual advantages of fixed sash. George Fred Keck, Architect.

"In 1940," writes Howard Sloan, "I built a house using very large windows. George Fred Keck so oriented the house that the sun came into most of the rooms. Since I was a real estate operator, and prospects were my bread and butter, I planned to exhibit it to the public as a means of increasing my business.

"It is customary to give some name to a model house, and since the sun was used as a supplementary means of heating, I chose the word "solar". The local newspapers ran stories using the name "Solar House", thus providing the name which has been applied since to a whole type. We opened the house to the public on September 8, 1940. In an effort to keep out the merely curious, I charged a dime admission. We had as many as 1,700 on a single day, and around 5,000 visitors by Christmas.

"Of the people who visited the house, over 300 gave me their names, stating as they did so that they were interested in buying or building a home.

"Such interest convinced me that the public was interested in a new architecture, and that if I specialized on modern I would have the field pretty much to myself. It was also evident that a small subdivision with modern houses would be needed to take care of my prospects. So on Thanksgiving morning, 1940, several of my contractor friends and I got together to look at a site. It was only four blocks from the Glenview station, and surrounded by good, medium-priced homes.

"We decided to take the land, and to aim at prices of \$10,000 to \$13,000 for house and lot. However, in spite of the evidence of a favorable attitude toward modern, we didn't dare to go all the way, and split the property into two groups. There was to be a street of Colonial houses and a street of modern. By the middle of summer everything was going well, and the modern houses were selling faster than the traditional, but we were losing customers who wanted larger homes with more land. So we found another tract which was divided into 25 half-acre lots, named it Solar Park, and restricted the houses to modern. I was told at the time by FHA that it was the first U. S. subdivision to be so restricted. That restriction hurt on a few occasions, when prospects all ready to buy and build had to be turned down because they insisted on red brick Colonial. It doesn't hurt any longer."

"I should point out that we overcame one of the major hurdles in financing the modern houses by segregating them. Nonconformity is a great bugaboo. By restricting Solar Park to modern, and by grouping the Colonial and modern houses at Meadowbrook, we got around this difficulty. We also got FHA approval to a full 80 percent whenever we needed it.

"When the stop order came on April 9th, I could point to 30 houses that were the direct result of the original Solar House. Not all were in the two developments, but all were architect-designed. On the basis of this experience I think it safe to say that the public, *when given an opportunity*, will express a preference for modern with a purchase order, which I find a very convincing kind of proof.

"Sixteen of the houses are one-story, mostly without basement. Ten have two stories and basements. Four are three-level houses, with basements partly above ground and bedrooms over the basements.

"The experience gained from showing thousands of people through these houses has revealed facts which may be of interest:

1. Women definitely prefer a laundry next to the kitchen, so that they can watch the cooking while washing and ironing. They hate to climb stairs with a heavy basket of clothes, or to have to come up to answer the phone or doorbell.

2. They prefer the recreation room above ground, so that it may also be used as a den or child's bedroom. Such a multi-purpose room is justifiable.

3. It is impossible to give a woman too many windows if they are correctly oriented and have a pleasant outlook. They like the cheerful atmosphere and restfulness the large window areas produce.

4. After people see and understand the benefits of radiant heat, they want it. We used radiant heating in the last eight houses.

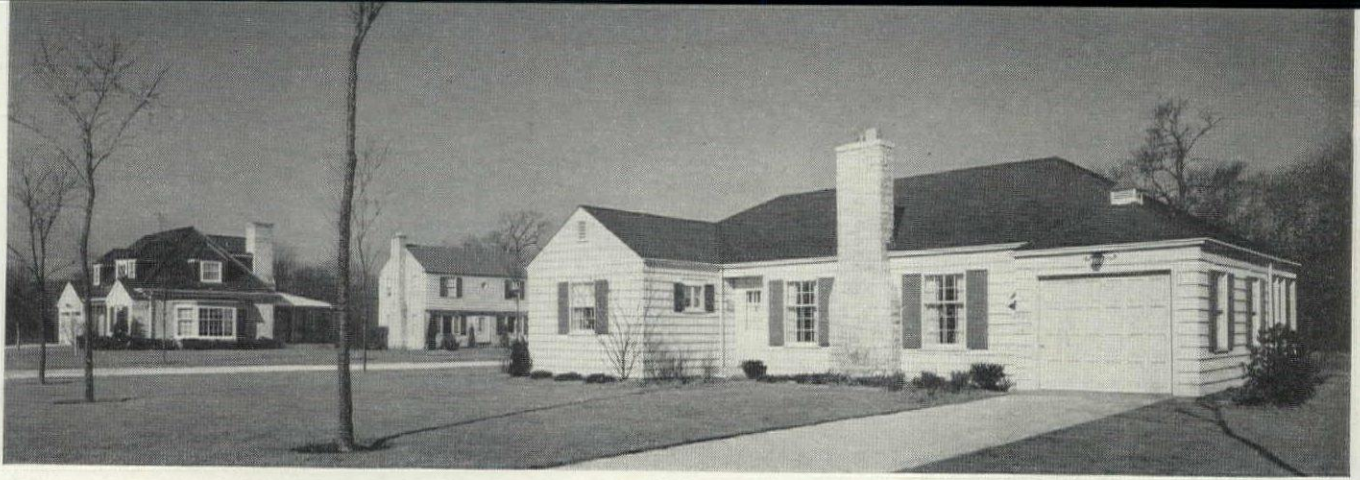
5. The public is well aware that domestic help will continue to be a problem after the war. All are interested in any house that is easier to take care of.

6. All agree that large windows are easier to keep clean than windows broken into many small panes.

7. They like the combination of louvers and fixed windows. This eliminates the usual fear of ground floor bedrooms, of rain coming in the window, etc.

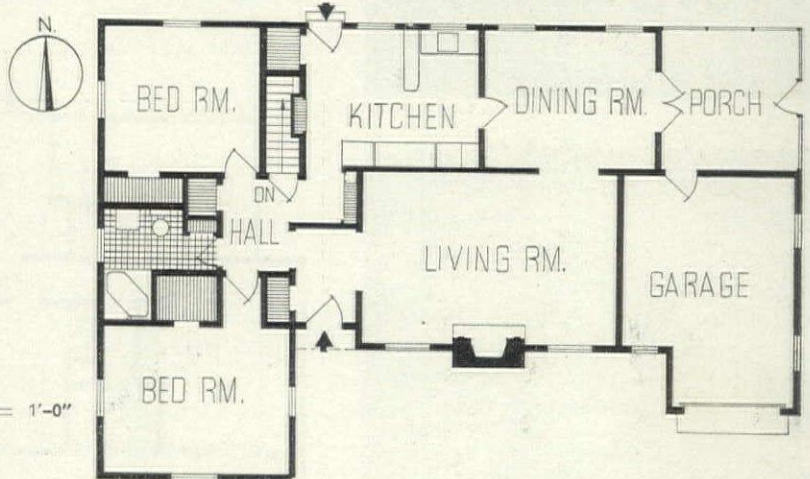
8. A large majority want as many features built in as possible.

"I have found that I can build houses all on one floor, including as much space as is usually allotted to a basement, for the same price as comparable two-story houses with basements, or for less."

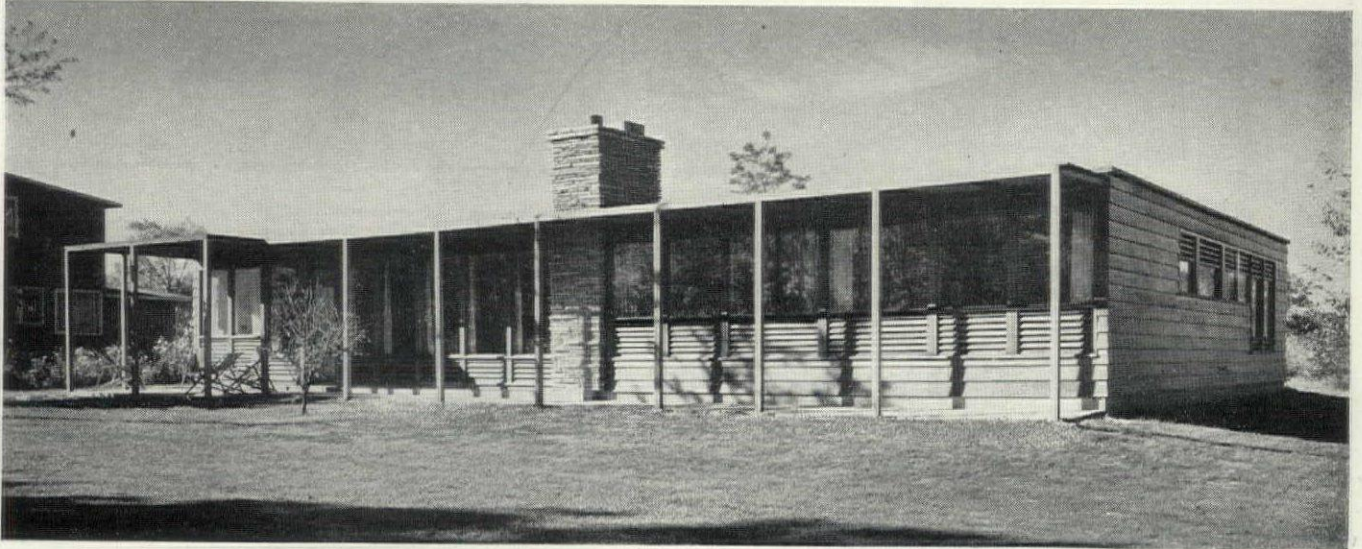


THREE OF THE TEN Colonial houses built at Meadowbrook Village. The plan of the one-story house is interesting for the success with which the accessibility of various rooms has been combined with privacy. F. E. Sloan, architect. The mortgage was handled through a building and loan association. Lot size: 68 x 150. Selling price for house, lot and landscaping: \$13,500.

SCALE: $\frac{1}{8}" = 1'-0"$

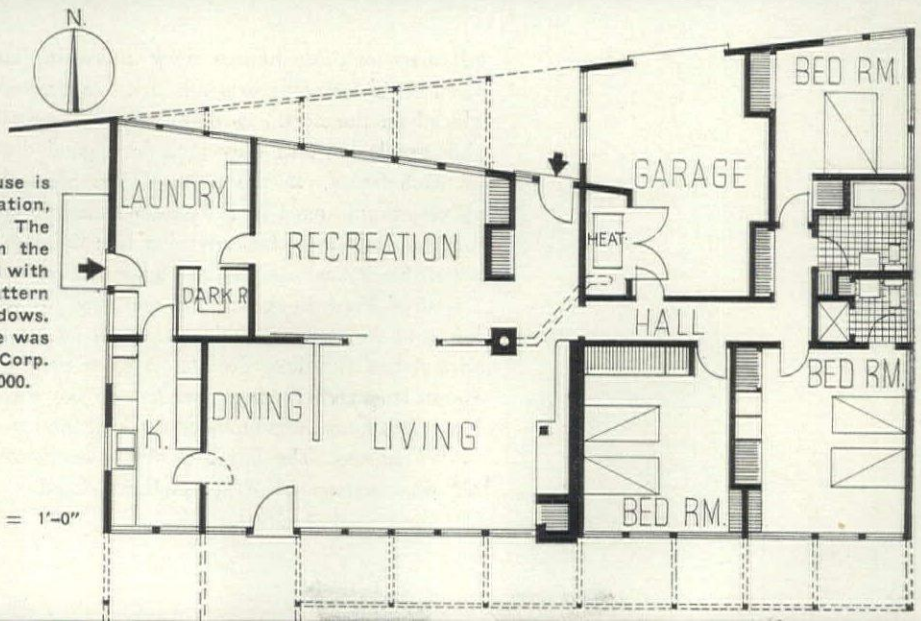


Photos: Hedrich-Blessing Studio



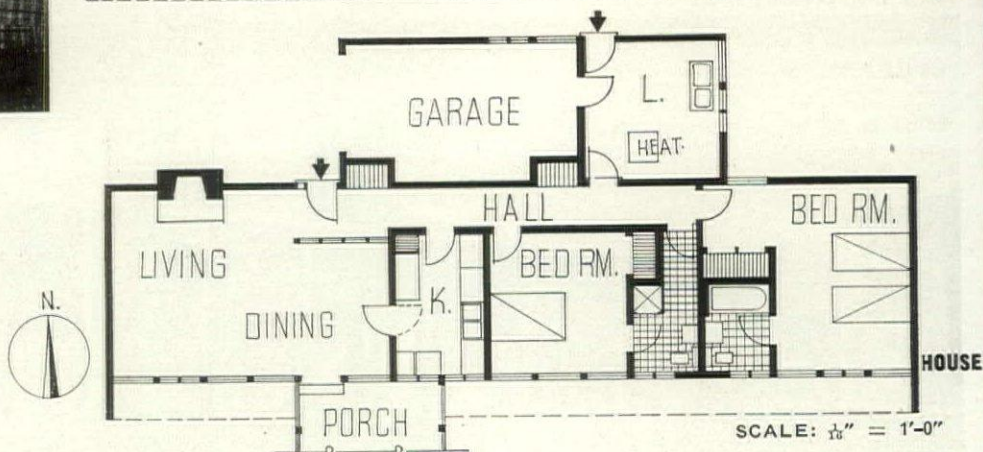
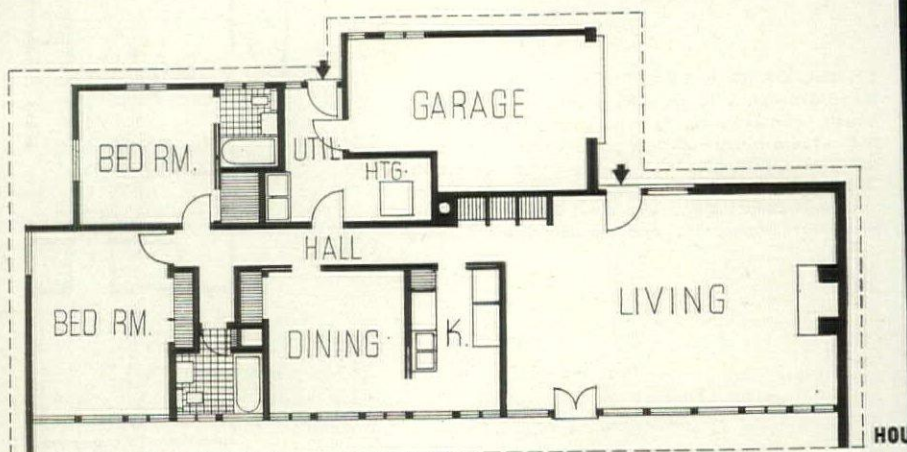
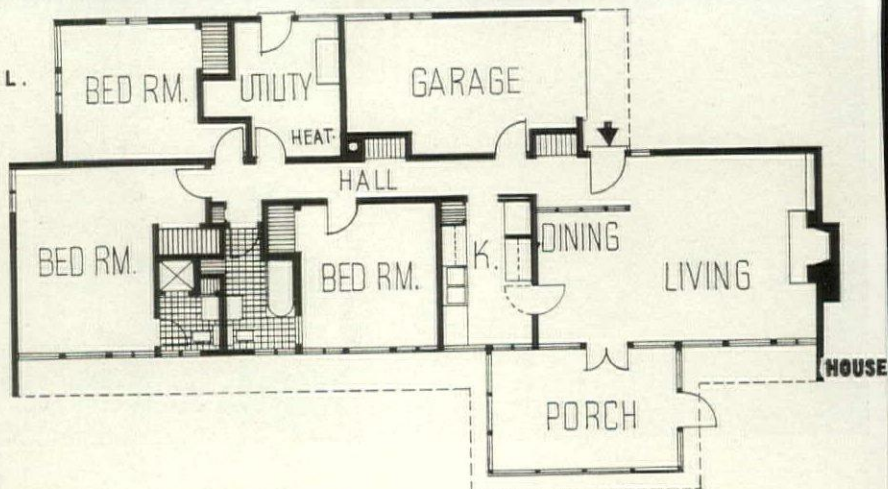
MOST INTERESTING feature of this house is the handling of elements (laundry, recreation, dark room) normally put in the basement. The recreation room is directly accessible from the front or back entrances, and can be merged with the living room if desired. Note the pattern created by the fixed louvers below the windows. George Fred Keck, architect. The mortgage was placed with the Allied Building Credit Corp. Lot size: one-half acre. Selling price: \$20,000.

SCALE: $\frac{1}{16}" = 1'-0"$





HOUSE No. 1



The solar house is a long, narrow box with all the main rooms located on the south wall. Three versions by George Fred Keck for the development at Solar Park.

All three of these houses show interesting similarities, a result of the emphasis on orientation for solar heating. All are basement-less one-story designs. Services are placed on the north, as many rooms as possible face south. Windows on the south side are large, and they include a good deal of fixed sash; there is a sun shade on each house. In the light of Mr. Sloan's claim that he can provide equivalent above-ground space in his basement-less houses, these plans do not stand up well: none of the houses has anything like the area needed to replace a basement, or even a half-basement. As partial compensation the closets are generous.

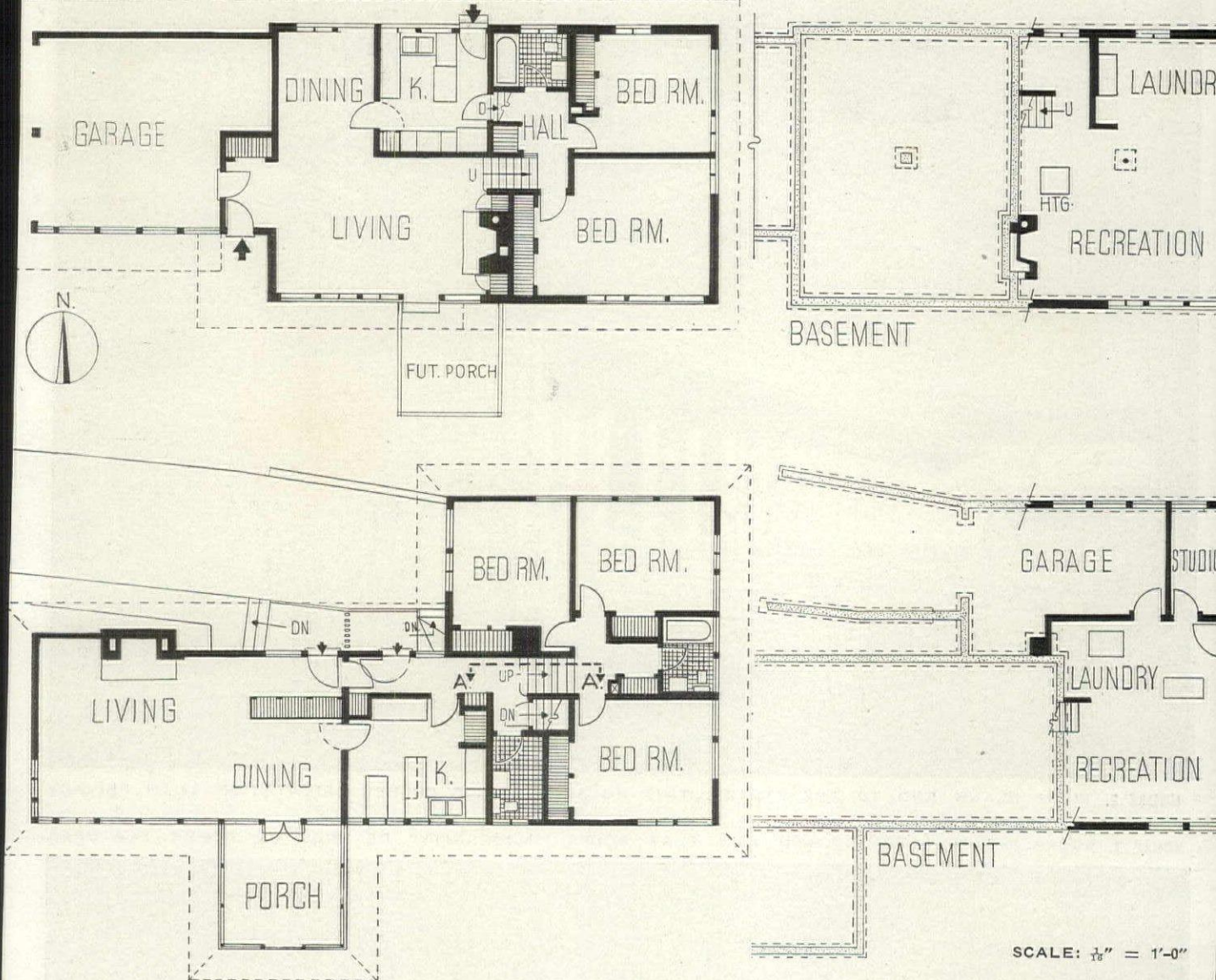
George Fred Keck was the architect for the three houses. The one at the upper left sold for \$14,000 and occupies a 68 by 150 foot lot. The mortgage was placed with Allied Building Credits. A sales price of \$14,000 was also placed on the brick house (top right) which has less in the way of accommodations, but two standard lots. This house was financed through the First Federal Savings and Loan Association of Willamette. The house at the lower right was sold for \$12,000, has a standard lot, was financed by Allied Building Credits.



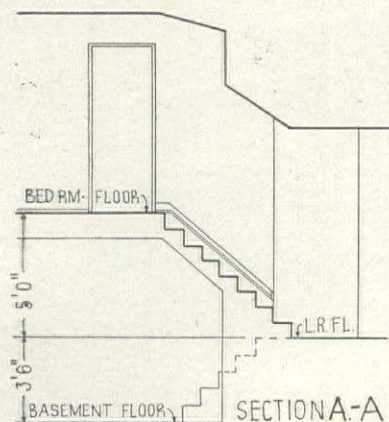
HOUSE 2. WITH BLANK END TO THE STREET, THIS HOUSE COMBINES PROPER ORIENTATION WITH PRIVACY

HOUSE 3. SOLAR HOUSES USE PITCHED AND FLAT ROOFS: "MODERNITY" DEPENDS ON OTHER FEATURES





Two versions of the three-level house, a solution of special interest when applied to the speculative development. George Fred Keck, architect.



The essence of the three-level scheme is the relationship of general living quarters, bedrooms and the recreation-utility area. In both of these examples the latter two spaces are related vertically, with the living area on the intermediate level. Obvious advantage of the scheme is that the most commonly traversed stairs extend for only half a story. The first house has a well-sheltered entrance, very conveniently related to the garage; the kitchen has direct access to both living and basement levels. Exteriors are pleasantly organized, with an interesting variation of materials. The house was sold for \$13,500, with a 68 x 150 foot lot. The second house seems more workable in plan, but rather less successful in appearance. Here the kitchen functions as part of the ground floor space, without the complication of a separate stair to the basement. The porch is well located for service from the kitchen. Another point in favor of this plan is the lavatory at the main level. The selling price was \$14,000 on the same size lot as the house above. Both were financed through Allied Building Credits.

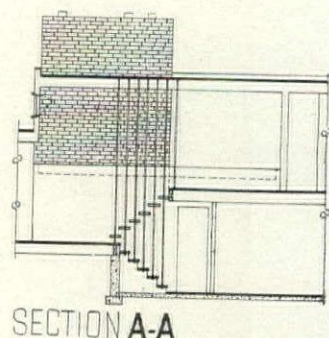


VIGOROUS REPETITION OF THE THREE GABLE ROOF GIVES UNITY TO THE DISJOINTED ELEMENTS BELOW
 THE HEAVYHANDED EXTERIOR IS REDEEMED IN LARGE PART BY AN EXTREMELY WELL ORGANIZED FLOOR PLAN





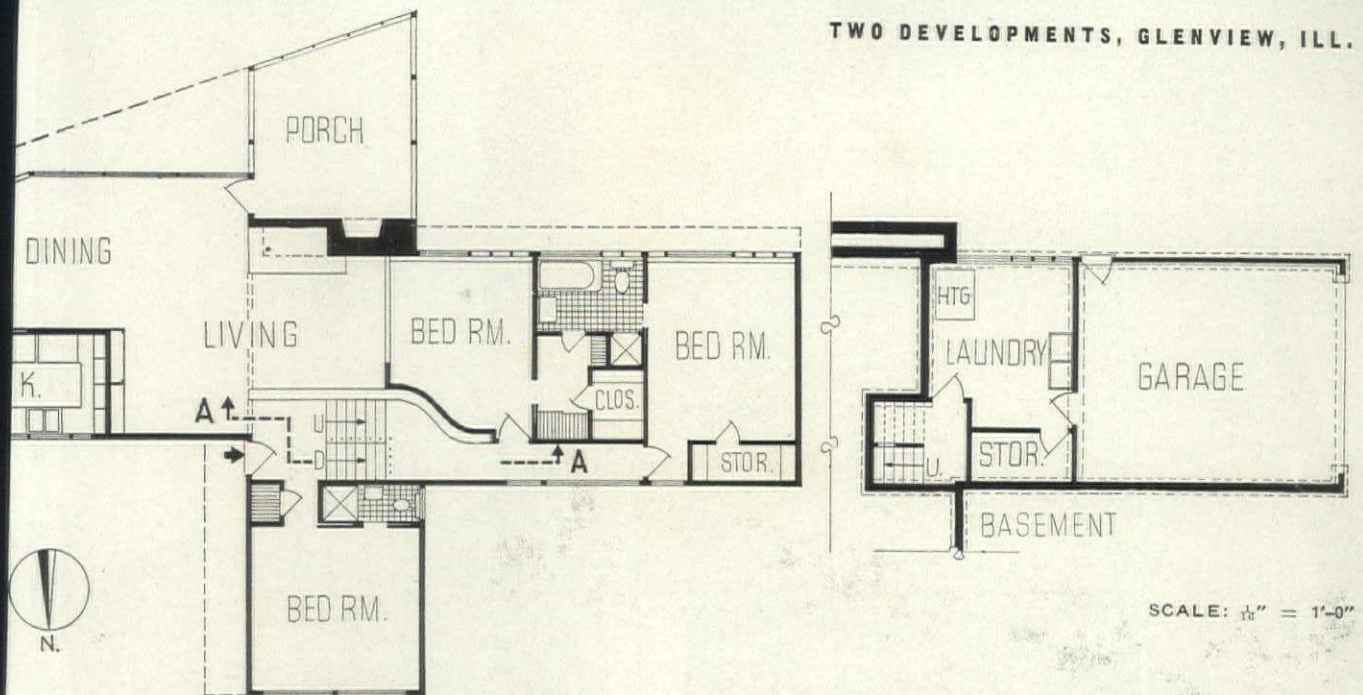
THIS IS THE MOST INTERESTING, IN PLAN AND GENERAL DESIGN, OF ALL THE THREE-LEVEL HOUSES SHOWN



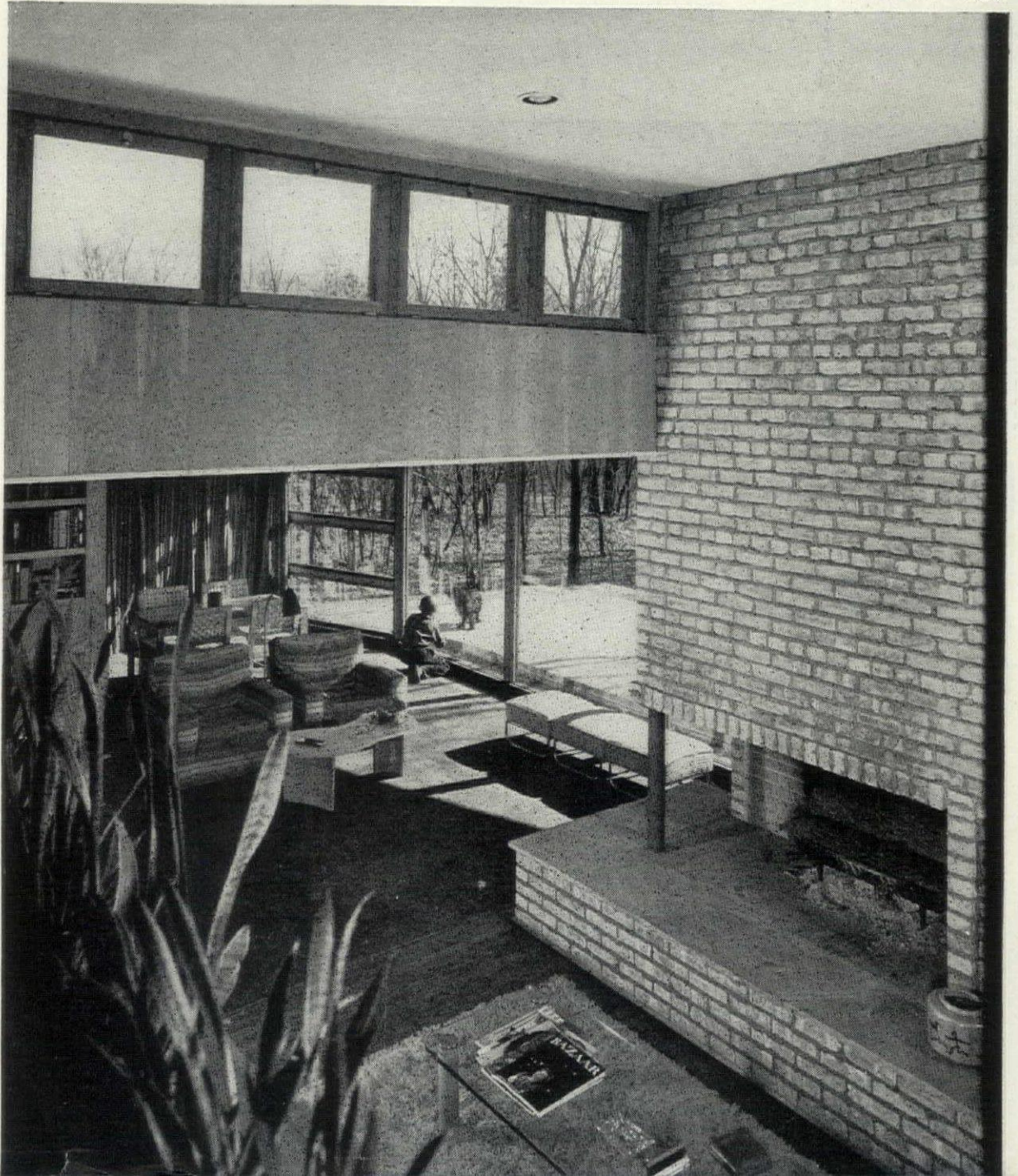
SECTION A-A

The three-level scheme as developed by Architect Arthur Purdy and Sydney Dickens, designer. An example of good detailing and inadequate site planning.

This house, another version of the three-level scheme, has many interesting features, and detailing which seems superior to that of some of the other examples. The living room, for instance, where ceiling levels change to provide clerestory lighting, is a very pleasant interior, and the dining space fits comfortably into the room scheme. The massing of ventilator sections in one place, leaving the other windows as single sheets of glass, is also successful. Unfortunately, the house seems to be something of an imposition on the site, with earth piled up to form an awkward supporting mound for the living level. If the site did contain the curious bump which supports most of the house, the planners would have done well to try another location. The clumsy siting is particularly regrettable, since the house is otherwise one of the best designed in the two developments. Sales price: \$18,500. Lot: half acre.

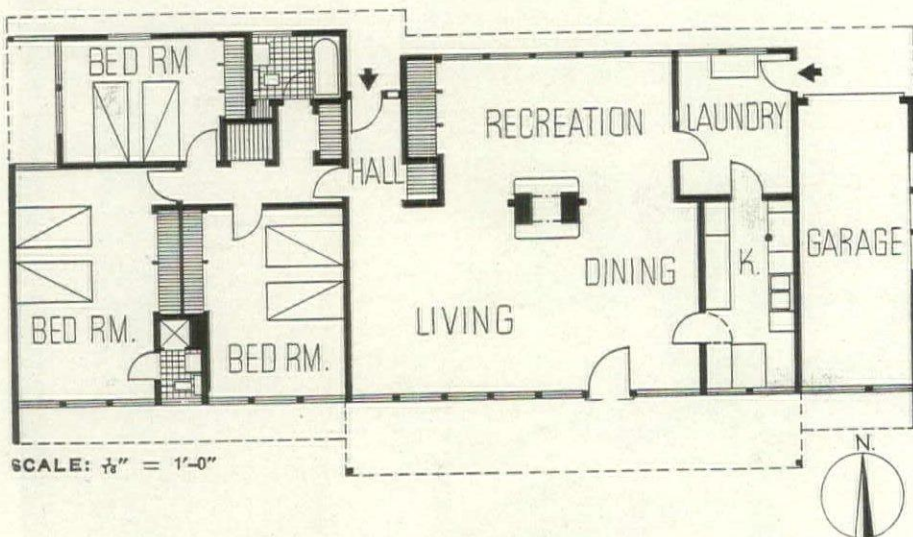


PROBABLY THE BEST OF THE INTERIORS IS THIS BEAUTIFULLY LIGHTED LIVING-DINING ROOM





EXCEPT FOR THE STRANGE POSTS UNDER THE OVERHANG, A TYPICAL TREATMENT OF THE "SOLAR" EXTERIOR

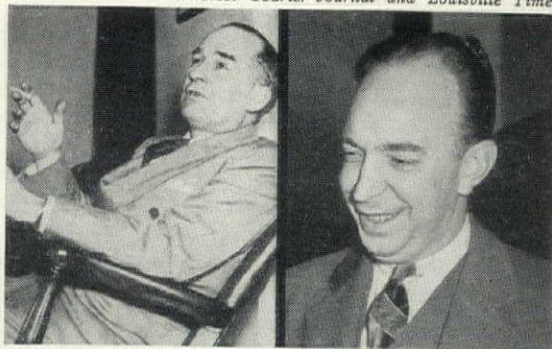


This house recalls the solution presented on page 87, where a somewhat similar relationship between living and recreation spaces was established. The main difference is that there is no visible means of separating the two areas, as in the other example. Nevertheless, the concept of one large space, with a great variety of activities going on in it, is unusually interesting—and certainly radical when applied to the house-for-sale. Also worth noting is the plan for the sleeping unit, where three bedrooms and two baths have been arranged in a neat, square space, connected to the rest of the house by a single door. In the exterior treatment the house follows some of the others: here again the scheme of louvers plus fixed windows has been followed. The house, which occupies a half-acre lot, had a sales price of \$15,000. George Fred Keck was the architect.

PLANNING WITH YOU

City planning is not yet so widespread and contagious a movement as Sinatra, but the impetus toward realistic control of U. S. urban development is growing. One straw in the wind is the sale of THE ARCHITECTURAL FORUM's pamphlet, *Planning With You*, now close to the 150,000 mark. Another is the rising birthrate of such experiments as the one discussed below—Louisville, Ky.'s effort to plan its future physical, economic and social patterns. Louisville's problems are tough, for Louisville must deal not only with the general uncertainties that face all urban communities, but in addition must solve local problems peculiar to it alone. But all U. S. cities are confronted by a similar constellation of problems. Louisville's situation is neither tougher nor different than that of many another American city its size. Thus, the gumption and initiative it has shown in setting up a committee to chart its future, and the outlines of the program taking shape in Louisville, might well serve as both pattern and incentive for other U. S. cities.

Photos: Courier-Journal and Louisville Times



Planning Promoters ETHRIDGE and WYATT



Planning Executives VINSEL and BUECHEL

Northerners are apt to think of Louisville, Ky. either as an amiable, horsey town that wakes to life one day a year for the Kentucky Derby, or as the scene of the greatest flood disaster since Johnstown and Dayton. Author George Leighton called Louisville "an American museum piece" because of its hazy heaped-up red-brick jumble of decayed, beautiful, nostalgic buildings, its sleepy tradition of let well enough alone, and its "conventional . . . agreeable deliberation of manner and . . . moth-eaten moribund 'charm'."

But Leighton wrote in 1939 and the war has changed Louisville. Even before December 7, 1941, Louisville was the largest industrial city in the south, the distilling capital of the world, and one of the chief U. S. centers of cigarette and independent aluminum production. By 1942 the value of Louisville's manufactured products was half again as large as in 1939. Today, Louisville's diversified industrial capacity has more than doubled since 1939. The city's newly developed Paddy's Run district which houses a National Carbide plant, a Carbide and Carbon chemicals plant, a du Pont and two Goodrich plants, has become one of the U. S.'s leading synthetic rubber centers. Louisville's

metropolitan population which stood at 451,473 in 1940 has by now increased to 515,000.

With these changes has come a change in the city's traditional attitude of let well enough alone. By the middle of last year Louisvillians realized that the wartime dislocation of the city's normal life, major as it is, would be mite-sized compared to the post-war relocation. Thus, last May the city's Board of Trade set up the Louisville Committee for Economic Development to integrate and promote post-war planning for the city.

While Wilson W. Wyatt, Louisville's 38 year old mayor, the former attorney for the *Courier-Journal*, thought the C.E.D. a step in the right direction, he did not think it stepped far enough. As President of the American Society of Planning Officials and chairman of the Post War Planning Committee of the American Municipal Planning Association, Wyatt realized that the post-war job of revamping the city would be bigger in scope than a Board of Trade inspired committee could handle. On the other hand, he felt that municipal planning was too closely related to private business and other community activities to be considered merely a city

administration function. Further, he felt that the necessary blanket planning job called for both public support and public participation.

Wyatt proceeded to talk the matter over with leading Louisville citizens, among them his former boss, Mark Ethridge, publisher of the *Courier-Journal*, who fortified his own belief that the worst way to solve a problem is to continue trying solutions that have failed; and also with George Buechel, head of a Louisville sporting goods and toy store, and chairman of the Louisville and Jefferson County Planning and Zoning Commission. Both men thought that Wyatt's idea of a full-scale post-war planning committee, staffed largely by representative Louisville citizens and concerned with everything from bridges and streets, to concerts, wage scales and parking lots, was a good one. Buechel indeed, was so enthusiastic that he began, like a self-appointed fraternity rush chairman, to steer prospective backers and interested citizens into the Mayor's office. By last November, Wyatt's idea took shape as the Louisville Area Development Association—superseding the L.C.E.D., which agreed to serve as the new organization's economic development committee. By

that time Ethridge had raised \$25,000 for the L.A.D.A. from the city's newspapers. The city and county had contributed another \$25,000. Among the other contributors who chipped in to the tune of \$10,000 each, were the Citizens-Union National Bank, the Louisville Gas & Electric Co., the Kentucky Federation of Labor and the local radio station, WAVE. "The idea was that popular," Wyatt says, "that we could have raised twice the amount." For the moment, L.A.D.A. has \$100,000 to spend in the next two years and more assured when it is needed.

THE PROBLEM

Louisville began, like other U. S. cities, as a cluster of cabins around a fort in 1778, and the hardy pioneers who settled it saw nothing strange in naming a frontier American settlement after an effete Bourbon king. When the time arrived for the town to be formally laid out, Louisville unlike other U. S. cities, proceeded according to plan: residential and business blocks were to be alternated with park blocks. Soon however, as the city spread southward from the bank of the muddy Ohio, the plan was forgotten.

Main, Market and Jefferson Streets, paralleling the river, became successively the chief business thoroughfares. Then the axis became Fourth, a narrow north-south street still rich with chain stores, where now "you pass a generation almost with every block." In the late 20's traffic congestion and real estate speculation swung the main business district to broad Broadway, an east-west street nearly a mile south of the river.

The old business section, in the characteristic stigmatic pattern of so many U. S. cities, is decayed. It is full of slums, near-slums, and buildings too old to use. Its narrow horse and buggy streets are as poor a channel for the automobile as a duckpond for a boat. Every year the old business section deteriorates further as business continues to inch out from the plagued area.

True, the downtown blight has cured itself to some extent, as it has in other cities, with the replacement of unprofitable buildings by parking lots. But these are not adequate to serve the area and they are unsightly. Further remedies are called for. Those most Louisvillians support include:

- A readjustment of assessments.
- The freeing of Louisville's two toll bridges to attract trade from Indiana.
- The elimination of slums and the reclamation of old buildings.
- The discouragement of haphazard growth of subdivisions and their business centers—(Louisvillians deplore

the trend toward decentralization).

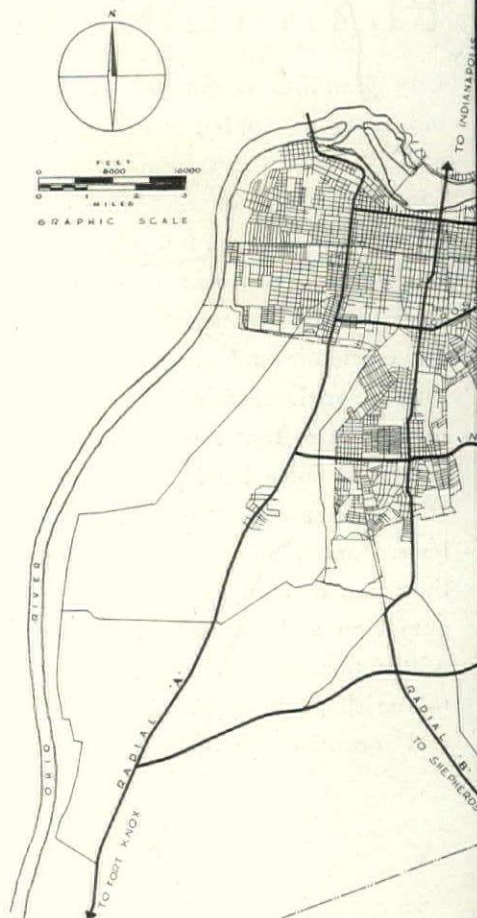
► Rezoning on a more realistic basis than the expansive 20's brought forth.

Louisville's residential districts have grown in the equally typical haphazard urban pattern. The town first crept east and west along the river. In the 90's, the building of a park seven miles to the south, and of a street car line servicing it, encouraged growth in that direction. Louisville took on the shape of a great butterfly heading north. A curve in the river restricted growth toward the west. A more recent trend has been an enormous enlargement of the right wing which lies on safe high ground, unlike the left wing which was inundated by the 1937 flood. The war boom has tended to fill in the angles between tail and wings.

The flood is an important factor in Louisvillians' attitude toward their city, as it is in other Ohio River towns, and one of the primary postwar projects for Louisville is a flood wall. Plans have been drawn and a \$2,500,000 bond issue has been voted for it. But its construction has been held up by a number of factors: the war; the difficulty of persuading citizens to let a 20 foot concrete wall cut through their backyards and garages; conflicts over such provisions in the plans as those placing the Belknap Hardware & Manufacturing Co., largest wholesale hardware company in the world, outside instead of inside, the wall.

The problem of sewage disposal is also linked with the flood wall. The plans provide for 27 pumping plants to pump sewage and rainwater over the wall into the Ohio. But the city anticipates federal regulations requiring purification to end present pollution of the river. The sewerage problem is also complicated by the fact that it involves annexation of suburban communities, for saturation of the soil from septic tanks in new subdivisions is shocking. And annexation is a knotty problem involving state politics, street construction and traffic, and the big question as to where population and industry will spread. In the meantime, a \$30,000,000 sewerage program has been tentatively drawn up by the city, and a \$5,000,000 bond issue for sewers is likely to be submitted to the voters next fall.

Then Louisville, like most U. S. cities, faces the enormous task of repairing streets, sewers, etc. neglected during the war. Precedence over any new projects—for which the city has drawn up a prospective \$80,000,000 program—must be given to these repair jobs. The Board of Education, like its counterparts all over the U. S. is impatient to start repairing and building new schools as soon as peace gives it a green light. Difficulties are also involved here,



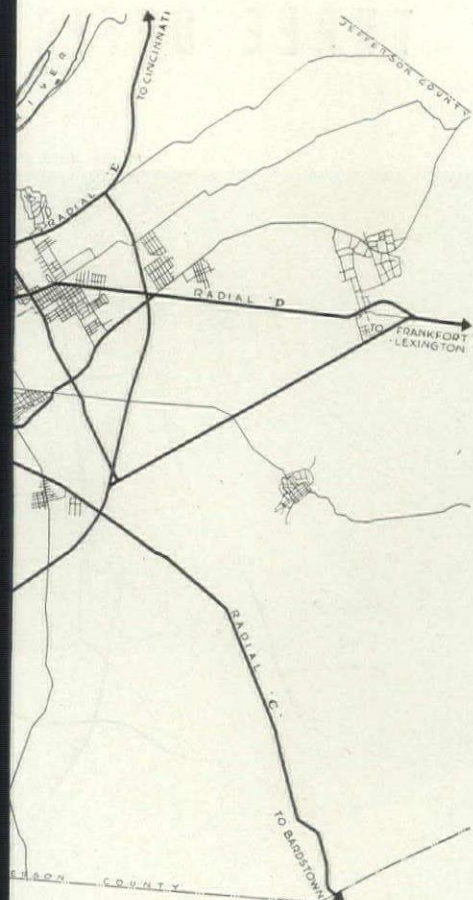
however. Louisville is one of the few cities whose high schools are not co-educational. In addition to that stumbling block, there is a further problem. Louisville has two boys' schools within a few blocks of each other. One of them needs a new building, and logic demands combining the two. Yet their rivalry in athletics is so great and the objections of their alumni so strenuous that the proposal to combine is one of the city's hottest potatoes!

Next to these puzzles, Louisville's biggest headache is how to keep \$250,000,000 in war plants going (hard heads say it cannot be done), and how to find postwar jobs for returning service men and 50,000 new war workers.

PLANNING AND PLANNERS

Louisville does not have a postwar plan yet. So far, the only committee that has been organized by the Louisville Area Development Association, beside the Committee on Economic Development, is a committee on streets and highways complete with its five subcommittees. Fourteen other committees are in the process of organization, including one on public participation.

Each committee, it is hoped, will be composed of an expert in the field, at least one representative of a municipal agency, and citizens representing so far as possible, labor, farmers and business.



NOT A PLAN, but the skeleton of a plan, is this diagram of Louisville's proposed arterial streets and highways, five years hence. Louisville also has a tentative ten-year plan for the improvement of traffic conditions, and one which looks ahead fifteen years as well. Some of the work would fall to the state highway commission, the balance to the city.

He is vice president of the local utility company and had a good deal to do with bringing the National Carbide Corp. to Louisville. This was a coup not only for Louisville, but for his company, for National Carbide now uses more electricity than was consumed by all residential, commercial and industrial users in 1939.

The committee he heads is expected to be the first to produce any tangible results. It is now conducting a survey of 738 industrial plants in an attempt to estimate the postwar scale on which they expect to operate.

The City & County Zoning Commission is expected to do a great deal of the public works planning. Maps for arterial streets and highways are now being prepared for consideration by the L.A.D.A. A project that seems more definite than most is the construction of an outer belt highway by the state, providing the city with a badly needed artery connecting communities and radial roads at a distance of about six miles from the city.

Needless to say, it is the multitude of imponderables that make the planning job tough. In addition to the general uncertainties that affect every city, Louisville's situation is complicated by a local factor peculiar to it alone: a recent change in the state administration. The legislature is now in session and although Mayor Wyatt has been very successful in promoting state co-operation, one never knows what a General Assembly may do. The reluctance of the rest of Kentucky to spend state money on Louisville, like New York state's for New York City, is traditional. While 56 Kentucky counties contribute less money to the state than they get back, Jefferson County—in which Louisville is situated—pays nearly a third of all state revenues, fifteen times as much as it gets back.

The L.A.D.A. is a surveying, planning and advisory organization. Actual projects will have to be undertaken by city, county or other units. It expects to hire staff engineers, statisticians, etc. and special experts where required. But it does not expect to hire professional planners, for Louisville has had its fill of them.

In 1931, a city plan for Louisville, drawn up by Bartholomew & Associates of St. Louis, was adopted. It is regarded by many Louisvillians as fantastic in some respects, impractical in others, obsolete in others, and just plain lousy in still others. The plan included a \$75,000,000 Ohio River front plaza with a fifty foot sea wall, and great city and county government buildings towering among other skyscrapers. It laid down a gridiron pattern of major streets whereas converging arteries are now favored.

But the underlying philosophy of the Bartholomew plan, which was that the city remain centralized, is a philosophy that most Louisville leaders, rightly or wrongly, favor. Whether they are setting their sails against the wind, remains to be seen.

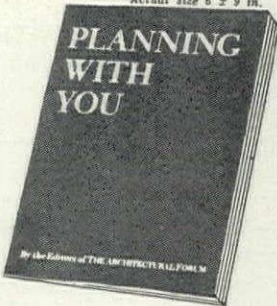
By spring, the L.A.D.A. hopes to have gathered a great part of its preliminary fact-finding data, and even to have blueprinted part of the program. Its executives explain emphatically that they do not expect to complete a plan and thus end their job. They expect the planning to continue indefinitely. They try to avoid giving the impression that they are attempting only a postwar rehabilitation program. They are doing a job, they say, that needed to be done, war or no war.

K. P. Vinsel, executive director of the L.A.D.A. says, "We don't want committees of experts. . . We're trying to get people who get things done. . . Citizens have to be on the committees for the democratic purpose of telling what the citizens want."

In line with this L.A.D.A. policy, the man appointed to head the streets and highways committee is Pierre McBride, president of the Porcelain Metals Corp., who according to Mayor Wyatt, "doesn't know anything about streets and highways, but he will before he's through. The main thing is that he's a man who gets things done." The subcommittee on bridges and viaducts is composed of a contractor, the chief engineer of the Louisville & Nashville R.R., an oil company executive, a newspaper promotion man, an insurance executive, a union business agent and a clothing store executive.

Kingpin of the L.A.D.A. is dark, handsome Kenneth Paul Vinsel, a Ph.D. and track star from Grinnell, who as professor of political science at the U. of Louisville, became emergency director of welfare for the city after the flood. Subsequently he served with the W.P.B., and became chairman of the community education section of the O.C.D. in 1943. Another key figure is Robert Montgomery, chairman of the Committee on Economic Development.

Actual size 5 x 9 in.



PLANNING WITH YOU

By the Editors of THE ARCHITECTURAL FORUM

THE FORUM'S now famous pamphlet continues to break records—more than 125,000 copies now distributed. Order today—\$10 for the first 100, \$5 for each additional 100 copies ordered simultaneously.

THE ARCHITECTURAL FORUM
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THREE OFFIC

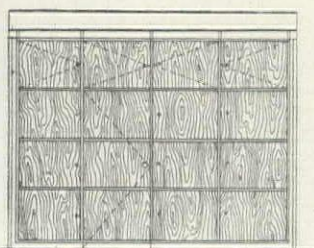
Photos: Ezra St



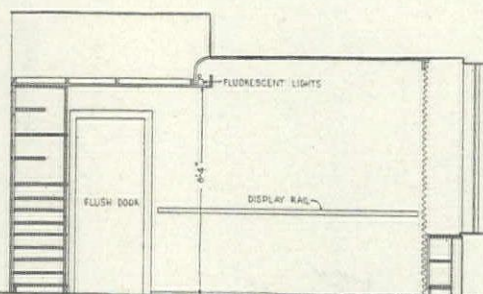
1. OFFICE FOR AN ADVERTISING AGENCY

MORRIS KETCHUM, JR.
FRANCIS X. GINA
ARCHITECTS

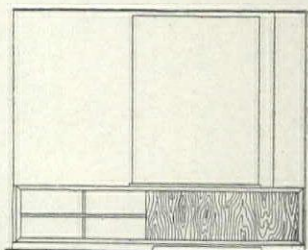
An advertising agency deals with salesmanship in all of its aspects and one of those is its own offices—as this design illustrates. The building is a conventional office structure, its rooms broken up by endless beams, columns and deep window recesses, which inevitably create a feeling of restlessness. The first job, therefore, was to install simple, plain and restful ceiling and wall surfaces, accentuated by skillful lighting. This problem was solved by the architect through the use of long stretches of beautiful curtain fabrics and large areas of natural wood panelling. The latter served to correlate all necessary cabinet work into harmonious units, whether they contained low shelves, deep storage spaces, or access doors to adjoining offices. In the design shown on this page a low ceiling was installed both to bridge an ugly existing break, and to create an effective entrance toward the higher interior space.



ELEVATION 1.

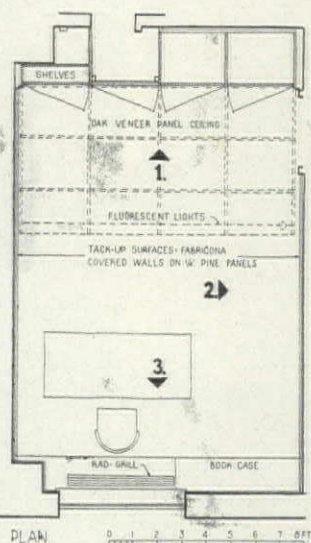


ELEVATION 2.



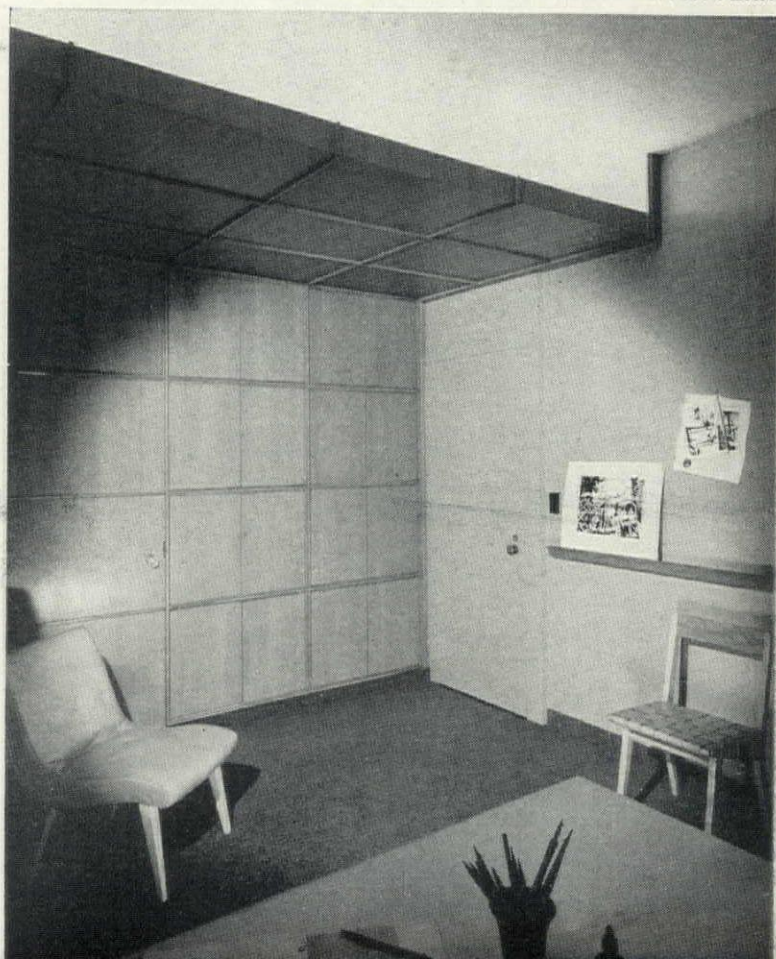
ELEVATION 3.

CABINET WORK BY DAVID H. RICHTER



PLAN

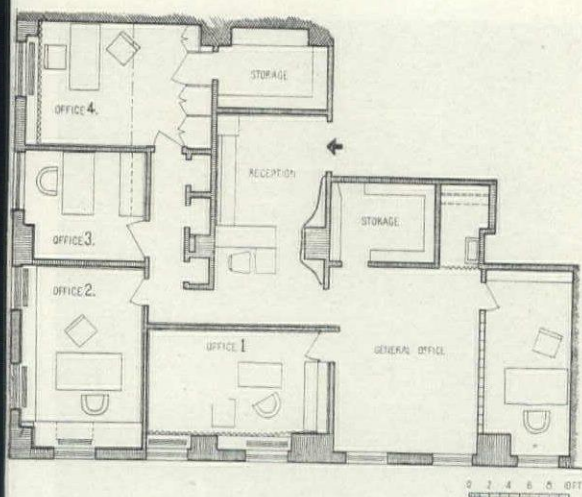
CEILING DROPPED TO TOP OF DOORS REPEATS CABINET PATTERN



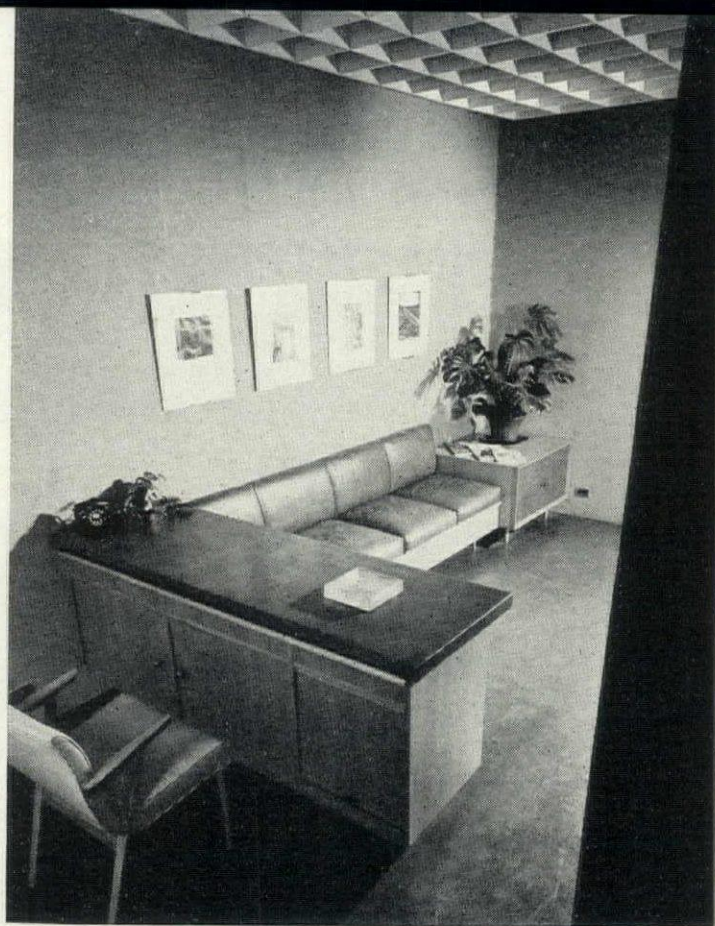
ADVERTISING DIRECTOR'S OFFICE has one wood-paneled wall which conceals cupboards and door to storage room; a floor-to-ceiling curtain covers window, radiator cabinet and bookshelves.



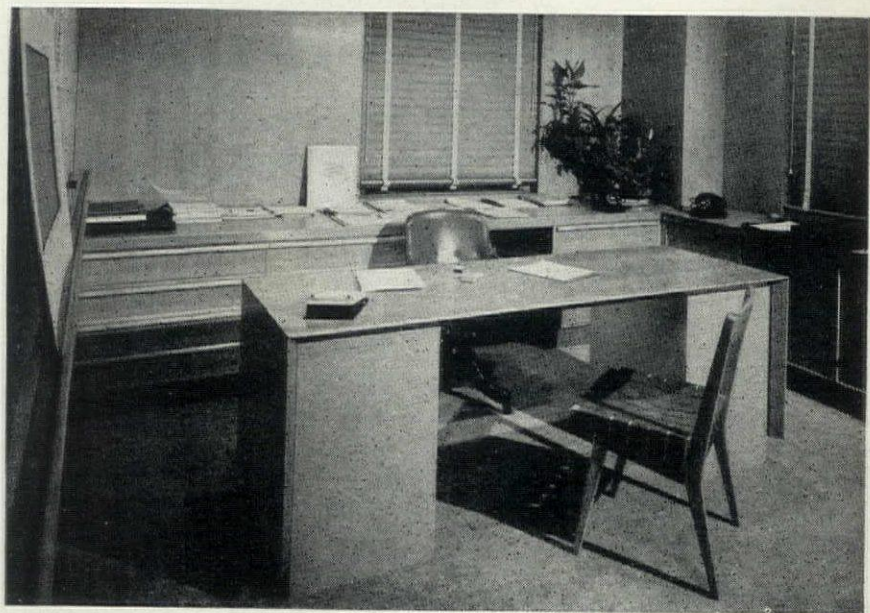
MORRIS KETCHUM, JR.
FRANCIS X. GINA, ARCHITECTS



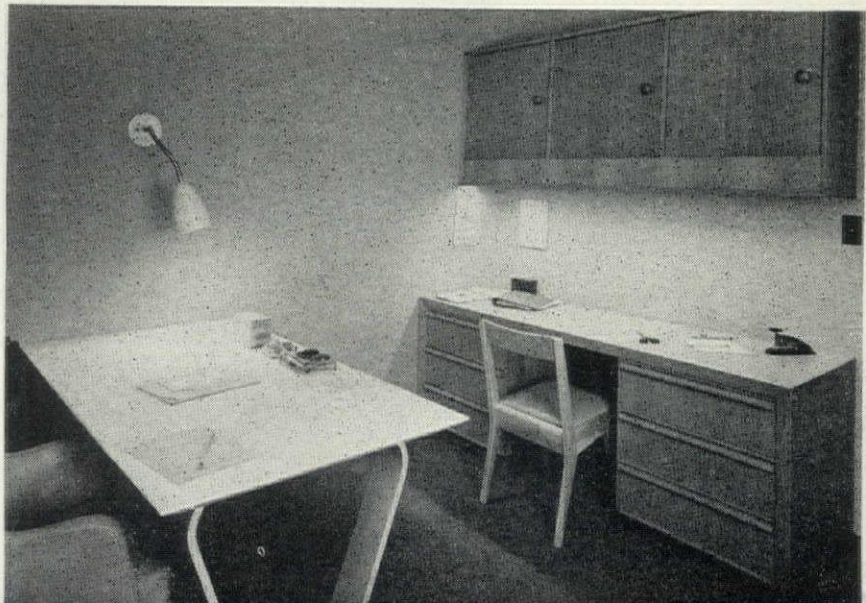
RECEPTION ROOM (right) has an "egg-crate" ceiling to conceal the lighting. When in use, this creates trellis patterns like sunlight.



ART DIRECTOR'S OFFICE (left) has drawing table and supply cabinet as well as standard desk. Curtain covers recessed windows and bookshelves.



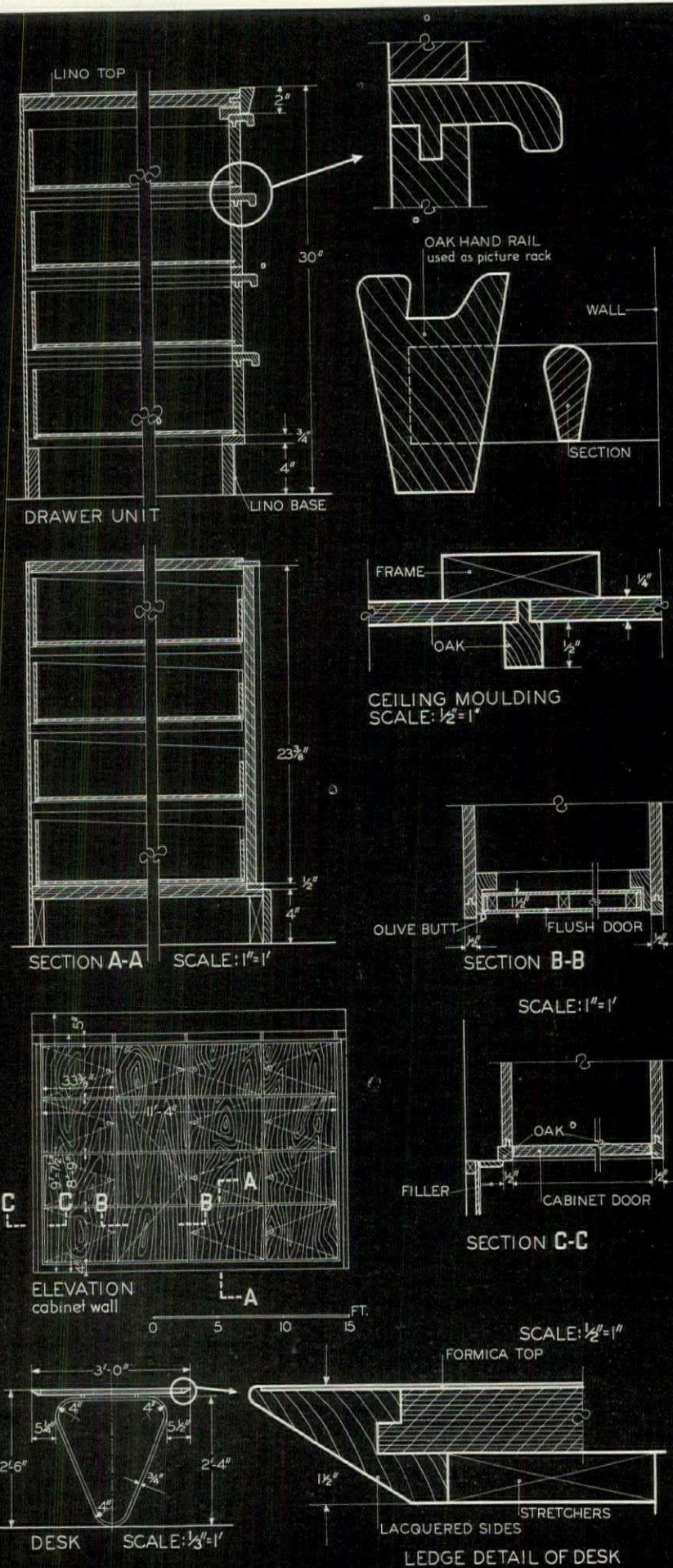
CABINETS at sill height conceal radiators in all offices. Note display rail used throughout to hold layouts.



FURNITURE details were often repeated to achieve unity of design. Most of the chairs are from H. G. Knoll Associates. Fabrics are by Dan Cooper.

MORRIS KETCHUM, JR., FRANCIS X. GINA, ARCHITECTS

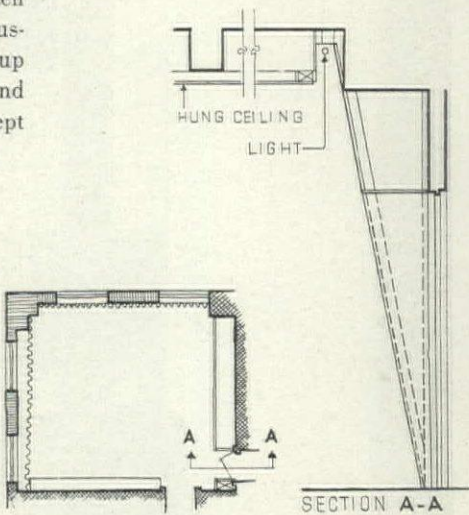
THE ARCHITECTURAL FORUM



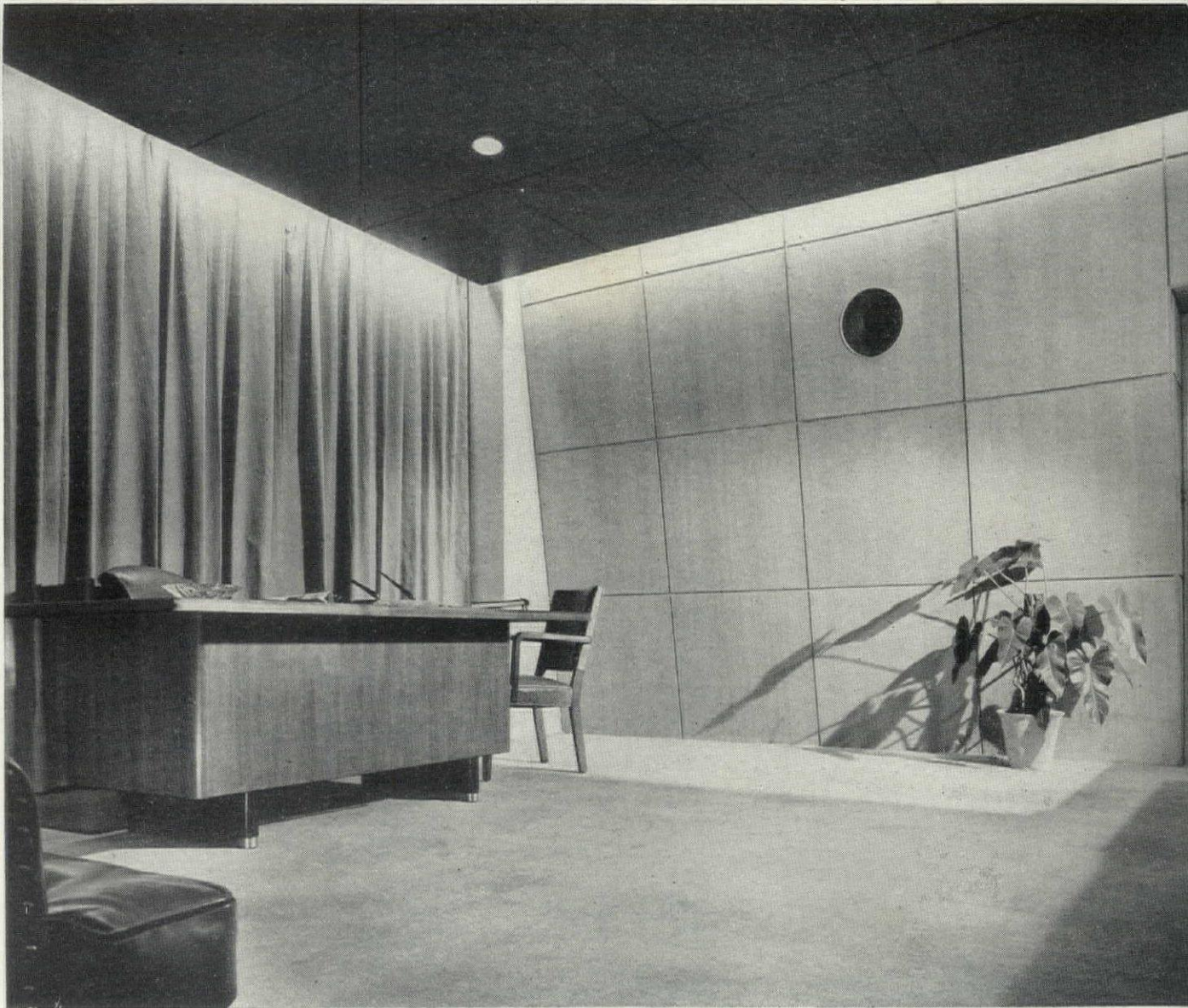
OFFICE FOR AN ADVERTISING AGENCY

An important part of the business of this advertising agency is the preparation of "commercials". In the vice president's office, both executives and clients can listen to broadcast or recorded programs. The design problem was primarily one of accoustics—hence the sloping wall, into which the loudspeaker is set. This wall is built-up of oak plywood backed by rock wool, and tilted toward the listener. Curtains and carpet were selected for their sound-absorption value, and a hung ceiling was kept clear of the walls to permit effective indirect lighting.

MORRIS KETCHUM, JR.
FRANCIS X. GINA, ARCHITECTS



PLANT IS DECORATIVE IN SIMPLE SETTING. DESK MIGHT IMPRESS TYCOONS, LEFT FORUM EDITORS COLD

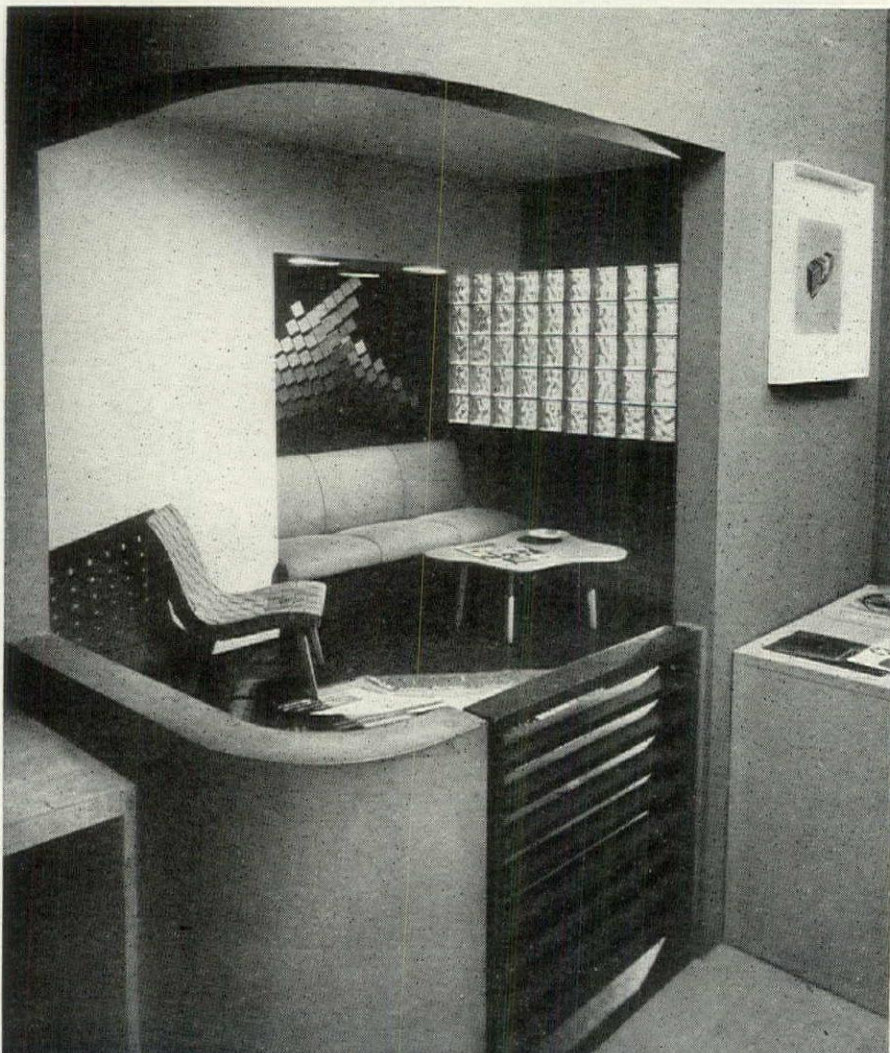
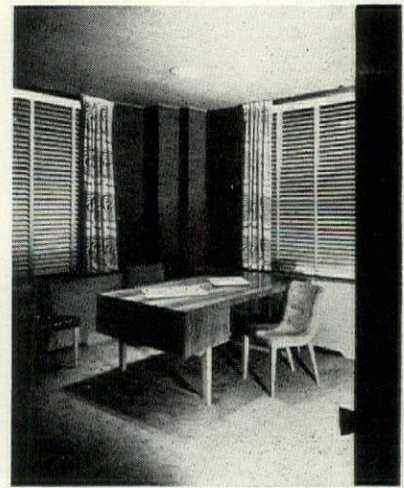
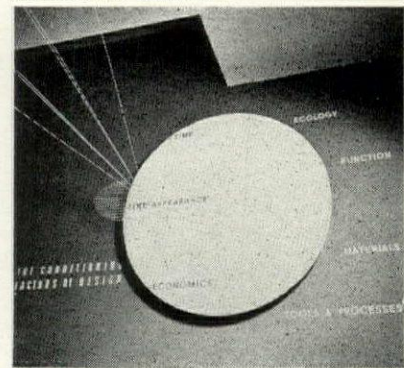


5525

DONNER &
LIPPINCOTT

ARTISTS
AND ARCHITECTS
WORKING UNIT

Photos: P. A. Dearborn



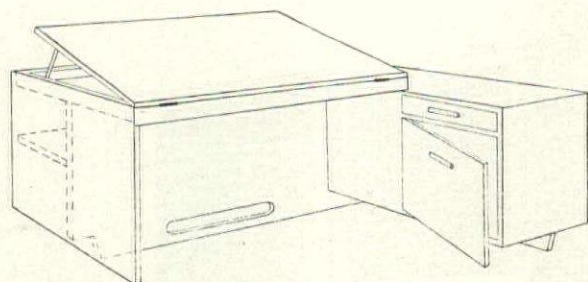
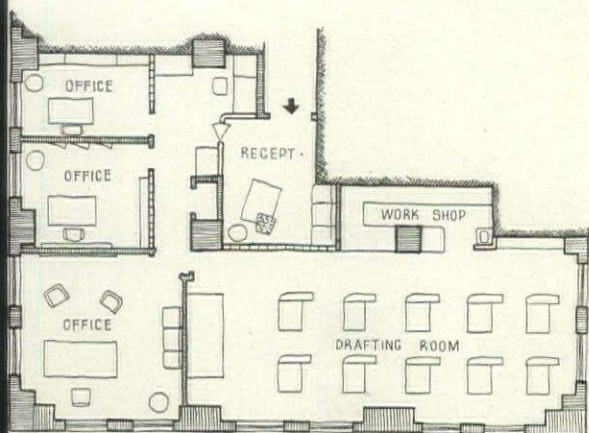
BY USE OF color, texture and fabrics
these offices have attained a large
measure of design unity and simplicity
without structural alterations.

2. DESIGN LABORATORY

DOHNER & LIPPINCOTT
DESIGNERS

When designers design for themselves, the end product is determined only by the amount of money available. Here the means were probably much more limited than in the case of the job on the preceding pages, but the results are almost as dramatic. No attempt has been made to cover up the irregularities of standard office construction, but unity has been achieved by means of the furnishings. Character of the desks, cabinets and other fittings seems eminently suited to the purpose of the laboratory, which is the design of industrial products.

One feature which might well be copied by architects is the close relationship between the drafting room and workshop, where models are prepared. This makes it possible to check drawings and sketches constantly against solid forms throughout the design process, to the benefit of both.

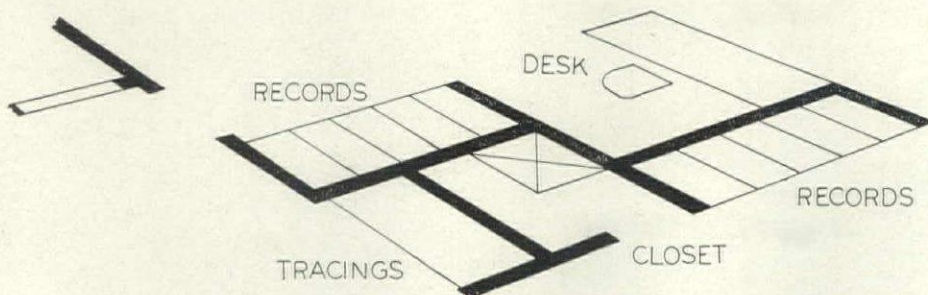
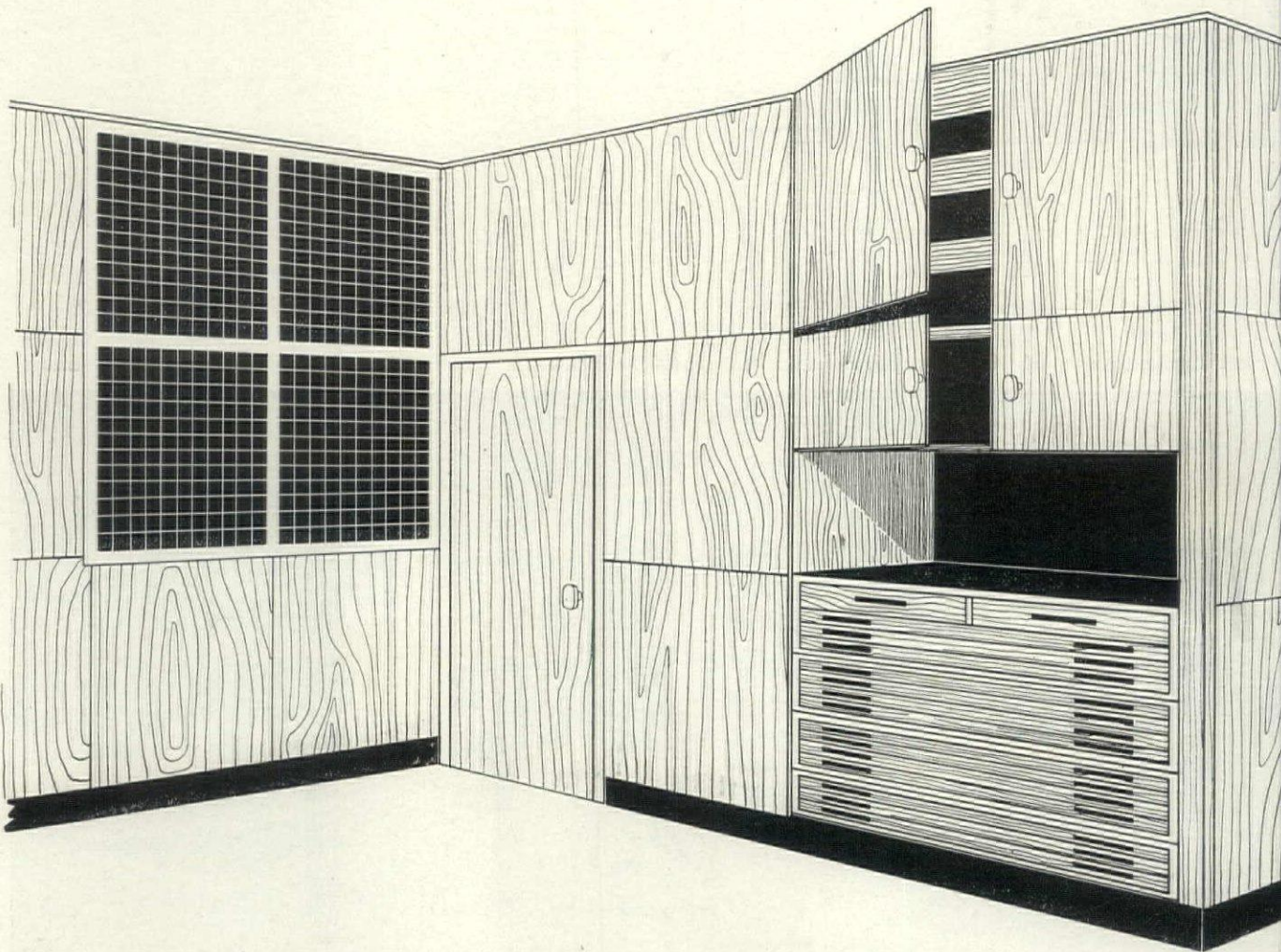


ATION DESK-DRAFTING TABLES HAVE TILTING TOPS AND AMPLE STORAGE CABINETS AT SIDE AND BACK

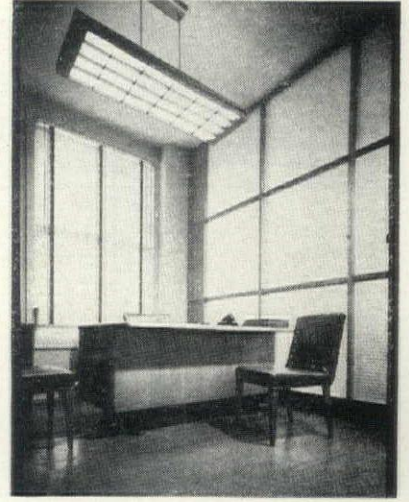


3. DESIGN DEPARTMENT

LIBBEY - OWENS - FORD GLASS COMPANY
H. CRESTON DONER, DIRECTOR OF DESIGN

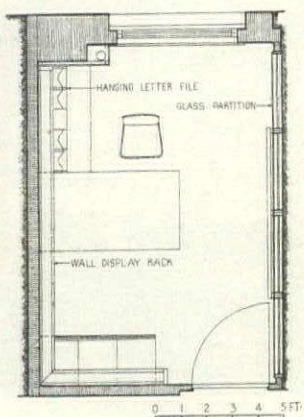


As a piece of straightforward, compact office planning this design department could hardly be improved upon. A central unit built with smart precision contains all records, files, tracings and storage spaces. Since the department may well be expanded after the war this compact unit can be moved in a piece to wherever it will be needed. Surrounding it, there are drafting room and office areas, separated by movable glass and plywood screens. On the whole the job looks like a fine working unit, clean and efficient, and designed with a good feeling for scale and without tricks. All plywood partitions, incidentally, were built of panels salvaged from the window openings cut out of a group of prefabricated houses, which the company built for the government. With the glass partitions the designers used double XX plate glass with Satinol finish on both sides to reduce the glare.

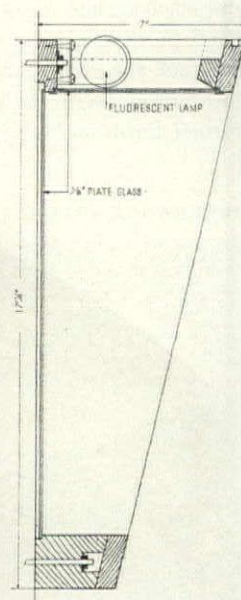
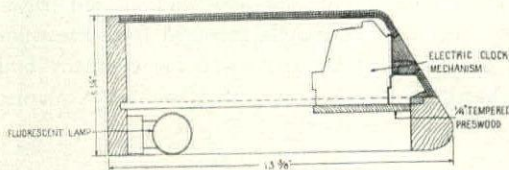


REFERENCE LITERATURE IS ACCESSIBLE TO DESIGNERS. STANDARD FILE CABINETS FIT INTO COMPACT UNIT

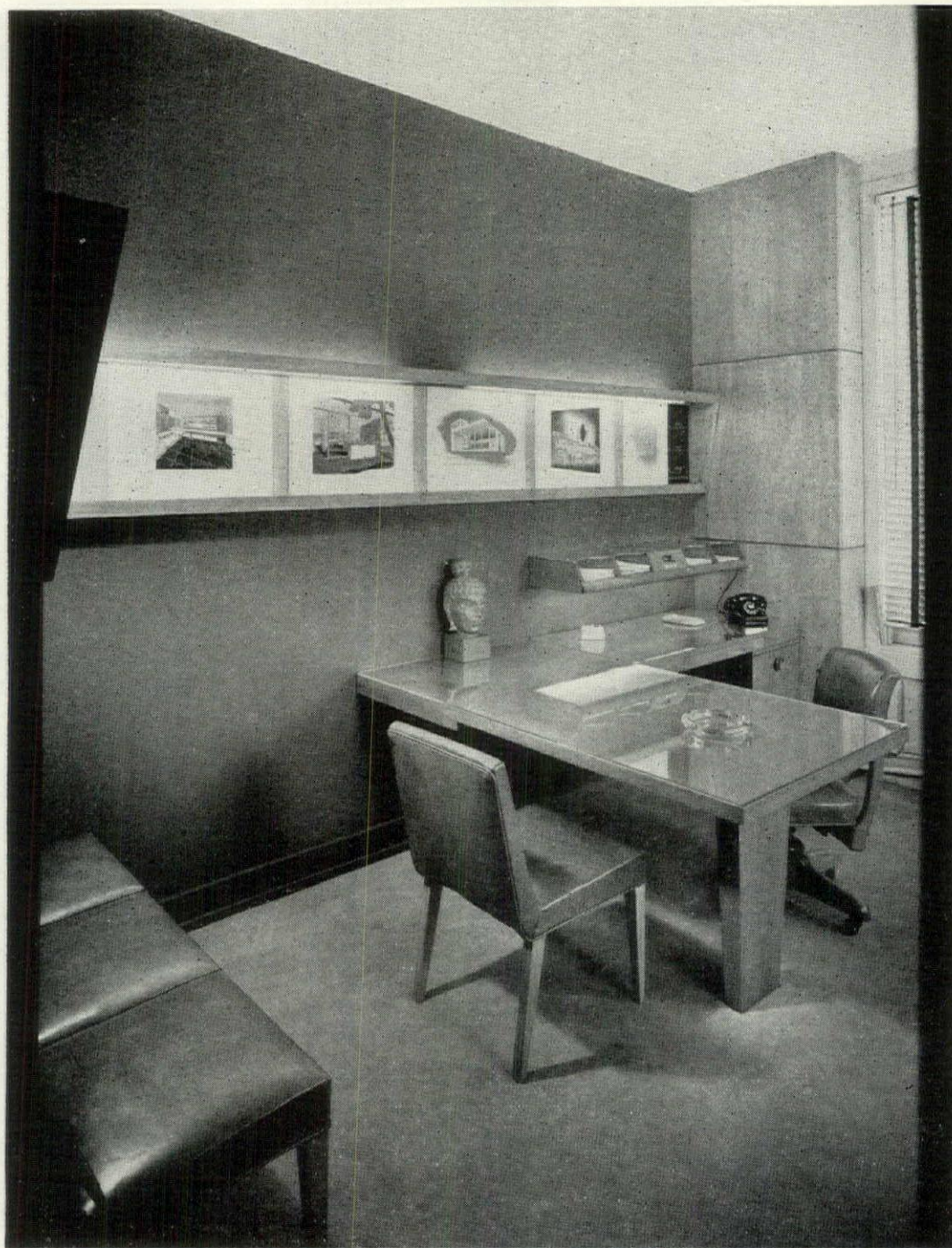




The design director's office contains several well worked-out details: a combination desk and conference table, beautifully made, is illuminated from a lighting unit, which, in turn, has been built into a smart filing shelf. The latter also holds an electric clock. A long and well-lit display cabinet which stretches around two walls of the office unifies the design.



ELEGANT DESIGN CREATES A QUIET BACKGROUND. NOTE TRADITIONAL SWIVEL CHAIR



MUNICIPAL ASPHALT PLANT

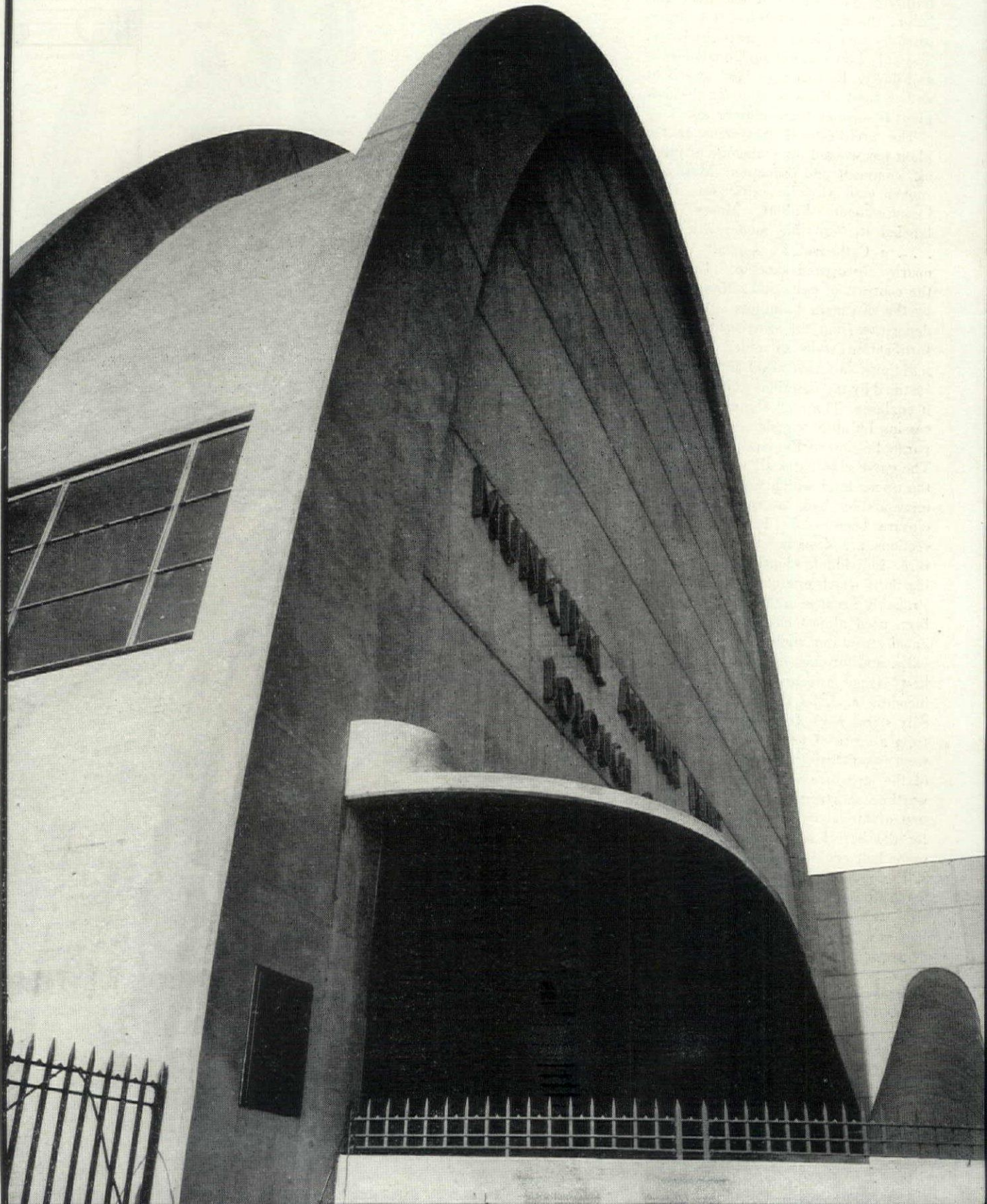
Designed by the Office of the President of the Borough of Manhattan

EDGAR J. NATHAN, JR. Borough President

WALTER D. BINGER Commissioner of Borough Works

KAHN & JACOBS Consulting Architects

SYSKA & HENNESSY Consulting Mechanical Engineers



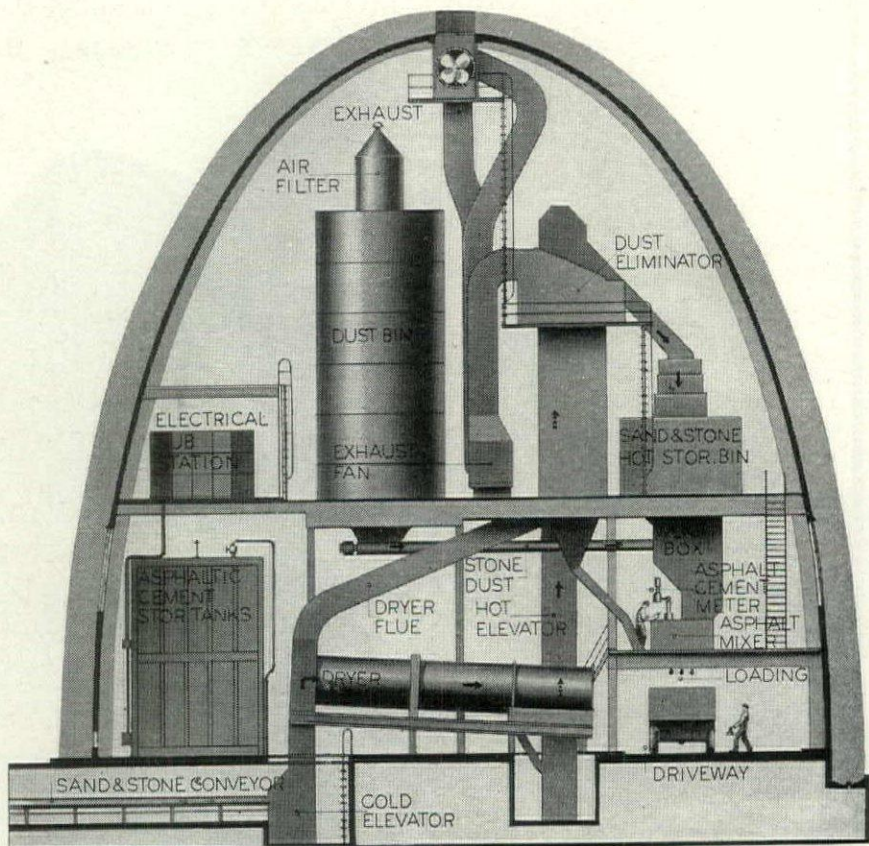
Manhattan's Municipal Asphalt Plant, built entirely of reinforced concrete presents a dramatic and controversial treatment of public building design.

Well in keeping with Manhattan's refurbished East River waterfront is its new Municipal Asphalt Plant. It replaces another of the vanishing derelict buildings that cluttered the riverbank before the advent of the city's super-smooth East River express highway. The old plant was outworn, malodorous and dusty. Its successor is clean, silent and efficient. Exhaust air from the new plant is cleaner than outdoor air.

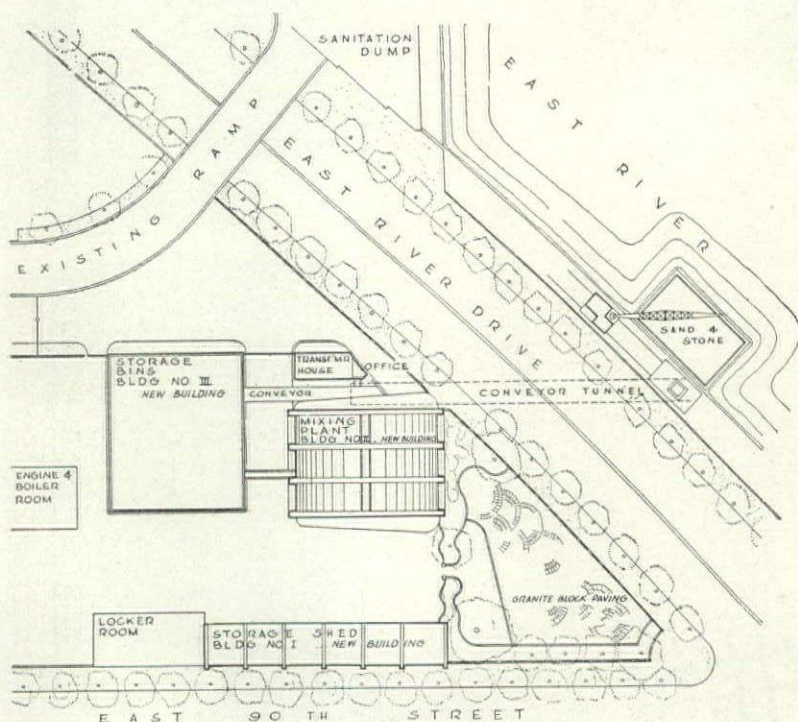
The architectural treatment of the plant has evoked an avalanche of interest, comment and objection. Most outspoken and vitriolic critic was Park Commissioner Robert Moses who labeled it, "horrible modernistic stuff . . . a Cathedral of Asphalt with a nearby corrugated shoebox." Certainly the contrast of cube and ellipse offered by the two main buildings is a radical departure from the conventional brick fortification style of older industrial buildings, but this novel form is fully justified by the functions and machinery it encloses. The arch shape of the processing building was determined by the parabolic flow of the equipment layout. The curve eliminates all waste space at the upper level which would have been unavoidable had a rectangular enclosure been used. The three barrel sections are designed to accommodate three individual, identical manufacturing units which operate simultaneously. Probably because arch construction has been used almost exclusively for elongated structures such as hangars, drill halls, auditoriums, etc., the building at first glance appears chopped off and incomplete. This impression undoubtedly stems more from association than from a sense of proportion. The somewhat unfinished appearance of portions of the structure will be relieved when wartime shortages permit the installation of Monel metal coverings planned for the barrel roof and diagonal conveyor belt enclosure.

The rectangular storage building is made up of huge bins for raw ingredients such as sand and stone. High ribbon windows illuminate catwalks and conveyor belt machinery located above the storage level.

Sand and stone are delivered by river barge and dumped into a hopper located over a conveyor belt which travels through a tunnel beneath the East River Drive and up an incline to the top of the storage bins. Here the material is transferred to auxiliary belt con-

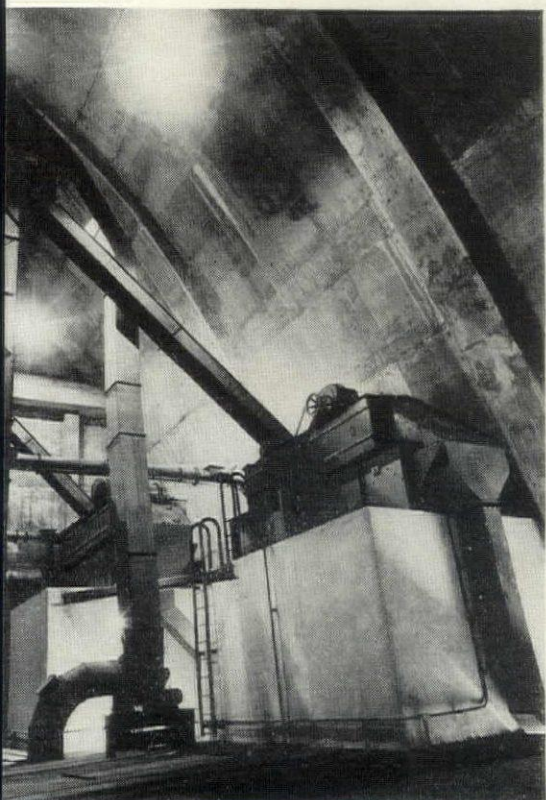


MACHINERY IS SUPPORTED ON STEEL CARRIAGE ENTIRELY FREE OF STRUCTURE

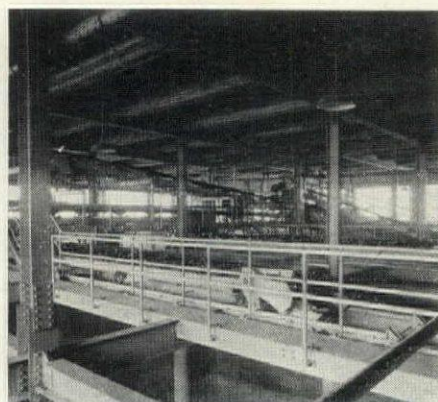
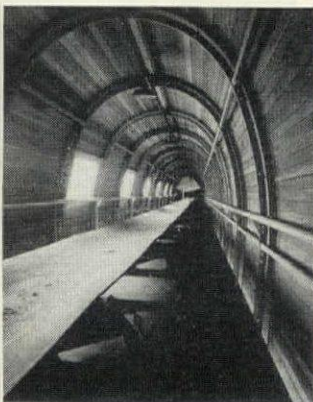




AL ARCH CONSTRUCTION ELIMINATES NEED FOR HORIZONTAL BRACING REQUIRED BY RECTANGULAR SHAPE



WINDOWS PROVIDE illumination at strategic points of distribution and processing: along inclined conveyor belt, at level of catwalks and belt machinery in the storage building, and for man-controlled mixers in the processing building.

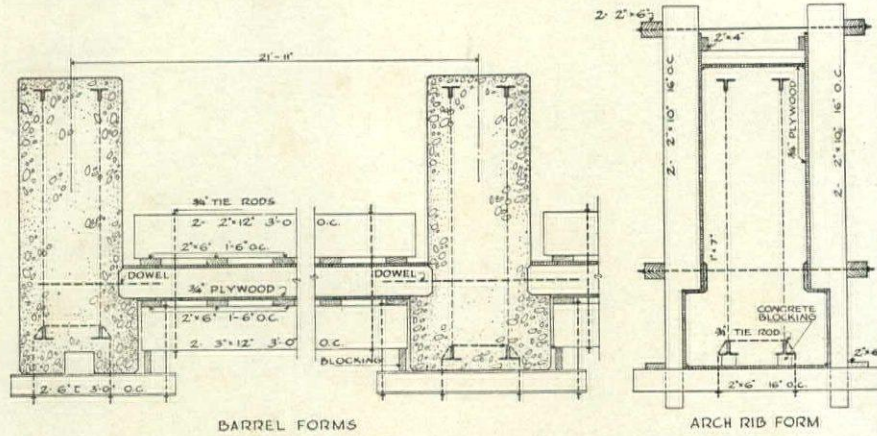
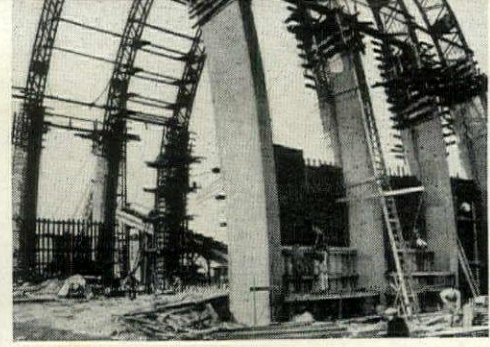
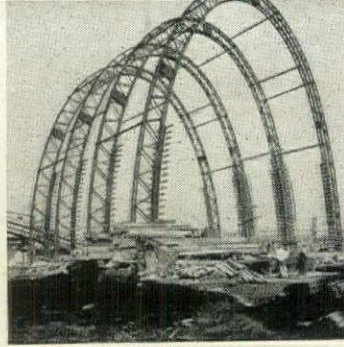


veyors for distribution to individual bins. The other ingredients, limestone dust and liquid asphalt cement, are respectively pumped and piped under the Drive to storage space in the processing building. To keep liquid asphalt from congealing, all tanks and pipelines are electrically heated, with automatic thermostatic controls. After a series of drying and heating treatments, dry materials are joined in the mixer with a given amount of liquid asphalt cement controlled by means of a flow meter. A predetermined period of blending follows, the mixer gate is opened and the batch is dumped into waiting trucks on the street level.

Obviously, the proximity of the plant to river transportation is of the utmost importance as it eliminates much heavy trucking in and around the city. To those who complain of its nearness to residential sections it can be pointed out that commercial shore frontage is vital to the supply and maintenance of Manhattan island. However, not everyone shares this objection to industrial buildings. A new apartment development was built on the adjacent property after construction on the new asphalt plant had begun.

The construction method used for the processing building offers an unusual alternate for the conventional reinforcing bars and timber form-work. It was the contractor who suggested that structural steel ribs might serve as both form and reinforcement since centering could be worked out as an integral part of the rib, eliminating the majority of reinforcing bars. The ribs, reinforced by light angle trusses, were prefabricated in three sections and shipped to the site for erection. Concrete was poured simultaneously from both sides maintaining balanced pressure on the exposed framework. Vertical beams supported on horizontal girders provide stiffening for the end walls. Plywood form-work was used for interior surfaces and arches.

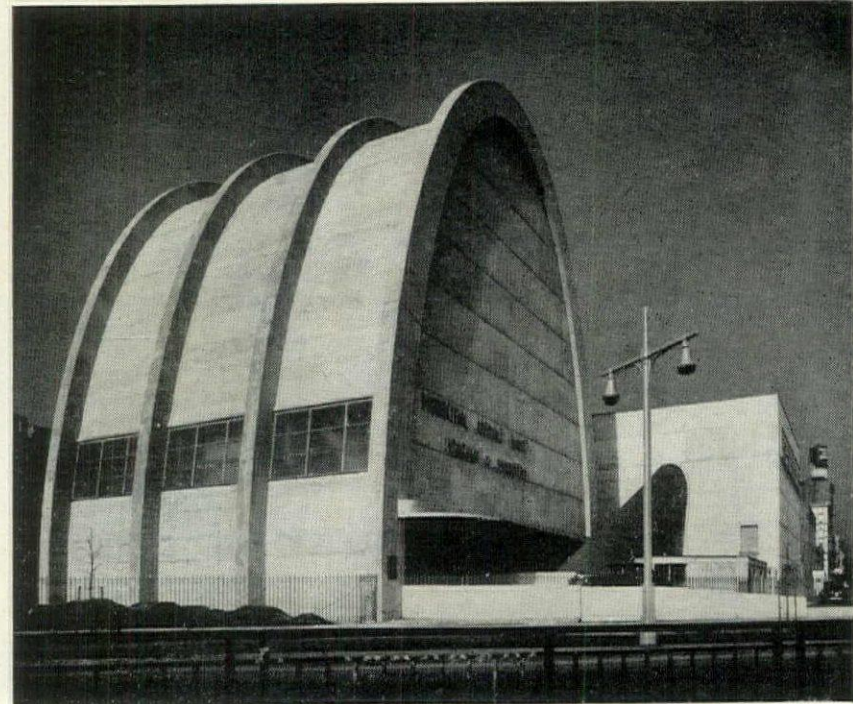
Had an elongated shape required numerous ribs the time and expense of movable form-work might have been justified. Under the circumstances, the new method proved cheaper, faster and left the interior free for installation of equipment while the building was under construction.



LIGHT STRUCTURAL STEEL members were used for reinforcing and as support for the forms. Sides of ribs were grooved for installation of barrel walls, which were formed with wood for interior face and long pine planks for exposed surface.



William Ward



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"SPRING POWER"
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**OVERHEAD TYPE
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"Extension", "Torsion"
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That's the **ONLY** Kind used on
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OVERHEAD TYPE DOORS

Perhaps you have never thought of all Overhead Type Doors as being "Power-Operated." But they actually are. The stretching of the coil spring stores up power when the door is closed. It is this stored spring power that lifts the door when you are ready to open it.

That explains why it is so important that the spring power shall be balanced, exactly, against the weight of the particular door on which it is to be used. There is only one way to do that and it's the way Ro-Way does it. We manufacture all Ro-Way Springs right in our own plant and "power-meter" each one after weighing the very Ro-Way Door on which it is to be used.

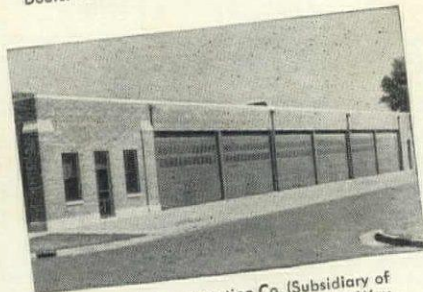
That's why we say Ro-Way Springs, whether "Extension", "Torsion" or "Ro-To Live" Type, are "Tailor Made" for Ro-Way Doors. That's one reason why Ro-Way Overhead Type Doors operate so smoothly and easily and are so trouble-free in service.

Write for Ro-Way's 88-page "Time-Saving Specification Book" for Architects.
 Please attach professional card or letterhead. See our Catalog in Sweet's.

ROWE MANUFACTURING CO.
 Galesburg, Ill., U. S. A.
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Warehouse of American Stores Co., Baltimore, Md. Equipped with 7 Ro-Way Overhead Type Doors. Consolidated Engineering Co., Contrs.



Burlington Transportation Co. (Subsidiary of C. B. & Q. R. R.) uses 13 heavy duty Ro-Way Doors in this new building.

There's a Ro-Way for every Door way!

**"BACK THE ATTACK
 —BUY WAR BONDS"**

(Continued from page 64)



Smart!

MIAMI

Wood Bathroom Cabinets

MIAMI Wood Bathroom Cabinets are doing an essential job in wartime housing and wherever replacements are necessary.

Please don't confuse MIAMI Wood Cabinets with clumsy, bulky wood models of a former era. These modernized Wood Cabinets are attractively streamlined, neat and trim throughout, with mirrors framed in STEEL (by permission of WPB). They are complete in every detail, equipped with convenience features that are standard in MIAMI Metal Cabinets.

Write today for *new* illustrated folder giving full information. Address Dept. AF.

3 Distinctive CABINET MODELS

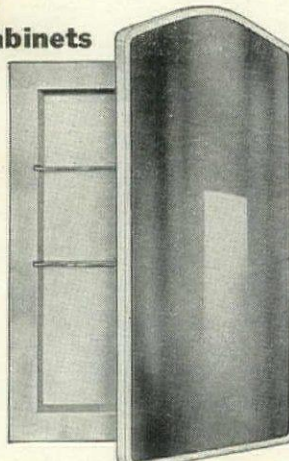
The MIAMI Line consists of three attractively-designed, fully equipped wood cabinet models; also wood-framed wall mirrors in six sizes. . . . Bodies of cabinets are made of kiln-dried hardwood, with joints double-locked, glued, and tenoned; door back of moisture-proof composition board; mirrors framed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

MIAMI METAL CABINETS are not in production at this time, due to wartime metal restrictions. Meanwhile, some models may still be had from distributors' stocks.

MIAMI CABINET DIVISION

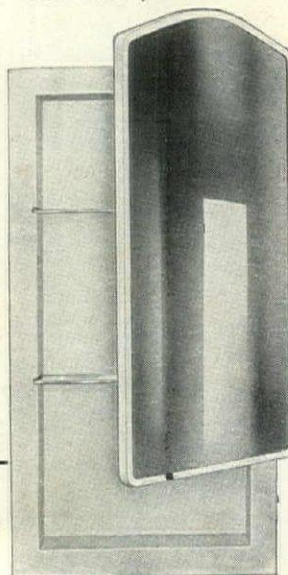
The Philip Carey Mfg. Company — Dependable Products Since 1873

MIDDLETOWN, OHIO



No. 102-W

No. 102-W (above) and No. 103-W (below). Kiln dried hardwood; joints double locked, glued and tenoned; steel mirror frame.



No. 103-W

found a good many lacks in some of the non-temporary projects. One lesson he is taking back to Brazil: housing plans must be made locally; standard plans handed down from a centralized authority are likely to be hard to adapt to regional needs and climate variations. As special assistant for architecture to Brazil's Coordinator of Economic Mobilization, Mindlin knows a thing or two about emergency housing headaches. He helped to plan shelter on a highly mobile basis for the 15,000 workers who were employed in the rubber development project in the Amazon region. Mindlin was enthusiastic about the Federal Public Housing Authority's management job which, he believes, combines the efficiency of a business operation with a broadly-defined concern for many aspects of tenant welfare.

Of all U. S. planning achievements, Mindlin, like many another visitor, saw TVA as the most significant. "Here is an example of long-term planning of great promise, based realistically on a regional economic function and crossing state boundaries," he said. Mindlin found the architecture of TVA's dams the most stirring in the U. S. Only disparity: no design solution was achieved for the transformer stations, a jungle of catalogue items which stands as sharp contrast to the functional dignity of the great dams.

To North Americans interested in becoming good neighbors, Brazil could hardly have sent a better representative. Instinctively warm and enthusiastic, Mindlin made for himself and for the Brazil he represents friends by the hundreds. Never seeming to hurry but accomplishing an arduous daily schedule, Mindlin taught his U. S. friends a lot about the effectiveness of the ostensibly leisurely South American manner, gave most the impression that it cloaks an enormous amount of energy.

SEDUCTION

The slight upturn of the housing market perceptible in 1936 was enough to fix the thousand eyes of the nation's mortgage lenders hopefully on the \$3½ billion worth of mortgages held by the Home Owners Loan Corporation—even though the HOLC was at that time still making emergency loans. Since this first enraptured glance, the eyes of the savings and loan men have never strayed far from the HOLC holdings, which grew momentarily more alluring. Having painfully restored the great majority of distressed loans to a reputable condition, HOLC's John Fahey has fought

(Continued on page 118)

SUMMARY OF ARCHITECTS' VIEWS ON FLUSH VALVES FOR POSTWAR SCHOOLS

What are the trends in the selection of flush valve combinations for "V" day and postwar schools? To obtain a reliable answer to this question, Watrous recently prepared a special ballot sheet which was sent to a list of 309 architects having wide experience in school work.

The diagrams below summarize the results. Viewpoints of those replying are also analyzed briefly at right.

Should you have further thoughts on this subject, or should you desire more complete information on any phase of the results, we shall be pleased to hear from you.

THE IMPERIAL BRASS MFG. CO., 1238 W. Harrison St., Chicago 7, Ill.

Flush Valve Application Data

SCHOOLS

Compiled by the manufac-
turers of Watrous
Flush Valves

★ NOTES ON RESULTS

Concealed Flush Valves for closet bowls were far and away the favorite where appropriations permit their use. Typical comments were: "When we have utility space back of the wall, we prefer concealed flush valves." "Where funds permit, the concealed valve is unquestionably the best type."

Foot-Operated Flush Valves showed remarkable gains. While individual combinations did not rank at the top of the list, the total for foot-operated types was a close second to the concealed total. Typical comment: "Foot-operated valves are more sanitary and are easier to operate."

Top-Spud Flush Valves stand high on the list due to their economy, wide adaptability and ease of servicing. Typical comment: "The selection of a flush valve depends largely on local conditions and above all on the amount of money available. Exposed valves can be adjusted and taken care of by the average janitor better than concealed."

Seat-Action Flush Valves finished in 4th place. Widely divergent views were expressed on this subject. Typical comments: "Seat-action closets in schools will keep closets clean." "About seat-action type causing forgetting at home, check-ups have shown this reason to be theoretical."

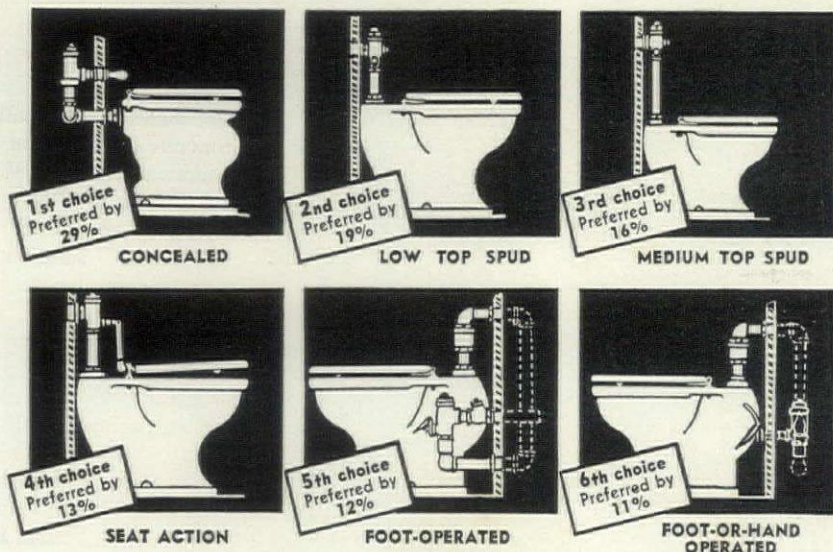
Automatic Operation was far out in front for urinals. Typical comment: "Automatic operation best when 4 or more urinals are in a battery."

Silent-Action Flush Valves were preferred for schools by a 3 to 2 margin.

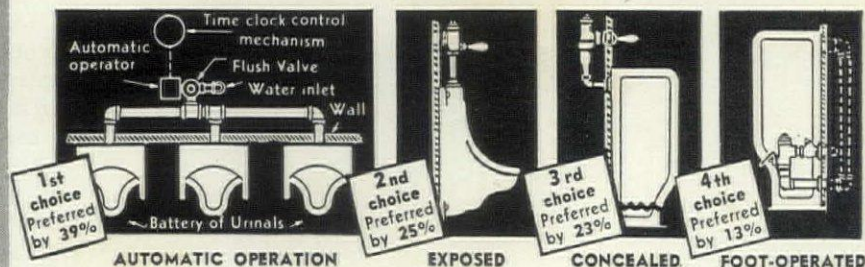
RESULTS

FLUSH VALVE COMBINATIONS FOR CLOSET BOWLS

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



FLUSH VALVE COMBINATIONS FOR URINALS



... V-MODEL WATROUS FLUSH VALVE FOR WARTIME PROJECTS

Sweet's Catalog File for 1944, Sec. 21, Catalog 9, covers this "V" model for wartime applications and also the complete line of Watrous Flush Valves for postwar use. Or write for Bulletin 858-W and Catalog 448.

Watrous Flush Valves

Windowalls.

ANDERSEN COMPLETE WOOD WINDOW UNITS

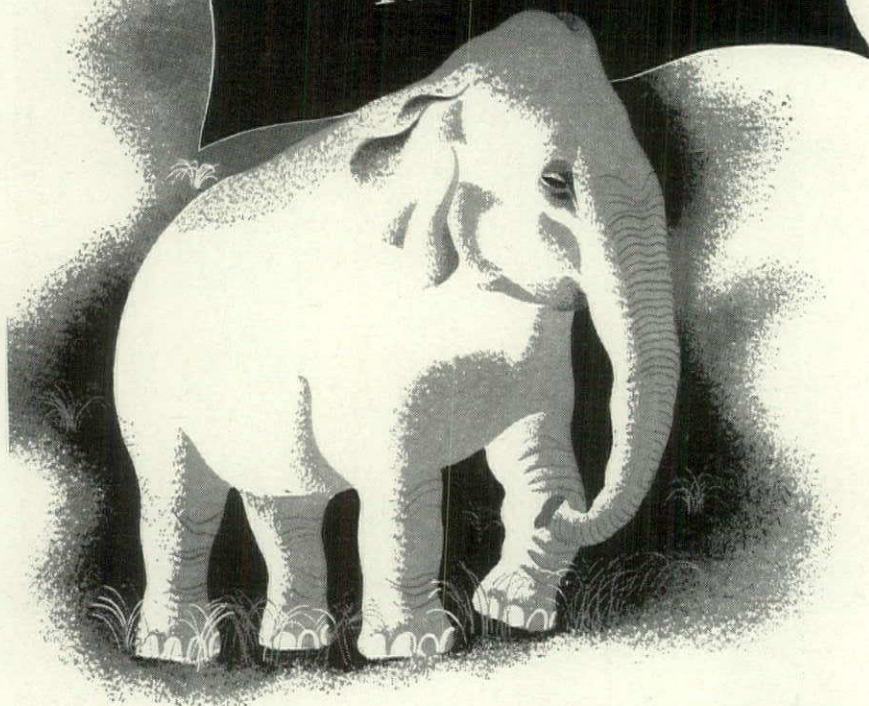
AS the trend to "built-ins" makes itself felt in tomorrow's home, WINDOWALLS will add a special kind of built-in . . . a built-in view. And, when the view is at a corner, Andersen WINDOWALLS also provide a logical location for built-in comfort. To frame the view—to insulate and protect the inside comfort, is the dual function of Andersen WINDOWALLS. Andersen Complete Wood Window Units are engineered to meet the added responsibilities architects and designers have placed on WINDOWALLS. The WINDOWALLS in this home are Andersen Horizontal Gliding Window Units, specified by Burnham Hoyt, architect. For complete details, see Sweet's Catalog, or write Andersen Corporation, Bayport, Minnesota.

CORNERWISE FOR A BUILT-IN VIEW



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and
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If you are casting about for a beautiful paint that will wear as stubbornly as elephant hide... we earnestly suggest Eagle Pure White Lead, esteemed by American architects since 1843.

Thomas Jefferson knew and approved of white lead paint for exterior and interior surfaces. In England before him, Christopher Wren was solidly for it. As this most simple of paint mixtures (pure white lead ground in pure linseed oil) has preserved many of the world's architectural masterpieces, so Eagle Pure White Lead can safeguard the surface of the buildings you design.

In addition to its superb good looks, Eagle Pure White Lead has these most practical properties: (a) its tough film protects against the wear of time and weather; (b) by clinging tenaciously to the painted surface, expanding and contracting with it, Eagle Pure White Lead does not crack or scale; (c) it ages gracefully and slowly; (d) at repainting time, the surface is *ready*, requires no burning or scraping. As for coverage and economy... ask any master painter!

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**EAGLE
WHITE LEAD**



*You're money ahead when you paint with
White Lead*



MONTH IN BUILDING

(Continued from page 114)

with a missionary's zeal the heavy-handed attempts made by the U. S. Savings and Loan League to seduce them away from him. Last month the struggle between earnest Fahey and the ardent Savings and Loan League reached its umpteenth round.

Required by Congress to present a plan for HOLC liquidation, Fahey, no mean hand at a public relations *tour de force*, last month stated his plan. The logical course to follow in liquidation of the HOLC's remaining 700,000 loans, he said pointedly, was the one charted by Congress in 1933. Forced and premature liquidation would mean heavy losses for the government. That losses so far have been kept at less than 2 per cent of HOLC's cumulative investment, Fahey gracefully observed, was due in part to the "far-sighted character of the plan Congress set up."

Major HOLC complaint against the would-be liquidators: lending institutions would be able to buy only loans in which there is no longer any risk, cutting off the Corporation's dependable income and leaving it only small, slow, widely scattered and still-doubtful accounts, which it would have to maintain a national organization to service. HOLC outlook: by 1952 practically all mortgages will be well-seasoned, attractive purchases for all types of lending institutions.

Naming no names, Fahey took a stiff verbal punch at "small groups of mortgage lenders." Said he: "They seem to believe that the only purpose of HOLC was to bail them out of their poor mortgages, enabling them to put back the cash received into good loans and then to take back their relinquished mortgages after the government had spent millions in making them safe. They seek easy profits regardless of the public interest."

But scarcely had honest John Fahey turned his back when Congress broke out with a small rash of bills to force the HOLC hand. New wrinkle proposed by Representative Everett M. Dirksen (Rep., Ill.): immediate transfer of all HOLC assets to the Reconstruction Finance Corporation, which would proceed with liquidation.

The Washington Post summed up many a taxpayer's opinion: "Even in a period when public plunder seems to be in vogue, this looks like a monumental piece of effrontery. The families scattered all over the U. S. who hold their homes today by virtue of HOLC mortgages have no organization with which to counter the pressure of the U. S. Savings and Loan League."

(Continued on page 122)

WE CUT COSTS 22%
AND BEAT THE FUEL SHORTAGE
WITH HOFFMAN TRAPS

— DETROIT MFGR.



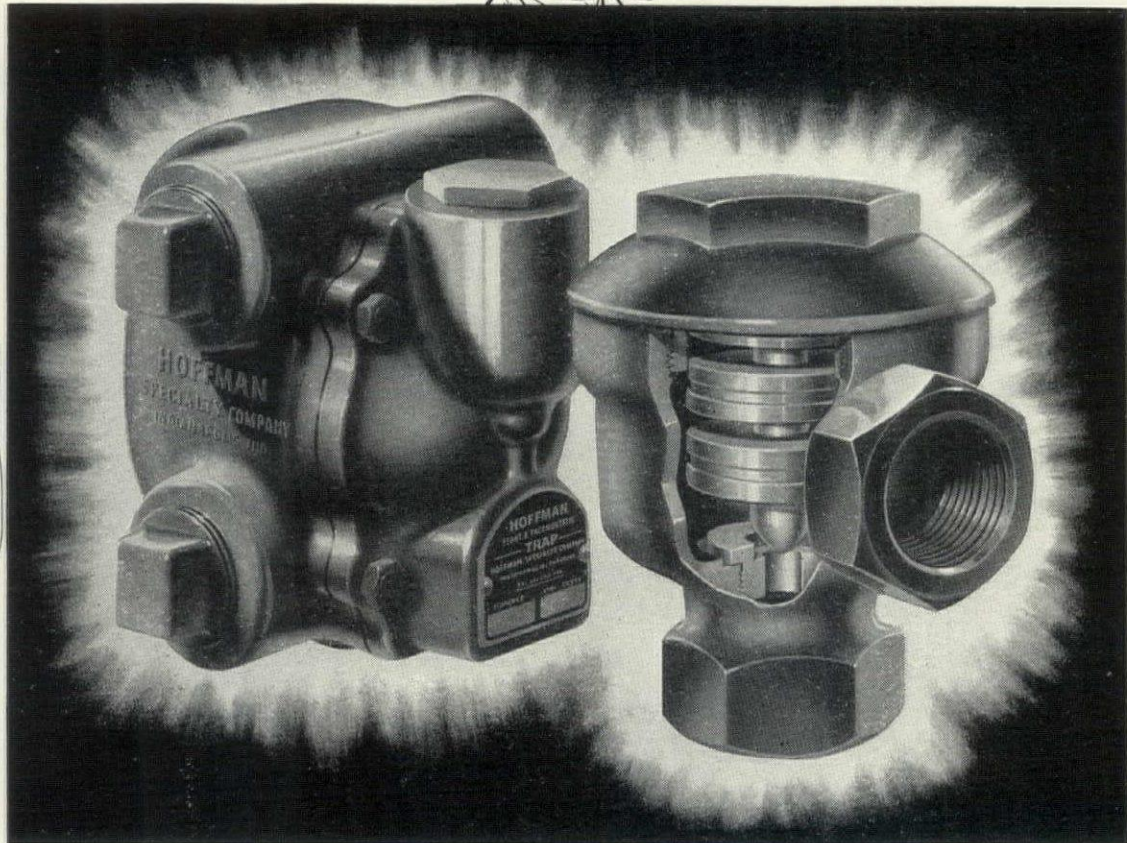
HOFFMAN TRAPS
ENABLED US TO CUT
STEAM PRESSURE
FROM 12 TO 4 LBS.
— GET AMPLE
HEAT ON 20%
LESS FUEL

— MID-WEST BOTTLER



SAVED 6,000 LBS. OF
STEAM PER HOUR WITH
HOFFMAN TRAPS

SAYS FARM MACHINERY MFGR.



WINNING THE WAR ON WASTE *with* HOFFMAN TRAPS

Waste of fuel at any time is an economic error. Today, with serious shortages hampering production, it is *inexcusable!*

Hoffman Traps, as cited in the above actual cases, are doing a notable job in restoring run-down or antiquated heating plants to greater efficiency — efficiency which means less fuel to produce better results.

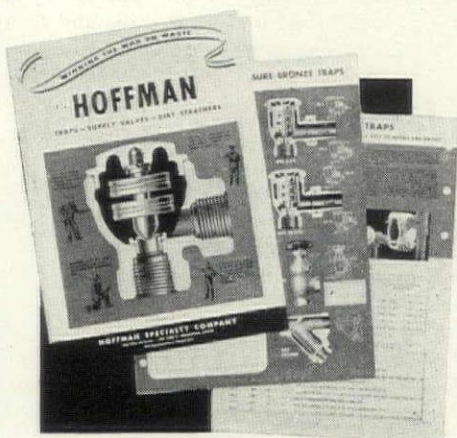
Modernization with Hoffman Traps is a good deal for all concerned. The sellers and installers of the equipment make an immediate profit . . . the owner makes a reduction in operating cost which each year is equivalent to a profit . . . and the country is benefited by relief from the strain on fuel production and transportation.

For a quarter century, heating engineers have specified Hoffman Steam Specialties . . . because every refinement which adds to performance is included in them — at no greater cost! Hoffman Valves, Traps and Pumps are thus a *quality, time tested* line of products. It is a complete line, with every specialty needed to equip either new or remodeled heating plants.

Hoffman engineers are always available for consultation. Write to the

HOFFMAN SPECIALTY COMPANY

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Hoffman Traps are fully described
in this booklet of engineering data.
Your copy will be sent on request.

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Makers of Valves, Traps, Vacuum and Condensation Pumps,
Forced Hot Water Heating Systems. Sold by leading whole-
salers of Heating and Plumbing Equipment.

Controlled Heating

STEAM  HOT WATER

This paintable galvanized sheet belongs in your post-war plans

IN MANY architectural uses — such as roofs and roof drainage systems, exposed air ducts, metal awnings, shower cabinets, furnace casings — ARMCO Galvanized PAINTGRIP Sheets offer you decided advantages.

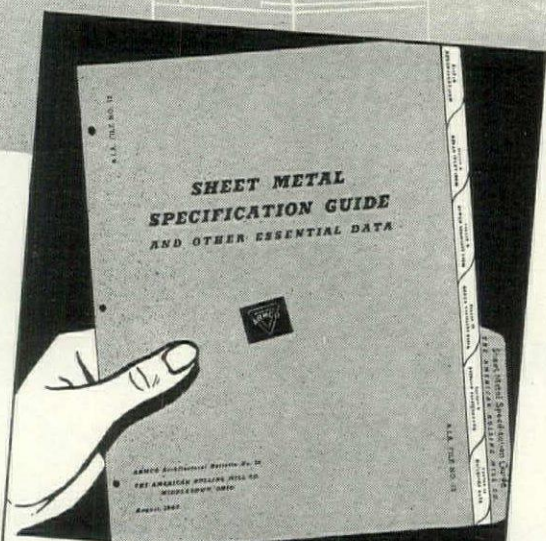
This *original* Bonderized galvanized metal requires no acid-etching or weathering. It takes and preserves paint because it has a neutral surface film that insulates the paint from the zinc. This retards drying out of the paint oils and prevents early peeling. Exposure tests show that good paint lasts several times longer on PAINTGRIP than on ordinary galvanized metal.

Your post-war clients will thank you for using ARMCO galvanized PAINTGRIP for all sheet metal work to be painted. It will save them money, keep their homes attractive, and help you keep their good-will. The American Rolling Mill Company, 891 Curtis Street, Middletown, Ohio.

EXPORT: THE ARMCO INTERNATIONAL CORPORATION

★ ★ ★

HELP FINISH THE FIGHT—
WITH WAR BONDS



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This 42-page portfolio gives quick information on architectural applications of PAINTGRIP and other Armco *special purpose sheet metals*.

It covers general specifications, cost comparisons, and advantages of ARMCO Galvanized Ingot Iron, Galvanized PAINTGRIP and ARMCO Stainless Steels.

Methods of installing galvanized metals and stainless steel are shown. Convenient reference data includes tables on standard gage weights, thermal expansion coefficients and many other helpful facts.

If you are an architect or contractor, write us on your firm letterhead and we'll send you a copy without charge. The American Rolling Mill Company, 891 Curtis Street, Middletown, Ohio.

Special Purpose Steels FOR TOMORROW'S BUILDINGS

...and I want a

GAS RANGE
in the kitchen



IF YOU KNOW WOMEN, you know that a cool, easy-to-clean, step-saving and time-saving kitchen is the first thing they'll look for in homes you design and build for peacetime America. That's why you will want to specify and install Gas Ranges bearing the famous CP Seal.

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For complete information on CP Gas Ranges for postwar America, consult your Gas Company, or write to the Assn. of Gas Appliance and Equipment Mfrs., 60 East 42nd St., New York 17, N. Y.

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 O'Keefe & Merritt Co.
 Roberts & Mander Stove Co.

Geo. D. Roper Corp.
 Standard Gas Equipm't Corp.
 The Tappan Stove Co.
 Western Stove Co., Inc.



AMERICA'S SYMBOL OF CERTIFIED PERFORMANCE

LUMBER ANSWER, III

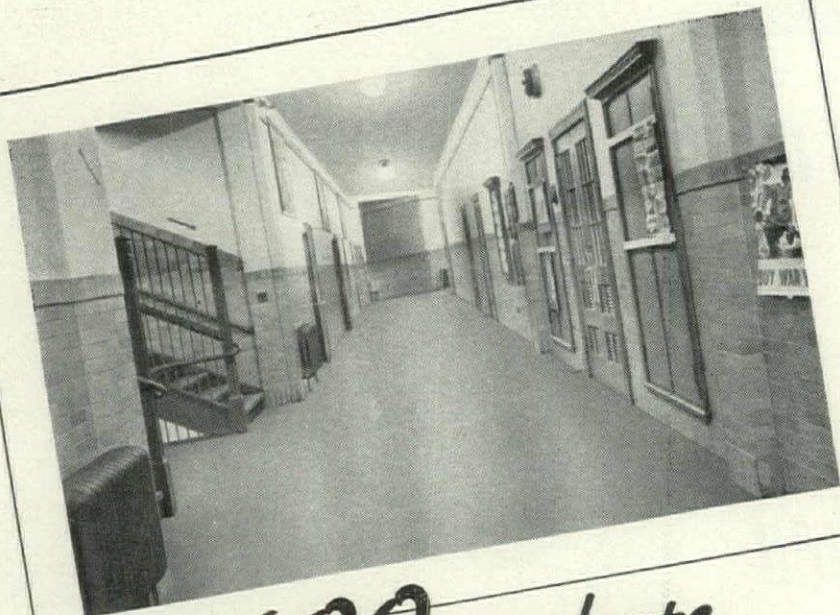
Rationing within priorities is WPB's newest answer to how to spread the short lumber supply as far around as possible. Two earlier and unworkable answers had been abandoned. First WPB attempt to lick the lumber pinch was the temporary freeze, which shut all but military users out of the market, brought howls of protest from war housers. Next try was the order requiring all non-military users to buy lumber from mills cutting less than 10,000 board feet a day. This scheme also threatened to throw a catastrophic monkey-wrench into the war housing program, prompted harried builders to seek and obtain exemptions. Last month WPB had what it hoped was a better and final answer: a rational rationing program for lumber would be set up; supplies would be equitably allotted on a quarterly basis among essential users, each major war lumber consumer would be sternly requested to live within his budget.

PATTERN?

Low-cost housing without subsidy is a possible new pattern emerging out of the present fight without compromise in which public housers and private builders are contending earnestly for the right to clear the slums of Washington, D. C. (See ARCH. FORUM, Jan., '44). Hard-working Senator Patrick A. McCarran (Dem., Nev.), just before leaving his post as chairman of the Senate District Committee, had thrown a portentous grenade from the public housing camp. McCarran's bill would enable the National Capital Housing Authority to borrow \$20,000,000 from the U. S. Treasury, giving bonds in exchange. Except for the very low interest rate, there would be no subsidy. McCarran also proposes a broadly-representative "commission on improvement areas", which would have the final word as to sections chosen for rebuilding. Sitting on the commission would be members of the District health, welfare, fire, police, and planning departments, plus three citizen residents, "at least one of whom should own his own home."

Fearing that "a national pattern may be established", the National Association of Home Builders was quick to throw its heavy artillery back of the preliminary barrage immediately set off by the Washington Home Builders' Association. By month's end there was no sign that the embattled builders were in a mood to listen to such prudent and

(Continued on page 126)



*1600 students
tramp this floor every day*

**... yet it stays fresh and young-
looking even with the simplest of care!**

If you divide the initial cost of the floor in the hall above by the 18 years of constant service it has given, you'll have an answer that's bound to interest any client—*economy!*

This Armstrong's Linoleum Floor was installed in the halls of the New Rochelle, N. Y., High School, back in 1926. Since that time, an average of sixteen hundred students has scraped and scuffed its smooth surface every school day. Yet this Armstrong Floor is still in good condition, still looking young, still giving promise of many more years of service.

And year after year, this Armstrong Floor has been easy and economical to maintain, quiet and comfortable underfoot. A light vacuuming daily, plus an occasional wash-

ing and waxing, has been all the care necessary. And in spite of all the traffic and wear it has taken, this smooth surface linoleum floor has never required costly refinishing.

Any client would be thankful for such long-lasting and easy-to-care-for floors. And the service record of floors like these is likewise a real credit to any architect.

BACK UP YOUR SPECIFICATIONS

So when you are selecting floors for your client, give your specifications the support of long-lasting, economical Armstrong's Linoleum. For more details see *Sweet's*. And for samples and file-sized specifications, just write Armstrong Cork Company, Floor Division, 2303 State Street, Lancaster, Pennsylvania.



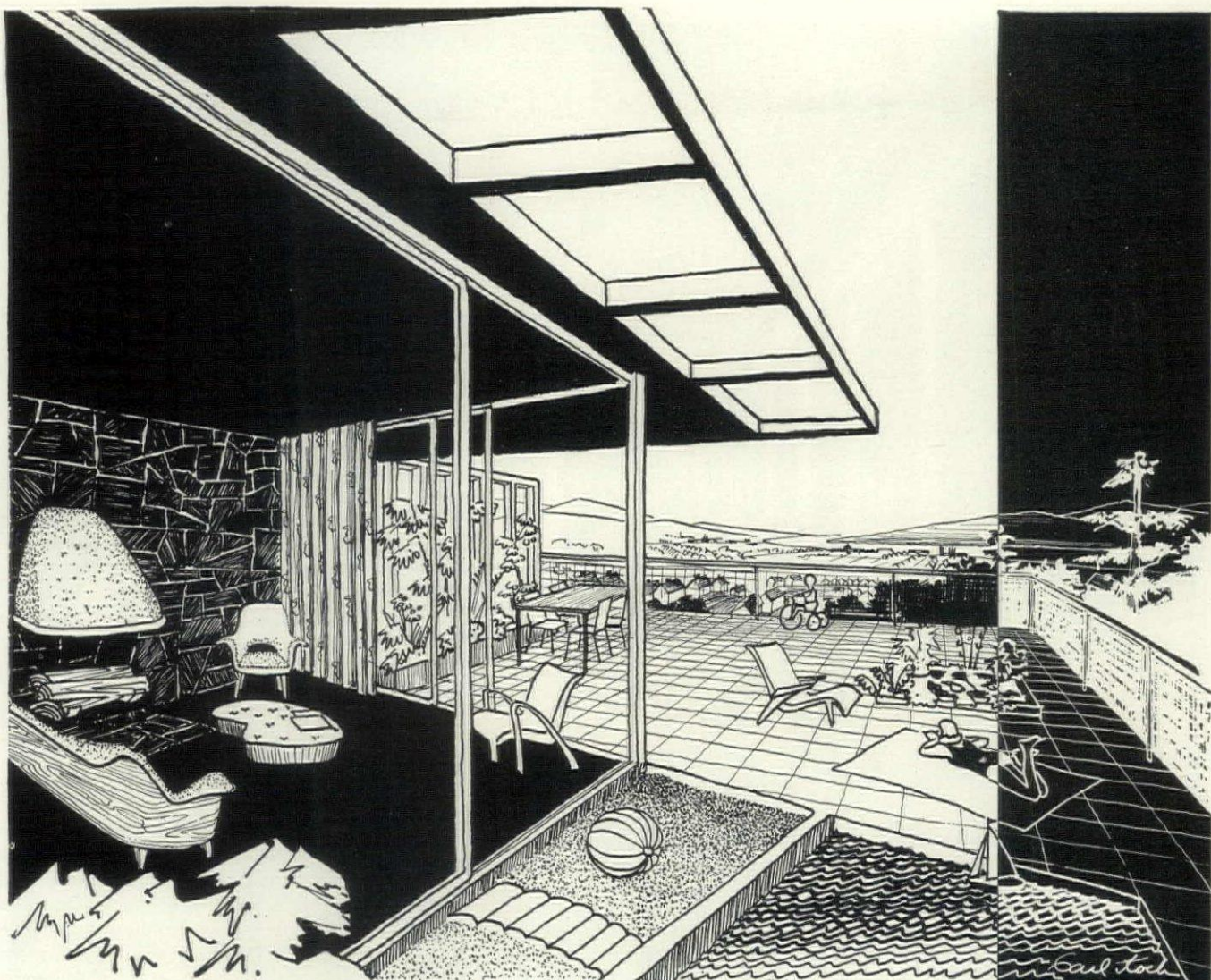
ARMSTRONG'S LINOLEUM

Made by the makers of

Armstrong's Monowall, Temlok,



Cushiontone, and Asphalt Tile



DWELLING IN 194X



Significant of the most advanced thinking in functional design, this post-war dwelling project is the latest in the Barrett series of original conceptions by outstanding American architects demonstrating the practical utilization of valuable roof space so largely wasted in today's buildings.

Shown here is a livable and efficient roof plan for a medium-priced dwelling as designed by Carl Koch, senior Research Technician for the National Housing Agency, and authority on cooperative housing.

Visible in this study are an "outdoor" living room for year-round use, a play yard, wading pool, sun deck and garden—all in the roof plan alone! And all—in this case—high enough above the landscaping to pro-

vide unobstructed views.

The area on which the dwelling stands has been transferred to the top of the structure, thus adding the equivalent of the entire ground floor to the usable dimensions of the property.

Barrett Built-up Roofs—already standard for flat-roof construction on many modern developments, such as the famous Rockefeller Center roof gardens—are increasingly important to architects and housing planners. These coal-tar pitch and felt roofs provide the maximum in dependable, long-lasting waterproofing and weather-proofing protection.

* * *

The dwelling shown here is sixth in the Barrett series of American designs devoted to the functional planning of roof areas. You are invited to write today for reprints of the complete series, for your files.

THE BARRETT DIVISION

ALLIED CHEMICAL & DYE CORPORATION

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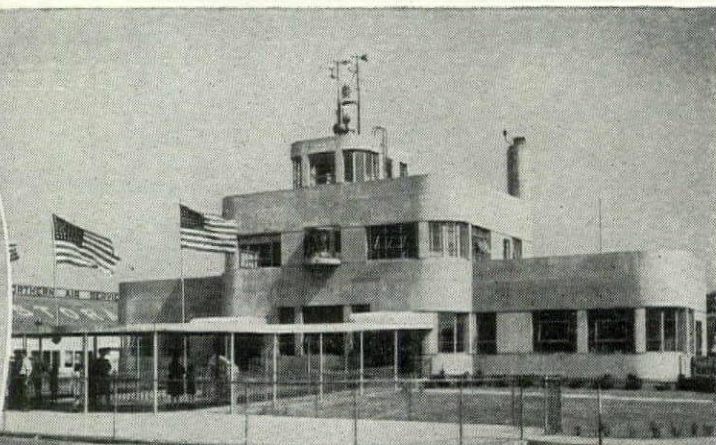
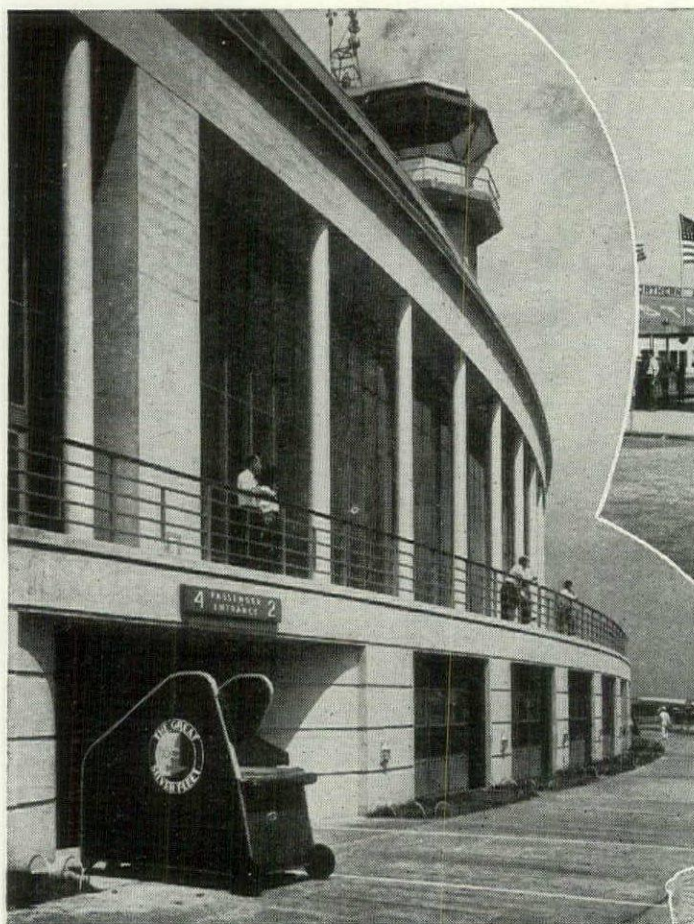
2800 So. Sacramento Avenue
Chicago 23, Ill.

Birmingham
Alabama

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



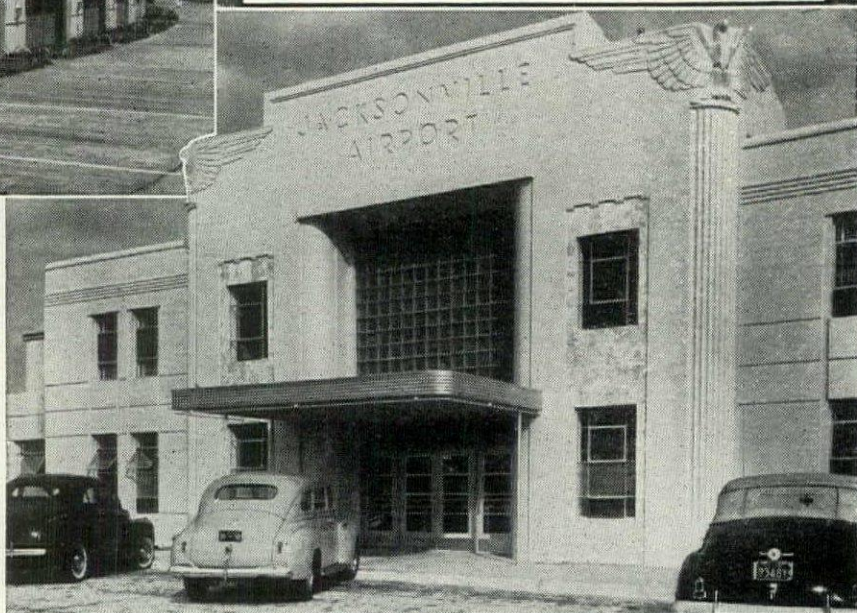
*Reg. U. S. Pat. Off.



Above—Grand Rapids, Mich., Airport architectural concrete administration building, designed by Spencer Weber, Lansing, Mich., engineer.

Left—Architectural concrete administration building at Washington National Airport. W. E. Reynolds, commissioner of public buildings. Louis A. Simon, supervising architect and Howard L. Cheney, consulting architect

Below—Decorative details on administration building at Jacksonville, Fla., Municipal Airport are an integral part of the architectural concrete structure designed by Jefferson D. Powell, Jacksonville architect.



A

RCHITECTURAL CONCRETE for AIRPORT BUILDINGS

economical, firesafe, designed in keeping with the spirit of aviation

Even before the war the vigorous, fast-growing air transportation industry was utilizing concrete as a combined architectural and structural medium. Since Pearl Harbor hundreds of firesafe concrete hangars, service buildings and other structures have been built to serve military aviation.

Architectural concrete will likewise provide modern, good-looking, low annual cost airport buildings for the inevitable postwar expansion of civilian aviation.

Literature on newest developments in architectural concrete construction mailed free in United States and Canada. See Sweet's Catalog, 4/33.

PORTLAND CEMENT ASSOCIATION, Dept. 3-7, 33 W. Grand Ave., Chicago 10, Ill.

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



HE *weaves the fabric*



Painted for McCall's by Walter Klett

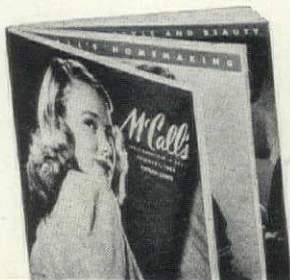
SHE *cuts the cloth*

Weaving the fabric and cutting the cloth symbolize the basic differences in abilities and contributions between men and women. Each is an independent function — useless without the other. While men produce “consumer goods,” it is the women who buy and utilize those goods. Such differences in interests lead to a difference in *reading* interests, too!

These differences are the reason for the existence of women's magazines and the reason why no other magazines published can take their place in the lives of women. That McCall's is read by one out of every five American women is no accident but the direct result of this magazine's

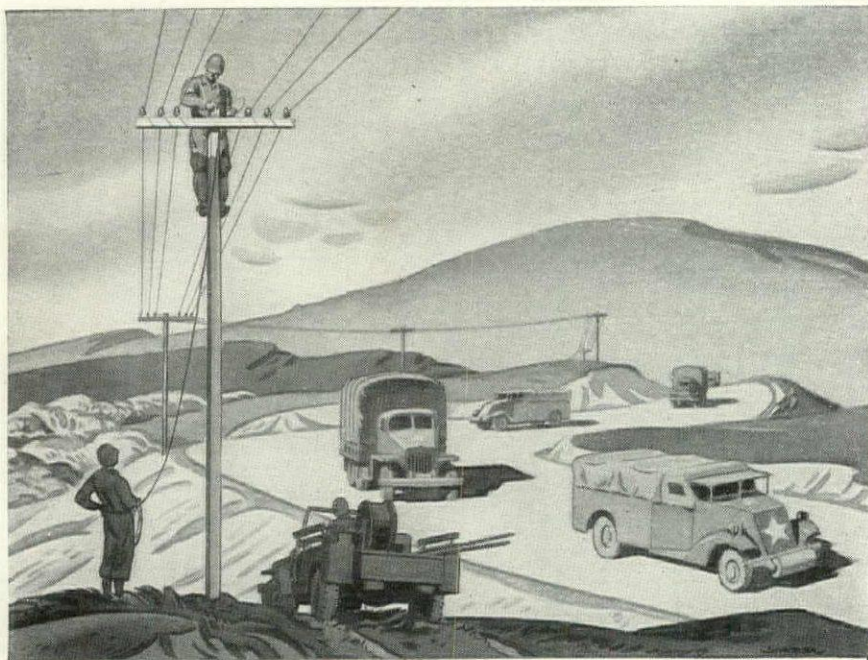
ability to think the way women think. The fact that millions of women *cut, fit and make* their clothes from McCall Printed Patterns is further evidence of the confidence women place in the magazine that thinks the way they do.

In war as in peace, McCall's is edited directly to the three primary interests of the American Woman—Her Heart, Her Home, Herself.



McCall's

THREE MAGAZINES IN ONE



Treated wood moves up front with the U. S. Signal Corps

WOLMANIZED* POLES and crossarms, used by the Signal Corps for "light-loading tactical" lines, are making an important contribution to this fight. The smooth-sawn 4x4's and 2x4's stow more compactly than round poles, take up less shipping space. Their salt treatment weighs much less than that usually used for poles—cuts shipping weight—and this treatment greatly reduces fire hazards.

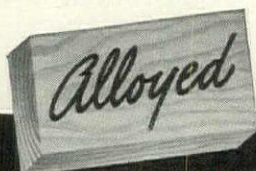
IN THE FIELD, this wood can be stored without fear of its being destroyed by termites and decay. Impregnation with Wolman Salts* preservative makes certain the wood is sound when it's needed. And, because Wolmanized wood is clean, these poles and crossarms are easy to handle, erect and climb.

WOLMANIZED LUMBER is seeing service in many places around the world. Manufacturing plants in our own country are able to devote more attention to wartime production because their Wolmanized Lumber construction requires less attention. The same is true of the railroads' bridges, platforms and shipping docks. In far-flung combat zones, barracks, warehouses and other buildings have this same certain protection against termites and decay.

THERE'S A LESSON here for designers of all kinds of structures. Wolmanized Lumber, at little additional first cost, gives long life to wood construction, reducing upkeep costs. All of the usual advantages of building with wood are retained. American Lumber & Treating Company, 1647 McCormick Bldg., Chicago 4, Illinois.

*Registered trade marks

WOOD THAT'S



FOR SAFETY AND ENDURANCE

AMERICAN LUMBER & TREATING COMPANY

MONTH IN BUILDING

(Continued from page 122)

temporizing voices as that of the *Washington Post*, which told its readers that the "NCHA has amply demonstrated that it can satisfactorily house low-income groups beyond the reach of private enterprise." Said the *Post* reasonably: "We find it difficult to understand why the home builders are not willing to accept this demonstrated fact and concentrate their energy upon promotion of the Wagner bill and the improvement of housing in the field where profits can be made. We hope that the parties to this futile dispute will... pull together in the public interest."

FRIGHTENING, DYMATION WORLD

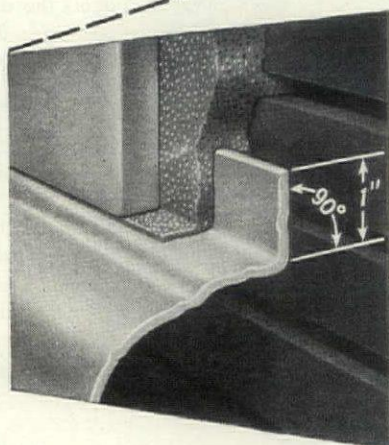
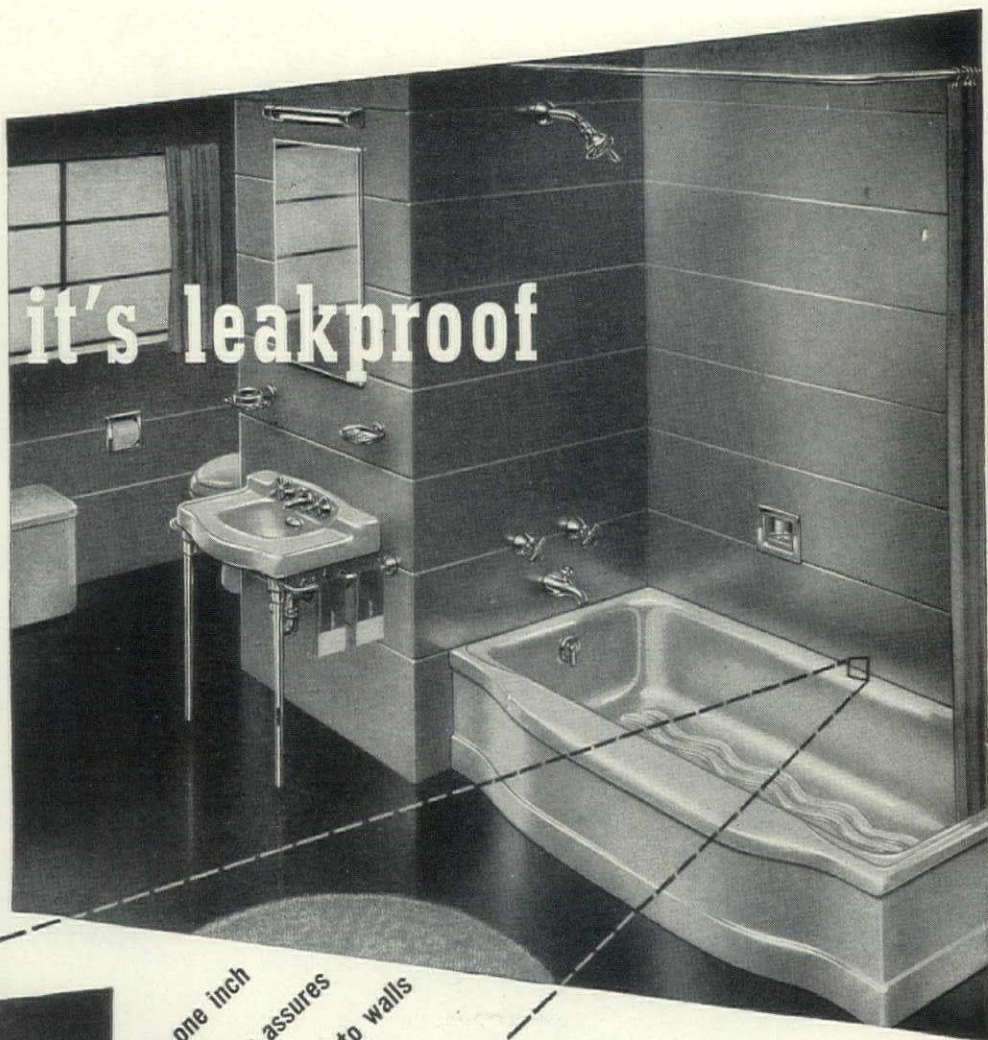
Notably unafflicted by mental myopia, Buckminster Fuller last month was busy stretching the visionary muscles of the august Association of Federal Architects. Back of the chaste Palladian facade of Washington's Archives Building, full of the dusty smell of yesterday, the prophet of Dymaxia talked. This time Fuller told of no specific house, no bathroom, no automobile, but he was still wrestling mightily with his essential preoccupation: the reduction of inherent forces to simple relationships. For the federal architects, he opened a door on the enormous and, in some ways, frightening vista of a Dymaxion world.

The maturing of air traffic, Fuller reminded, has rearranged world geography. To adjust to the swollen new geography of industrial trends, a great portion of the world population must be in frequent motion. Tomorrow's mobility will demand planned living facilities which can efficiently meet changing needs. Now being born from this and from the foreseen emergency needs of 50 million homeless world families, Fuller said, is a great new industry, "a comprehensive service industry devoted to the provision of scientific living facilities."

To make clear his meaning to the less imaginative, the inventor turned to the familiar telephone, an instrument incidental to the sale of communication and not designed with a view to attracting a buyer. This efficiency does not mitigate against the personal enjoyment of the instrument, which, delivered new, can be retained as long as the subscriber wishes. Houses to use but not to own, operated and moved by large corporations for maximum efficiency, will be important in meeting postwar emergency needs, may eventually be so perfected as to appeal to a wide range of consumers.

The new housing industry, Fuller con-
(Continued on page 130)

If it's BRIGGS it's leakproof



The one inch
integral flange assures
perfect water seal—tub to walls

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.
- Unvarying dimensions—an aid to installation.

With the introduction of the built-in model bathtub the use of combination tub-and-shower fitting came into vogue. But with it came a new problem—a problem familiar to every builder... leaks along the built-in edges. This water seepage often ruined the ceiling of the room below.

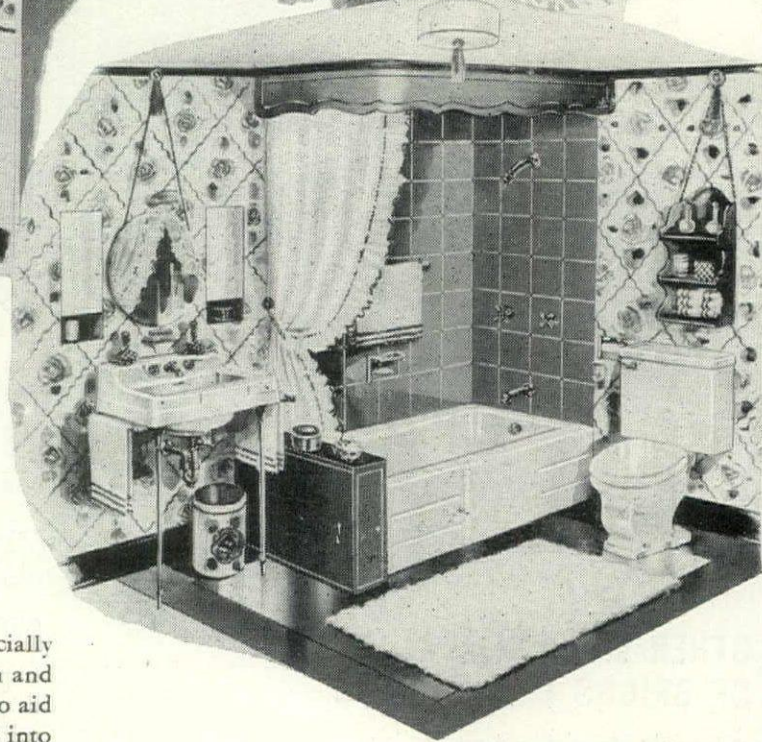
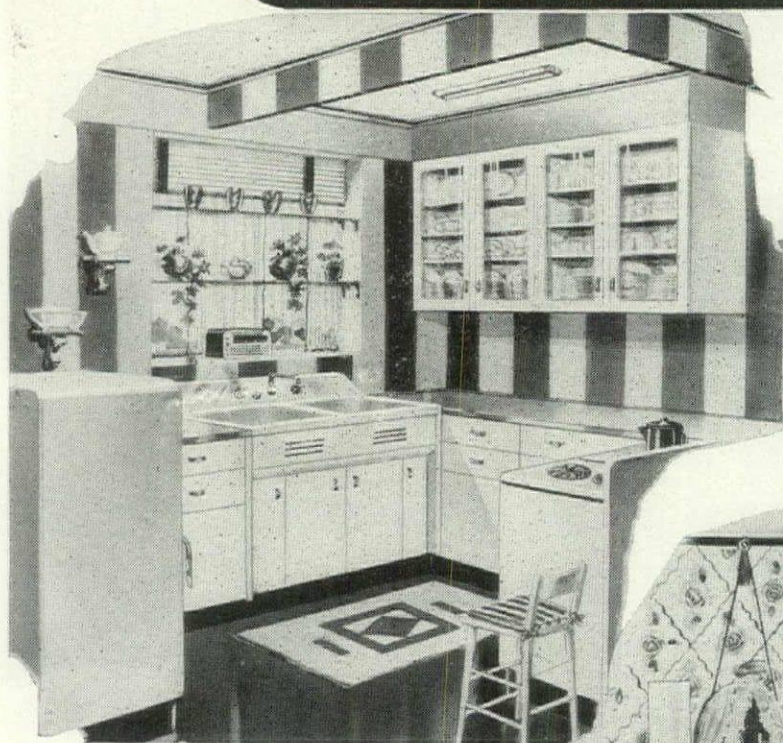
Briggs solved this problem with a one inch integral lip flange which provides a perfect flashing—a permanent water seal—tub to walls.

This is but one of the many reasons why you will want to specify Briggs Beautyware.

BRIGGS MANUFACTURING COMPANY, DETROIT, MICHIGAN

BRIGGS *Beautyware*
PLUMBING FIXTURES

Shining symbols of *Tomorrow's Home*



THOUSANDS of families today are planning for the home they are going to build after the war. They are starting idea files—clipping magazines—seeking information for their dream house of tomorrow.

These plans are shining symbols of a market for new homes when the war is won, and it is important that steps be taken today to aid these home builders of tomorrow.

Colored advertising in national magazines—specially prepared step-planning portfolios—a free bathroom and kitchen advisory service are Crane's contributions to aid Mr. and Mrs. America in crystallizing their dreams into action.

This service to tomorrow's home owners will help build markets for your Crane equipped homes when you are able to build them.

You will find new ideas—the most modern improvements in Crane plumbing and heating equipment for postwar homes. And, the Crane line will continue to emphasize the beauty in design, the soundness in construction, that have always characterized plumbing and heating carrying the name Crane.

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Fine Arts Museum, State Archives and History Building, Montgomery, Alabama

AT THEIR BEST IN MICHAELS

"Time-Tight"

EXHIBIT CASES

The illustration above shows how well exhibits appear in Michaels Time-Tight Cases. Manufactured in Table, Wall, Aisle, Suspended and Recessed styles, Michaels Time-Tight Exhibit Cases meet all requirements. You'll be interested in their many unusual features. Illustrated folder gives complete details on styles, sizes and constructional advantages. ¶ At the present time all the resources of this organization are devoted to war work. When peace comes, Michaels will resume the manufacture of Time-Tight Exhibit Cases, MI-CO Parking Meters, Bronze Tablets and other products.



MUSEUM CASE DIVISION OF
THE MICHAELS ART BRONZE CO., Inc.

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

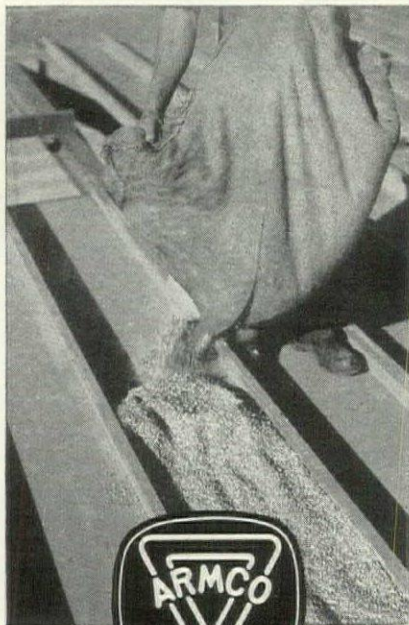
COVINGTON, KENTUCKY

STEELOX Panels are Easy to Insulate

Make a note in your postwar plans that Steelox floor-ceiling panels are easy to insulate with any type of insulation.

When the channel-shaped Steelox panels are erected with flanges upward, loose, batt, or concrete-type insulation can be placed before the finish flooring is laid. Where the flanges open downward, they provide support for fastening board-type insulation.

Steelox panels offer you many other advantages. They are strong, fire-proof, light in weight, and reduce the thickness of floor construction by 50%. To find out what you can do with Steelox floor-ceiling panels after the war, write for a copy of our useful installation booklet. Building Sections Dept., The American Rolling Mill Company, 411 Curtis St., Middletown, O.



STEELOX

SEE OUR CATALOG
IN THE 1944 SWEET'S ARCHITECTURAL FILE

MONTH IN BUILDING

(Continued from page 126)

tinued, must make wholesale application of aircraft technology. The field services, which will position and maintain world-wide living facilities, will absorb enormous numbers of service employees. Federal architects listened solemnly, shivered a little, as if they could already feel the uprooting global wind of tomorrow.

AUCTION IN WASHINGTON

Destined for the auction-block in mid-March is the second big FHA-insured war housing project to hit the financial skids. Unlike the Riverdale development at Norfolk (see ARCH. FORUM, Dec., '43) where minimum comforts failed to attract renters, the bouncing 594-unit project in Washington seems rather to be a case of too much and too soon. Planned as attractive but moderate-priced housing for Negro war workers, Mayfair Gardens is presently the victim of construction costs that got out of hand through the sponsors' zeal to produce a garden-type development of some magnificence. Having used a \$1,100,000 construction advance paid out by the Irving Trust Co. of New York, the Mayfair Corp. found itself out of pocket, faced with the bleak necessity of suspending construction.

Said the Federal Housing Administration: "When it became apparent that the sponsoring firm could not complete construction without additional financing, the FHA agreed to increase its mortgage insurance commitment to the maximum limit permitted by the National Housing Act, provided the sponsors could secure additional junior funds to assure completion. When the sponsors were unable to secure further funds, the Irving Trust Co., as holder of the first trust, had no alternative than to institute foreclosure proceedings." Good news to Washington's crowded Negro residents was FHA's promise that completion of Mayfair Gardens will be speeded if the project reverts to the agency after foreclosure.

BLUEPRINT PROGRESS

Ideas for plant reconversion and postwar expansion are rapidly becoming blueprints, according to the H. K. Ferguson Co., industrial engineers and builders, who find that an increasing number of plant owners are getting ready now to start building as soon as the materials are available. Ferguson is putting its prophetic chips on the notion that there will be a substantial amount of industrial building immediately after the war. Although vast amounts of war-built factory space will be available for postwar use, much of

(Continued on page 134)



Shooting the Sun

Successful navigation, including the shooting of the sun and the stars and the taking of the soundings, involves constant vigilance to determine the exact position of a ship.

In post-war planning of building projects, much is being written about materials of the future. Likewise, much thought should be given to future financing.

There is every reason to believe that the mortgage loan services of the National Life Insurance Company, proven by ninety-four years of experience, will serve future needs just as ably as they have in the past.

There are substitutes for building materials but no substitutes for sound financing. We invite your inquiries now, informing us of your future plans.

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
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Address Department C.

NATIONAL LIFE INSURANCE COMPANY

HOME OFFICE
MONTPELIER VERMONT

PURELY MUTUAL — ESTABLISHED 1850



Quick Facts for Today's Hardware Problems ... and an Inspiration for Tomorrow

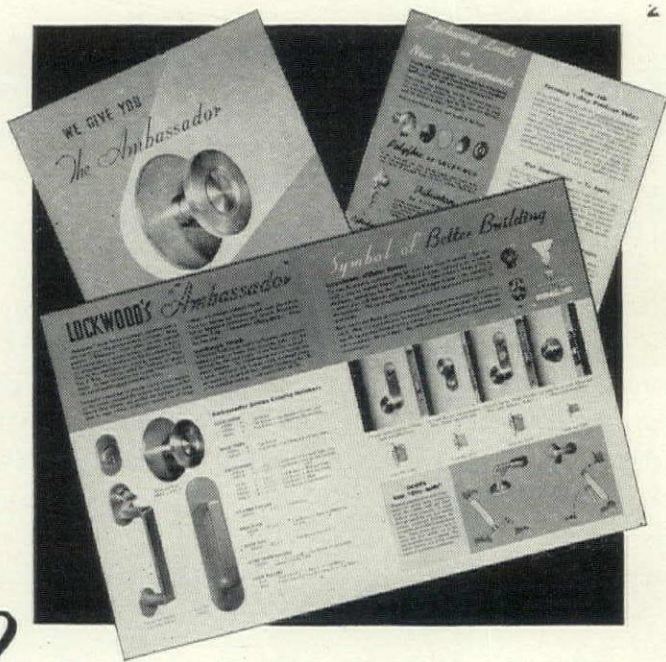
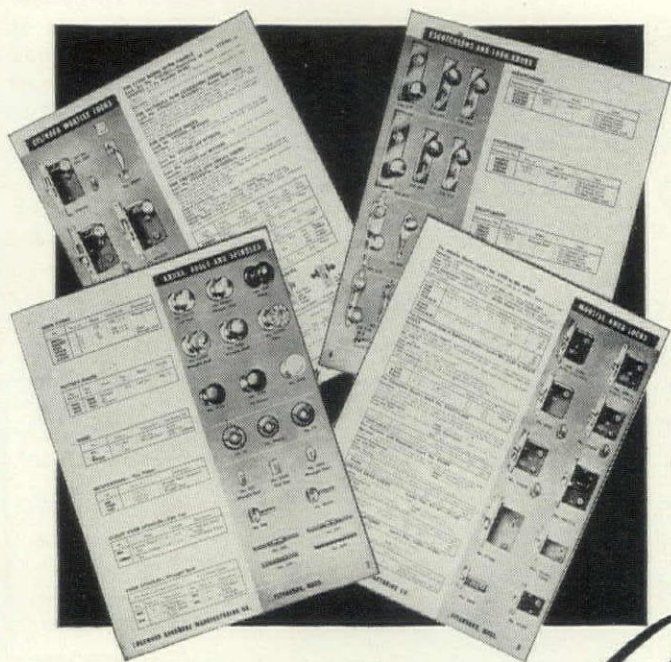
In **SWEET'S CATALOG** for 1944 is a double presentation of value to all architects . . . 12 pages of Lockwood's "Victory" Hardware, available for direct war work; and a preview of the best in Lockwood's early postwar Builders' Hardware, the Ambassador Design.

THE "VICTORY" LINE . . . This section in SWEET'S gives you the complete picture of the Lockwood "Victory" Hardware line, for use in war construction. Your Lockwood Builders' Hardware Dealer can assist you in specifying and obtaining these permissible hardware items.

THE AMBASSADOR DESIGN . . . This Lockwood achievement was developed for Washington's Hotel Statler, designed by Holabird & Root, and the last important hotel project prior to wartime restrictions. The perfection of line and finish and the many special features of this distinctive hardware may suggest possibilities for your present-day planning of V-Day buildings—in which Lockwood is now co-operating with architects the country over.



Look to Lockwood when specifying Builders' Hardware, whether the job be large or small.



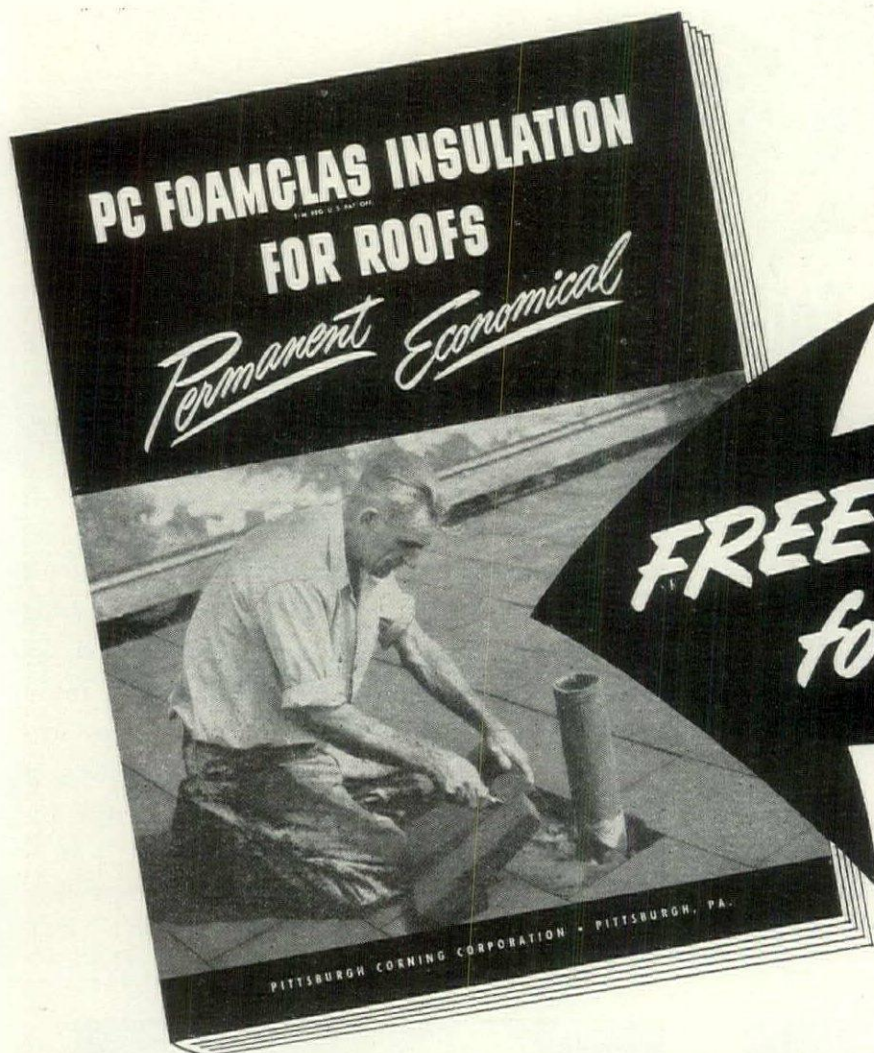
LOCKS? USE

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**FREE booklet
for you!**

**ALL THE FACTS YOU WANT ABOUT PC FOAMGLAS, THE
PERMANENT INSULATION THAT IS 9 PARTS AIR, 1 PART GLASS**

COMplete engineering data, twelve pages of charts, tables, graphs, illustrative photos and explanatory text—all these have been gathered, for your convenience, into our new brochure. In it you will find information that is invaluable to every architect who is concerned

with insulating procedure in industrial plants.

The brochure includes a full exposition of the characteristics of PC Foamglas, especially its unique abilities as an insulating material for roofs. These same qualities make PC Foamglas the ideal insulation for

walls, floors, ceilings, partitions, insulated shields and screens.

Before you plan roof insulation, get all the necessary data on PC Foamglas in this new free booklet. It will help you to give your clients greater satisfaction for less money. Just fill in and mail the coupon.

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PERMANENT INSULATION

9 parts air · 1 part glass

MAIL COUPON TODAY

Pittsburgh Corning Corporation
2985-4 Grant Building, Pittsburgh 19, Pa.
Please send along my free copy of your new booklet on PC
Foamglas Insulation.

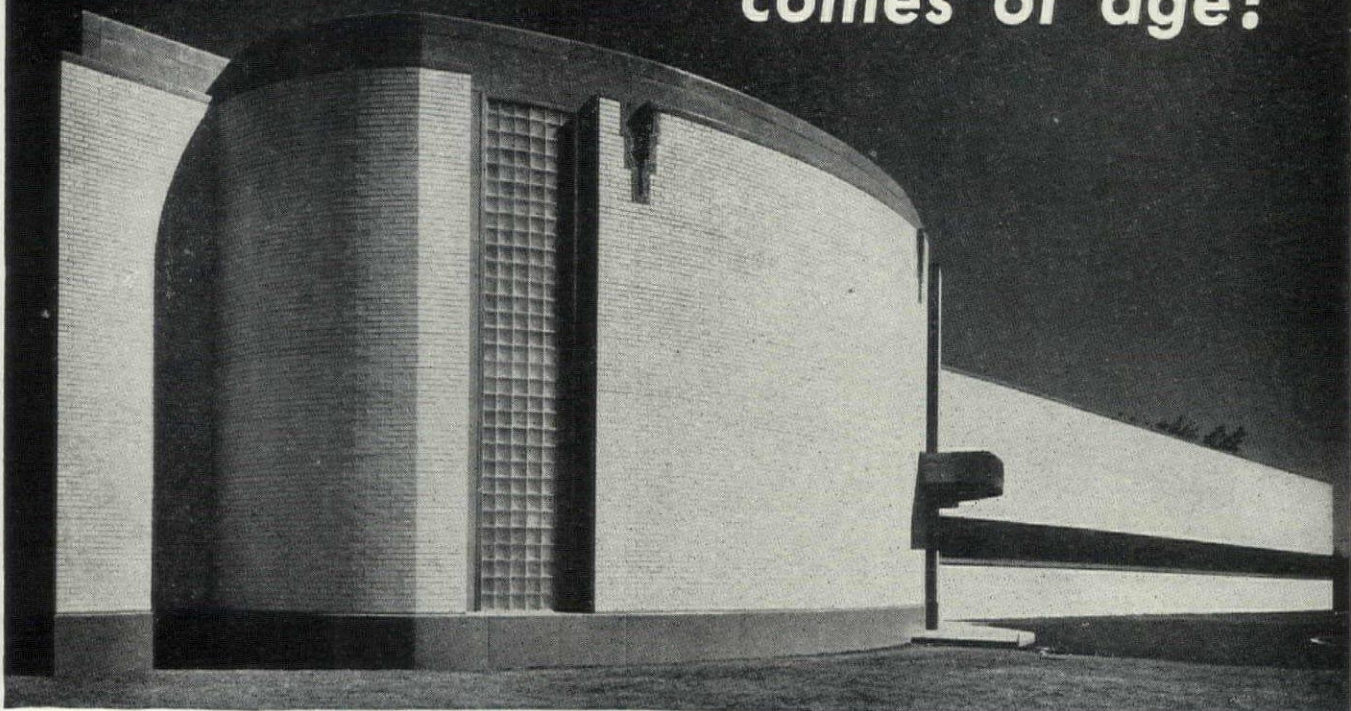
Name.....

Address.....

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

ARCHITECTURAL MASONRY

comes of age!



Bob Riehle

It may be a structure clean and unadorned in style—or a structure as intricate in design as an oriental tapestry. For either, the modern architect may choose from an unlimited selection of colors and textures in brick and tile to express his artistic creation.

Brick and tile construction is not only everlastingly beautiful, but it is also economical in the truest sense of the word—low in first cost and low in maintenance. It is a synonym for the best in building.

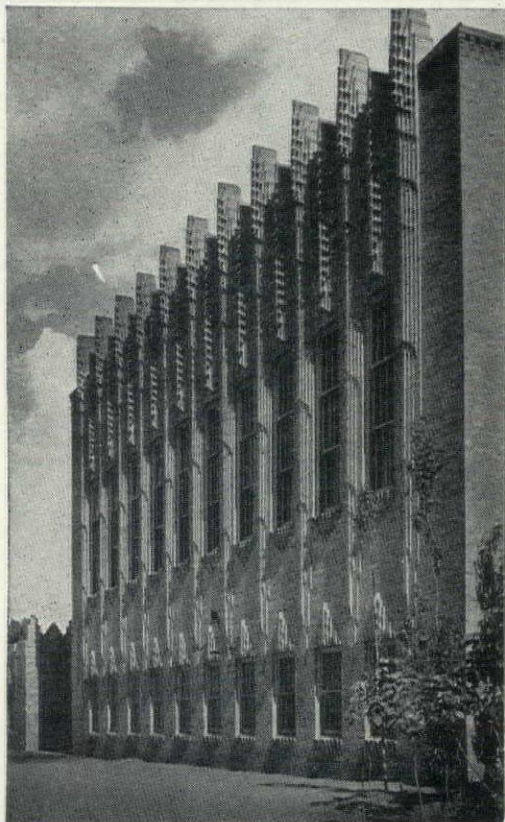
After the war, clay masonry will set a new standard in economy and beauty. With the advent of modular masonry units, sized to eliminate hours of wasted designing and erection time, the value of masonry construction will be still further enhanced.

Write for the "ABC of Modular Masonry" and ask to have your name added to our mailing list for "Brick and Tile," the monthly magazine of masonry for today and tomorrow. Structural Clay Products Institute, 1756 K Street, N. W., Washington 6, D. C.

(Above) Industrial Tape Corporation, New Brunswick, N. J. Subsidiary Johnson & Johnson. (Right) Buell & Company, Denver, Colorado

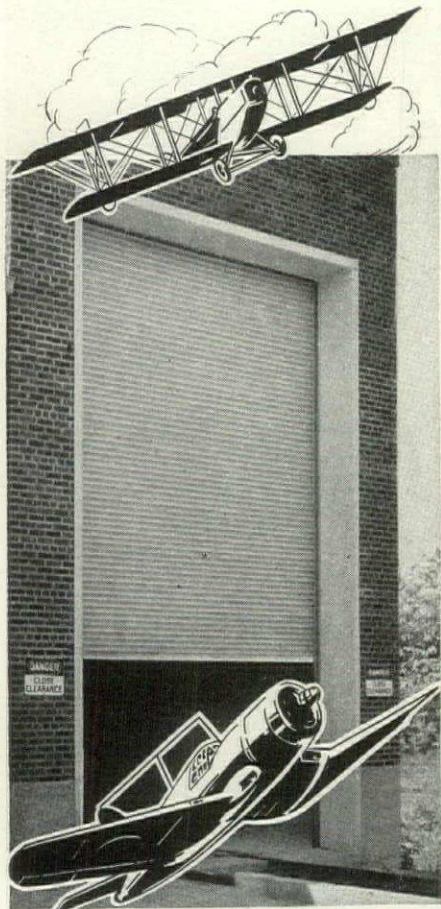


Hyskell-Denver



After the war...it will be built of modular designed

BRICK AND TILE



STILL GOING UP ... Because the Principle is **RIGHT!**

Even when airplanes first began to prove their efficiency, Kinnear Rolling Doors had "won their wings." Their coiling upward action had long been proved. Their interlocking steel slat curtain — originated by Kinnear — afforded the most efficient door design ever developed. And it still does!

Kinnear Rolling Doors clear the entire opening with one quick, smooth, easy operation. They open completely out of the way, out of reach of damage! There are no overhead tracks to obstruct the use of conveyors, cranes, or similar equipment! In fact, no other doors save more usable floor, wall, and ceiling space!

Kinnear Rolling Doors' all-steel durability also incorporate a degree of flexibility — the doors "absorb" many blows and impacts that would damage ordinary doors.

They are built in any size, for old or new buildings, with motor or manual control. Write today for further information! The Kinnear Manufacturing Company, 1640-60 Fields Avenue, Columbus 16, Ohio.

Saving Ways in Doorways
KINNEAR
ROLLING DOORS

MONTH IN BUILDING

(Continued from page 130)

it is not properly located for economic peacetime production. But among the lucky manufacturers whose plants are now located in good relation to their expected peacetime market outlets and raw materials supply, the major building problem will be redesign and alteration of existing buildings to accommodate new production necessities. Ferguson has already accomplished a good number of reconversion solutions. Samples of other planning problems now being answered in the Ferguson drafting rooms:

►A plant to be postwar built in territory now occupied by the Japanese. Customer: one of the world's largest manufacturers of consumer products. Information has reached the manufacturer that the plant he now owns in that location, of infinite value in a peacetime market, will be useless by the time the war is over.

►Plant recreation facilities for a mid-western manufacturer of office equipment, who has been convinced by wartime employment conditions that ample recreation facilities mean better employee morale. Present provision for recreation is a temporary wartime addition.

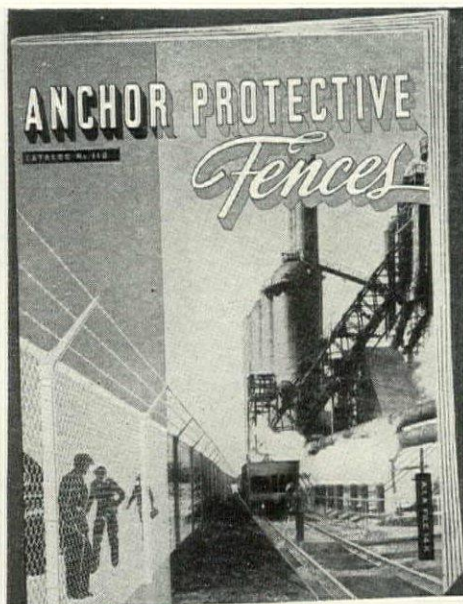
►New plant for a New York state manufacturer of castings for airplane sub-assemblies, now operating in five scattered locations. This owner expects to use his equipment after the war to make castings for several other industries and looks forward to building the factory that war has blocked.

NEWS NOTES

Steel Conspiracy? Looking into WPB's closet for bogeymen from Wall Street, western Senators have formed a committee to find out if that agency has operated to maintain the eastern concentration of steel and heavy metals industries. Said Senator Patrick A. McCarran (Dem., Nev.): "We are going to find out why the great wealth of western ore deposits should be left in the ground with no attempt made to develop them by the metals industries. Why should a contractor in Los Angeles be forced to buy his steel at eastern mills and transport it two-thirds of the way across the country when there are rich deposits of iron ore less than two hours from his home city?"

County-Wide Code. New evidence of the way in which wartime conditions are accelerating improvement in local building code practices came last month from Wayne County, Mich.

(Continued on page 138)



free TO ARCHITECTS
Get this **ANCHOR FENCE SPECIFICATIONS MANUAL** for your A. I. A. File 14-K

THIS 44-page Reference Manual on Chain Link and Iron Picket fences and gates has been prepared especially for architects, engineers and others who have occasion to specify fence. Profusely illustrated with installation photographs and sectional drawings, it describes in detail the various heights, weights, structural features and applications of Anchor Fences. Included are sample specifications for fencing jobs.

Anchor Fences are made in all standard sizes and in a wide range of styles for every type of job: industrial, residential, or institutional. And Anchor's Nation-wide Erecting Service insures prompt, efficient installation anywhere in the United States.

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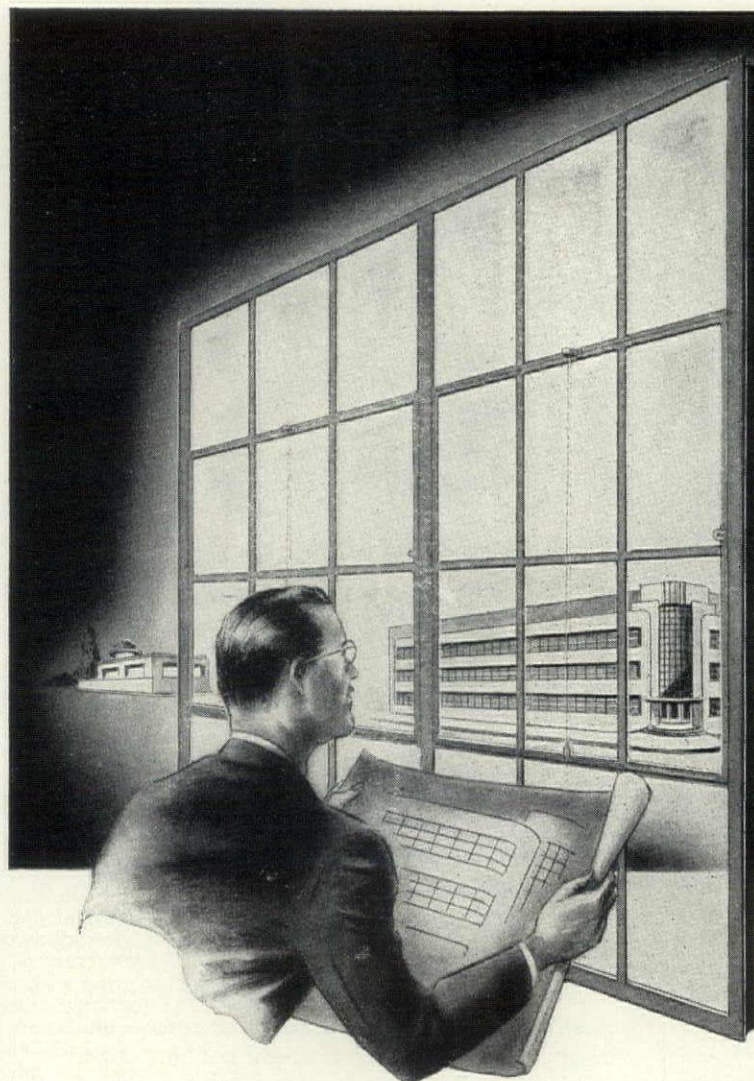
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Advances in the building field hold a bright promise for efficient, gracious living in the World of Tomorrow. Soulé Steel Company is preparing now to meet the challenge of the future in the blazing of these new trails to better design, materials and methods. ★ Today speeding production on invasion craft, the "bridges to victory" that lead back home, Soulé Steel will be found ready when the time comes with better products than ever for peacetime needs. In the meantime, to help you with your plans for "building in the West" our post-war planning engineers are at your service.

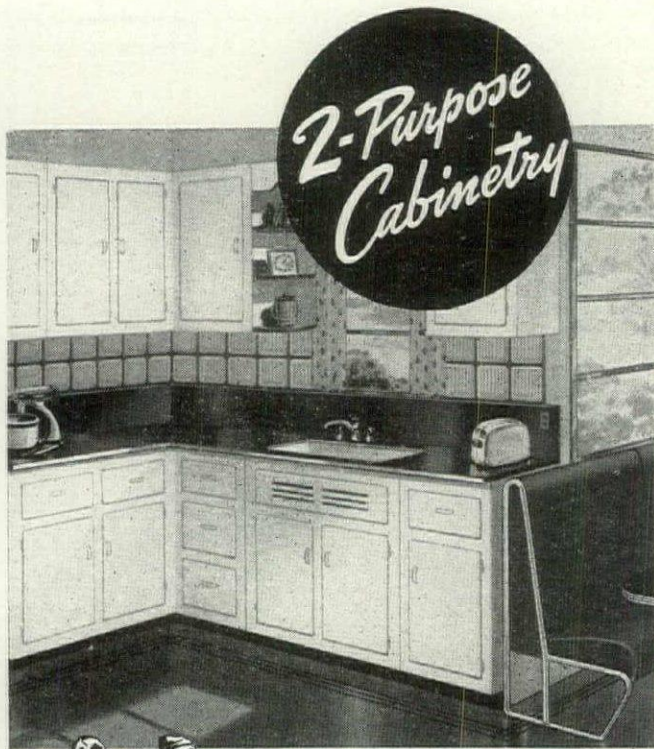


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Not Tomorrow's Kitchen, But A Kitchen
Available Tomorrow As Well As Today

- WAR HOUSING
- PEACE PLANNING

Viewed with a practical eye, this Kitchen Maid Cabinetry meets today's double requirements: standard unit kitchens—(1) available now for war housing; (2) available immediately after V-Day for all residential purposes.

By concentrating its recent efforts on defense and war housing (more than 50,000 kitchen installations), Kitchen Maid has been able to maintain 100% cabinetry production. As a result, reconversion is not a serious problem, and you can feel perfectly safe in specifying Kitchen Maid for your early post-war kitchens—now!

Built now of hardwood, plywood, and other compositions, this fine cabinetry combines all the advantages of the best materials available. But it will never be "good enough". When improvements can be made for the "kitchens of tomorrow", Kitchen Maid will make them. For further facts, see your local Kitchen Maid man, or—

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Please send new folder on "Kitchen Maid War and Post-War Cabinetry".

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SURE OF RESULTS

... You must use methods and material you can trust! You have a concrete floor. It is dusting. You have a heavy production schedule in the building which cannot be interrupted. You must dustproof and harden floors for heavy duty. You have to be **SURE** of results. That's the time to specify **LAPIDOLITH Liquid**.

You'll get definite, predictable results. **LAPIDOLITH Liquid** requires no special skill in application. Production need not be stopped during use. And you can count on a hard wear-resisting surface that won't dust. Send for your copy of "Concrete and Lapidolith Liquid." Write Dept. F-11.

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Heavy machinery in the plant pictured above proves daily the value of the **LAPIDOLITH** treated floors in wear-resistance and freedom from dusting.

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1818 WINDOWS 1944



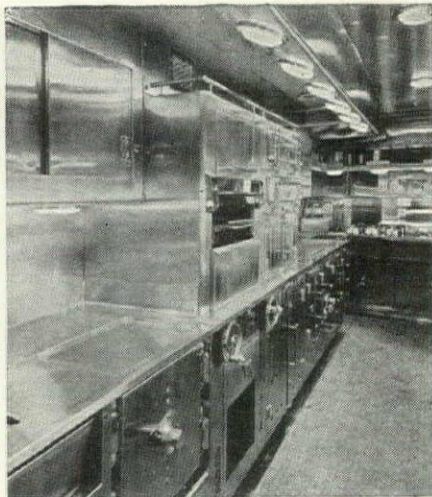
WINDOWS OF THE FUTURE!

WHEN freedom returns with Victory, thousands will want new homes. Architects and builders must realize for their clients the universal expectation that new ideas and new methods are ready to accomplish a vast improvement in beauty and utility for the home of the future. Metal casement windows—no longer restricted to traditional forms—no longer excluded by cost—are ready to lend their versatility to your plans.

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When your plans call for LARGE KITCHENS in SMALL SPACE

One of the most difficult problems of the architect is that of providing food service for large numbers of people from small kitchens. This is essentially a problem of planning. For example, the kitchen illustrated above occupies only 180 square feet of floor space but it serves 600 complete meals a day. When you have a similar problem on the boards or in prospect, take advantage of

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Beginning with your preliminary plans we will suggest a layout that will make the best possible use of the available space. We will design every unit of equipment to fit into the space provided for it without crowding and with sufficient capacity for peak loads. We will manufacture the equipment of materials subject to governmental regulations, with rounded corners and welded seams, easy to keep clean and sanitary. We will make the installation complete and ready for use, relieving your staff of innumerable annoyances and delays.

We invite inquiries from architects responsible for projects involving provision for mass feeding.

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EQUIPMENT FOR THE PREPARATION AND SERVING OF FOOD

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MONTH IN BUILDING

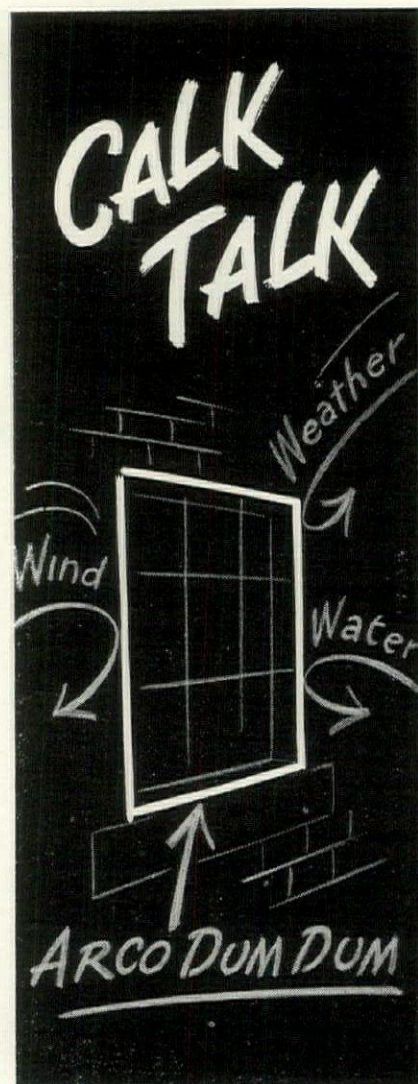
(Continued from page 134)

Declaring that thousands of temporary homes in unincorporated areas are "little more than shacks and many of them downright fire-traps", the ways and means committee of the county board of supervisors has approved the drafting of a code for minimum construction standards which will be effective over the entire county.

Ghost Plants. Seven more steel plants joined the list of might-have-beens when WPB halted \$97,000,000 worth of construction, some nearly finished. No longer needed in the war effort, said WPB, is the steel scheduled for production in two plants in South Chicago, two at Canton, Ohio, others at Masillon, Ohio; East Hartford, Conn.; Wilder, Ky. Also canceled by WPB were four Carnegie-Illinois steel plants on which construction had not begun.

Statistical Paradox. War trends are upsetting many a hitherto reliable statistical index. Witness New York City, where Census Bureau figures show a half-million population drop since 1940 but brimful apartments have the highest occupancy rate in the last 20 years. About 85 per cent of the city's total space for storing household goods is now in use, an increase of 15 per cent over prewar figures and pointing to the breakup of many families. But the Mayor's committee on rents estimates housing vacancies at well under two per cent. Taking a second look at the paradoxical figures, statisticians conclude that the decline in the city's permanent residence group has been more than offset by the increase in transients. Apartments rented to service personnel and visitors on short-term leases account for a large slice of the present brisk rental market.

Pentagon Probe. Casting a large and expensive shadow as far as Capitol Hill, "Somervell's folly" may soon be the subject of a full-dress Congressional investigation, demanded by members of three important House committees. Convinced was Representative John Dingell (Dem., Mich.), who coined the Pentagon's newest name-tag, that public funds have been expended with "extreme recklessness". Representative Dewey Short (Rep., Mo.) said that "fabulous spending, waste and skull-duggery" as well as bad construction management and an excess of engineers helped to boost the Pentagon's cost to \$75,000,000, more than twice the amount appropriated for the building.



BUILDING movement—the arch-foe of most calking compounds—can't break the weathertight seal of ARCO DUM DUM CALK. Because it stays pliable, and because it firmly adheres to any type surface, DUM DUM CALK defies the destructive effects of building movement, whether caused by temperature changes, vibration, settling, wind, or weather.

DUM DUM CALK is typical of Arco's many quality maintenance products—mill whites, floor treatments, metal protectives, concrete and masonry preservatives—products that have played an important role in three generations of American industry. Write for full details.

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Today, the Crawford Door Company (maker of Craw-Fir-Dor hardware) is producing precision airplane parts... gaining valuable precision manufacturing experience. Craw-Fir-Dor mechanical hardware is also being improved through constant research,* assuring you an even better post-war Craw-Fir-Dor.

REMEMBER

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

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

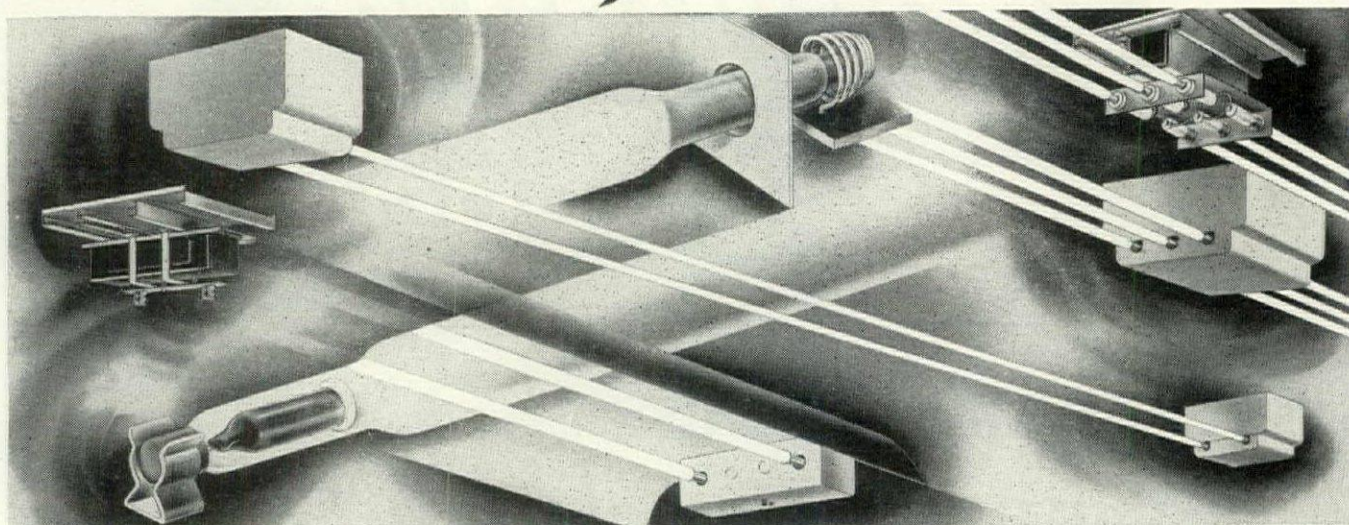
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who make a complete line of sectional overhead-type doors.

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8000 HOURS of rated life is what the new COLOVOLT lamps offer! Is it any wonder that we say "lumen hours" turn into "lumen years" with cold cathode low voltage fluorescent lighting the new COLOVOLT way! 8000 hours of rated life (guaranteed for one year) insures *low maintenance* cost, which means maximum lighting efficiency, actually *greater than any previously known cold cathode lighting*. Operation is on low voltage, eliminating high voltage wiring and bulky transformers (although lamps may be used for high voltage operation if desired). Moreover, COLOVOLT lamps start up immediately—require no starters. Colovolt illumination is constant—steady and unaffected by shock or vibration.

The lamps are free of "strob" or flicker when used on capacitative and inductive reactor. Available in standard 7 ft. 9 in. lengths, these lamps give longer light sources . . . better line lighting. As package items, the lamps compare most favorably with custom-built cold-cathode lighting in every respect! All of the special features of COLOVOLT are possible only because absolutely new lighting principles are employed. Send today for booklet, "Facts About Cold Cathode Low Voltage Lighting."

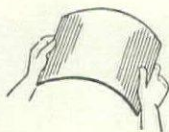
GENERAL LUMINESCENT CORPORATION

638 SOUTH FEDERAL ST., CHICAGO, ILL.

IN 194X TILE-TEX ASPHALT TILE WILL HAVE:

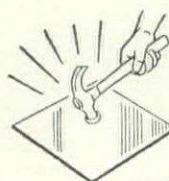
1 • More Flexibility

Tile-TEX has always believed in flexible asphalt tile. After the war, the ability of Tile-TEX to bend without breaking will be even greater. Advantage—quicker and surer bonding of Tile-TEX to sub-floor.



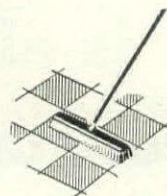
2 • Greater Resistance to Impact

The ability of asphalt tile to withstand sudden blows from objects dropped or set on a floor is extremely important. The impact resistance of Tile-TEX after the war will greatly exceed this requirement of Federal Specification SS-T-306, which it readily meets now.



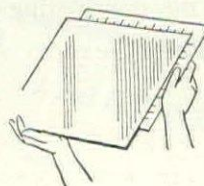
3 • Smoother, Easier-to-Clean Surface

Nothing is more important to your client in the selection of a floor than its ability to be cleaned. Smooth surfaced Tile-TEX will be even smoother and more closely textured when the war ends, which means lower maintenance costs plus better appearance for those who use it.



4 • More Accurately Dimensioned Tile

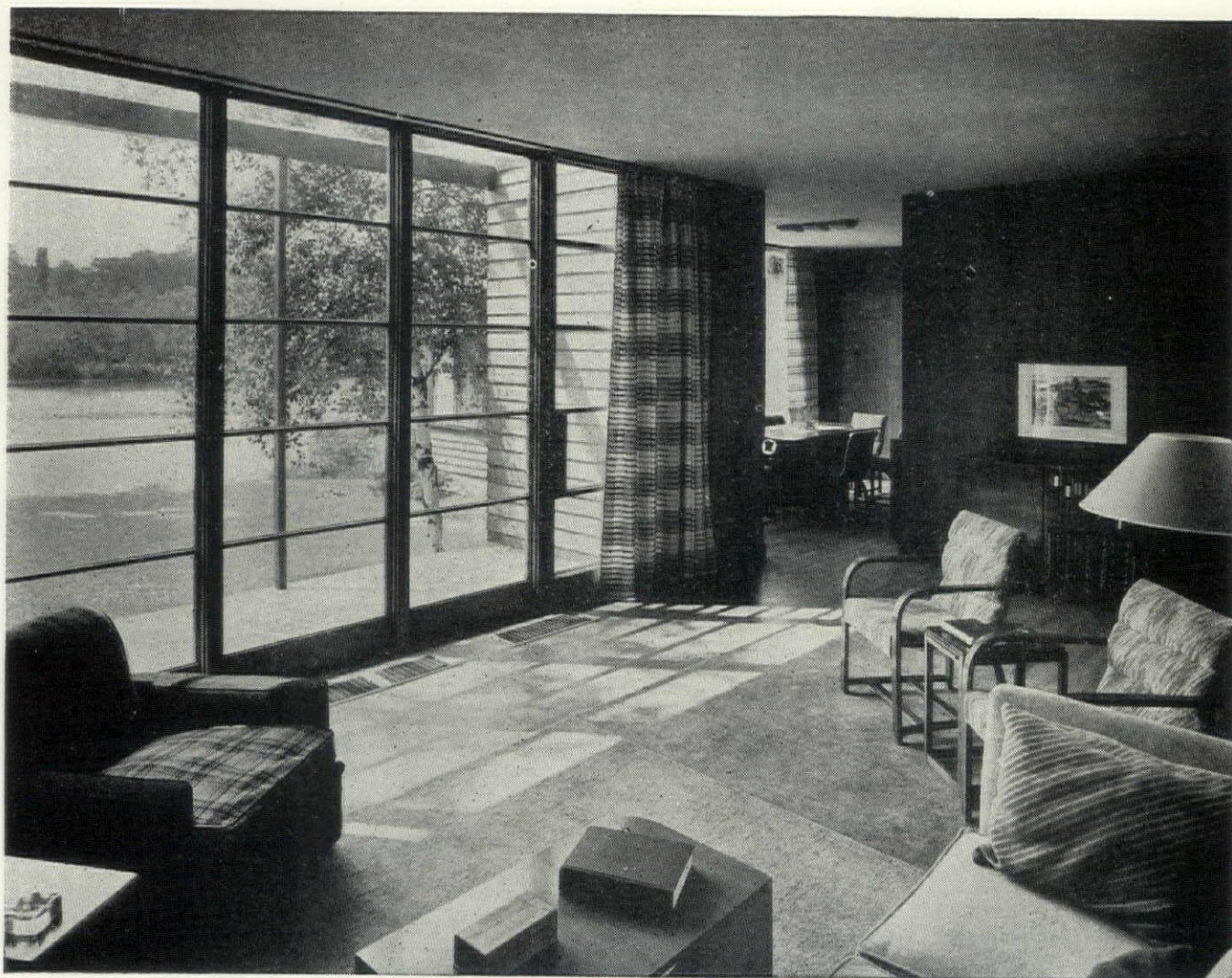
The cutting of accurately sized tile has always been a problem in manufacturing asphalt tile. Tile-TEX has long pioneered tile with smooth, square edges, with close "cutting tolerances." In 194X, improved sizing will mean even tighter joints and better looking floors for those who use Tile-TEX.



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on postwar projects*

The TILE-TEX Company

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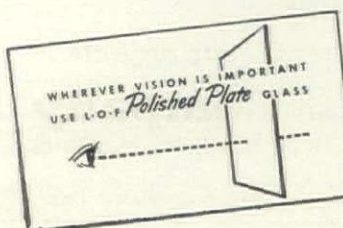


DAYLIGHT ENGINEERING makes a home so much more livable

In the New England home pictured here, architect Samuel Glaser of Boston has incorporated many *Daylight Engineering* principles. One complete wall of the living room has been designed as an attractive window so that the beauty of the out-of-doors becomes the dominating feature of the room. The appearance of the room is given added spaciousness, and its natural daylighting keeps it bright and cheery throughout the day.

These are features that add materially to the

livability of a home. And Libbey-Owens-Ford will make an announcement soon that will revolutionize window design... make it practical for even the most modest home to enjoy all of the advantages of *Daylight Engineering*. The use of this new Libbey-Owens-Ford product will become one of the distinguishing marks of tomorrow's modern homes. Look for the announcement. Libbey-Owens-Ford Glass Company, 934 Nicholas Building, Toledo 3, Ohio.



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• Mail from home—greatest morale-builder for our fighting men—now reaches them SOONER because of Douglas Fir Plywood. Developed by Seattle Port of Embarkation officers, a portable, sea-going mail-box cuts hours—sometimes days—from the delivery time of mail for our Aleutian outposts. Built of inch-thick Exterior grade Douglas Fir Plywood, this new locker carries the mail "top side" . . . is the last thing aboard and the first thing ashore. It's water-tight, resists the harshest weather, can't sink even when loaded with 135,000 letters. The mail gets through—quickly, safely—because it's Plywood-protected. Write for information to Douglas Fir Plywood Association, Tacoma 1, Washington.

• Douglas Fir Plywood is specified for many other containers used by our armed forces. When peace comes, this strong, rigid, durable "miracle wood" will be your most versatile construction material.

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MADE LARGER, LIGHTER
SPLIT-PROOF
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STRONGER
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TO HELP SPEED
VICTORY
the Douglas Fir
Plywood Industry
is devoting its
entire capacity to
war production.
We know this pro-
gram has your
approval.



"A better world to live in"

Here at Bilt-Well, we are improving present designs and developing new products so that comfortable homes and modern conveniences may be available to our service men and women when they are reunited with their families.

Within six months after the war ends 1,540,000 families intend to build or buy new homes, according to the U. S. Chamber of Commerce. This presents a challenge to America's architects and builders which we are confident they will accept.

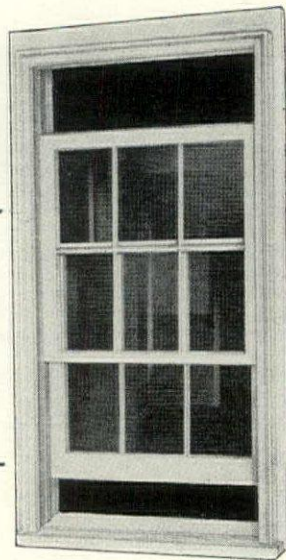
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VENTILATORS

In the Post War home, ventilators are a necessary appliance. The Victor Standard is designed to harmonize with the modern kitchen . . . dependable always . . . economical to operate . . . speedily removes cooking fumes, dirt and stale, grease laden air . . . makes other rooms more comfortable, more livable, too . . . saves on cleaning bills.

A single beaded chain controls the automatic operation . . . a pull on the chain simultaneously opens the outside louver and starts the fan . . . another pull closes the weather-tight shutter and stops the fan.

These and many other outstanding features have made Victor In-Bilt the most widely accepted ventilator in modern American homes . . . planned added improvements destine Victor to unchallenged leadership and acceptance among architects, contractors and home owners.

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Plan your post war home with a Victor In-Bilt Ventilator, because the Victor really moves air . . . in the average home it will change the air in several connecting rooms many times an hour.

THE BONDS YOU BUY TODAY WILL BUY BETTER LIVING TOMORROW

LETTERS

(Continued from page 36)

planned that way) in a light, pleasant spot where a woman could be part of the family group while she was performing that "big, important job."

While I do not claim that concrete is the ideal floor surface material, it has several points in its favor: it can be cleaned easily and it is remarkably quiet when four small feet go tearing around the house.

Nearly two years of convenient house-keeping and comfortable living are

after all the real test of whether or not a house is "sensible and workable."

MALCOLM GRAEME DUNCAN, *Architect*
New York City

"INCONSEQUENTIAL EXAMPLES"

Forum:

I have just read your article "Planning the Postwar House" in the January issue. I agree with the tone of the article which is a call to builders to awaken to the need for better homes. Beyond that, I am sorry to say, your arguments as to how to make postwar houses better are weak, and your

"selected examples of advanced pre-war designs" are a poor selection in that they are not advanced. The detail in which they differ is inconsequential in comparison to the vast opportunities for the improvement of house design which rest in the new conceptions for planning and the new techniques which recent progress has opened up. The public listening daily to radio programs about the "better life under the Four Freedoms" and the "advances of modern science" expects more. Builders could learn more about advanced pre-war designs from earlier issues of the FORUM. How can you reconcile your article with "Houses for Human Beings" in the April 1943 *Fortune*, another Time, Inc. publication?

WALTER FRANCIS BOGNER
Associate Professor of Architecture
Harvard University

FORUM editors, who participated in the preparation of both articles see no contradiction. They were addressed to different audiences, for different reasons. Reason for present series: to persuade builders to step up their house design to what they probably consider the limits of public acceptance.—Ed.

MORTGAG — — UH

Forum:

We are very much pleased to find Mr. Samuel Glaser's development of modern houses in Springfield in the January issue.

Your caption writer should be told, however, that the mortgagor is the fellow who owes and not the bank who loaned the money, who is the mortgagee. We hope that Mr. Glaser finds as much pleasure in being mortgagor as he had in being architect.

RICHARD A. BOOTH, *Treasurer*
Springfield Institution for Savings
Springfield, Mass.

Touché—Ed.

AMEN

Forum:

Please accept my hearty congratulations for your January 1944 issue and "Planning the Postwar House".

I, too, have been disgusted with the attempt by selfish interests to thwart the progress of a better postwar house. It seems to me that these attempts to ridicule the so-called "Buck Rogers house" are attempts to appropriate to themselves the right to decide what kind of housing the millions of people will have. The housing of the American people does not belong to any 23,000 dealers or 60,000 contractors, or, for that matter, 20,000 architects. If any one of these factors, or individuals within these factors, think they are going to be by-passed by better housing in the future, they had better make their plans now to avoid that situation or simply

(Continued on page 146)



SOMETIMES people talk so much about the post-war period that they seem to have forgotten the war.

Probably we have no vision. But we are ready to make the admission that the war is all we can see.

We are not making any bathroom cabinets of metal.

Our minds are not occupied with the bathroom cabinets we'll make tomorrow. (They are too full of the Something-Elses we're making today.)

Nor do we see how making Something-Elses now will be a bit of help in making bathroom cabinets by-and-by. (After all, that's not why we're making them.)

We don't like being even temporarily out of the bathroom cabinet and other household furnishings field. We hope that you miss us and will be glad to welcome us back.

But—we don't expect an armistice next Tuesday. And until one *does* come, our war job is full-time work.



THE F. H. LAWSON COMPANY
Cincinnati, Ohio



Heartbreak house or a real home?

YOU AND YOUR WIFE know just the house you want to build. She has good taste . . . and you're darned practical. Both of you envision your dream home . . . the most important investment of your life.



Yes, she has good taste and you're practical . . . yet you wind up with a white elephant, a heartbreak house. Drafty rooms . . . noisy plumbing . . . damp basement . . . dinky closets . . . inadequate hot water—irritating to live with—costly to correct.

Can all that be avoided?

Yes . . . with an architect. Not only does he prevent disappointments but his skillful planning gives full realization to your hopes . . . a real home!

The architect's ability to coordinate house and lot, his experience with materials and builders, his training and foresight—all assure lasting beauty of design, fair resale value, low maintenance cost.

Imagine building a school or a skyscraper without an Architect-Engineer! Make sure your house is attractive and livable—protect your investment with an architect.

Plan your home now!

**START RIGHT—
WITH AN
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Please send copy of book "How to Plan Your New Home."

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"SELLING" THE ARCHITECT TO THE PUBLIC

• At the left is the second of a series of advertisements now appearing in Time and American Home. This continuing national campaign brings the architect to the attention of the host of people who plan to build after the war, by explaining the architect's vital part in translating their ideas into livable realities.

• The coupon offers a free booklet which gives a practical method of crystallizing those ideas, and the reasons for employing an architect today to plan for building tomorrow. Limited quantities of this booklet are available to architects; imprinted, if desired, with the architect's name and address.

• Write for a sample copy today. You'll find it a valuable means of making contacts with clients—it helps them and it sells you.

LETTERS

(Continued from page 144)

admit that they are against progress.

GEORGE PAMPEL, *Adv. Mgr.*

I. F. Laucks, Inc.
Seattle, Washington

NO LOEBALONEY

Forum:

It is a pretty pass leading from Wall Street when investment bankers start tossing architects around.

I should love to throw some of Mr.

Loeb's (February, page 67) grenades right back at him, but unfortunately most of them were not duds and they exploded right in my professional puss.

For years architects have spent too much time condemning the defects in others—the unreasonable client, the avaricious banker, the two-timing contractor, etc., etc. Admitting that none of these gentry is without blemish, nevertheless it is time that we climb down from that ivory mooring mast and look life in the face.

The years following the war will bring to architects abundant opportunities to regain the prestige which once was theirs. But they will not do so

unless they adopt a contemporary approach to building, unless they broaden their interest beyond the "sticks and stone" attitude.

The scope of postwar building will call for team play and expert consideration of many new problems—design, technical, financial and social.

The indulgent patrons of the past are now remembered only by stained-glass windows. The new clientele will be more numerous, less rich and a lot tougher.

RANDOLPH SKIDMORE, *Architect*
New York, N. Y.

PREFAB PORTRAIT

Forum:

I have just finished reading the report on your survey among prefabricators. You have my congratulations on doing a very thorough job.

As you well know I am sort of fed up on the design and nuts and bolts phases of this problem. If the Industry is to play a part in winning the peace and providing employment it must begin quickly to solve the peace-time commercial problems of selling homes. I feel that there must always be a complete balance between effort expended on design and the commercial phases.

I am sure your survey will be of great help in awakening the Industry to the commercial problems involved.

FOSTER GUNNISON
Gunnison Housing Corporation
New Albany, Indiana

KIBITIZING?

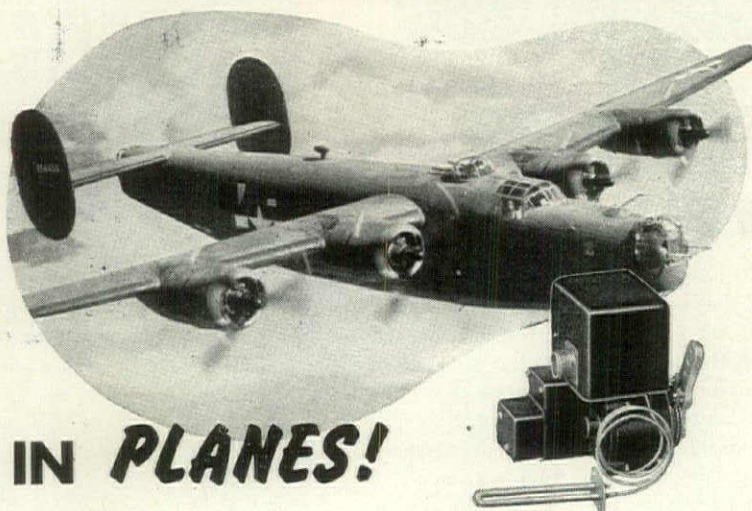
Forum:

Aside from a certain stoop shouldered dignity closely associated with pencil dust and eye strain, architects are generally conceded to be a bookish, serious lot. As a rule they don't particularly appreciate comic strips and seldom read Walter Winchell. They are known to shrink from publicity in its more gaudy forms such as columnists gags.

Why then your new innovation, *In The Forum*? It strikes an extremely discordant note on the opening pages of an established and respected professional publication. As one subscriber, I would have been perfectly happy to continue reading your magazine without this new attempt at humorous twitting. Unless there has been a darkly censored drop in the *FORUM*'s circulation, the excuse for this column has wholly escaped me. I am willing to bet that it causes a good bit of embarrassed squirming among the victims who are unfortunate enough to be mentioned. Not that architects are hyper-sensitive individuals—the building industry as a whole just hasn't much sympathy for the Hollywood kibitzing technique. It seems to me that such heavy handed camaraderie should be left to the Elks.

GRACE HAMMELL, *Designer*
New York, New York

TEMPERATURE CONTROL GOES INTO BATTLE



IN PLANES!

Planes have temperature control problems, too. This is but one of the ways our armed forces are using Hydraulic Action, the positive and effective principle of White-Rodgers Controls.

White-Rodgers temperature and pressure controls are available today on priorities of AA-5 or better. Maintenance of existing heating; refrigeration and air-conditioning equipment or installation of new equipment essential to the war effort now is possible with these accurate and trouble-free controls.



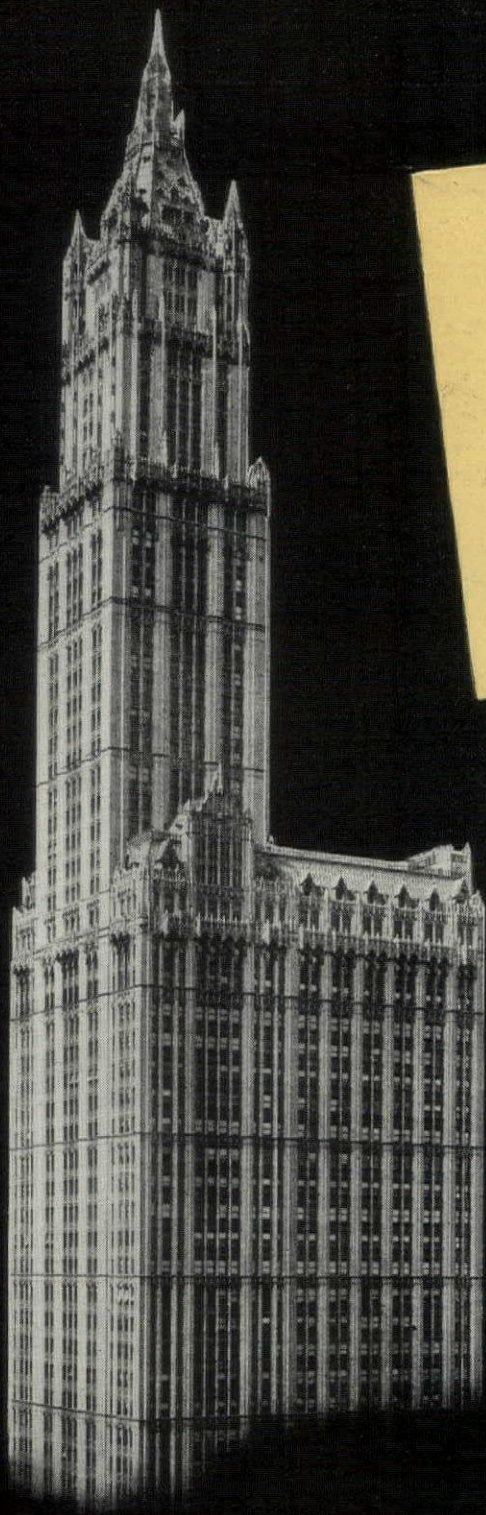
WHITE-RODGERS ELECTRIC CO.

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ST. LOUIS, MO.

Controls for Heating • Refrigeration • Air Conditioning

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BATTEN SEAM COPPER ROOF



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SERVICE...
NO REPLACEMENTS**

When the Woolworth Tower . . . for many years the world's tallest building . . . was constructed in 1911, it was roofed with copper, installed with batten seams.

According to Frank A. Grace of the contracting firm of Hermann & Grace which installed the roof over 30 years ago and has taken care of maintenance during recent years, not a single sheet of copper has ever been replaced.

Once again copper has proved its claim of unsurpassed durability . . . and once again copper has reflected credit on those who specified it and installed it.

4847A

KEEP ON BUYING MORE WAR BONDS



Anaconda Copper & Brass

THE AMERICAN BRASS COMPANY—General Offices: Waterbury 88, Connecticut

Subsidiary of Anaconda Copper Mining Company • In Canada: ANACONDA AMERICAN BRASS LTD., New Toronto, Ontario

ELJER PLUMBING FIXTURES

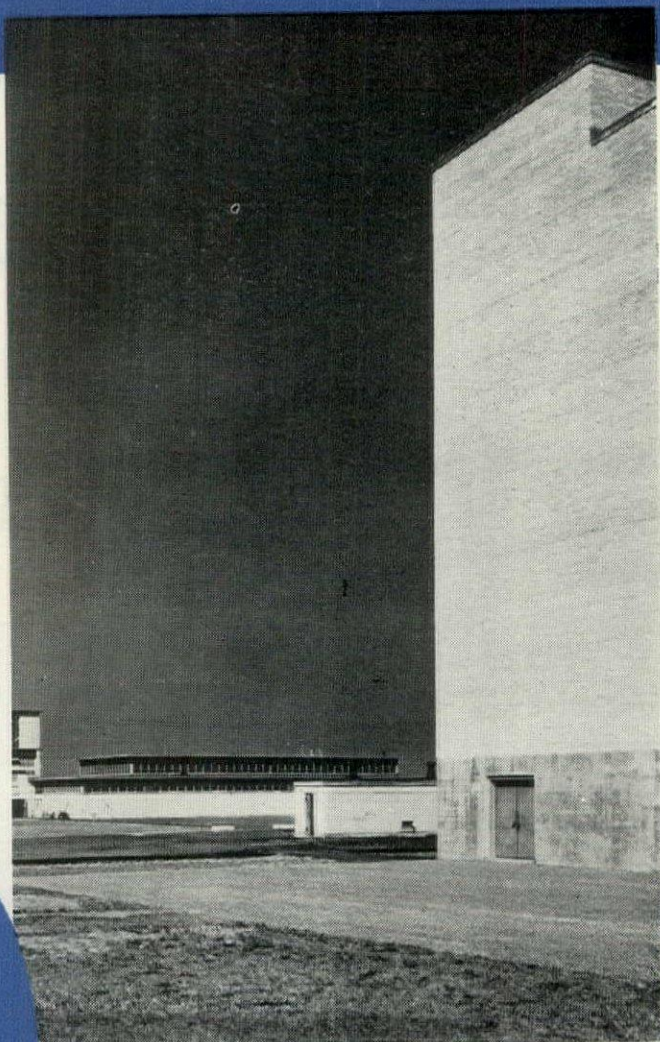
...in new Ordnance Plant

We can't tell you where it is, or what it makes. But we are pleased to say that Eljer plumbing fixtures were approved and installed there.

You, too, will find Eljer a wise choice. These carefully designed fixtures have proved their ability to stand up under long, hard use. The Eljer line offers the architect and builder a wide range of fixtures especially made for industrial plumbing jobs.

Write for our catalog and our free booklet on residential bathrooms, "Women Tell Us . . ." Also see our eight-page catalog in Sweet's.

ELJER CO. FORD CITY PA.



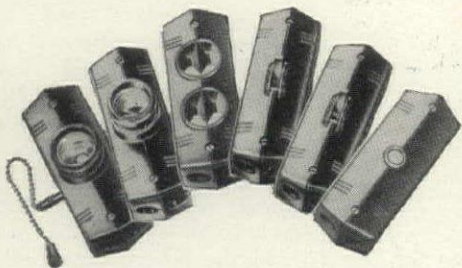
Architects and engineers for this job were Smith, Hinchman & Grylls, Inc., Detroit, Michigan.



G-E Wiring Material News

MATERIALS AVAILABLE FOR WARTIME WIRING

MONCOR Surface Wiring Devices



Specify these good looking surface devices for wiring in war housing, industrial buildings, cantonments, warehouses, etc. They can be installed quickly either with cables concealed or exposed. They are made of brown Textolite . . . keep their color . . . resist moisture and corrosion. Line includes single-pole switch, 3-way switch, convenience outlet, three different lampholders and a rosette.

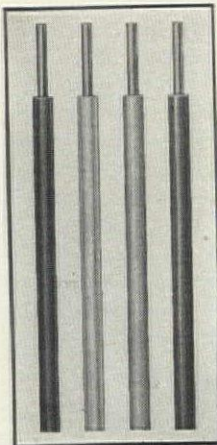
G-E BRAIDX

Non-Metallic Sheathed Cable

Specify this high quality cable for factory wiring or rewiring and for wiring in war housing. It can be used in place of rigid conduit, EMT or BX wiring except in hazardous or wet locations. Two- and three-conductor G-E BraidX cables are available in sizes 14 to 4. They are also available with an additional non-insulated grounding conductor. There is a complete line of G-E boxes and fittings to use with G-E BraidX.



SMALL DIAMETER FLAMENOL* BUILDING WIRE TYPE SN



Specify this dependable, thermo-plastic wire for war purpose jobs. It is available again. The supply of resins has improved which makes them available for electrical conductor insulation wherever copper is allocated. Flamenol Building Wire is available in sizes 14 to 1,000,000 CM. It is ideal for branch circuits, feeders or special wiring. Its insulation is superaging, flame retarding and resistant to oils, moisture, acids, etc.

*Reg. U.S. Pat. Off.

Clip This Coupon

Send the coupon for further information on G-E products described on this page:

GENERAL ELECTRIC CO.
Section CDW 47-28
Appliance and Merchandise Dept.
Bridgeport, Conn.

Sirs: Please send me information on the following materials for war-purpose wiring:

- ☐ Moncor Surface Wiring Devices
- ☐ Flamenol Building Wire
- ☐ BraidX Non-metallic Sheathed Cable

Name

Address

City State

GENERAL ELECTRIC



FORUM OF EVENTS

(Continued from page 6)

Thus, the first Geddes assignment to appear in *Life*, the battle of the Coral Sea, was made up after the event took place but quickly enough to retain news interest. Shortly before the U. S. entered the war Geddes had begun building our fleet in miniature. He now has a complete bank of all the fighting ships of all the navies in the world, including those which were blown up by the French at Toulon. His sets of airplanes, tanks, landing craft and armies

are equally complete. A staff of model makers working with jewelry and dental tools is constantly at work on new models or on altering old ones to keep pace with the latest newscasts. A miniature cruiser can be built in three days, a battleship or carrier in five. Even the tiny gun turrets turn and carriers have real little planes on their decks.

Photographic reproductions of these models are practically indistinguishable from the actual scenes. Much atmospheric value can be added by studio lighting. Three of the models have recently been donated to the University

of Michigan where they will remain on permanent exhibition. During the past month the Museum of Modern Art in New York staged a large exhibit of the war maneuver models which included numerous photographic enlargements and a large model under construction. The latter was built in four phases each of which took several days to complete thus allowing the public to witness every stage of the tedious and infinitesimal assembly.

POSTWAR PRODUCT PRESTIGE

Newest addition to the already formidable roster of talent earmarked for postwar industrial work, is Harvard's Walter Gropius. He will handle product designing for the New York advertising agency William H. Weintraub & Co., Inc. This happy union of a chair at Harvard and a desk in Radio City will probably be a nasty blow for the purists who look on industrial design with frigid contempt.

In the advertising world the Weintraub agency has a solid, conservative name. It is known as a modestly small firm that has no truck with the blatant and gaudy. Among its better known clients are Emerson Radio, Cresta Blanca Wines, Liberty Aircraft, Schenley Products and Revlon.

When the echos of this aesthetic earthquake have died down, it will be interesting to gauge the precise influence of the Bauhaus on the sale of nail enamel.

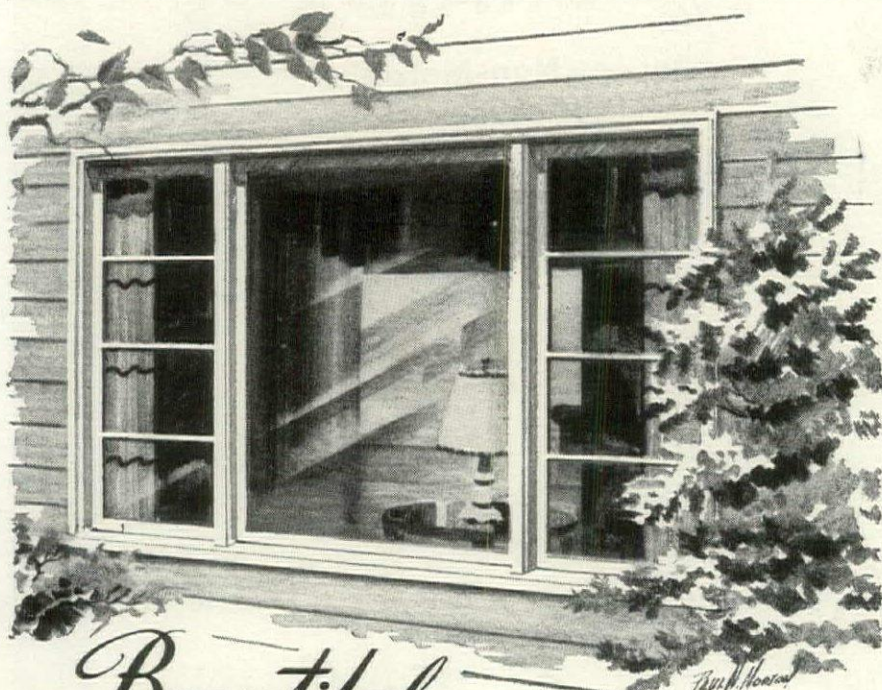
SCHOLARSHIP

The University of Michigan, College of Architecture and Design, announces the establishment of a scholarship fund of \$25,000 from the Arthur C. Tagge bequest. For the time being it is expected that two scholarships of \$325 each will be awarded annually. Candidates may be students of architecture, landscape architecture, painting or design and shall have been resident students at the college for at least one semester. Preference will ordinarily be given to advanced students. The first scholarships will be awarded for the fall term of 1944-45. Application should be made before June 1st to the Office of the Dean, 207 Architecture Building, Ann Arbor, Michigan.

FELLOWSHIP

The University of Illinois announces the thirteenth annual consideration of candidates for the Kate Neal Kinley Memorial Scholarship. The fellowship yields the sum of \$1,000 which is to be used by the recipient toward defraying the expenses of a year's advanced study of Fine Arts in America or abroad. Application must reach the committee not later than May 1st. Requests for application blanks and instructions should be

(Continued on page 154)



Beautiful...
yes, and efficient too!

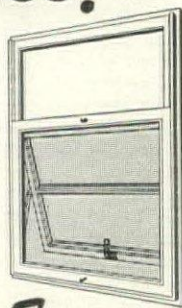
Post-War Window Areas will no doubt be larger, as current trends continue. While generous fenestration opens exciting design possibilities . . . WINDOW EFFICIENCY will have to be examined more critically than ever before.

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. 234.

Pella WINDOWS CASEMENT * "AWNING" PROJECTED WOOD SASH

Made by Makers of Famous Pella ROLSREENS and Pella VENETIAN BLINDS

New STUDLESS PARTITIONS



Plot plan and street scene of Parkfairfax Housing Project at Alexandria, Virginia, where new Studless Partitions are meeting present-day needs. Leonard Schultze and Associates, Architects.

2" SOLID ROCKLATH* AND PLASTER



Above: Typical installation of Rocklath plaster base being inserted between floor and ceiling runners and quickly flexed into place ready for temporary bracing and plaster.

● ● Proving their value in a big way—new Studless Partitions of 2" Solid Rocklath* and Plaster are doing a real job on some of the largest housing projects in the United States. For instance—the Parkfairfax Housing Project. On this job, which includes 1,684 housing units, 1,627,000 square feet of Studless Partitions were used.

Large projects multiply the many good qualities of these 2" Solid Rocklath and Red Top* Plaster Partitions. They fit into an emergency need by saving lumber, steel, space and time—make use of gypsum lath and plaster—non-critical materials to meet critical situations with fire protection and light weight—fulfill the demands for satisfactory standards of strength and endurance.

Therefore, this new development that was drafted into emergency service has proved worthy to continue in years to come. Send for latest literature.

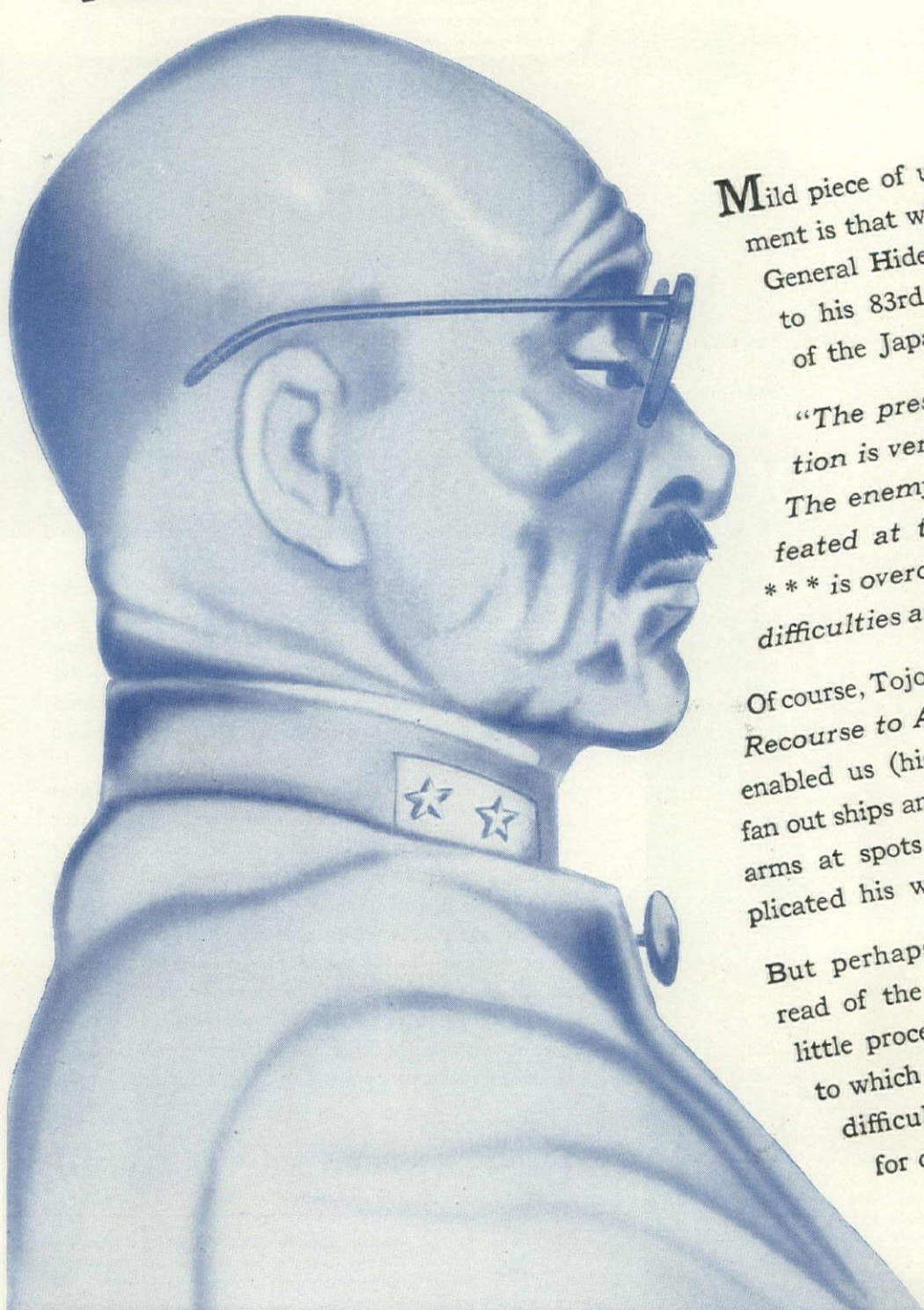
*Trademarks Reg. U. S. Pat. Off.

U.S. UNITED STATES GYPSUM
300 W. ADAMS ST., CHICAGO, ILL.

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

PLASTER • LIME • KEENE'S CEMENT • STUCCO • LATH

Then he said to himself
"VERY COMPLICATED, PLEASE"



Mild piece of understatement is that which Premier General Hideki Tojo made to his 83rd special session of the Japanese Diet:

*"The present war situation is very complicated. The enemy who was defeated at the beginning *** is overcoming many difficulties and dangers."*

Of course, Tojo has read how *Recourse to Arc Welding* enabled us (his enemy) to fan out ships and planes and arms at spots which complicated his war situation.

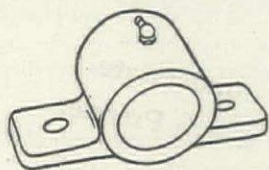
But perhaps he has not read of the mountains of little procedures, recourse to which overcame many difficulties and dangers for our production men.

"OVERCOMING DIFFICULTIES AND DANGERS"—he says

Look, Tojo: How having *Recourse to Arc Welding*, the production of war tools became *very simplified* for us . . . while their effect really made your position "VERY COMPLICATED."

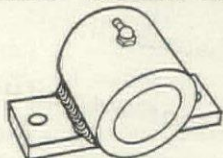
And think how in postwar they will make competition "Very Complicated" for a great many standpatters in production techniques.

VERY COMPLICATED, PLEASE



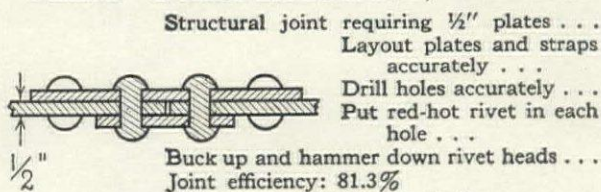
Drum shaft bearing . . .
Make pattern . . .
Mould . . .
Sand-blast . . .
(Cost in rough, \$1.05)
Bore . . . Machine . . .
Drill holes.

VERY SIMPLIFIED, THANKS



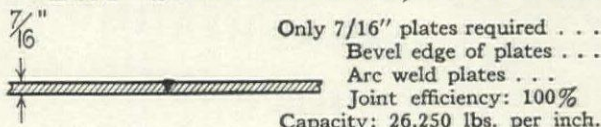
Cut strap and drill holes . .
Saw piece of tubing . . .
Arc weld into unit . . .
Total cost \$0.50.

VERY COMPLICATED, PLEASE



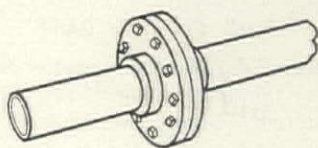
Structural joint requiring $\frac{1}{2}$ " plates . . .
Layout plates and straps accurately . . .
Drill holes accurately . . .
Put red-hot rivet in each hole . . .
Buck up and hammer down rivet heads . . .
Joint efficiency: 81.3%
Capacity: 24,390 lbs. per inch.

VERY SIMPLIFIED, THANKS



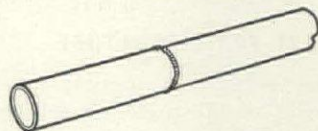
Only $\frac{7}{16}$ " plates required . . .
Bevel edge of plates . . .
Arc weld plates . . .
Joint efficiency: 100%
Capacity: 26,250 lbs. per inch.

VERY COMPLICATED, PLEASE



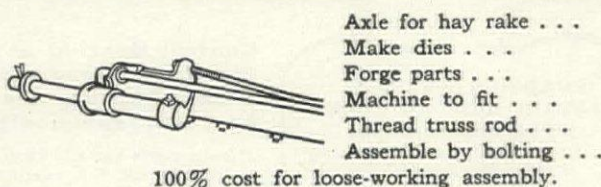
Connection in 10" steam pipe line . . .
Cut and thread ends of pipe . . .
Assemble with 2 flanges, gasket and set of bolts.
Joint requires maintenance.

VERY SIMPLIFIED, THANKS



Arc weld bevelled-end pipe . . .
A permanent, leak-proof joint.

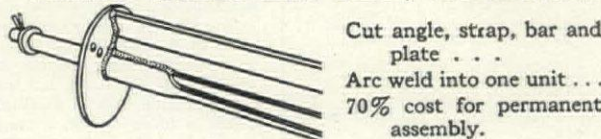
VERY COMPLICATED, PLEASE



Axle for hay rake . . .
Make dies . . .
Forge parts . . .
Machine to fit . . .
Thread truss rod . . .
Assemble by bolting . . .

100% cost for loose-working assembly.

VERY SIMPLIFIED, THANKS



Cut angle, strap, bar and plate . . .
Arc weld into one unit . . .
70% cost for permanent assembly.

THE LINCOLN ELECTRIC COMPANY • CLEVELAND 1, OHIO

America's greatest natural recourse
ARC WELDING

FORUM OF EVENTS

(Continued from page 150)

addressed to Dean Rexford Newcomb, College of Fine and Applied Arts, Room 110, Architecture Building, University of Illinois, Urbana, Illinois. Generally speaking candidates should not be over 24 years of age and must be graduate students of music, art or architecture.

POSTWAR COMMITTEE

The New Jersey Society and Chapter AIA have appointed a committee of Draftsman's Employment to list all

draftsmen who will be available to architects now engaged or to be engaged in postwar work in the State of New Jersey. Some men will also be needed in newly established City and Town Planning Commissions. Many may be needed in the next two to six months after municipalities have set up funds in their budgets for 1944. The list will be made available to all architects, whether members or not, upon request made to C. F. Ackerman, Chairman, Draftsman's Employment Committee, 105 Halsey Street, Newark, New Jersey. This workmanlike method might well recommend itself for wide use.

ANNOUNCEMENTS

MORRIS KETCHUM, JR., and Francis X. Gina of New York announce that J. Stanley Sharp is now a partner in the firm which will be known as Ketchum, Gina & Sharp.

BARTOLUCCI & WALDHEIM, Chicago, announce that their office for the practice of industrial design has been moved to 619 North Michigan Avenue. This address will also be known as the New Design Center.

WILLIAM E. HAUGAARD, former Commissioner of Architecture for the State of New York, announces his resumption of private practice as an architect and a consultant. His office will be located at 350 Fifth Avenue, New York City.

L. DOUGLAS MEREDITH has been reappointed vice president and chairman of the finance committee of the National Life Insurance Co., Montpelier, Vermont.

HENRY M. RICHARDSON of Pittsfield, Mass., announces his availability as a consulting engineer on plastics products, their design, development and manufacture. He anticipates rendering the following services in this connection; recommendation for the selection and use of materials and processes, planning and supervision of developmental programs, market analysis, appraisal of existing plastics, establishment of quality control systems.

COMPETITION CLOSING DATE

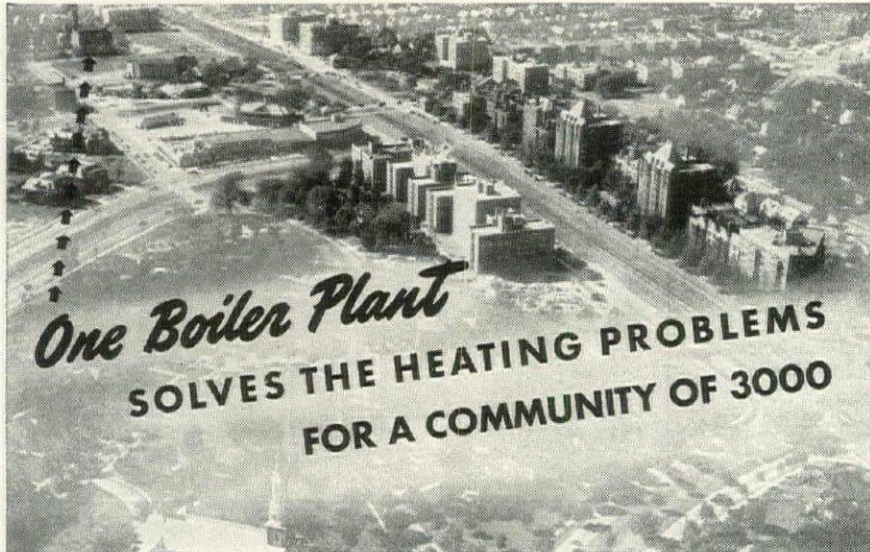
The closing date for the receipt of drawings for the competition of the Dublin Corporation (See ARCH. FORUM Jan. '44), has been extended to June 30, 1945. Applications for conditions governing the competition will be accepted until May 31, 1944.

REQUEST FOR LITERATURE

Pamphlets and books dealing with the principles of the prefabricated house, its construction, materials, cost, durability and other important data are requested by Mrs. Hilda Nixon, Architect, Box 3325, Cape Town, South Africa.

ERRATUM

Credit should have been given to the Museum of Modern Art for the material which it provided for the article on the Primary School in Basel, Switzerland, published in the January issue. Plans, perspectives and photographs were obtained by the Museum and made available to THE ARCHITECTURAL FORUM through the courtesy of its Department of Architecture, which has an outstanding collection of architectural photographs.



BUILDINGS SERVED BY CENTRAL HEATING PLANT AT SHAKER SQUARE

- Apartments and multiple dwellings—housing approximately 700 families.
- Branch bank.
- Theatre seating 1,500.
- Tavern, Restaurant and Inn.
- Buildings containing 45 stores and 30 office suites.
- Large restaurant.
- Automobile Service Stations.

The Heating Plant is modern and fully automatic—requiring a crew of only 5 men. During the last complete heating season it consumed 8,000 tons of coal and produced approximately 140,000,000 lbs. of steam.



Section of Ric-wil prefabricated insulated steam conduit being lowered into shallow trench for steam connection to a new apartment at Shaker Square.

Central Heating at Shaker Square, Cleveland, owned and operated by the Shaker Co. suggests an ideal plan for post-war community development.

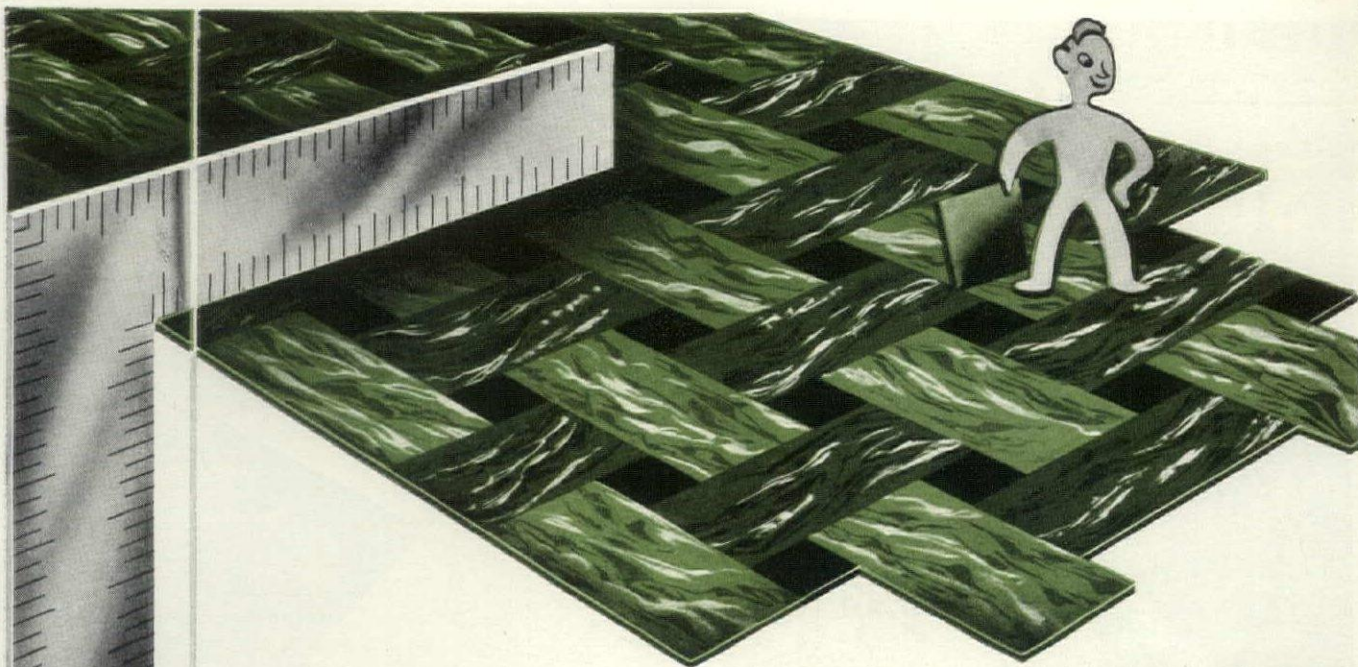
Fifteen years ago the Shaker Square district was planned by the Van Sweringen interests along lines now being considered by many communities for post-war development. A heating plant large enough to serve the entire district was erected and Ric-wil underground steam conduit was installed for future connections. . . . Time has proved the wisdom and foresight of the original planners. Today, this one boiler plant supplies heat and hot water through more than 10,000 feet of Ric-wil Conduit to 700 apartment and multiple family dwellings, 45 stores, 30 office suites, a large tavern, a restaurant, a bank, a large theatre and 2 service stations.

Any Community Can Enjoy These Advantages:

- Saves 15% or better in total fuel consumption.
- Eliminates all furnace or boiler tending by individual consumer.
- Promotes cleanliness in buildings heated.
- Provides extra room in building basements.
- Decreases fire and explosion hazard.
- Reduces smoke and soot, provides cleaner, healthier, community.
- Eliminates private coal delivery and ash removal.
- Gives uniform, clean heat quickly, whenever needed.

For information about Ric-wil Conduit for central heat distribution get in touch with your nearest Ric-wil agent or write to us direct.

RIC-WIL INSULATED PIPE CONDUIT SYSTEMS
THE RIC-WIL COMPANY • CLEVELAND, OHIO
AGENTS IN PRINCIPAL CITIES



DO YOU LINE UP FACTS WHEN YOU BUY FLOORS?

- ♦ Kentile is one of the *lowest cost* floorings made in America.
- ♦ Kentile is available now, without priorities—speedily. Authorized installers are established everywhere. No other material can be laid faster or with less fuss and dust.
- ♦ Kentile floors, laid tile by tile, can always be inexpensively altered in separate areas.
- ♦ Kentile, because of its composition, never “holds” dirt and is hardly ever stained. Plain soap-water mopping cleans it—fast and easy. Occasional waxing improves its appearance but is not necessary. Not even greases, of *any* kind, will affect the special Grease-proof Kentile.
- ♦ Kentile—smooth and slick to the eye—really affords a safe, sure-tread, non-slipping surface.
- ♦ Kentile is unusually comfortable and quiet underfoot (being resilient) and remains that way because it never becomes uneven or hard.
- ♦ Kentile offers an *unlimited* number of beautiful patterns and color combines. Set tile by tile (not in sheets), Kentile’s 15 tile sizes and 44 plain or richly marbelized colors make possible designs to enhance *every* interior. The colors go through to the back—cannot rub off.
- ♦ Kentile is virtually wear-proof. For instance, Kentile laid in Rockefeller Center corridors ten years ago is still excellent. Kentile bears 1,000 pound rolling loads without denting or marking. Its resistance to moisture and alkali makes Kentile just as long lasting on concrete in contact with earth.

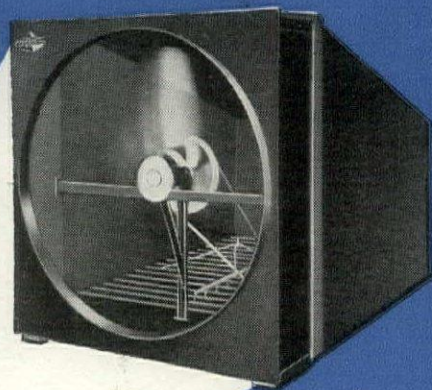
PROOF! These ads are about “Facts” that can be proved! Here, for instance, is one proof of Kentile’s excellence. You no doubt have been told that asphalt tile is too brittle for use over wood floors. Well, Kentile is so improved that we now *recommend* its use *directly* on reasonably firm wood floors with boards up to 3” wide and on most any floor when our asphalt underlayment or Plywood is used. And we can do this because hundreds of installations have **PROVED** that Kentile wears perfectly over wood.

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

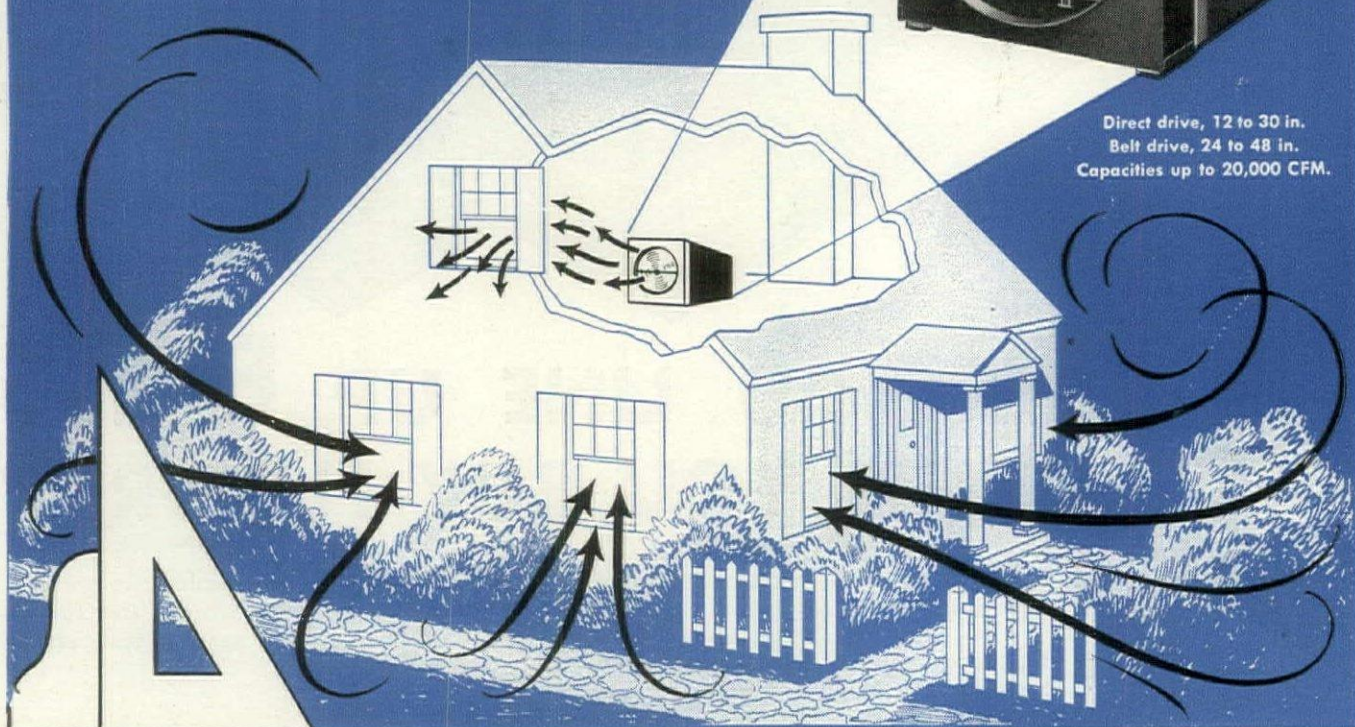
KENTILE
Asphalt Tile
Trade Mark Reg.



Include Summer Comfort in Your Plans



Direct drive, 12 to 30 in.
Belt drive, 24 to 48 in.
Capacities up to 20,000 CFM.



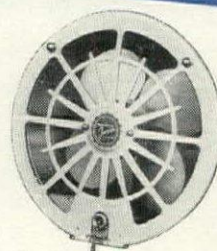
EMERSON-ELECTRIC HOME COOLER FANS Will Make the Houses You Plan Cool and Comfortable in Hottest Weather

In drawing "After Victory" plans, specify Emerson-Electric Home Cooler Fans... Turned on after sundown, these powerful, quiet coolers expel excessively hot air trapped in living quarters and attic, drawing cooler outside air into and *through* the house from open windows and doors. This vital circulation assures comfortable evenings and nights of sleep.

Write for full information concerning the complete line of Emerson-Electric Home Cooler Fans and Kitchen Ventilators, available again "After Victory" in the same dependable quality characterizing all Emerson-Electric products for over 53 years.

THE EMERSON ELECTRIC MFG. CO., ST. LOUIS, MO.
Branches: New York • Chicago • Detroit • Los Angeles • Davenport

Now 100% War Production



KITCHEN VENTILATOR FANS

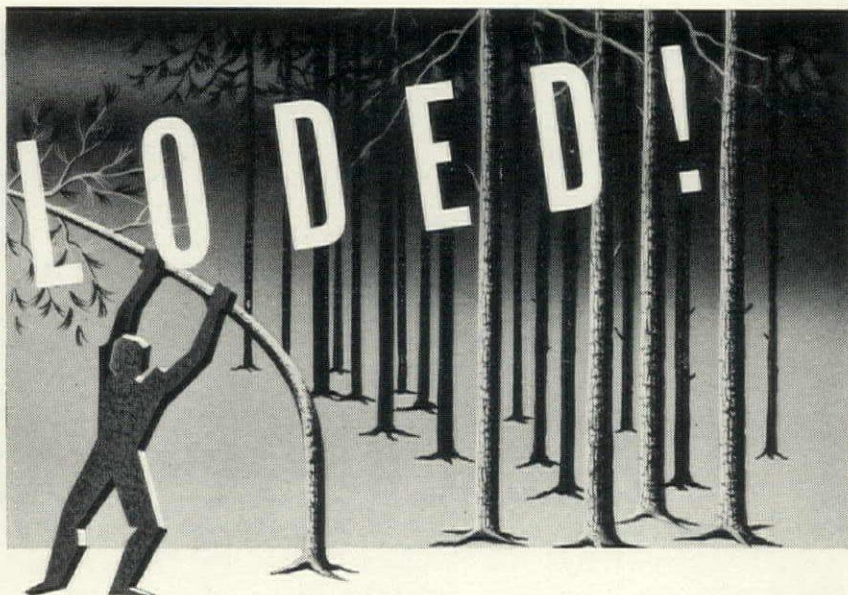
A "must" in all postwar homes! The ruggedness, long life and operating efficiency of Emerson-Electric Kitchen Ventilators have been proved in thousands of homes across the country... 9-inch, 10-inch and 12-inch sizes.

EMERSON ELECTRIC

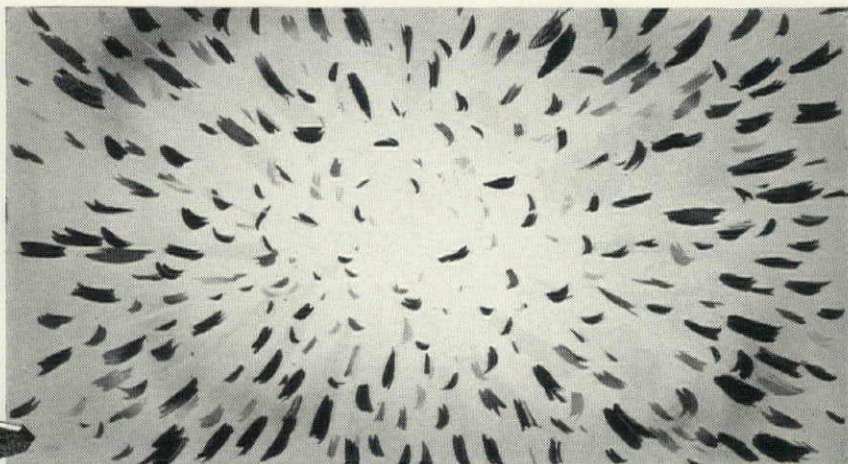
HOME COOLER FANS • • KITCHEN VENTILATORS

360

A TREE IS STRONGER EXPLODED!

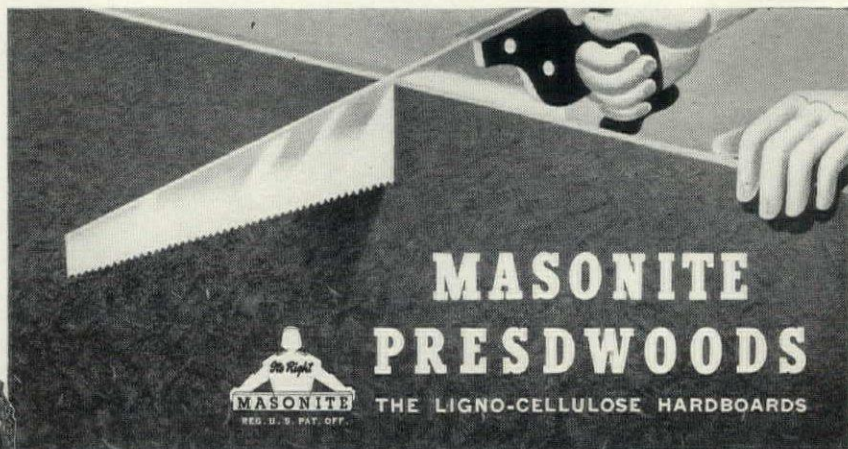


A tree's strength is limited by its grain and rate of growth and porous structure . . . yet hardboards many times stronger, and easily workable, are made from its basic materials alone! The extraordinary Masonite* hard-board process "remakes" wood by first reducing it to its *cellulose* fiber and cement-like *lignin*.



The ingenious Masonite "gun" produces these basic materials by literally *exploding* wood. Then, under different heats and pressures, fibers of varying degrees of plasticity are recombined and bonded with the lignin to form Masonite Presdwoods.* Grainless and smooth-surfaced, Presdwoods will not split, chip, crack or warp when properly used.

● You can secure Masonite Presdwoods for war-essential construction today. Government Departments and Services are familiar with their possibilities.

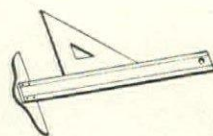


Masonite Presdwoods resist fire, take many finishes, do not conduct electricity. They are doing the work of metals, rubber and other materials in more than 500 war jobs. After Victory, you will use them for interior and exterior wall surfaces, ceilings, panels, cabinets, counters, furniture and other work. Masonite Corporation, 111 W. Washington St., Chicago 2, Ill.

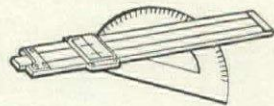
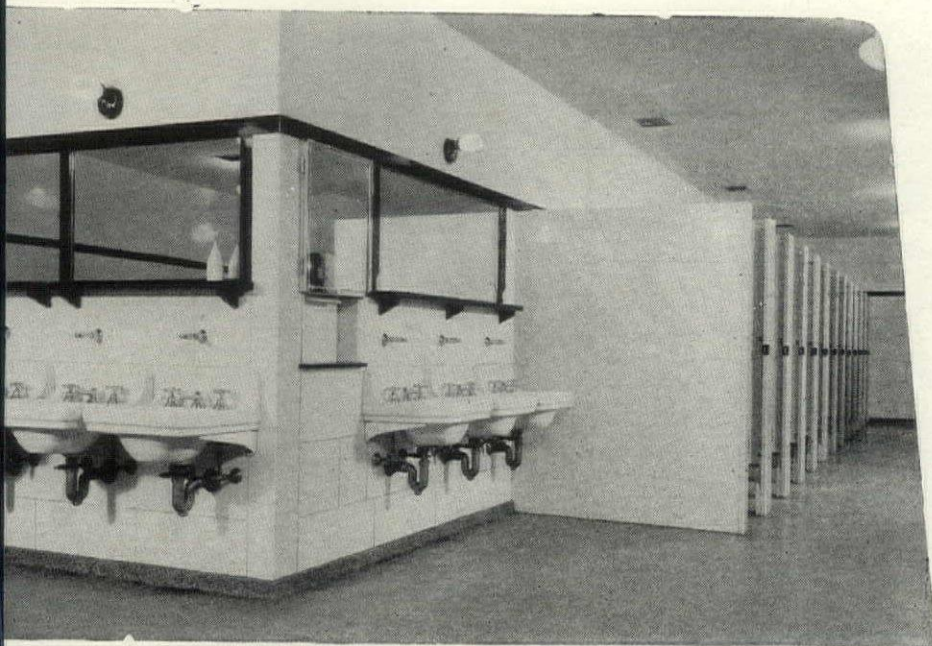
*TRADE-MARK REG. U. S. PAT. OFF.
COPYRIGHT 1944, MASONITE CORP.



How Pittsburgh Glass can help you design better public buildings



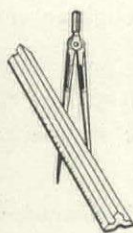
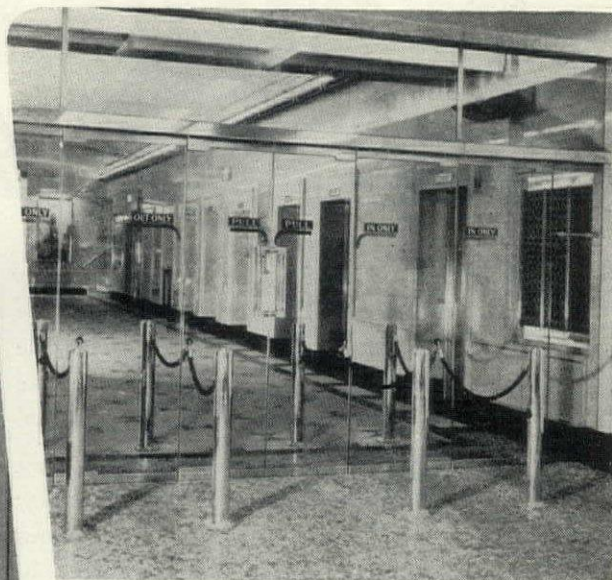
Fenestration has deservedly been accorded more and more consideration by architects as window areas increased. In the glazing of such modern buildings as this Cardinal Hayes High School, Pittsburgh Polished Plate Glass assures quality windows — windows which provide clear, undistorted vision, and a high degree of reflective beauty. Architects: Eggers and Higgins.



Washrooms in public buildings are almost inevitably subjected to constant and hard usage. Carrara Structural Glass has demonstrated its permanence and practical qualities as well as its beauty when used for walls, stiles and partitions of such rooms. The glass does not check, craze, stain or fade. It is easily cleaned. It is impervious to moisture, acids, pencil marks. Architect: Charles Z. Klauder.



Office partitions of Heavy Pittsburgh Polished Plate Glass or Herculite Plate Glass are extremely effective in appearance, as well as practical in use. They permit vision, for a sense of spaciousness, and are invaluable in solving many lighting problems. This attractive application was designed by Darveed, Inc.



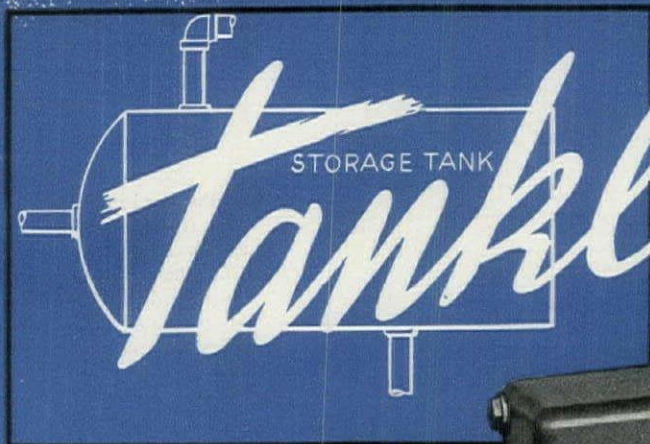
New possibilities in building-entrance design came into existence with the development of Herculite Tempered Plate Glass ... a plate glass 4 times as strong, 6 times as resistant to impact, as normal plate glass of equal thickness. The noticeable trend toward "opening up" a building front has gained added impetus from the availability of Herculite Doors.

PITTSBURGH PLATE GLASS COMPANY, GRANT BUILDING, PITTSBURGH 19, PA.

★ Design it better with **PITTSBURGH GLASS**

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EVERY ARCHITECTURAL USE

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TACO HEATERS



for today's special needs

Tankless Taco, opened up, shows large area of heating surfaces

Tankless Taco Heaters are particularly adapted to present conditions when tanks are difficult to get. In addition, these heaters save space, reduce radiation losses and eliminate the maintenance expense of hot water tanks.

They do away with the nuisance of rusty hot water. There is no place where sediment may collect and periodically be stirred up. Water is heated in non-corroding copper coils, submerged in hot water direct from the heating system boiler, circulating through an enduring cast iron body.

Tankless Tacos are made in a complete range of sizes and thousands are in successful service today.

Government restrictions on the manufacture of copper-tubed heaters for essential civilian

use have been liberalized. Taco Tankless Heaters are now available to holders of necessary priorities. Ask your jobber, or us, for procedures complying with latest WPB rulings.

TACO TEMPERING VALVES

Automatically regulate and limit the temperature of hot water delivered to fixtures. Prevent excessive hot water after no-draw periods. A valuable adjunct in tankless installations. Two types—adjustable and non-adjustable. Described in Taco Catalog D-99.

NEW TACO CATALOG FREE

Shows all types of Taco Tankless Heaters, with a new Quick Selection Table that facilitates correct choice for any given requirements. Write today for Taco Catalog D-99.



PEACETIME HERITAGE

Taco's contribution to Victory is Naval-aircraft machine-gun mounts. As a result, we now have more precision equipment and more skilled workers—available for post-war production of Taco products, made to their former standards of excellence.



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TACO HEATERS OF CANADA, LTD., 24 ADELAIDE ST. W., TORONTO

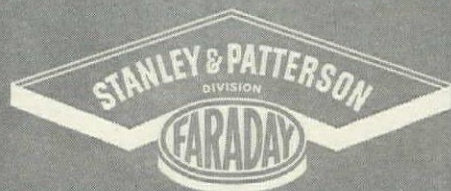
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ST. LOUIS, MO. • SAN FRANCISCO, CAL. • SALT LAKE CITY, UTAH • SEATTLE, WASH. • WASHINGTON, D. C.

BOOKS

(Continued from page 28)

is the spot where McKim, Mead and White really went to town. The enormous room is festooned with luscious French furnishings, as though one had bought Versailles from a dry goods store by the bolt, and just draped it from floor to ceiling. It was unique until the entrance hall of the Hollywood theatre outshone it and dazzled Broadway a few years later."

As the author says, Stanford White may have gotten tangled up in a good

deal of Italian macaroni but at least he wore it with some dignity. Elsie de Wolf and Diana Vreeland, on the other hand, are typical of the jaded, chichi group that hides its clients under bales of mousseline and taffeta. Here is Gibbings interpretation of la Vreeland's purest prose:

"Reluctantly she throws back the 'white monkey fur bedcover mounted on yellow velvet' and reaches for a cigarette in 'an English ram's head mounted with silver.' This isn't as simple as it sounds because the ram's head is in a 'plain pine knife-basket with two compartments and a handle' used as a bedside table.

"Brushing back the branches of the trees growing around the bed, she puffs away moodily and peers through the underbrush. . . ."

Gibbings or no Gibbings, these boys and girls had color even if they did get it by standing on their heads, but why the shocking facts about collectomania have not been brought to light before remains somewhat obscure. The author claims that strict censorship has been imposed from the beginning by antique dealers, decorators and hearthside magazines for reasons of survival. If this is true, Gibbings is certainly the snake in the bosom of his profession.

About two thirds of the book is given over to the caprice of the decorating cream which Gibbings attacks with the sarcasm and abandon typical of a self assured young modernist. As a satire it is a complete success. But, while the amusement is limitless, the author's judgement is not. Poking fun at a boor in ermine is fine sport but Gibbings might have swallowed his pride long enough to confess that the world has seen a good many worthy designers since 1750. Even old Hepplewhite could turn a pretty decent looking leg when he had to and his mercenary streak didn't necessarily label him a charlatan. (By the way, Mr. G., who was it who put solid gold candelabra etc., etc., into that little million dollar number out in California just a few short years ago?)

The last part of the book is largely a sentimental and worshipful account of Louis Sullivan, Frank Lloyd Wright and the TVA. Somewhat belatedly Gibbings has seen the light and offers it to his readers (who are by now, presumably, Dorothy Draper's ex-clients). He undertakes this radical step calmly and sensibly, as though he were teaching a class of very small children or very small intellects. Despite the tardiness of the message, the chances are that the book will reach a great number of people and it can only be hoped that the following warning of Gibbings' will take root in the minds of America's housewives:

"The way the decorators, the magazines and the furniture manufacturers feel about it right now, if you let them loose with prefabricated houses and plastics, the results will be magnesium Cape Cod cottages, Georgian villas and French provincial farmhouses rolling off the prefabricated assembly lines; while out of the plastic molds will come a stream of plastic cobbler's benches. Chippendale piecrust tables and corner cupboards in all the colors of the rainbow. And the way the public is being brought up right now, this chemical chow mein would be just their dish."

(Continued on page 164)

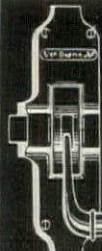


WATCH IT, MR. TOJO!

One of these days, Tojo, this tough old bird will be free to turn his brood your way, and you're not going to like it.

For the eagle's sons are big, strong, husky . . . and they're armed to the teeth, Tojo, because American manufacturers . . . thousands of them . . . have willingly released metals and manpower, and are doing without . . . until you're through!

We of Von Duprin, just a tiny part of that big industrial army which does without, are getting along very well, thank you. Von Duprin's of husky malleable iron are doing their job surpassingly well! Day and night they are delivering sure, safe, instantaneous exit.



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We shall be glad to send your free copy of this book when you fill in and return the convenient coupon.

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United States Steel Supply Company, Chicago, Warehouse Distributors
United States Steel Export Company, New York



UNITED STATES STEEL

BOOKS

(Continued from page 162)

ARCHITECTURE. Published by the Boy Scouts of America, New York. 39pp. Illustrated. 5/4 x 8. \$25.

Few modern architects would suspect that they have a staunch ally in the Boy Scouts of America. The new pamphlet, *Architecture*, in the merit badge series promises to recruit a fresh young army to carry on long after the present day exponent of light, air and space has died a functional death.

This book will undoubtedly leave a deep impression on the mind of many a khaki clad youngster. Right now it is impressing some oldsters too, mostly by its thoroughly contemporary approach to architecture. Emphasis is placed on planning and meeting the requirements of modern life rather than on the accomplishments of our illustrious forebears. Frank Lloyd Wright alone is singled out and nominated as the hero of budding architects.

Contrary to the belief of the average adult, scouting is not limited to sleeping in the woods, tying knots and building

fires. The organization also undertakes some serious prevocational training of which *Architecture* is but one example. There are 107 pamphlets on various subjects which are being perpetually revised and modernized. In this case, photographs of outstanding modern buildings were furnished by the Museum of Modern Art. *Life* made available the houses designed for them in 1938.

Logically enough, the text is suited to readers under fourteen. There is no attempt to camouflage the drudgery of the training which lies ahead. Stress is laid on what can be done, not what has been done. For this, the brave new world promises to be all the braver.

THE GREAT AMERICAN CUSTOMER. By Carl Crow. Harper & Brothers, New York. 226 pp. 5/2 x 8/2. Illustrated \$3.

It seems incredible that an author can review the century and a half of progress which transformed the American pioneer into the jittery, pampered consumer of today and at the same time ignore the romantic piracy that was so much a part of the period. Carl Crow

WILEY BOOKS IN ARCHITECTURE



Post-war plans in many fields are "on the boards" now. This, then, is the time, to acquire the newest, most authoritative books on important subjects such as those listed below. Be ready for new demands. Make your selection and order today from the coupon below.

Architectural Graphic Standards—Third Edition

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344 Pages

\$6.00

A real time-saver for draftsmen, architects and engineers. Data, standards and information needed daily at work are found quickly and easily. Information is shown graphically so that pictures tell the story, without excess detail and ornamentation. Every architectural office should have this best-seller book for constant reference. Those who own it say that it is "indispensable."

SIMPLIFIED DESIGN OF REINFORCED CONCRETE

By Harry Parker

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Contains simple, succinct explanations of all the usual reinforced concrete members in buildings.

SIMPLIFIED DESIGN OF ROOF TRUSSES FOR ARCHITECTS AND BUILDERS

By Harry Parker

195 Pages

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A compact, thorough treatment of the essential principles and methods behind the design of the most common types of roof trusses.

SIMPLIFIED ENGINEERING FOR ARCHITECTS AND BUILDERS

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A practical book containing the important basic principles employed in the design of structural members in buildings.

MATERIALS AND METHODS OF ARCHITECTURAL CONSTRUCTION— Second Edition

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For everyday use—a book describing the most recent and approved methods of construction followed by leading engineers.

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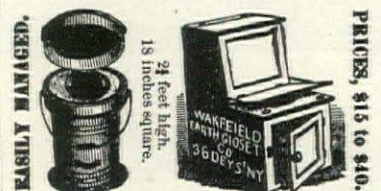
AF 3-44

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managed it neatly and turned out the most unseasoned hash of the year. His *Great American Customer* is a doleful chronology of Eli Whitney, Seth Thomas, George Eastman, etc. In spite of some quaint and appropriate illustrations (see cut), the result is a colorless narrative that proves nothing—not even a scholarly approach. This anemic picture of the American pageant is as much an insult to the swashbuckling magnets of the last century as it is to the discernment of the reader.

(Continued on page 168)

The evolution of our language is an interesting and provocative study. Words take on new meaning as they are influenced by common use—and dictionary definitions become obsolete.

So it is with the word “plastic”. The ancient Egyptian potter, fashioning a clay urn, worked with a “plastic” material. The same was true of medieval Venetian glass-blowers—for glass is a plastic.

But today, through the impact of scientific and industrial development, the word “plastic” is no longer only a *descriptive* term. Rather, “plastic” is also the *name* for a family of materials—products of chemistry. They are new tools of industry, supplementing, and in many instances replacing, older, more familiar materials.

But more significant than the definition of “plastics”, to manufacturer and ultimate user, is the knowledge

that all plastics are not alike. Each type possesses individual properties. Some are especially formulated to take abuse and rough handling—others are noted for their electrical insulating characteristics—there are those designed to withstand reasonably high temperatures while others resist below-zero cold—some are flexible—others rigid—some transparent—others opaque.

Thus, plastics are serving in numerous products—from airplanes to footwear. They are providing specific properties which, in many instances, are better than found in any material previously available.

Dow, for example, produces Saran—used for pipe, tubing, woven fabrics, cordage, and many other

IS “PLASTICS” THE WORD?

products; Ethocel, for molded products and rigid packaging; Styron, for high frequency insulation, chemically-resistant closures and molded products of lightness and beauty; Saran Film, for moisture-vapor-proof packages.

Currently, all Dow plastics are serving the war effort, but their value and usefulness will definitely influence a great many products in due time.

Dow Plastics include
Styron, Saran, Saran Film, Ethocel
and Ethocel Sheeting

THE DOW CHEMICAL COMPANY, MIDLAND, MICHIGAN
New York Boston Philadelphia Washington Cleveland Detroit Chicago St. Louis
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SHIPMENTS OF HEATING EQUIPMENT IMPROVING

The above chart shows at a glance the improvement in the shipments of boilers and radiators from U. S. Radiator manufacturing plants in January over previous months. This is a hopeful sign. If the condition continues to improve, we will be in a better position to render quicker service. In the meantime, we will continue to produce and ship heating equipment to the best of our ability.

The above chart shows at a glance the improvement in the shipments of boilers and radiators from U. S. Radiator manufacturing plants in January over previous months. This is a hopeful sign. If the condition continues to improve, we will be in a better position to render quicker service. In the meantime, we will continue to produce and ship heating equipment to the best of our ability.

UNITED STATES RADIATOR CORPORATION

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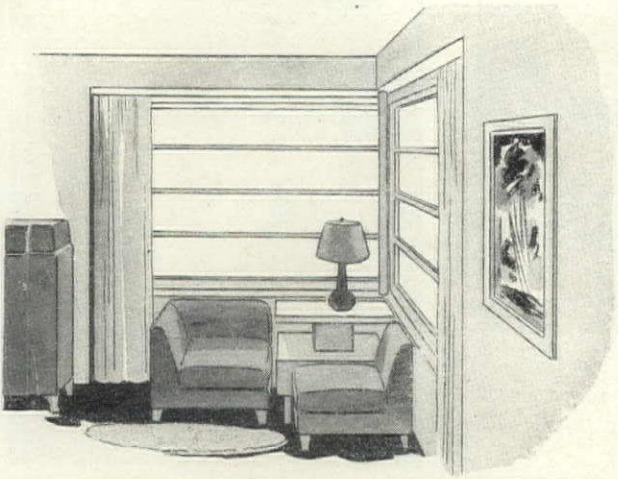
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Solving Problems of WALL CONSTRUCTION in TOMORROW'S HOMES

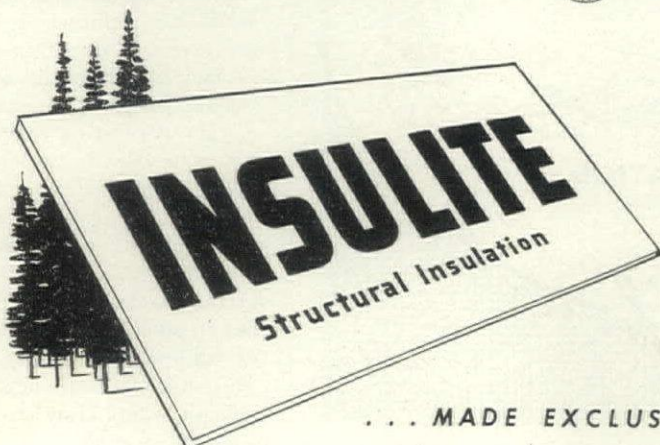
TODAY'S world is rapidly changing. New discoveries, new improvements, come to us almost every day. In building this is particularly true.

Many of these improvements make new demands upon construction, and call for a *revision* of accepted building methods. Air-conditioning, for instance, makes it imperative that walls be so constructed as to reduce *moisture condensation* within the walls to a minimum. If this is ignored—trouble from condensation is likely to result.

If you specify the Approved Insulite Wall of Protection, you guard against this danger practically, scientifically. The pictures to the right showing the construction of the wall, give you the reasons for always specifying this wall.

For specifications refer to Sweets Architectural file, Section 10, or write for technical information. Address: INSULITE, Minneapolis 2, Minnesota.

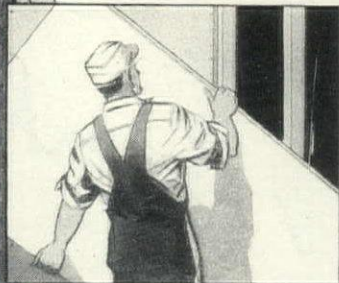
INSULITE DIVISION OF MINNESOTA AND ONTARIO PAPER COMPANY MINNEAPOLIS, MINNESOTA



... MADE EXCLUSIVELY FROM WOOD



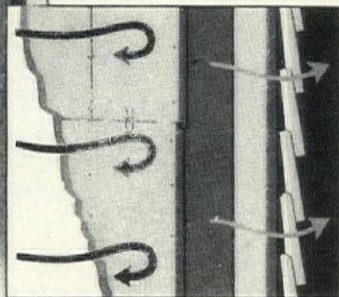
OUTSIDE. Insulite Bildrite Sheathing. The large water-proofed boards build a wind-proofed, weather-tight wall. Bildrite Sheathing has a bracing strength four times that of wood sheathing, horizontally applied—and builds an outer wall of insulation.



INSIDE. Insulite Sealed Graylite Lok-Joint Lath supplies a second wall of insulation. The patented "Lok-Joint" gives a strong, rigid plastering base, prevents joints from opening under trowel pressure.



THE RESULT. Sealed Graylite Lok-Joint Lath, with asphalt barrier against the studs, effectively retards vapor travel. Bildrite Sheathing, permeable to vapor, permits what little vapor that may escape to pass towards the outside.



BOOKS

(Continued from page 164)

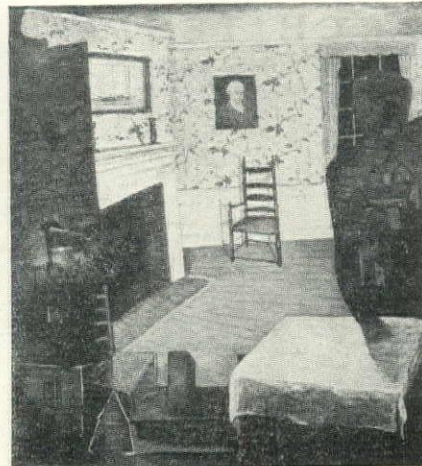
ROMANTIC PAINTING IN AMERICA. By James Thrall Soby and Dorothy C. Miller. The Museum of Modern Art, New York. 143 pp. Illustrated. 7½ x 10. \$2.50.

This latest publication is the sixth in a series of books and accompanying exhibitions to be presented by the Museum of Modern Art since 1936. It is an historical retrospective of one of the strongest trends in our national painting. Though the American Romantic School sprang from European roman-



BUFFALO HUNTER: Anonymous

ticism and was at later times closely akin to it, the strongly national color



HAUNTED HOUSE: Morris Kantnor

and picturesque regionalism of this collection gives it particular interest. Traditionally, this book carries on the Museum's record of outstanding publications in the field.

WHAT IS MODERN PAINTING? By Alfred H. Barr, Jr. The Museum of Modern Art, New York. 44 pp. Illustrated. 7½ x 10. \$.75.

Many primers have been written on the appreciation of modern painting, most of them too ardent to be swallowed by the uninitiate. Alfred Barr has succeeded in getting up a simple and dispassionate study of the various trends since the time of Whistler which should prove infinitely more effective in winning the lay reader. Illustrations include world famous masterpieces and comparatively obscure works. There is no high pressure, no abstract theorizing. The author limits himself to suggesting a few comparisons and directing the reader's own thoughts toward open mindedness in an honest, lucid way. This should prove a completely successful nudge in the ribs of your favorite mossback.

PLASTICS, By J. H. Dubois (second edition). American Technical Society, Chicago. 407 pp., illustrated, 5½ x 8¼. \$3.

The latest edition of this excellent handbook on plastics brings up to date the most recent developments in such new fields as low pressure laminating, vulcanized fiber, etc. The contemporary value of the book deserves emphasis. While it is definitely a technical work, the text and illustrations permit it to be understood by the average layman. For the designer, the chapters on finishing and decorating plastic parts, selecting materials for molded plastics and designing molded products should prove valuable and enlightening.

Because of recent developments in synthetic rubber and its allied interest in the plastic field, the second edition has an added study of the fundamentals of rubber compounding and molding. This information is new and relatively difficult to find elsewhere.

Burnham in the PACIFIC

This is part of a letter from one of many of our Boys somewhere in the Pacific which tells its own story.

Happened to be in the boiler room at our barracks and noticed the hot water boiler is an old Burnham 1804 round. Sure was a surprise to see them way out here. It works too — Burnham boilers like their employees do get around.

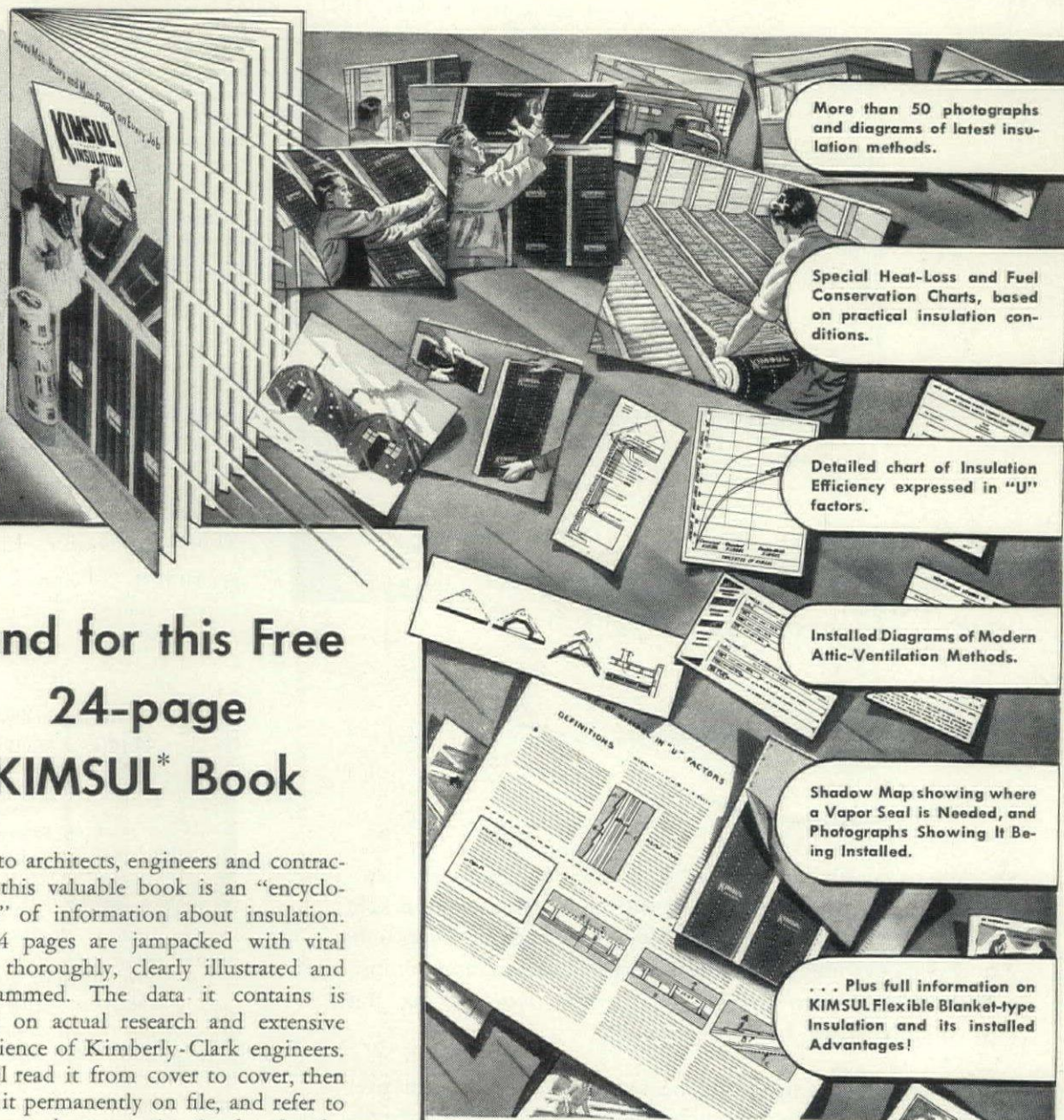
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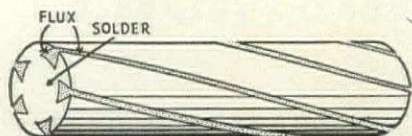
BUILDING REPORTER

(Continued from page 18)

FLUX WIRE SOLDER contains flux in longitudinal grooves.

Name: Fluxrite.

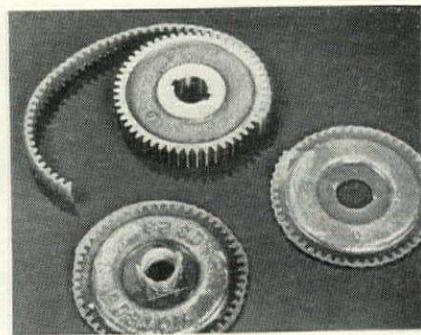
Features: Fluxed wire solder which



NEW TYPE OF WIRE SOLDER WITH FLUX IN GROOVES

contains flux in longitudinal grooves on the surface rather than in the conventional core, represents a new design in this type of material. Since the flux is on the outside rather than in the core, it liquefies and flows onto the work before the solder melts, insuring thorough and complete fluxing. Containing a recently developed special flux, it comes in the same diameters as regular cored solder. It is available in two compositions designated as red and green stripe, referring to the color of flux which is dyed in both cases for easy identification.

Manufacturer: National Lead Co., 111 Broadway, New York 6, N. Y.



PACKAGING MATERIAL protects metal parts.

Name: Stripcoat.

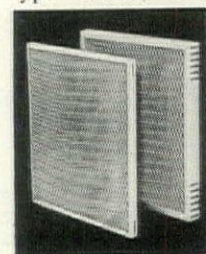
Features: This molten plastic material coats on metal parts to form a tough, waterproof and corrosion-resistant skin. Machined surfaces of axle shafts, complete axle assemblies, gears, intake and exhaust valves are the types of products being packaged by this new method. The clean metal parts are dipped into the molten plastic material, which has an ethylcellulose base. The dipped parts pick up a layer of Stripcoat which sets in a few seconds to form a skin tight, tough coating. It is easily removed by slitting the coating, and stripping it from the part. Although under rigid governmental control, production experts believe it will revolutionize this phase of packaging procedure after the war.

Manufacturer: The Dow Chemical Co., Midland, Michigan.

AIR FILTERS for different uses.

Names: Badger, Permo-Aire, Permo-Aire Grease.

Features: Three new steel impingement type filters, available in different



thicknesses, sizes and shapes, are being made for air conditioning and ventilation service, heavy duty and industrial air cleaning, and extra heavy duty or kitchen ventilation. Each has an expanded metal filter mesh design which is claimed to result in lower air resistance and high efficiency.

Manufacturer: Air Devices, Inc., 17 East 42nd St., New York 17, N. Y.

STAIR TREADS of composition material.

Name: Dura-Val Stair Treads.

Features: Asphalt and felt composition stair treads are being made which are said to look, feel and wear like rubber. They are waterproof, washable, long wearing and have a corrugated, non-skid surface. Available in size 9x18 in. with flat tread, and two sizes in nosing tread.

Manufacturer: So-Lo Works, Inc., Loveland, Ohio.

(Continued on page 174)



This may be

Your Customer's

Post-War, low-cost home

We're continuing to work on plans for a post-war, low-cost prefabricated home that will be distributed and sold through established retail dealers. This is a planning unit, and since architects will undoubtedly be doing many neighborhood planning projects in the post-war period, this planning unit will be a handy aid.

We are still in the planning stage on our post-war prefabricated home, and many house plans will parade across the drawing board before the final plan emerges. Today, and every day until victory is won, our complete facilities are engaged in U. S. Government war work.

HOUSTON *Ready-Cut* **HOUSE CO.**

Prefabricators Since 1917

POLK AVENUE

HOUSTON, TEXAS

"Today More Than Ever I'm Glad I Specified Frigidaire"

*Typical of expressions from owners and managers
of rental properties everywhere*

MANY owners and managers of rental property tell us Frigidaire equipment has helped keep tenants better satisfied; reduce service problems and operating costs. These things were always important to a profitable operation, but they're even more vital today. Right now Victory is our business, but when the war is won there will be more and better Frigidaire products, and in their making, more jobs for more men!



**If It's Frigidaire
It's Dependable**

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

For Excellence



in War Production

FRIGIDAIRE

Division of

GENERAL MOTORS

DAYTON 1, OHIO • LEASIDE, ONTARIO

Peacetime builders of

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

Costs no more

than other brands

..COSTS LESS IN THE LONG RUN



Wherever finishing lime is used, whether in humble cottages, modern homes, apartments, public buildings or imposing skyscrapers, the *original* Ohio White Finish and its famous twin, Hawk Spread, are known as Wall Marks of Quality for fine plaster work.

Packed in bags distinctively marked with Red Zig Zag Stripes, these brands cost no more than others . . . actually cost less in the long run. Architects who specify them, craftsmen who apply them, and dealers who stock them, know that the finishing lime inside the bag is always fresh, makes a pure white easy working putty . . . spreads far.

Let these brands help insure your reputation. Both are manufactured and sold through dealers by

The Ohio Hydrate & Supply Co., Woodville, Ohio

Sakes alive!

NOBODY SEEMS TO KNOW WHEN THIS HOUSE IS COMFORTABLE...



Grandma's complaint will have a familiar ring to Architects and Builders. Central heating cannot satisfy all members of the family. But, after the war, you can specify **PAYNE ZONE-CONDITIONING**.

Pioneered by PAYNE, improved for tomorrow, Zone-Conditioning is *flexible*. Healthful circulation of filtered fresh air, gas-heated in winter, controlled by *zones or individual rooms*. ★ Not available now; we're concentrating on war production. But PAYNE Dealers have the facts for you. Remember *Zone-Conditioning*.

PAYNEHEAT

NEARLY 30 YEARS OF LEADERSHIP

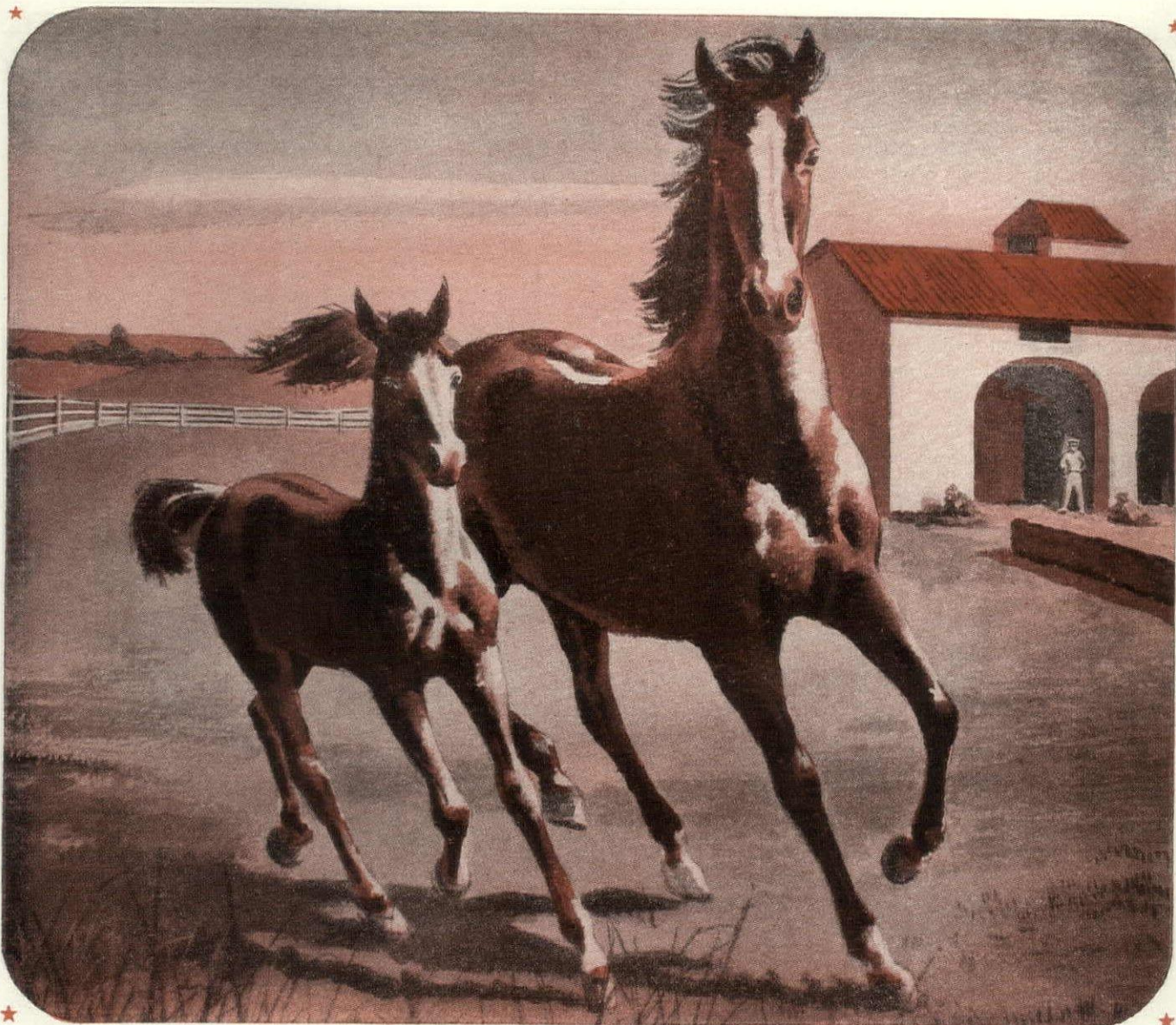
HELP BATTER THE AXIS . . . WITH BONDS



**GAS FUEL
HAS
EVERYTHING**

Payne

**FURNACE & SUPPLY CO., INC.
BEVERLY HILLS • CALIFORNIA**



PLURAMELT...YOUNGSTER WITH A FUTURE

TODAY, Pluramelt products are entirely allocated for essential purposes. In fabricated form, they're serving in mess trays aboard ship—in field ranges—in kitchen and hospital equipment for the services—in the manufacture of synthetic rubber, high-octane gas, explosives, etc. The list includes both the single and double stainless-armored types.

In each case, of course, Pluramelt is used instead of *solid* stainless steel. The chief reason, therefore, is the very important matter of conservation. Pluramelt saves 60% to 80% of the vital chromium and

nickel that solid stainless would consume for the same job.

But there are other prime considerations. Pluramelt in general fabricates easier than solid stainless steel. And, under any conditions of fabrication and subsequent service, it does not—*cannot*—come apart. Pluramelt is unique—a controlled composite steel with an *intermelted* bond that cannot be separated.

Do you want to know more about this stainless-armored steel that is so sure to bulk large in the peacetime manufacturing of the future? A brand new booklet on the subject of

"Pluramelt Stainless-Armored Steels" is now ready. Write for your copy.

ADDRESS DEPT. AF-20



Allegheny Ludlum
STEEL CORPORATION
BRACKENRIDGE, PENNSYLVANIA

BUILDING REPORTER

(Continued from page 170)

IGNITION CABLE for aircraft.

Features: This synthetic sheath-type cable, tested in accordance with Army Air Forces specification for use on aircraft engine ignition systems, has high resistance to heat, moisture and oil. It can withstand the effects of an electrical discharge at low atmospheric pressures. The conductor is flexible, consisting of Monel wires twisted together, and covered with an insulation of low-capacitance rubber compound reinforced by

a braid of glass yarn for added tensile strength and ruggedness. An overall thin coating of transparent wax aids in handling and installation.

Manufacturer: Appliance & Merchandise Dept., General Electric Co., Bridgeport, Conn.

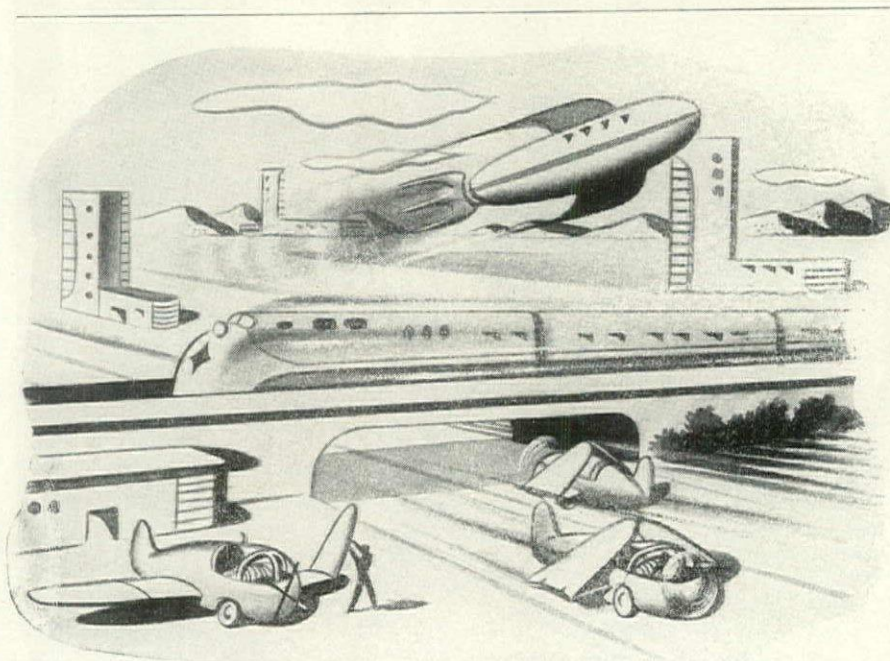
PLASTIC adaptable to widely varied uses.

Name: Polythene.

Features: Such varied products as

toothpaste tubes, water-proof coatings, piping, adhesives and insulation for electric wiring and cables can be made with this new plastic. Properties of this material include flexibility and toughness over a wide range of temperatures, good resistance to water and penetrating moisture, chemical inertness, and excellent electrical properties. It can be extruded, injection molded, compression molded and calendered. In sheet, rod or tube form it can be machined, cut, blown, blanked or swaged.

Manufacturer: E. I. du Pont de Nemours & Co., Wilmington 98, Del.



...of shoes and ships and sealing wax

Some of the current crop of postwar predictions are truly fantastic. Planes with collapsible wings riding the road like automobiles — trans-oceanic rocket delivery service whisking Madam's gowns from Paris to New York in 20 minutes — gyro-stabilized super-streamlined trains roaring across country at 300 miles an hour...perhaps.

But, taking first things first...tomorrow's immediate problems will be solved by practical men thinking practical thoughts — today. Tomorrow's progress will reflect the sound application of lessons learned by a review of past accomplishments.

Take Sedgwick elevators and dumb waiters, for example. Before the war they moved men, material and merchandise up and down. Today they serve as airplane elevators on carriers — as ammunition hoists, galley dumb waiters and special between-deck elevators. Tomorrow

Sedgwick elevators and dumb waiters will do the same job they did before the war. But to improvements in design and construction will be added the results of today's experience — invaluable refinements in exact leveling, smooth braking, positive limiting of travel.

These are but a few of the advantages Sedgwick equipment will offer postwar planners — sound developments of research, planning and building.

So if you're planning today for tomorrow — if you're looking for better equipment to move men, merchandise and material up and down — chances are we can help.

Our engineers will be happy to work out the solution to whatever vertical transportation you might have, and show you how Sedgwick improved elevators and dumb waiters provide safer, surer, more economical operation.

"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



AUTOMATIC FORCED WARM AIR FURNACE size of average traveling bag.

Features: Developed for a variety of undisclosed ground and flight operations for the Army Air Forces, this portable warm air furnace weighs only 45 lbs. It operates successfully at five miles altitude and at temperatures as low as 70 degrees below zero. Equipped with its own fuel supply (secret) this sealed unit provides a flow of heated air, sufficient to heat a single family home even during severe weather. Looking toward its postwar possibilities for home heating, the manufacturer believes that a terminal system utilizing the peacetime version of this unit would substantially reduce fuel bills, and offer automatic climate conditioning of each individual room.

Manufacturer: Norge Div., Borg Warner Corp., 670 E. Woodbridge St., Detroit, Mich.

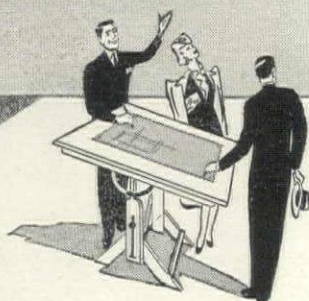
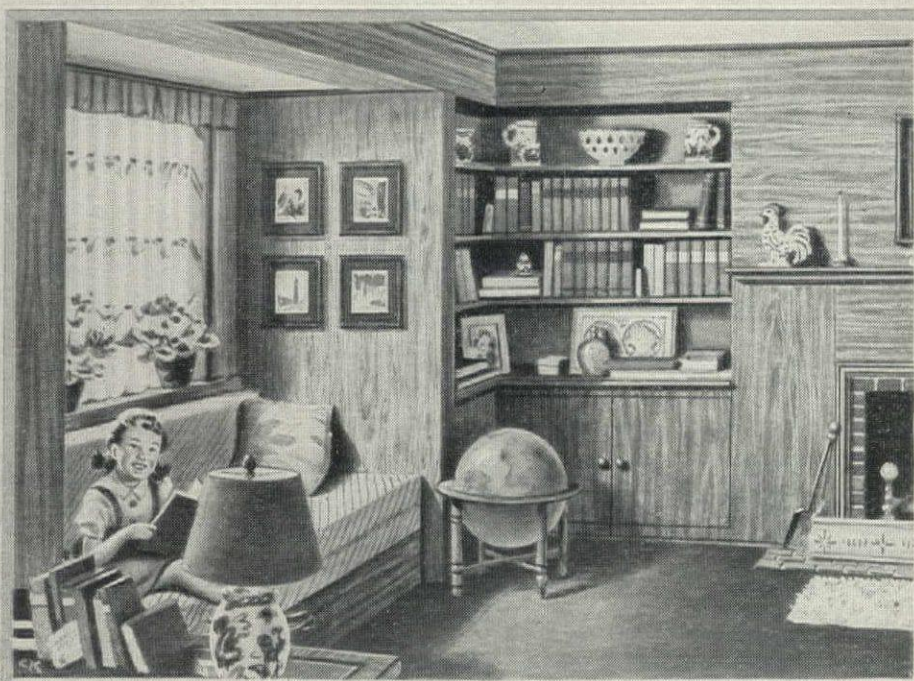
NEW PRIMER INGREDIENT binds top coat to wood.

Name: Penetrating Primer.

Features: This new prime coat material, announced for availability after the war, has a rubber like ingredient, or elastomer, which binds the topcoat finish to wood. It provides extraordinary adhesion for the top coat and permits the use of higher scratch resistant finishing lacquers by affording improved anchorage. These super-tough pyroxylin lacquers have been available for a

(Continued on page 178)

*Nationally Advertised! In full-color pages in American Home,
Better Homes and Gardens, House Beautiful.*



"What? Wood-paneled walls for Low Cost Homes?"

Yes! . . . and at "installed costs" that are putting these beautiful Weldwood walls of luxury onto the drafting boards of leading low-cost dwelling enthusiasts from coast to coast.

Genuine walnut paneling . . . lovely African mahogany . . . Idaho knotty pine . . . oak . . . figured gum . . . and other fine hardwoods . . . at little more overall cost than ordinary plastering!

Even the most cost-conscious client will find Weldwood Plywood Paneling practical for the house of his dreams.

These gorgeously-grained, 4' x 8' x 1/4" panels (factory-finished if you like) will provide supremely beautiful, structurally sound walls that are crack-proof . . . and *guaranteed for the life of the building.*

They provide the definite advantages of dri-wall construction:

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

No plaster damp to cause cracks and warping . . .

No 3 to 6 weeks' delay while tons of "plaster-water" dry from the walls . . .

No waste of materials.

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

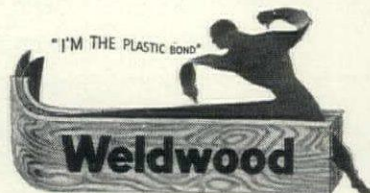
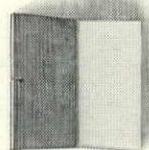
Forever smooth, they do not develop rough grain-lines to show through costly wall paper or paint. A quarter-inch in

thickness, they will be available in convenient 6' x 4', 7' x 4' and 8' x 4' size panels. (Grain runs short way.)

Write for complete information on Weldwood Plywood and Weldwood Products today.

The Mengel Hollow-Grid Flush Door

. . . finger-tip control yet
warp-proof, crack-proof!



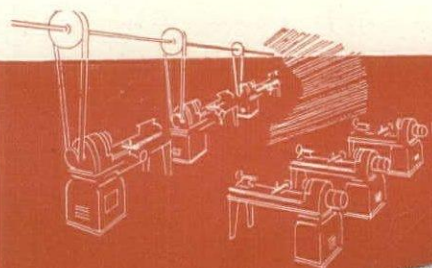
Plastics and Wood Welded for Good

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
THE MENGEL COMPANY **UNITED STATES PLYWOOD CORPORATION**
Louisville, Ky. New York, N. Y.

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**



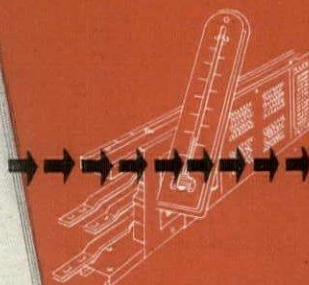
FLEXIBILITY for both mechanical and power load needs. Victory Bus Duct cuts time in adding or relocating machinery ... even entire departments!



EASY TO INSTALL. Comes in 10-foot lengths with standard fittings and accessories. The Westinghouse Cantilever Hanger is simplest device of its kind. Wrench, screw driver, block and tackle only tools required.



POSTWAR CONVERSION may call for wholesale relocation, adopting new production sequences. Victory Bus Duct is quickly adaptable, and practically 100% salvable!



TROUBLE-FREE performance ... virtually free from maintenance ... will operate efficiently for the life of any industrial plant.

YOU SHOULD HAVE THESE

Facts

... before buying BUS DUCT

Industrial distribution systems must be flexible to meet war's constantly changing demands ... and must fit readily into post-war conversion plans.

Westinghouse Victory Bus Duct meets both today's and tomorrow's requirements. It has many exclusive features contained in no other type of duct. A few of its outstanding advantages are listed above.

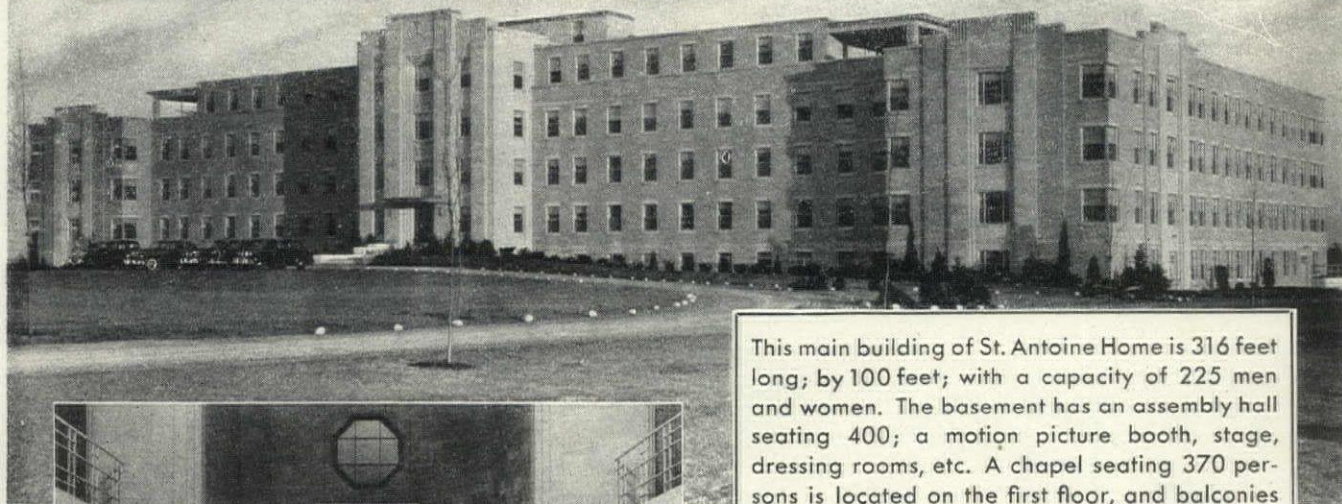
Bus Duct FACTS are contained in Bulletin 3286. This bulletin is a concise ... complete ... usable handbook on Bus Duct. It tells why Victory Bus Duct should be used ... why it meets Limitation Order L-273 ... why every rating carries complete Underwriters' approval. In addition, it gives data on plug-ins and fittings; dimension data; and specifications.

Ask your Westinghouse representative for a copy or write Westinghouse Electric & Manufacturing Co., East Pittsburgh, Pa., Dept. 7-N. J-60544



Westinghouse
PLANTS IN 25 CITIES... OFFICES EVERYWHERE
BUS DUCT

PRATT & LAMBERT PAINT AND VARNISH



*Aller's Photo Studio,
Providence, R. I.*

This main building of St. Antoine Home is 316 feet long; by 100 feet; with a capacity of 225 men and women. The basement has an assembly hall seating 400; a motion picture booth, stage, dressing rooms, etc. A chapel seating 370 persons is located on the first floor, and balconies permit those in wheel chairs to attend Mass.

Two oil-burning boilers furnish steam for heat, laundry, and cooking. Three Artesian wells furnish the water supply. Septic tanks and filter beds are installed on the property. Also an emergency electric lighting unit furnishes power in case of a local electric plant failure.

Situated in North Smithfield, on one of the highest points of Rhode Island, the Home overlooks the city of Woonsocket, and has a view of the Blackstone Valley, in either direction, for miles.

ST. ANTOINE HOME, NORTH SMITHFIELD, R. I.
WALTER F. FONTAINE, INC., Architect; JOSEPH M. MOSHER, Supervising
Architect, Woonsocket, R. I. : E. TURGEON, General Contractor, Providence,
R. I. : E. F. O'DONNELL & SONS, Painting Contractor, Providence, R. I.

Included in the P&L products used in the St. Antoine Home are: Lyt-all Flowing Flat; Cellu-Tone, Eggshell Wall Coating; "61" Enamel and "61" Floor Varnish — Pratt & Lambert throughout!

BUILT of brick and limestone, with funds provided from the Catholic Charities Fund Appeal, St. Antoine Home was erected under the direction of the Most Reverend Francis P. Keough, D. D., Bishop of Providence, and the Sisters of Charity, also known as the Grey Nuns.

This institution, a home for aged men and women, is decorated throughout with Pratt & Lambert Paint and Varnish. Trim, walls, ceilings and floors are beautified and protected with a P&L product selected to impart warmth and cheer to all housed there.

Trained, color-minded representatives of the P&L

Architectural Service Department will co-operate with you in securing the fullest possible decorative results on any project. Contact nearest office.

PRATT & LAMBERT - INC., Paint & Varnish Makers
NEW YORK • BUFFALO • CHICAGO • FORT ERIE, ONTARIO



BUILDING REPORTER

(Continued from page 174)

long time, but the inability to develop sufficient bond with wood surfaces has made them impractical. Their use after the war will provide a tougher finish for wood furniture.

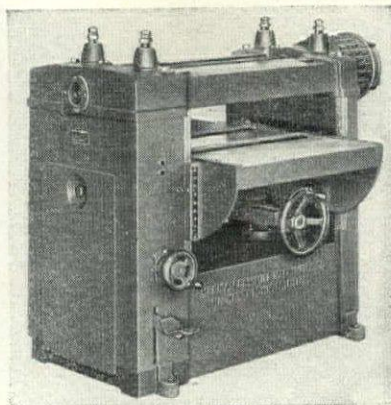
Manufacturer: E. I. du Pont de Nemours & Co., Wilmington 98, Del.

SINGLE SURFACER CABINET PLANER is attractive, sturdy and efficient.

Name: Monarch 24 in. Single Surfacers

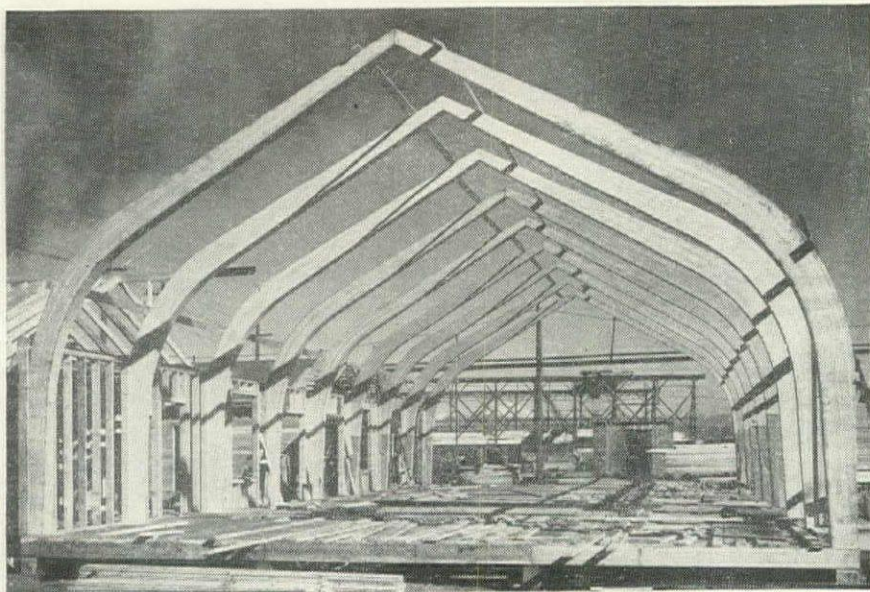
Cabinet Planer No. X 41.

Features: Provided with 5 or 7½ h.p. direct drive motors, this planer possesses the sturdiness and efficiency necessary to obtain the finely planed surfaces desired by the woodworking industry. The main frame is one piece cored casting, totally enclosing the feed transmission and providing complete safety for the operator. The top section supporting the cutterhead, chip breaker, pressure bar and two upper feed rolls, is also one piece, assuring rigidity and enclosing all moving parts. A totally enclosed feed mechanism providing a wide range of speeds, can be



readily controlled with a hand wheel. The bed casting is in one piece with removable center bed platen. A foot pedal for quick feed release is provided as a safety measure. Feed rolls are driven by means of chains and hardened steel sprockets. A three knife, round type, cutter head is mounted in four ball bearings, two at each end, thus dividing the load between the bearings. A rotating index plate is furnished at left of cutterhead, with an index pin for locating knives accurately when jointing or grinding. All main revolving parts operate in ball bearings and are pressure lubricated.

Manufacturer: American Saw Mill Machinery Co., Hackettstown, New Jersey.



—Photo Courtesy of Timber Structures, Inc.

CAFETERIA QUICKIE With Sturdy LAUCKS-GLUED Arches

ATTRACTIVE lunch rooms . . . where workers can relax while they eat hot, energy-giving meals . . . are springing up fast these days in important war plants.

The above photo shows the start of an attractive industrial cafeteria erected in Everett, Washington. The 9 laminated arches (40' span) are built up of 22 laminations at the elbow, decreasing to 17 at the base and 11 at the top and use Laucks Construction Glue, as have thousands of others, manufactured by Timber Structures, Inc., Portland, Oregon. These wood and Laucks-Glue arches not only create an eye-pleasing spacious interior, but also contribute to fast construction and conservation of critical materials.

Specially formulated Construction Glues by Laucks, world's largest manufacturer of water-resistant and waterproof glues, are daily helping create new building techniques to meet fast changing needs. *Let them help you!* For complete information, write, phone, or wire:

I. F. LAUCKS, Inc.

Lauxite Resins — Lauxein Glues

CHICAGO, 2 — 6 North Michigan Avenue
LOS ANGELES, 1 — 859 E. 60th Street
SEATTLE, 4 — 911 Western Avenue

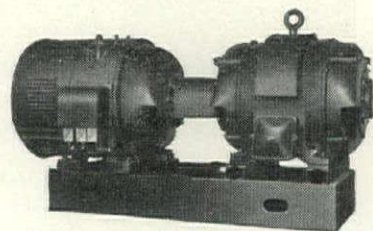
Factories:

Seattle, Los Angeles, Portsmouth, Va., Lockport, N. Y.

In Canada:

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.



MOTOR GENERATOR supplies welding power for a number of men.

Features: This AC to DC motor generator set will supply welding power for a number of men welding at the same time, and several of these machines are capable of being operated in parallel, when large quantities of power are needed. The 160 h.p. motor drives a 70 volt, 1500 amp., flat compounded, direct current generator, rated one hour 50 degree temperature rise.

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

NYLON PLASTIC is tough and has high softening temperature.

Name: FM-1 Molding Powder.

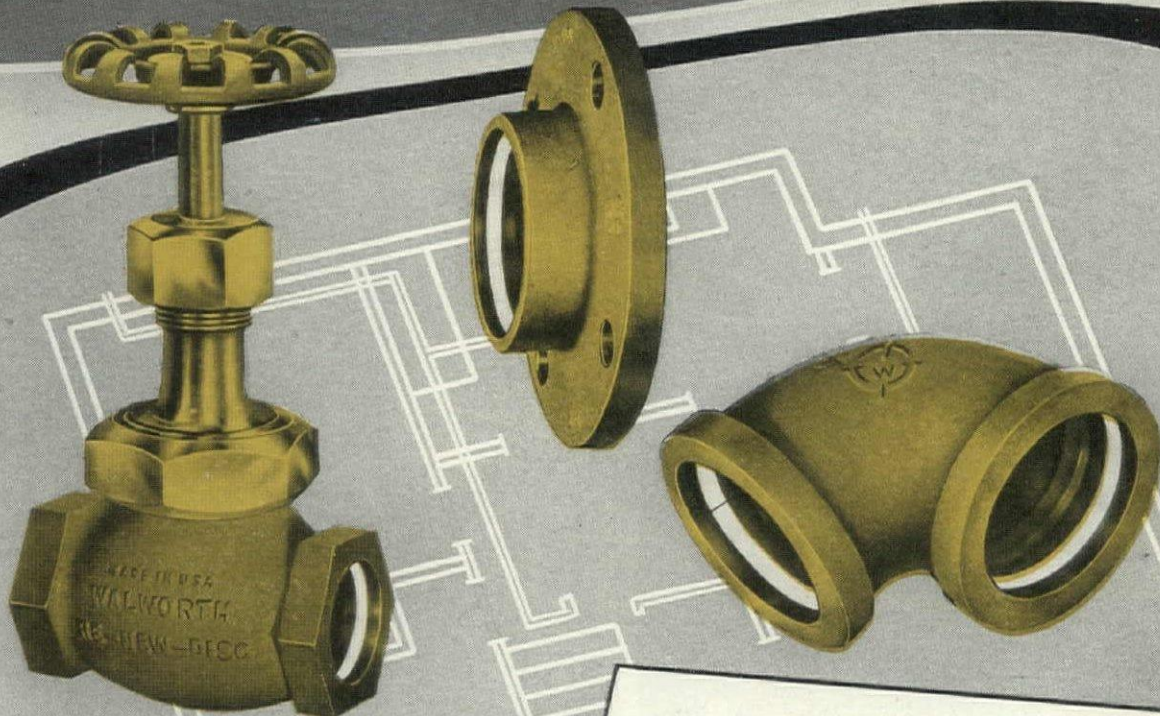
Features: This type molding powder is distinguished for its toughness, high softening temperature and the facility with which it can be injected into thin sections around complicated inserts. Uses of the material have been limited

(Continued on page 182)



LAUCKS CONSTRUCTION GLUES
Consult LAUCKS—America's Glue Headquarters

THE *Modern* METHOD OF JOINING COPPER AND BRASS PIPE



walseal*
VALVES
FITTINGS
FLANGES

... the surest way of making tight pipe joints

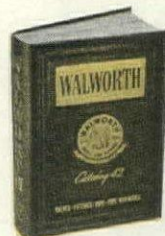
Brass or copper pipe truly becomes a "one-piece pipe line" when joined by these modern Walseal Valves, fittings and flanges. Tens of thousands of Walseal products in war time service are proving beyond dispute that they have the inherent stamina to absorb the most severe punishment. These joints

can't creep or pull apart under any temperature to which copper or brass pipe can be safely subjected.

The brazing alloy "Sil-Fos" is incorporated as a ring in each opening in the proper amount to assure a perfect joint. Bear in mind a Sil-braz* Joint is stronger than the pipe itself. It's indispensable where pipe

runs have joints that are hard to make up.

You'll find complete information on Walseal products in the new Walworth Catalog 42 on pages 230 to 242 inclusive. Be sure to secure a copy.



*Walseal Registered Trade Marks



WALWORTH
valves AND fittings

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

DISTRIBUTORS IN PRINCIPAL CENTERS THROUGHOUT THE WORLD



ZIP!

ZIP!

ZIP!

GRAND RAPIDS
Invisible
SASH BALANCE

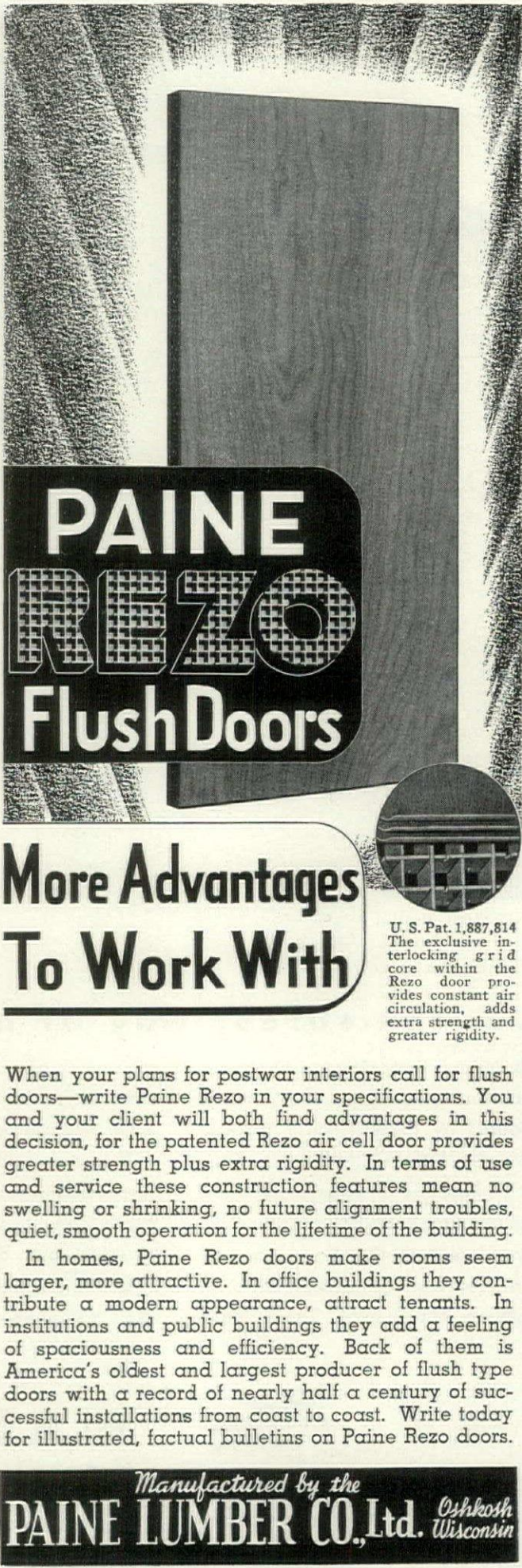
Time, ever an important factor in the consideration of profits, is now twice valuable in a world where even minutes saved is a pattern of patriotism.

The simplicity, rapidity and ease of the installation of the Grand Rapids Invisible Sash Balance is but one of its more highly commendable features. Its smooth, dependable performance can be emphasized. The ease of tension adjustment, absence of tapes or cables, and the actual invisibility of the entire working mechanism are of primary importance to the contractor engaged in priority installations — and will continue to be in eventual post-war construction programs.

The saving and extra satisfaction realized on Grand Rapids Invisible installations has already been fully substantiated by the experience of scores of leading contractors.

Deliveries of Grand Rapids Invisible Balances are governed by government priorities. Send for catalog for full information as well as delivery details.

GRAND RAPIDS HARDWARE COMPANY
GRAND RAPIDS • MICHIGAN



PAINE
REZO
Flush Doors

**More Advantages
To Work With**

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.

In homes, Paine Rezo doors make rooms seem larger, more attractive. In office buildings they contribute a modern appearance, attract tenants. In institutions and public buildings they add a feeling of spaciousness and efficiency. Back of them is America's oldest and largest producer of flush type doors with a record of nearly half a century of successful installations from coast to coast. Write today for illustrated, factual bulletins on Paine Rezo doors.

Manufactured by the
PAINE LUMBER CO., Ltd. *Oshkosh Wisconsin*

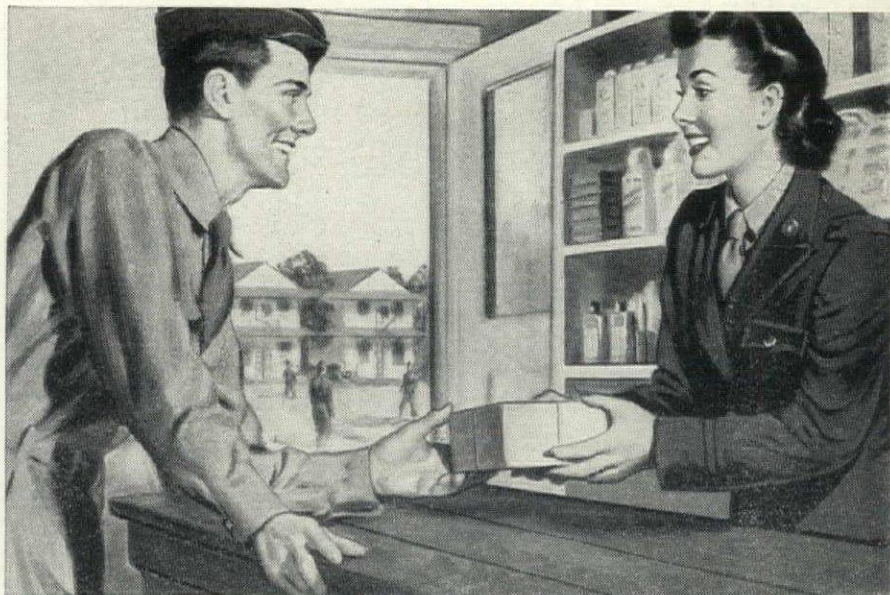
Working for today

Women have volunteered by the tens of thousands to perform the essential duties of the WAC—but thousands more are still needed. By their patriotism, their sacrifice and their willingness to serve their country, these volunteers are making possible the release of more soldiers for combat work . . . thus winning the admiration and the gratitude of a nation.

Planning for tomorrow

Norge, too, is working desperately hard in all its factories, turning out scores of war products that will hasten the end of strife. Norge refrigerators and other home appliances are also doing their part by conserving and preserving food, lightening household duties and otherwise adding to efficiency in war-busy homes. And Norge is planning for tomorrow . . . planning new Rollator refrigerators, new ranges, both gas and electric, new washers and new home heaters. As a result of the new skills and techniques acquired while in war production, these new Norge household appliances will be better designed, better engineered, better built. Women in their postwar homes will welcome these products of experience—these better products for a better world. Norge Division, Borg-Warner Corp., Detroit 26, Mich.

A BORG-WARNER INDUSTRY



NORGE

HOUSEHOLD APPLIANCES



BETTER PRODUCTS FOR A BETTER WORLD

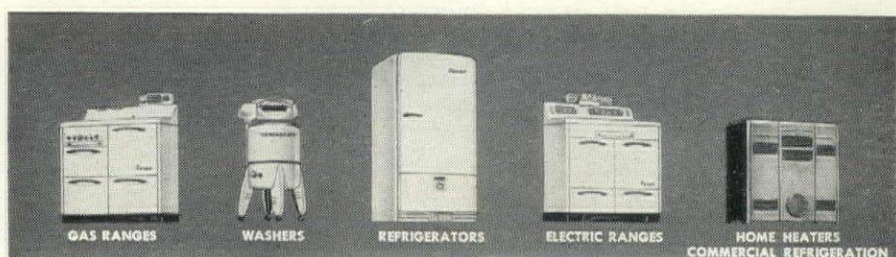
★ ★ ★ ★ ★ ★ ★



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

**NATIONAL APPLIANCE CONSERVATION PROGRAM
"BETTER CARE—LESS REPAIR"**

★ ★ ★ ★ ★ ★ ★



BUILDING REPORTER

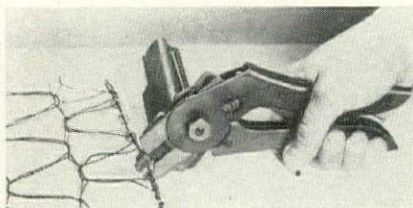
(Continued from page 178)

to a few war applications such as spools to hold wire, small switch housings, and slide fasteners. The fasteners show immunity to dry cleaning solvents and are unharmed by ironing temperatures.

Manufacturer: E. I. du Pont de Nemours & Co., Wilmington 98, Del.

STAPLING TOOL is a hog-ring type plier.

Features: This light weight magazine fed stapling plier wraps the staple around the work in much the same



manner as the conventional hog-ring plier, but many times faster. It can be loaded with 60 to 70 rings and narrow jaws enable it to get into small places. Ring diameter is $\frac{1}{4}$ in., and ring overlap is $\frac{1}{4}$ in. with No. 16 wire. A convenient one-hand operation for

attaching strips of wire netting, fence wires, etc.

Manufacturer: Bostitch Inc., 161 Division St., East Greenwich, R. I.

GAS RANGE permitted by OPA.

Name: Model 7701-30.

Features: New range permitted by OPA



will include most of the Magic Chef pre-war features, including the Red Wheel Regulator, automatic top lighter, 16 in. oven, full insulation, 3 in 1 Magic Chef top burners and porcelain

enamel finish. Though the stove appears small it will have standard size oven, broiler and cooking top facilities. **Manufacturer:** American Stove Co., 825 Chouteau St., St. Louis, Mo.

ARC WELDING ELECTRODE for welding mild steel.

Name: Fleetweld 37.

Features: New general purpose electrode is used for welding mild steel in all positions. Designed as an easy striking, smooth operating electrode primarily for light gauge material, it is claimed to be a fast operating electrode under all conditions. There is no slag interference when welding vertically down. Available in $\frac{1}{8}$ in., $\frac{5}{32}$ in., and $\frac{3}{16}$ in. sizes in 14 in. lengths and packed in 50 pound containers.

Manufacturer: Lincoln Electric Co., Cleveland, Ohio.

FAN for high velocity ventilation.

Features: This unit is designed to deliver a large volume of air in a straight line to the spot where it is needed, reaching



more efficiently into corners and dead air spaces. The discharge expands only slightly and continues as a high velocity air stream over larger distances. For use in steel mills, storage plants etc., the

unit consists of a heavy gauge welded steel housing, mounted on an adjustable pedestal which may be tilted 60 degrees up or down. Fan blade is of heavy steel, die cut, die formed and perfectly balanced. Ball bearing motor drives fan. Made in three sizes: 18 in. $\frac{3}{4}$ h.p., 6,000 cfm motor; 24 in. $1\frac{1}{2}$ h.p., 9,000 cfm motor and 30 in. $1\frac{1}{2}$ h.p., 11,000 cfm motor.

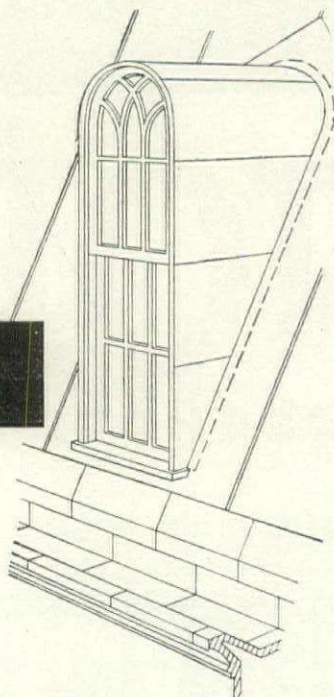
Manufacturer: Chelsea Fan & Blower Co., Inc., 1206 Grove St., Irvington, N. J.

(Technical Literature, page 188)

Easier to handle

FOLLANSBEE

Seamless
Terne
Roofing



Made in 50 and 100 foot rolls, Follansbee Seamless Terne Roofing is easy to handle in the shop and on the job. Quickly cut to desired lengths which entirely eliminate cross-seaming and simplify installation. Made with uniformly straight edges and free of buckles—no field trimming is necessary to correct for camber. Ease of handling is one of four exclusive advantages of Follansbee Seamless Terne Roll Roofing.

FOUR EXCLUSIVE FEATURES:

1. Easier to Handle
2. Saves Time and Materials
3. More Durable, Less Maintenance
4. Smooth, Improved Appearance

Now available for essential maintenance and repair in 8 pound coating. For complete data for use in preparing specifications and estimates, write to the general offices.

FOLLANSBEE STEEL CORPORATION

GENERAL OFFICES • PITTSBURGH 30, PA.



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Sales Agents—Chicago, St. Louis, Nashville, Los Angeles; Toronto and Montreal, Canada. **Plants**—Follansbee, W.Va. and Toronto, Ohio

ELECTRICAL SHEETS & STRIP • ALLOY BLOOMS, BILLETS, BARS, SHEETS
& STRIP • COLD ROLLED SHEETS & STRIP • POLISHED BLUE SHEETS
SEAMLESS TERNE ROLL ROOFING



To help you plan ahead for 194X

WHEREVER groups interested in housing get together these days, they discuss the many problems confronting them regarding postwar construction. Because of the inevitability of increased use of electrical appliances and equipment, they recognize that a radically new approach must be taken in planning *electrically* for new homes as well as for the modernization of present homes.

Questions which are raised in planning this important phase of construction are:

What electrical appliances and equipment will be available for homes? Will there be radical changes in prewar models? What will innovations be like?

How should this equipment be arranged in the kitchen, laundry, utility room, living room, bedrooms, and bath—for greatest efficiency?

How about access for servicing? Utility connections? Lighting outlets and controls?

The Westinghouse Better Homes Department is prepared to give you information on these and any other questions relating to the electrical phase of home plan-

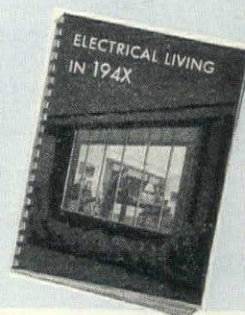
ning. This Department welcomes the opportunity of giving authentic technical advice on the proper selection and planning of home electrical appliances and equipment.

Write: Better Homes Department, Westinghouse Electric & Manufacturing Company, Pittsburgh 30, Pennsylvania.

NEW FREE BOOK!

We are preparing a new and unusual book which will help you explain to prospective home owners the vital importance of "better wiring for better living" in 194X homes.

Watch for special announcement and free offer of this big 64-page book in the April issue of this Magazine!



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

Westinghouse
Plants in 25 Cities Offices Everywhere



BRIXMENT—the Leading Masonry Cement

● For twenty-five years, Brixment has been recognized as the *best* masonry cement on the market. Government statistics show that it is by far the largest-selling and most widely-used brand. It is universally considered the standard for all masonry cements.

During recent years, of course, a number of somewhat similar products have been brought out in an attempt to compete with Brixment. But none of them can use the same raw materials and the exclusive Brixment process. Therefore, no other masonry cement combines to such a high degree the same plasticity, strength, bond, water retention, and freedom from efflorescence. It is this *combination* of advantages that makes Brixment superior to other masonry cements, and *especially* to any mixture of portland cement and lime.



Red stars indicate the two mills at which Brixment is made—the black dots indicate the mills of other cement companies which stock Brixment for shipment in mixed cars with their own portland cements.

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

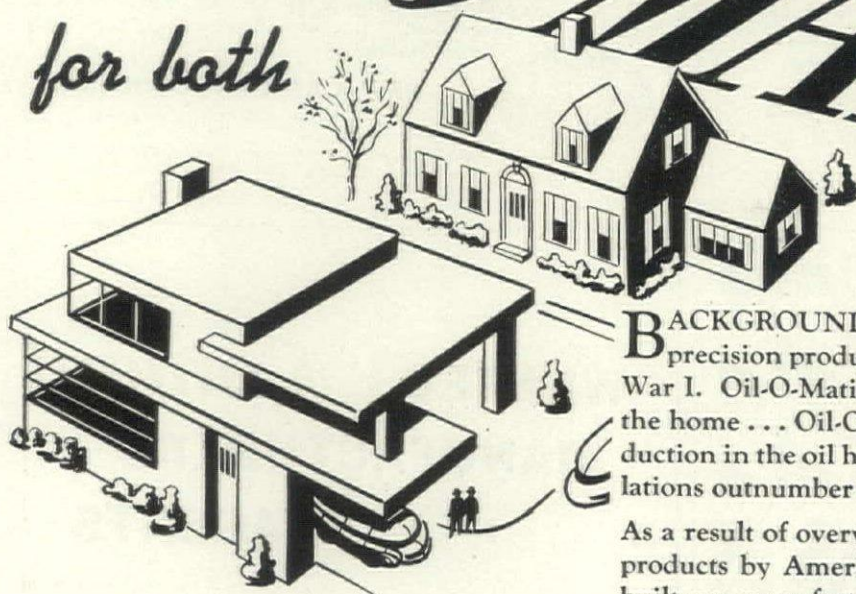
Better Living

WITH A
BACKGROUND



OIL-O-MATIC

for both



BACKGROUND means experience and Oil-O-Matic precision production experience dates back to World War I. Oil-O-Matic pioneered automatic oil heating for the home . . . Oil-O-Matic pioneered *precision* mass production in the oil heating industry . . . Oil-O-Matic installations outnumber those of any other oil burner, by far.

As a result of overwhelming preference for Oil-O-Matic products by American householders, Williams quickly built up manufacturing facilities unequaled in the oil heating industry in completeness . . . in production capacity . . . in *precision* craftsmanship . . . in experience.

Add wartime know-how to this background of more than twenty pre-war years of leadership in the automatic oil heating field and you have the experience that means *best selling* automatic heating equipment for tomorrow's better living.

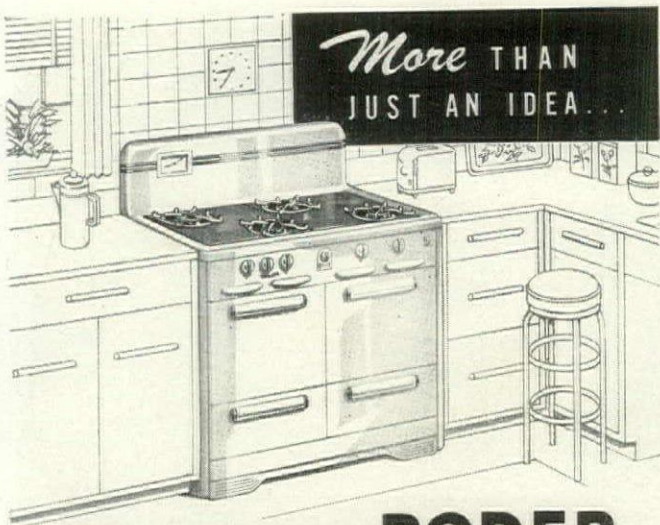
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STAMPS & BONDS**



**WILLIAMS
OIL-O-MATIC
HEATING**

**WILLIAMS OIL-O-MATIC
HEATING CORPORATION**
BLOOMINGTON, ILLINOIS

THE BONDS YOU BUY TODAY
ARE YOUR GUARANTEE OF A
Better Tomorrow!



THE POSTWAR **ROPER** "America's Finest Gas Range"

Roper is giving a lot of thought to the kitchen of the future—and to the Roper gas range that will become the heart of that modern kitchen. Plans have progressed far beyond the "idea" stage.

With victory will come a new Roper gas range you'll be pleased to know—proud to specify. GEO. D. ROPER CORPORATION, Rockford, Ill. Manufacturers of Roper—"America's Finest Gas Range"

ROPER
GAS RANGES

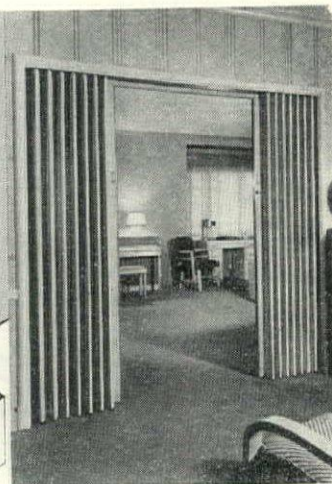
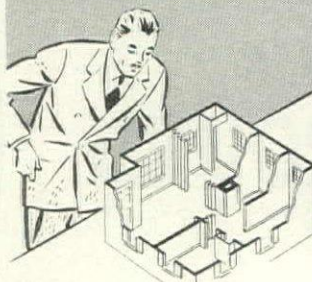
ROPER GAS RANGES ARE IDEAL FOR ALL GASES
INCLUDING L.P. (LIQUEFIED PETROLEUM) GAS

The Sign of Better Trims

Better designs . . . wider selections . . . consistent quality . . . exclusive features . . . easy installation! These established advantages make the trademark Chromedge a sign of better trims—a sign that will be even more prominent in the postwar picture!

The B & T METALS COMPANY
Columbus 16, Ohio

CREATE ROOMS
when you need them
—with the "wall
that moves"



ONE day one large room may be needed, the next, two smaller rooms! The problem is solved easily with attractive Modernfold Doors — the "walls that move." Closed, Modernfold provides small room privacy. Folded back to the walls, it makes the entire area available. Flexibility of rooms is assured.

And Modernfold Doors save space, too — as it is not necessary to make allowance for the area usually required for the swing of doors. Accordion-like in their opening and closing, they have a precision-built, steel skeleton which acts as a firm foundation for the beautiful fabric coverings. Harmony with any general color scheme is assured. Specify *room flexibility* for your clients . . . with Modernfold, the "wall that moves."



NEW CASTLE PRODUCTS

1613 I Street, New Castle, Indiana

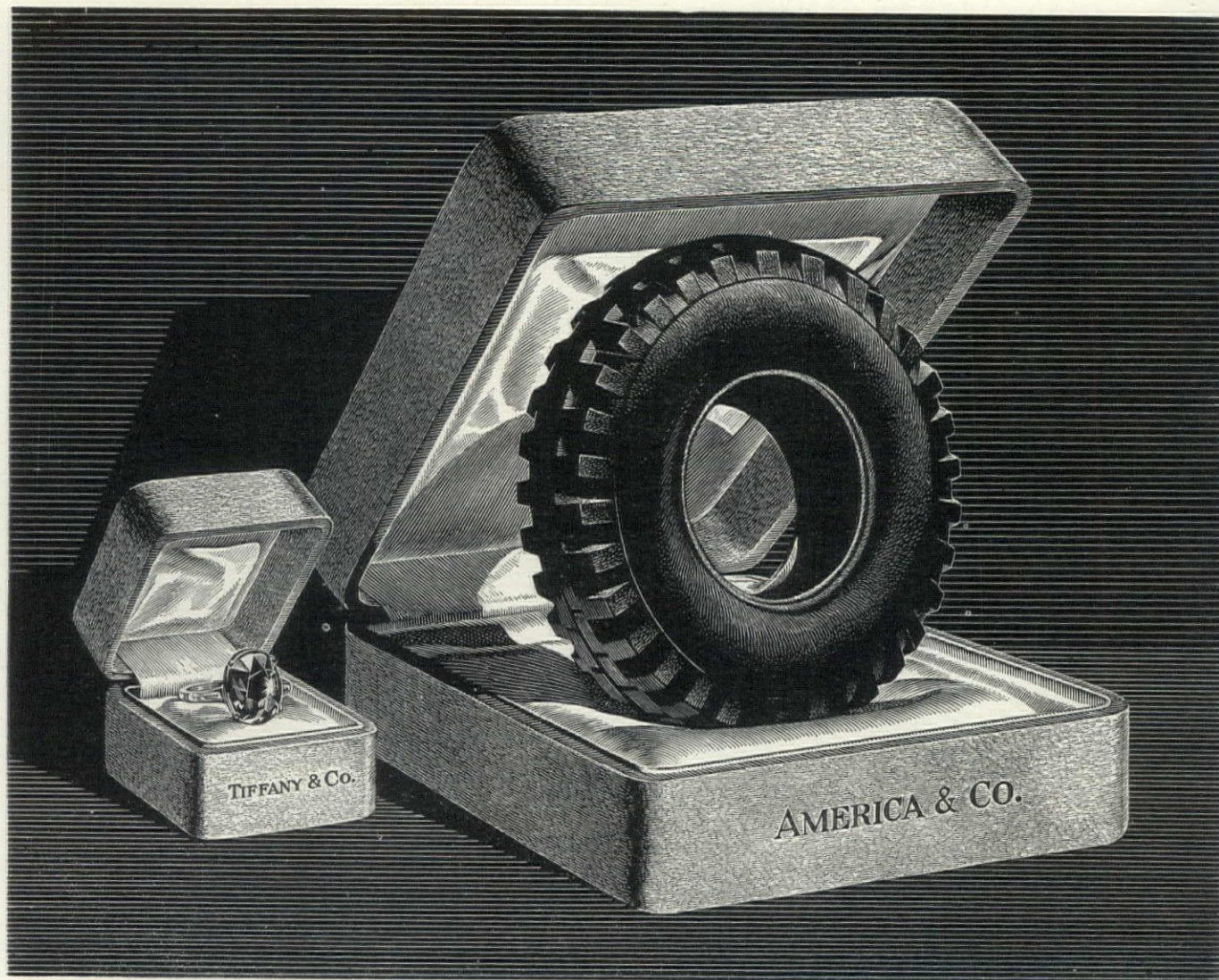
Modernfold Doors, 424 Madison Avenue, New York City
Export Department: Utility Building, Fort Wayne 2, Indiana

WANTED MANUFACTURERS' AGENTS

In anticipation of postwar building activity, many progressive manufacturers of building specialties are seeking new representatives, domestic and foreign.

THE ARCHITECTURAL FORUM will be pleased to act as intermediary; agents are invited to register their interest.

Address George P. Shutt, Advertising manager
THE ARCHITECTURAL FORUM
19 West 44th Street
New York 18, N. Y.



FROM RUBIES...TO RUBBER...FOR WAR!

HERE IS an almost unknown chapter in America's war record.

It is the story of owners who voluntarily relinquished equipment—who in a very special way put aside self-interest to speed victory.

In the store of Tiffany & Company on Fifth Avenue there was an air conditioning system*. Its heart was a Carrier Centrifugal Refrigeration Machine. This machine was needed for the manufacture of synthetic rub-

ber—that "America & Company" might have tires more quickly.

And so Tiffany & Company permitted this essential part of their store equipment to *forsake rubies for rubber*.

But this is only one chapter of the story. Many of America's great stores have rendered similar service...have given our country a priceless gift: Time!...the months it would have taken to make new Carrier machinery.

Carrier engineers will gladly co-operate with architects and consulting engineers toward incorporating air conditioning, refrigeration and unit heating in the design and renovation of post-war structures.



*Architect: CROSS & CROSS, Contractor: BAKER, SMITH & CO., Consulting Engineer: JAROS, BAUM & BOWLES

CARRIER CORPORATION, Syracuse, N. Y.

AIR CONDITIONING

Carrier



REFRIGERATION

LIGHT STEEL FRAMING. *Unistrut, The Man-Sized Building-Set for Industry and Business*, 20 pp., 8½x11. Illustrated bulletin describes the uses of Unistrut framing sections, nuts and fittings, and shows photographs of actual installations in a wide range of industrial plants. This method of framing eliminates welding and drilling of the framing members, and conversion from one type frame or support to another is possible. Among the myriad of uses are framing for all electrical work, storage racks of all types, bins for small and large parts, office and factory tables, supports for steam or water pipes, scaffolding and machine tables. It is suitable wherever adjustable framing is indicated. Unistrut Corp., Wayne, Mich.

PLUMBING FIXTURES. *Women Tell Us*, 10 pp., 10½x8½. Pictorial presentation of different type bathroom and plumbing fixtures, designed to be practical, durable and workable for postwar homes. Eljer Co., Ford City, Pa.

SCIENCE. *A New World*, 24 pp., 8½x11. This handsome booklet offers a brief discussion of what science can do for any business dealing with new things of a technical or semi-technical nature. With sections devoted to plastics, refrigeration, air-conditioning, insulation, acoustics, textiles, aviation, engineering research, chemistry and other subjects, it covers the improvements advanced by science in these fields, and offers research, testing and counsel facilities for furthering their growth. United States Testing Co., Inc., Hoboken, N. J.

PLASTICS. *Facts About Plastics*, 24 pp., 8½x11. An illustrated booklet designed to provide a general knowledge of plastics and their application. It briefly discusses thermosetting and thermoplastic groups of plastics, with their wide range of present and postwar uses. The manufacture and production of laminated and molded plastics are covered, and also the limitations of plastics. The Richardson Co., Dept. 100, Melrose Park, Ill.

VALVES. *Jenkins Air Furnace Malleable Iron Valves*, 4 pp., 7½x10½. Brochure describes air furnace malleable iron gate, globe, angle and check valves, and discusses their toughness and fracture-resisting properties. A chart compares them to cast iron and carbon steel. Jenkins Bros., 80 White St., New York 13, N. Y.

FLUORESCENT ACCESSORIES. *How to Use Fluorescent Accessories For Best Lighting Results*, 16 pp., 8½x11. An illustrated catalogue of all General Electric fluorescent accessories, with full data on the new Watch Dog starters. It supplies technical information regarding fluorescent lamps, ballasts and starters in order to emphasize the extreme importance of fluorescent accessories in supplying quality lighting. Operation of Watch Dog starters and their ability to end the blinking of a "dead" lamp are explained. Advantages of these starters for war plants are listed and illustrated. A detailed description is given of how G. E. starters, starter sockets and lampholders operate, why they are necessary and how they contribute to fluorescent lighting. Appliance and Merchandise Dept., General Electric Co., Bridgeport 2, Conn.

CONVECTORS. *Modine Convectors for Postwar Buildings*, 15 pp., 8½x11. This illustrated booklet gives dimensions, performance and installation data on a line of copper convectors to be manufactured immediately after the war. Enclosure types include those which are recessed into the wall, and those which are installed against the finished wall. A choice of three types of copper heating units adapts this line of convectors to vapor and vacuum steam, one pipe steam, and forced or gravity-flow hot water systems. A special enclosure incorporates features commonly specified for heavy duty application such as: tamper-proof, lock-type front and damper, special air delivery grille, and heavier gauge enclosure front and back. Unit heaters and coils for war production plants, are also covered in this booklet. Modine Mfg. Co., Racine, Wis.

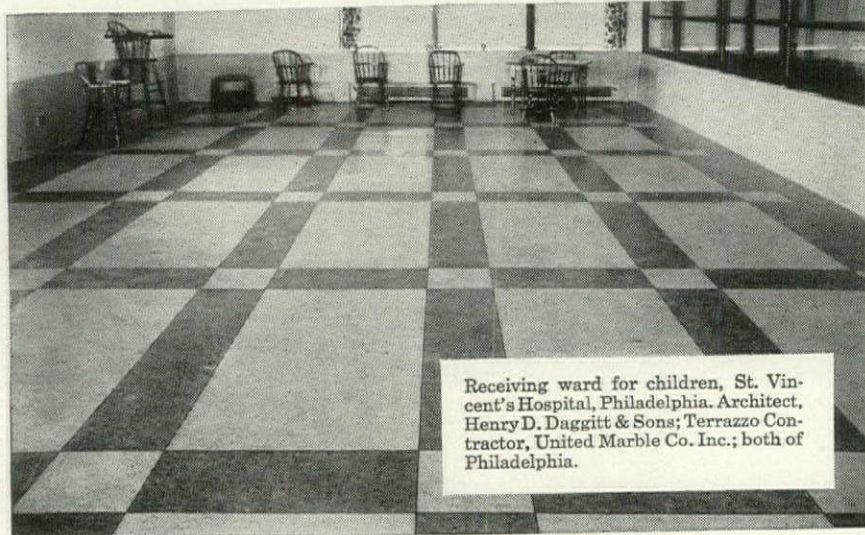
ELECTRONIC CONTROL. *Electronic Control, Fundamentals and Applications*, 12 pp., 8x10½. This well illustrated publication explains in clear, simplified language the fundamental principles of electronic tubes and their operation. It describes the construction of the well known thyratron tube, and lists the functions of eight of the more widely used industrial-type tubes. Many practical applications of electronic control, including rectification, resistance welding, timing, and processing operations, as well as photoelectric installations involving counting, sorting, weighing, measuring, registering, illumination, and the control of cement kiln temperatures are described and illustrated. Various advantages afforded by the use of electronic control, such as flexibility, precise control, reduced maintenance, and quiet, faster, automatic operation are also discussed. General Electric Co., Schenectady, N. Y.

WELDING. *Arc Welding Inspection Chart*, 23x35. A comprehensive arc welding inspection chart designed so operators can tell at a glance whether welds are being properly made. It pictures actual specimens of various results obtained in making fillet and butt welds and describes briefly the appearance and characteristics of proper and improper weld beads, with a brief description of the conditions under which each was made. A portion of the chart is devoted to a description of "Fleet-Fillet" welding technique, its advantages, where and how to use. Also included is a table on the procedure for single-pass horizontal and positioned fillets with "Fleetweld 11" which carries data such as electrode sizes, desired current, burn off rates and arc speed. The Lincoln Electric Co., Cleveland, Ohio.

NAMEPLATES. *How to Select and Specify Meyerco Decalcomania Nameplates*, 2 pp., 9x11¼. An informative check-chart telling how to select and specify the right nameplate for 16 types of surfaces. The chart describes application methods, types and uses, as well as special features such as retention and shut-off fluorescent, non-specular, mar-proof and elasticized Decals. Meyerco Co., Dept. RT, 5323 W. Lake St., Chicago 44, Ill.

CALCIUM CHLORIDE. *Solvay Calcium Chloride*, 8 pp., 3½x6¼. A folder in simple non-technical language describes how calcium chloride may be used for: concrete, fire protection, ending dust and weeds, thawing and skidproofing ice, drying air and gases, refrigerator brine, weighting tractor tires with non-freeze solution, dust-proofing and freeze-proofing coal and coke. Solvay Sales Corp., 40 Rector St., New York 6, N. Y.

FINE TERRAZZO FOR MODERN HOSPITALS



Receiving ward for children, St. Vincent's Hospital, Philadelphia. Architect, Henry D. Daggett & Sons; Terrazzo Contractor, United Marble Co. Inc.; both of Philadelphia.

Proven utility, combined with colorful beauty and faithful reproduction of designs and patterns, has demonstrated the value of fine Terrazzo for hospital floors—and wainscots too.

Sanitary, easy to clean and keep clean, economical to install and maintain, fine Terrazzo has the permanence and durability of concrete even under the heaviest foot traffic. Beauty and detail of design depend upon the varieties of marble chips and the color of the cement matrix.

Whether contrast or blend is desired, in the matrix lie the

color overtones which can deaden or illuminate the floor's beauty. With Atlas White Portland cement (plain or waterproofed) any color of matrix is possible. Its natural color is unsurpassed where pure white is desired, and gives true color values to the mineral pigments added when other shades and tones are required.

* * *

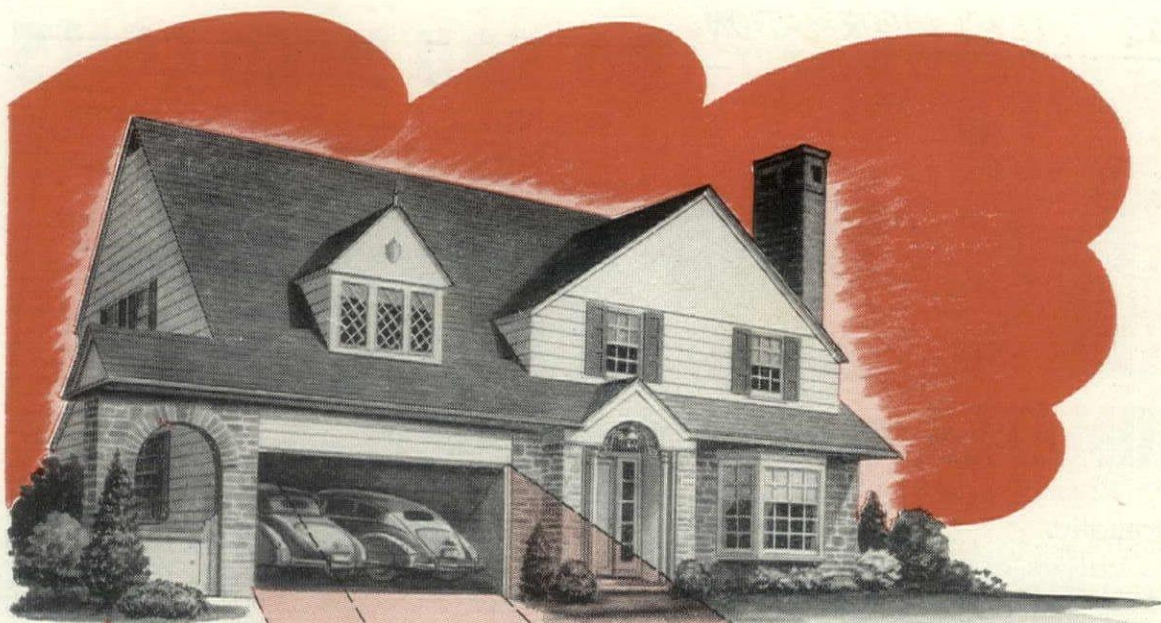
For further information, write to Atlas White Bureau, Universal Atlas Cement Company (United States Steel Corporation Subsidiary), Chrysler Building, New York 17, N. Y.

The matrix is as important as the marble chips



ATLAS WHITE CEMENT
for FINE TERRAZZO

AP-T-1



HERE'S OUR SLANT

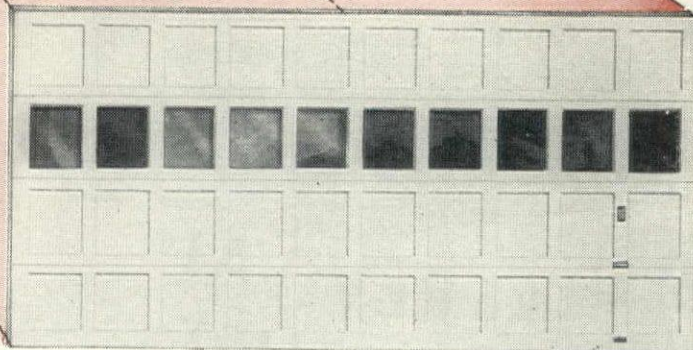
on the
"HOME FRONT"
of
TOMORROW...

Crawford

UPWARD - ACTING
DOORS

Residential Garage Doors
Commercial & Industrial Doors
Hand or Power Operated Doors
★ Crawford Door Company ★

Here is a standard Crawford Door—full width for two-car garage. Fits pleasantly, unobtrusively into many architectural styles. Its basically good design is supplemented by durability and ease of operation. Engineered by Crawford specifically for two-car opening. Glass area may be wood panels if desired.



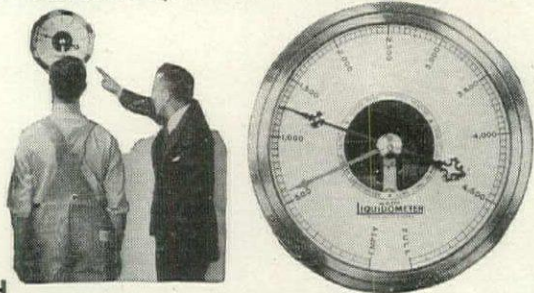
What will the new postwar home look like? We've seen many conjectures, some far-fetched and fanciful, but, being realistic about such matters, our slant is that there will be no startling revolutions. The pleasant and familiar styles—American Colonial and Farmhouse, French Provincial and the English Countryhouse—are too well liked to disappear overnight.

And, so, as we project our engineering plans for new postwar Crawford Doors, we remember that many of them will be required to fit into the graceful styles that wear so well.

Naturally, we are exploring new materials and new techniques and in this we are inspired by our success in converting our entire production to the making of important, high-precision aviation parts. When we re-convert, we will take advantage of every new idea that proves its merit on the basis of improving the quality, appearance and performance of our product.

As always, our first objective is to produce superlatively fine, good-looking, easy-operating doors. It is not too early, now, for you to correspond with us concerning your postwar door needs. Your inquiry will be given our immediate attention. Crawford Door Company, 401 St. Jean, Detroit 14, Mich.

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AT A GLANCE, WHEN YOU WANT IT—**



WITH **LIQUIDOMETER** Tank Gauges

"THEY'RE ALWAYS DEPENDABLE"

100% automatic.

No pumps, valves, or auxiliary units needed to read them.

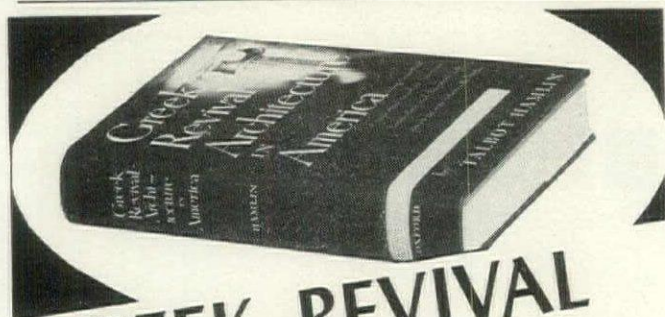
Models available for either remote or direct readings.

Accuracy unaffected by specific gravity of tank liquid.

Approved by Underwriters' Laboratories for gauging hazardous liquids.

Write for complete details.

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



GREEK REVIVAL ARCHITECTURE IN AMERICA

A broad and inclusive picture of the development of the first national style in architecture which the American republic created

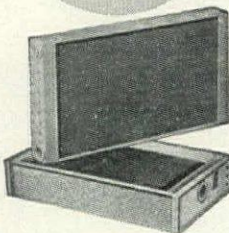
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Annotated Bibliography • \$7.50

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	SPACE HEATING
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	REFRIGERATING
SPACE COOLING	

• Eliminate special design and tool costs by selecting your coils from the wide range of standard sizes and models made by Young. Or take advantage of Young engineering service to obtain coils to meet your specific requirements as to size and materials (within the limits of government regulations). • Young coils embody many exclusive construction features . . . are made of quality materials . . . are thoroughly tested and accurately rated. • In addition to coils, Young produces many other types of heat transfer equipment. If your problem is heat transfer, consult Young engineers.

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House at Hingham, Mass.
Architect, George R. Paul, Hingham

Cabot's Collopakes (colloidal paints) are made from pure pigments ground to a sub-microscopic fineness and united inseparably with the oil. This forms a durable uniform paint film providing longer life and greater covering power. Cabot's Collopakes are non-fading, show no brush marks, give homes greater beauty and extra protection. They've been used on many prize-winning houses throughout the country.

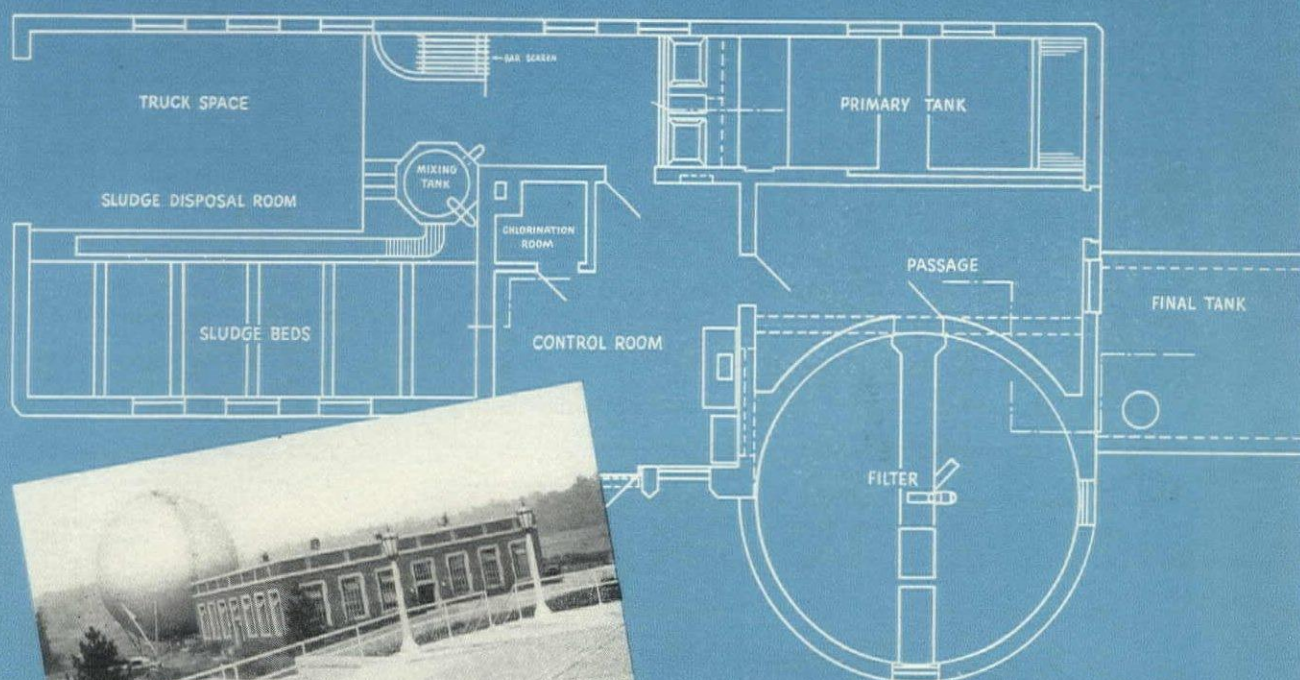
FREE COLOR CARDS. Send today for color cards and your copy of "White Houses" containing complete information. Samuel Cabot, Inc., 1267 Oliver Bldg., Boston, Mass.

CABOT'S

DOUBLE WHITE and GLOSS COLLOPAGES



Before you put that plant on paper
weigh the advantages of aluminum




Architecturally, the fine appearance of aluminum construction gives a community added reason for being proud of its sewage treatment plant. Makes them want it kept up well. There's less kick on plant maintenance costs.

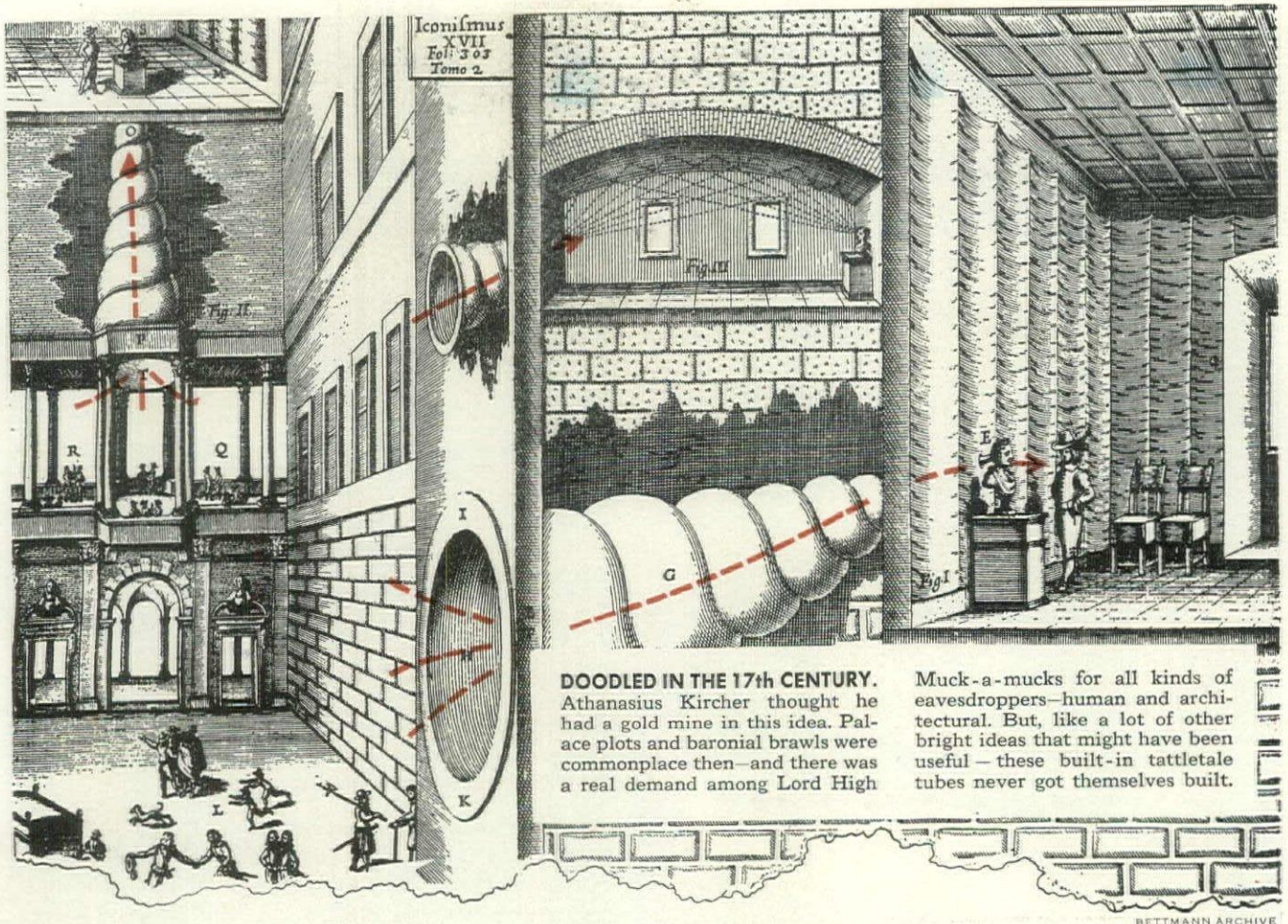
From an operating standpoint, this construction is easier to maintain. Aluminum is naturally resistant to corrosion; needs little attention to keep it good as new. And, where conditions are unusually severe, it can be given protective coatings.

Wartime performance records show that

aluminum is coming through this period of curtailed maintenance with flying colors.

Where can you use Alcoa Aluminum in your postwar plants? From skylights to sills, for decorative and utility purposes, architects have employed aluminum to advantage. From coarse screens on through all the plant processes, engineers have found it equally valuable. Alcoa engineers will gladly help you determine where you can use it. ALUMINUM COMPANY OF AMERICA, 2166 Gulf Building, Pittsburgh, Pennsylvania.

ALCOA  **ALUMINUM**



are you doodling

or planning for that building boom?

IF YOU ARE FIGURING on a building boom after the war because there is a big need for new housing—maybe you're just doodling.

There was a crying need for new dwellings before the war—but no boom.

The fact is, need alone does not necessarily mean demand.

And dreaming about big markets-to-be doesn't get anybody anywhere either. Building leaders must plan—and plan specifically.

For example, Mr. James Twohy, Governor of the Federal Home Loan Bank System, said recently:

"The postwar period will bring a market for 1,000,000 homes a

year, built and marketed on modern 'packaged plans' . . ."

But after your plans are made, they must be sold to the kind of people who can buy them and get others to follow their lead—that is why so many producers of building materials are planning to tell their stories in the pages of **TIME**.

Because in **TIME**—

You reach the kind of Americans who set the pace for the rest of the country—the million most influential U. S. families*—people like Federal, State, and City Planning Commission members, who vote **TIME** their first-choice magazine (evidence on request).

And in **TIME** you back up your trade-paper advertising with extra impressions on thousands and thousands of the top men in construction and finance.

*Among the heads of these households, are executives and engineers, Government officials, mayors, bankers, architects, and 22 other groups of leaders who recently voted "**TIME** is our favorite"—or "**TIME** is America's most important magazine."

TIME

**GATEWAY TO
THE BUILDING MARKET**

The Chemistry of Fluorescent Light

MODERN electro-chemical research made fluorescent the most efficient and economical artificial light known — in war plants now, in your home when peace is won.

Here is how chemistry combined with electrical engineering to perfect a new and better kind of light:

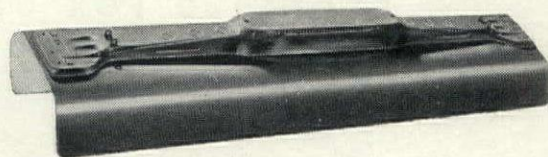
When electricity passes through a fluorescent lamp, it sets up ultra-violet radiation, which is invisible, electronic in nature, and not unlike mysterious Black Light.

It is the chemical magic of a fine coating of phosphors on the glass of the fluorescent lamp that transforms the internal radiation to visible light outside the lamp.

This chemical "transformer" brings new efficiency to the electrical production of light. Cool light with a minimum of infra-red heat waves. That's why a fluorescent lamp is so economical, why it gives $2\frac{1}{2}$ times the light for the same electrical energy.

It is because fluorescent development depends as much on chemical as on electrical engineering that Sylvania specializes in the compounding and blending of phosphors for fluorescent powder. This research has increased fluorescent efficiency and introduced lamps in colors most suitable for visual work.

That is why Sylvania lamps in Sylvania fixtures will give you fluorescent lighting at its electro-chemical finest.



THE FIXTURE OF THE FUTURE

This model HF-235R fluorescent fixture rounds out Sylvania's industrial line. Its two 100-watt fluorescent lamps in Sylvania's non-metallic reflector give maximum lighting intensities with a minimum use of critical materials. (Reflector efficiency of 86%.) Streamlined top housing provides for complete hanging flexibility and encloses the ballast for protection.

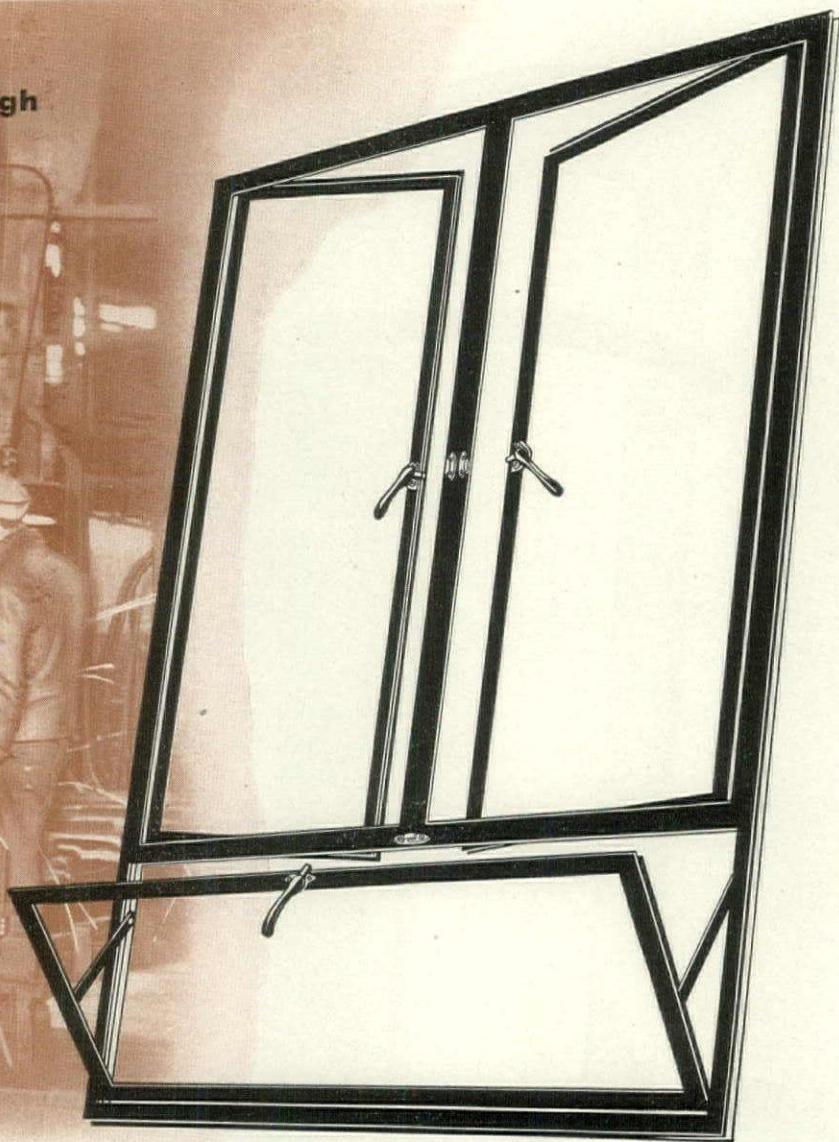
SYLVANIA

ELECTRIC PRODUCTS INC.

500 FIFTH AVENUE NEW YORK 18, NEW YORK

INCANDESCENT LAMPS, FLUORESCENT LAMPS, FIXTURES AND ACCESSORIES, RADIO TUBES, CATHODE RAY TUBES, ELECTRONIC DEVICES

Better windows through
battlefront service



**TRUSCON'S EXCEPTIONAL FACILITIES STILL 100%
REQUIRED FOR URGENT ARMAMENT NEEDS!**

The ingenuity which designed and built the Truscon Steel Windows you so widely used, is now producing a wide variety of equipment and armament essential to our Armed Forces. However, intensive study is being devoted to our products so that we can meet your postwar building requirements. Intermediate steel casements, in many sizes and types, will be available for residential and monumental designs. Include them in the postwar plans now on your board. Look to Truscon for the best in steel windows when our wartime duties are fulfilled.

TRUSCON
Steel Company



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MODERN

Insulation

Must Do **MORE** than Stop Heat

RED TOP* INSULATING WOOL *does it!*

SHIRT sleeve comfort the year 'round is a leading feature of the so-called "miracle house."

What does "shirt sleeve comfort" mean? Temperature and humidity control—every day—regardless of outside weather.

Economical and efficient control of temperature and humidity requires insulation . . . modern insulation . . . insulation that does many things—in addition to stopping heat.

Red Top Wool, made of

Fiberglas*, is that kind of product. It is especially designed for quick, easy, economical installation—and for continuous, efficient results. It is ready to serve today . . . working "miracles" wherever it is used.

When you specify, sell, or install Red Top Wool you can do it with full confidence that it is a modern insulation that does far more than stop heat—it's one of the ways to help put the "miracle" into any house—old or new.

*Trademarks Reg. U. S. Pat. Off.

**ONLY RED TOP WOOL
GIVES YOU**

Insulation Plus!



FIRE RESISTANCE

LIFETIME SERVICE



RANGE OF THICKNESSES

LIFETIME STABILITY



TAILORED TO FIT

READILY AVAILABLE

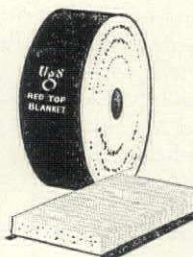


LIGHT WEIGHT

ECONOMY ALL WAYS



Made in a complete line that covers every purse and purpose. Three thicknesses in rolls and bats . . . 1", medium (Approx. 2"), and thick (Approx. 3").



UNITED STATES GYPSUM
300 WEST ADAMS STREET, CHICAGO 6, ILLINOIS

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



How to drink sea water ... AND LIVE!

FORCED down at sea, this pilot will live to fly and fight again, because thirst—age-old enemy of shipwrecked men—has been conquered. Now he can drink sea water!

Packed with his deflated life-raft, the flyer carries a compact Permutit Sea-water Desalting Kit. Adrift, he simply scoops up sea water in a plastic bag, drops in a small briquet and in a few minutes the water—fresh and clear—is ready to drink. The briquet precipitates the dissolved salts, which are then filtered out as the flyer sucks the water through a tube. Each briquet in his supply will freshen enough water to keep him alive for a day. The whole operation is so simple that it can easily be carried out by a man on a life-raft.

The problem of developing a practical de-salting method was early recognized by Permutit. Here at water conditioning headquarters, chemical engineers worked intensively on it for months and the final product was acceptable to the U.S. Navy, Army and Air Transport Command. The successful result adds one more field to the many in which Permutit's long experience in water treatment is serving our country at war. The Permutit Company, Dept. AF, 330 West 42nd St., New York 18, N. Y. In Canada: Permutit Company of Canada, Ltd., Montreal.

PERMUTIT

WATER CONDITIONING HEADQUARTERS

SPECIFICATION AND

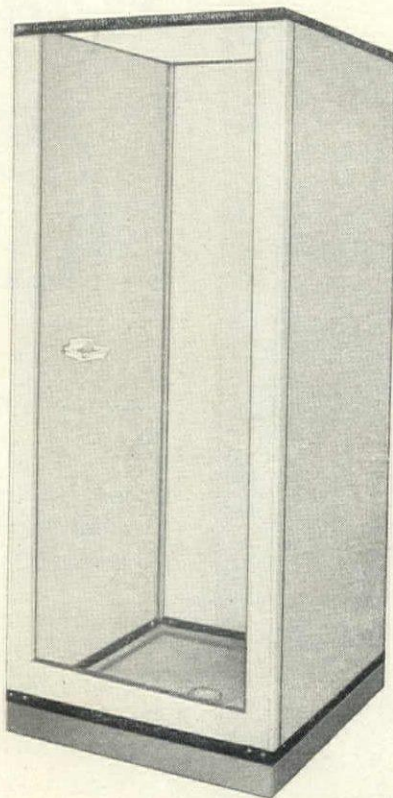
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IMPORTANT...



What part will YOU play in Post-War Shower Cabinet Design?

Shower cabinets, today's most popular bathing convenience, will be even more important in tomorrow's building plans. What part will you have in their development?

For instance, what features do you want in post-war shower cabinets? Will the new models have everything you want in style, design, strength, quality to fit them quickly into your plans? What sizes should be built? Will they be designed to please *all* your customers?

We welcome your active participation in this planning.

"YOU BUY RIGHT WHEN YOU BUY *Bathe-Rite*"

***Bathe-Rite* DIVISION
MILWAUKEE STAMPING COMPANY**

827-S South 72nd Street
Milwaukee 14, Wisconsin

What powers most of America's WAR PROGRAM?

The answer is bituminous coal.

America's war program wouldn't get very far without it.

Bituminous coal is used in making practically 100% of all steel.

It supplies 65% of the mechanical energy required to run the machines that make the guns, tanks, planes and other arms and war equipment.

It supplies the power for 94% of the nation's locomotives.

It provides in whole, or in part, the basic materials for all high explosives, and the four most important war chemicals.

85% of all war plastics require processed bituminous coal as a base.

And in addition to all this — and more — 41% of the homes in the United States depend on bituminous coal for heat.

No wonder the annual value of the bituminous coal mined in this country exceeds the value of all metallic minerals combined.

Bituminous coal is a great fuel. We're proud to belong to the industry which mines it. We aim to live up to our responsibilities to our country, to our customers and the men who work in our mines.

* * *

BUY MORE WAR BONDS

"What do you want to know about the Coal Industry?"

That's what we asked thousands of people throughout the nation, and here are our answers to two of their questions.



How much coal is produced in a year?

During 1943 our bituminous mines produced 589,000,000 tons, the greatest volume ever mined in one year in any country. During the past six years our bituminous mines have produced a total of 2,383,320,774 tons. The yield in 1943 would have been 40,000,000 tons greater had it not been for strikes.

Why are the miners always striking?

They aren't. It only seems that way, because anything that happens to an industry as important as the Coal Industry gets widespread publicity. Rarely does a strike occur except about the time a new contract comes up — and that is at two-year intervals. Strikes in the coal mines are likely to be more spectacular than frequent. This also exaggerates their frequency in the public's memory. We look forward to the day when there won't be any strikes at all!



BITUMINOUS COAL

Institute

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

Fluorescent lighting fixture

IDEAS

*by Morris Sanders†
using*

LUMARITH*
plastics



†Industrial Design
Adviser to Celanese
Celluloid Corporation

*Reg. U. S. Pat. Off.

From his sketch book, Mr. Sanders has selected these lighting fixture designs and had them executed in Lumarith plastics. Making full use of Lumarith's toughness and flexibility, the fixtures are designed for "snap-in" assembly. They are easily taken apart for cleaning.

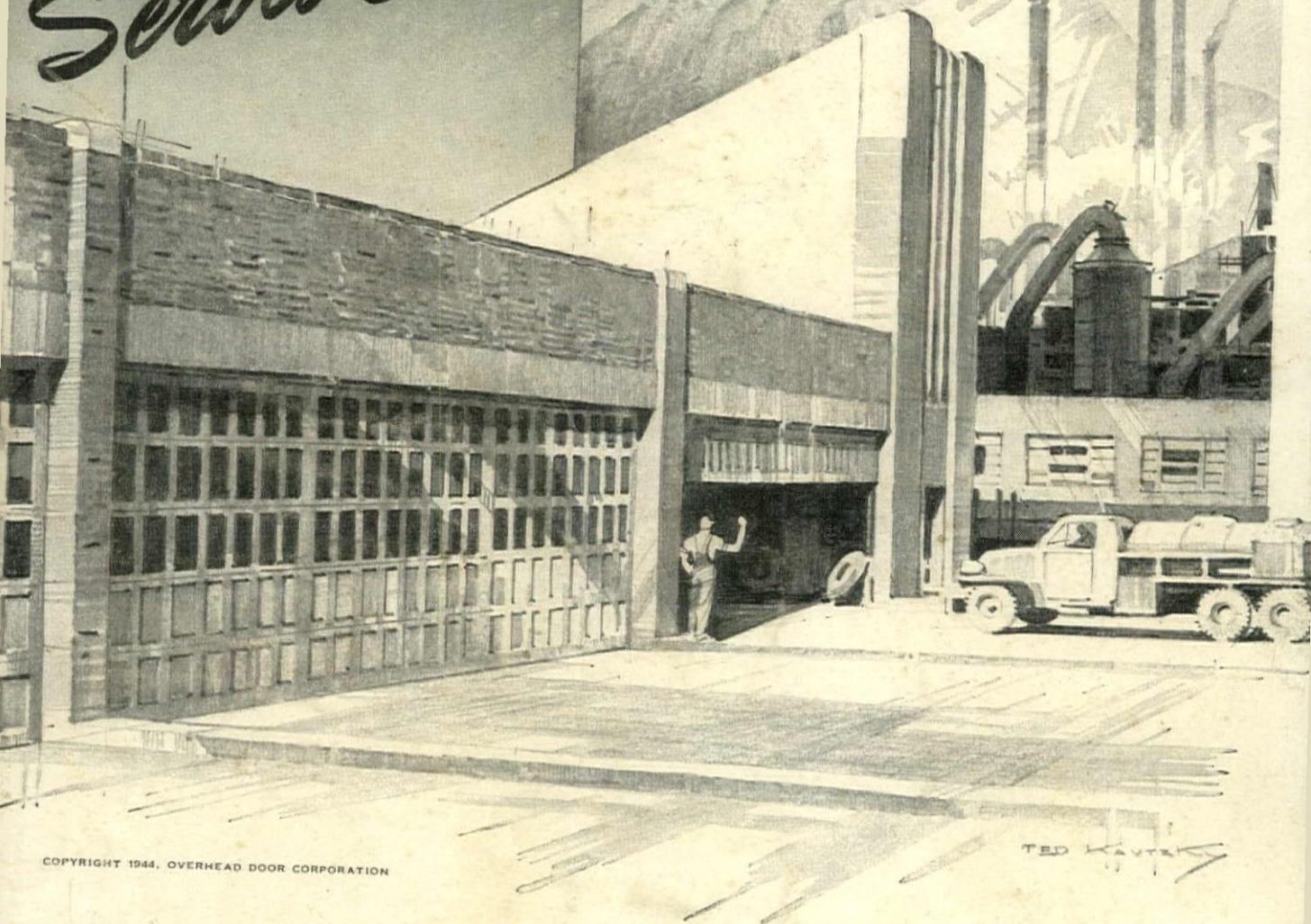
Lumarith, light in weight and non-shattering, gives the fixture designer a broad choice of material forms: sheets, rods, tubes, extruded strips and molded designs. It is produced in any degree

of transparency. The almost limitless color range permits the writing of scientifically precise color-lighting specifications.

The producers of Lumarith plastics will be glad to assist designers and manufacturers with their problems of fixture design, and invite them to examine these models of Mr. Sanders which are on display in the main offices of Celanese Celluloid Corporation, *The First Name in Plastics*, a division of Celanese Corporation of America, 130 Madison Avenue, New York City 16.

TUNE IN The Celanese* Hour—"Great Moments in Music"—Columbia Network, Wednesdays, 10 P. M., E. W. T.

*Lasts Longer
Serves Better!*



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The "OVERHEAD DOOR" with the Miracle Wedge is built as a complete unit to fit any opening and is used in all types of structures.

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SALT SPRAY STEEL

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WITH THE
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